

**A SOCIOLOGICAL INVESTIGATION OF GENDER AND NON-GENDER
SPECIFIC CAREER CHOICES BY YOUNG ADULTS IN SAINT JOHN,
CANADA**

by

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Affidavit

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I began this journey nearly three years ago when I moved to Germany from South Korea. I decided that this was a perfect time to pursue my Master's degree. It had been nearly 10 years since I received my Bachelor's degree, so jumping back into the academic world came with certain challenges. Writing academically was probably my biggest challenge, but the more I read, the better I became. Any time I would feel frustrated, I would look back at how far I had come. This is something I did throughout this project because if I had gotten over one bump, I'd surely make it over the next one.

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Abstract

This study examined the gender socialisation process among ten recent high school graduates and the reasoning behind their chosen career paths. Three institutions: the family, school, and media, were examined to explore how these institutions could possibly have affected the participants' career choices. This was accomplished through qualitative research by conducting in-depth interviews among five nursing students (three females and two males) and five engineering students (three females and two males) who were 18 or 19 years of age. The interviews revealed that the participants were aware of current gender stereotypes and had experienced gender socialisation through bedroom décor and/or parental roles. The interviews further revealed 'influencers' (such as one's peer group or a close relative) as a significant factor leading males into nursing and females into engineering. Participants within each program revealed differences in personal definitions of success and thoughts on work-family balance.

KEYWORDS:

Sociology; Socialisation; Institutions; Young adults; Gender; Career choices; STEM careers; Nursing; Engineering; Canada

Table of Contents

CHAPTER 1	4
Introduction	4
1.1 The Research Problem.....	4
1.2 The Purpose of the Study	7
1.3 The Objectives of the Study.....	8
CHAPTER 2	10
Literature Review	10
2.1 Introduction.....	10
2.2 Memorable Messages	14
2.3 Institutions	18
2.3.1 The Family	19
2.3.2 School	25
2.3.3. Media	29
2.4 Engineering and Nursing	34
2.4.1 STEM: Engineering	34
2.4.2 Nursing.....	43
2.5 Envisioning the Future: Personal Success, and how it Relates to Work, Family and Equality.....	47
2.6 Conclusion	52
CHAPTER 3	54
Epistemology and Methodology	54
3.1 Epistemological Positions	54
3.1.1 Interpretive Social Science.....	54

	2
3.1.2 Gender and Socialisation	55
3.1.3 Socialisation Theory	56
3.1.4 Conclusion	59
3.2 Methodology	59
3.2.1 Introduction	59
3.2.2 Research Design.....	60
3.2.3 Design	61
3.2.4 Snowball Sampling.....	62
3.2.5 Participants	62
3.2.6 Character Description	63
3.2.7 Interview and Setting.....	68
3.2.8 Data Analysis	69
3.2.9 Problems Encountered during the Research Process.....	70
3.2.10 Researcher's Reflections	71
3.3 Conclusion	72
CHAPTER 4	74
Memories of Gender Socialisation & Gender Stereotypes	74
4.1. Introduction	74
4.2 Memories of Gender Socialisation	74
4.2.1 Bedrooms.....	75
4.2.2 Memorable Messages	77
4.3. Gender Stereotypes.....	80
4.3.1 General Stereotypes	80
4.3.2 Gender Differences in Emotional Expression.....	83
4.3.3 The Family's Influence on Gender Stereotypes	85
4.3.4 Gender Socialisation of Emotional Expression.....	90
4.3.5 Gender Stereotypes: Current Experiences	93
4.4 Conclusion	97

CHAPTER 5	99
Direction of Study, Personal Success, Work-Family Balance, and Gender Equality	99
5.1 Introduction	99
5.2 Direction of Study	99
5.2.1 Reflections of Childhood Dream jobs	99
5.2.2 Why Nursing?	101
5.2.3 Why Engineering?	104
5.3 Future Prospects on Personal Success and Work-Family Balance, and Thoughts on Gender Equality	108
5.3.1 Participants' perspectives on personal success: intrinsic and extrinsic values/motivation	108
5.3.2 Work-Family Balance	112
5.3.3 Gender Equality	114
5.4 Conclusion	118
CHAPTER 6	120
Conclusion	120
6.1 Answering the Research Questions	122
6.2 Theoretical Significance	124
6.3 Limitations and Future Research	125
7. Reference List	127
Appendix A: Participant Questions	158
Appendix B: Consent Form	161

CHAPTER 1

Introduction

Through early socialisation, children's choices could become limited in terms of what they believe they are capable of, especially in terms of gender identity, gender role expectations, and stereotypes (Eckert & McConnell-Ginet 2013; Okin 1989). The purpose of this research project is to create awareness on how gender socialisation through exposure to certain institutions could possibly affect men and women's potential careers. "Socialisation processes throughout childhood and adolescence shape how we come to understand what are, for us, appropriate and meaningful undertakings. Traditional gender-roles help to sustain gender stereotypes, which in turn, may lead to gender inequity" (Piquette-Tomei 2005/2006: 60). The reproduction of gender stereotypes may influence young people to select sex-typed careers. This study set out to explore the factors that may have influenced participants from Saint John, Canada into their current career paths, and due to the small sample generalisations cannot be made regarding the findings. Three institutions - the family, school, and media - were explored in an effort to gain an understanding of the participants' socialisation experiences. Participants were selected from two directions of study, nursing and engineering, as they have the highest discrepancy between male and female enrolment; more women enrol in nursing and more men enrol in engineering (Atlantic Common University Data Set 2015). The goal of this study was to spread awareness on how the socialisation process could affect an individual's career path.

1.1 The Research Problem

Men and women tend to follow different paths in their occupational journeys. The Canadian National Household Survey (NHS) states that "women represent the majority of young university graduates, but are still underrepresented in science, technology, engineering, mathematics and computer science (STEM) fields" (Hango 2013: 1).

According to the National Science Foundation in the United States of America (USA), women's participation in the workforce "is higher among psychologists and lower among mathematical/computer scientists and engineers" (National Science Foundation 2013: 8). In 2002, 70% of employed women held traditional, gendered occupations, such as nurses, teachers, clerks, or often work in sales and service (Cooke-Reynolds & Zukewich 2004). Figures from the Bureau of Labour Statistics in the USA (2015) show women were more than twice as likely as men to be in social service occupations. In the United Kingdom (UK), only 13% of women hold occupations in STEM spheres (Botcherby & Buckner 2012), and in the European Union (EU), women also fall behind in STEM disciplines (European Commission 2009). Even women who excel in mathematics are less likely to enter STEM (Hango 2013). This leads one to question why many men and women show unequal participation in particular sectors of the workforce. "The labour market is marked with women overwhelmingly concentrated at the lower levels of occupational hierarchy in terms of wages or salary, status and authority" (Bagilhole & Cross 2002: 206). According to the 2012 World Development Report, women continue to be concentrated at lower levels in the labour market (Razavi 2012).

Although women demonstrate unequal participation in STEM careers, women do hold the majority of Bachelor's degrees in Canada (Statistics Canada 2006). According to the National Graduates Survey (2010) in Canada, women attained 61% of Bachelor's degrees. Similar findings are also found in the USA with women more likely to graduate with a Bachelor's degree within five years (Freeman 2004). "Although young women are encouraged to develop economic independence, they also face considerable pressure to enter into more flexible, but less financially rewarding, professions that more easily accommodate "conventional motherhood" (Dyke & Murphy 2006: 359). Even though women are obtaining more secondary education, balancing motherhood and a career remains an issue.

Most research has focused on women lacking in STEM careers, but there is another problem, that of the lack of men in fields such as nursing and early childhood education.

For instance, in Ontario, Canada, less than one tenth of primary school teachers are male (Allison, Gosse & Parr 2008). When looking at nursing, only 5.4% of nurse practitioners in 2011 were men (Canadian Nurses Association 2013). “The notion of caring as being a uniquely feminine trait supports patriarchal attitudes that continue to marginalize men within nursing” (Meadus & Twomey 2011: 269). This traditional view of men not being as well-suited to care compared to females may affect their decisions to enter fields such as teaching, nursing, and social work. In the USA, the number of men in social work has also been declining. According to the Bureau of Labour Statistics in the United States (2015), 82% of social workers are women. “The vast majority of boys enter a school system whose early years are dominated by the presence of female teachers, caregivers, and the like” (Allison *et al* 2008: 257). Young boys and girls learn from a young age that many jobs are sex-typed.

In Canada and the United States, statistics and studies show that women are becoming more educated and are earning more Bachelor’s degrees than men (Freeman 2004; Statistics Canada 2006; National Graduates Survey 2010). However, even though women hold the majority of degrees, they are still not represented in STEM careers (Hango 2013). In recent years there has been a decline in the number of men who graduate with Bachelor’s degrees, and they continue to be under-represented in non-STEM careers (Allison *et al*; Canadian Nurses Association 2013; Bureau of Labour Statistics 2016).

The goal of this research project is to help investigate the reasons behind young adults’ career choices. It is important to understand the gender socialisation process, and how it could affect males and females’ choices once they reach adulthood. “Our emotional ties to our children are powerful sites of desire: we have dreams, often gendered dreams, for our sons and daughters” (Jule 2008: 54). Parents may be influencing their child’s future aspirations. A study by Crouter, McHale, and Whiteman (2003) examining gender development in childhood and adolescence concluded that more research needed to be done on the long term effects of the family’s gender socialisation processes. They

suggested further research should consider the implications of the decisions young adults make, especially since they have such a variety of options to choose from. It is important to understand the mindsets of young adults and why they make the decisions that they make. Little qualitative research has been done on the effects of gender socialisation once children reach adulthood.

1.2 The Purpose of the Study

The purpose of this study is to understand what factors, especially through the socialisation process, might be involved in influencing the future career choices of young adults. The aim is to create more awareness of the gender socialisation process, as well as societal institutions, and their possible impact on equal opportunities among genders.

Through socialisation, we learn to be male or female (Mikkola 2012). There are many influences that contribute to the gender development of children. These influences, which will be discussed in the next section, help shape a child in terms of gender socialisation. Parents play an important part in the socialisation process (Nelson & Robinson 2002). One of the first places a child encounters language is in the home where “information about gender is transmitted to children through parents’ language” (Clearfield & Nelson 2006: 127). It is a place where one can be casually constructed (Haslanger 1995: 98). Children are born into a life where they are constantly observing what is around them. They are slowly moulded into what is socially accepted as being male or female. Biology does not determine destiny (Scott-Dixon 2006). Both males and females deserve the freedom to explore their interests. Biological sex should not equate to differences in life choices. “Humans are not born with a genetically determined understanding of how to conduct themselves in social life” (Nelson & Robinson 2002: 113). One is not programmed to enter certain fields of work, and so it is important to explore the ways in which ideas around gender are shaped and communicated. Boys and girls should, ideally, experience equal gender socialisation, so that they can grow up knowing they have equal opportunities.

1.3 The Objectives of the Study

This study set out to explore the subjective experiences of recent (2014-2015) high school graduates (between 18 and 19 years of age) who are starting to prepare for their future career paths. All participants grew up in towns just outside of Saint John, New Brunswick, in Canada, and had already entered or were about to enter post-secondary education from three universities: The University of Saint John New Brunswick (UNBSJ); The University of New Brunswick Fredericton (UNBF); and New Brunswick Community College (NBCC). Their decisions could have been influenced by their family, school, media, and the messages received from these institutions during childhood and adolescence. This study aimed to gain a deeper understanding of the factors that led individuals to make particular choices regarding their future career paths. There is value in the participants' narratives (Denzin & Lincoln 2011), and the researcher sought to understand how their social experiences have been developed.

The aims of the study:

1. To explore how the family socialisation process could possibly influence young adults' career decisions and direction of study.
2. To determine what gender stereotypes exist and continue to exist among young adults.
3. To explore any differences between participants' career aspirations during childhood compared to their current aspirations.
4. To examine participants' definition of personal success, their current thoughts and feelings towards balancing work and family, and their perspectives on gender equality.

The study began by reviewing the literature on the differences in gender socialisation practices within three major institutions (the family, school, and media). Research studies were presented that explored the reasoning and motivations behind student's direction of

study. Socialisation theory has best aligned with the research and has guided this study. The researcher then presented how this theory was used in line with the methodology. The primary focus of the study was to explore each participant's socialisation and the rationales behind their decisions to pursue a particular direction of study. The study has demonstrated the theoretical framework that examines the narratives of the participants who were in the initial stages of their career paths.

CHAPTER 2

Literature Review

2.1 Introduction

This chapter begins by examining existing literature on the gender socialisation process among children. It shows differential treatment to boys and girls that begins at birth and continues throughout adolescence. Since gender socialisation is communicated through language (Clearfield & Nelson 2006), studies on memorable messages were then reviewed. The chapter then discusses the significant role of institutions and their influences on gender socialisation. Three institutions were chosen for this study: the family, the school, and the media. For each one existing research was reviewed that illustrates the differential treatment young boys and girls may experience. Once gender socialisation had been thoroughly explored, the chapter then goes on to examine the reasoning behind gender-specific career choices. Research shows that there is a high discrepancy between men and women enrolled in nursing and engineering, respectively, in New Brunswick, Canada (Atlantic Common University Data Set 2015). This was the main reason that these two career paths were chosen. Existing literature was explored in order to find any commonalities and differences among the reasoning behind young adults' decisions to enter either discipline. Finally, research on the participants' future thoughts on success, work-family balance, and gender equality was explored to note any differences between the nursing and engineering students and any differences between the males and females.

From the minute a child is born they start to be socialised into our social world. We socialise them with clothing and toys (Kimmel 2000), through marketing on television (Johnson & Young 2002), through the education system (Sauntson 2012), through parenting practices (Curran & Renzetti 1992), and grandparents (Bates, Behnke & Goodsell 2011). The social world shows a child what it means to be male or female, and

this is known as gender socialisation. “Children are gender detectives who search for cues about gender – who should or should not engage in a particular activity, who can play with whom, and why girls and boys are different” (Martin & Ruble 2004: 67). Children may learn to behave in “gender-appropriate ways” and could be “scolded for behaving in gender-inappropriate ways” (Clearfield & Nelson 2006: 127). For example, the girl who plays with toy trucks or the boy who plays with dolls may both be told that they are behaving inappropriately. “Gender inappropriate ways” could also be labelled as “schema violation” (Butler & Geis 1990) when a male or female does not conform to either masculine or feminine norms. For instance, a female child who refuses to wear a dress or a businesswoman who “exhibit[s] masculine leadership styles” (Eagly, Klonsky & Makhijani 1992: 16). When a person receives negative feedback for the way they play, act, or behave, it may limit their full potential and self-desires. Society teaches children what is ‘correct’ or what is ‘normal’ for their gender. “We do not stroll into the social world as wholly formed individuals” (Phillips 2009: 304). Children are constantly learning from the people around them. According to Nelson and Robinson (2002:116), gender socialisation is defined as “the process through which an individual acquires a gender identity, as well as gendered ways of acting, thinking, and feeling considered appropriate within the culture and subcultures of his or her society and relevant social group.” Socialisation helps create our self-identities and guides our behaviour (Arneson 2015). It may also influence a child’s future aspirations.

As a child deliberates about a future career for themselves, they may not think about certain jobs due to their titles. Occupational titles often exclude women such as fireman or policeman. Females may be deterred from such careers as they indirectly exclude them (Prewitt-Freilino, Caswell & Laakso 2012). Feminine job titles (such as waitress or stewardess) are seen as less prestigious. Girls prefer feminine occupations over masculine ones, and boys tend to focus on higher status careers (Susskind & Teig 2008). In a study looking at children’s gendered interpretations of job titles it was found that “gender-related judgments about jobs vary in relation to characteristics of occupational titles” (Bigler, Krogh & Liben 2002: 825). They suggested further research on the “role of

language, [and] whether language can itself create gendered beliefs about occupations” (Bigler *et al* 2002: 825). When 37 girls (between four and seven years of age) in Oregon, USA were asked to play with Barbie or with Mrs Potato Head; the girls who played with Barbie reduced the number of careers they saw for themselves compared to boys (Sherman & Zurbriggen 2014). The girls were given four minutes to play with their toy and then were asked how many of the female or male dominated jobs (ten in total) they could see themselves doing in the future and how many of those same occupations a boy could do. “Playing with a Barbie doll appeared to modify our participants’ career cognitions such that they saw fewer future opportunities for themselves” (Sherman & Zurbriggen 2014: 204). It makes one question what other toys may influence a child’s thoughts of future careers. In a study examining children’s heroes, clear gender differences were revealed (Holub, Mullins & Tisak 2008). Heroes fell into three categories of either public (famous), private (family member), or religious. A total of 103 (55 males and 48 females) children (averaging ten years of age) from two schools participated in the study in Ohio, USA. Girls were more likely to choose private heroes whereas boys were more likely to choose public heroes. Boys chose male heroes 72% of the time, but girls selections were mixed (same or opposite gender, or non-gender specified). After the children made their selections, they were then asked to rate 27 adjectives on a three-point scale that they felt described their hero. Girls’ heroes were reported as more expressive and boys reported more prestige for their heroes (Holub *et al* 2008). These studies (Bigler *et al* 2002; Sherman & Zurbriggen 2014; Holub *et al* 2008) show how children are able to grasp and apply gender stereotypes. The influence of gender stereotypes begins before a child is even born.

One of the first questions we usually ask a pregnant woman is: ‘are you having a boy or a girl?’ “Gender is one of the most salient features that distinguishes human beings” (Best 2010: 534). The biological sex of a child seems to be very important in society. Traditionally if the individual is biologically born male or female they tend to be socialised into a masculine or feminine gender orientation. “This gender label affects almost every aspect of human social life from birth throughout childhood and the adult years” (Best 2010: 534). These two ‘traditional’ genders are supposed to correlate to biological sex:

male and female. “If gender was exclusively a matter of one’s biological sex, we would always see the same displays of gender roles and behaviours across all cultures, across all time periods and across all age groups, but we do not” (Jule 2008: 6). One’s biological sex does not determine one’s future life decision (such as career choice), but it may influence the career direction they choose. Simone de Beauvoir maintained that “one is not born a woman, one becomes a woman” (de Beauvoir 1970: 293). The same statement would also have to apply to a man: one is not born a man, one becomes a man. The social forces around us (the family, school, and media) shape us. “Unlike sex, gender is not binary” (Jule 2008: 5). People do not have to choose between being a male or female; and transgender orientations also need to be taken into account. “We are not masculine or feminine. Instead, we are a combination of many characteristics that could be understood as either or both masculine and feminine depending on the context and our relationship with those involved” (Jule 2008: 5). There is no straight arrow to follow on one’s life journey. How we act and what we say are influenced by what we learn around us. Mary Talbot believes that separating behaviours as either masculine or feminine limits our full humanity (Talbot 1998). We should not be limited in our potential. “[Gender] is strongly associated with the social divisions made on the basis of sex, and language plays a major role in establishing and sustaining these divisions” (Jule 2008: 5). Separate genders should not equate to separate careers, goals, and responsibilities. We must look at the ways in which femininities and masculinities are “defined, (re-) constructed, and maintained” (Bagilhole & Cross 2002: 210). Risman (2004) states that in order to study gender, we must first see gender as a social structure. These structures happen at the individual, social, and institutional levels (Davis & Risman 2013). Social structures may influence one’s thoughts, behaviours, and choices. Risman (2004: 444) argues that “each structure of inequality exists on its own yet coexists with every other structure of inequality”. Interaction within institutions, such as the family, school, and media may limit men and women’s future career trajectories, chances and choices.

Children are influenced by behaviour and language. Language is a “socialisation tool” (Clearfield & Nelson 2006: 128) and is a “vehicle for transmission” (Clearfield & Nelson

2006: 127) of ideas, values and beliefs. It is a way in which we express our thoughts and ideas in everyday life. Language impacts “social judgements, decisions, and behaviour” (Prewitt-Freilino *et al* 2012: 270). Language is powerful and information about gender may also be “transmitted to children through parents’ language” (Clearfied & Nelson 2006: 127). From the time a child is brought into the home, they are subjected to the language they are taught by their parents (Haslanger & Sveinsdottir 2011). Children are also subjected to the language they hear in school and in the media. Language plays a role in the way a child comes to understand what it means to be male or female. It should not be used as a means to determine one’s future in terms of opportunities. “The boy who is told he can’t be a nurse is being told that he is too good to be a nurse. The girl, on the other hand, is essentially being told that she is not good enough to be a doctor” (Eckert & McConnell-Ginet 2013: 22). Young boys and girls may internalise these messages, which in turn, could affect their future career paths. The following section explores memorable messages and the impact they could make on a person’s life.

2.2 Memorable Messages

Language conveys gender identities. An important way of expressing gender is through language. “Language has its effect on society through repeated use, through sequences of use, through the laying down of a history of use” (Eckert & McConnell-Ginet 2013: 53). Language is always there. It is part of how we show the world who we are. “The development of communication skills is one of the most important achievements of early childhood – one that allows the child to participate fully in the social world” (Conboy & Mills 2009: 175). Language is one of the many ways how humans learn to communicate with one another. If language is used to speak to boys and girls differently, this could affect them when they start making decisions about their future. Little is known about “direct communications” (Epstein & Ward 2011) children receive from parents and institutions with regards to gender socialisation. In order to study the possible impact language, it is important to explore any significant messages men and women remember from their past. Messages “encode values” (Fry & Fry 1986); they are thoughts that are

put into words and they convey meaning. Messages children receive may significantly impact them throughout their lives. This is the reason that so-called memorable messages were explored in this study.

Knapp, Reardon and Stohl (1981) conducted a study on memorable messages. When they informally asked friends, family, and colleagues about any significant messages they remembered while growing up, most were able to recall at least one. These memorable messages were able to “exert a powerful influence on the course of one’s life” (Knapp *et al* 1981: 28). One participant remembered, “You’ve never been anything; you aren’t now; and you won’t ever be anything” (Knapp *et al* 1981). These messages, provided by their (participants’) friends, family, and colleagues, prompted researchers to investigate the significance of memorable messages. In the study that followed, the interviewers collected 224 messages from participants (166 from students and 58 from parents of students). The messages were divided into four themes: structure, form and organisation, content, and the circumstances around the giving and receiving of the message (Knapp *et al* 1981). Most participants felt they remembered the phrase exactly as they had heard it. Most messages were action-orientated, and contained advice; for example, “[i]f you don’t love yourself, no one else will” (Knapp *et al* 1981: 33). An interesting finding was that most participants received the message before the age of 21 (80%), yet the senders of the messages were over 21 years of age (85%) and were perceived to have higher social status. The messages were short, they were identified as personalised for the receiver, most recipients felt they were experiencing a time of need when the messages were received, and that the messages were significant for their lives. “The memorable message may be one which ‘makes everything clear’ in retrospect or it may be a message which has, over the years, represented a superordinate injunction *guiding certain life decisions*” (Knapp *et al* 1981: 38 with emphasis). Based on these studies, memorable messages may impact a child’s belief in terms of what they think they are capable of. The following section explores more recent studies on the possible impact(s) of memorable messages.

The messages we hear growing up may influence our later life trajectories. It is not possible to capture or measure all the messages that boys and girls receive throughout their childhood and adolescence, but studies examining messages from parental socialisation (Averett, Benson & Vaillancourt 2008; Carr, Hosek & Kranstuber 2012; Ontai & Raffaeilli 2004; Pollack 1998) have revealed the gendered nature of messages, directed at boys and girls. Brogan, Medved, McClanahan, Morris, and Shepherd (2006) revealed similar findings in the messages men and women received in the USA. Of the 312 participants in their study (64% women and 36% men), 928 messages on work, family, and balance were coded. Participants were 25 years of age or younger, not married, and without children (Brogan *et al* 2006). Both men and women reported messages about work and family life and the importance of work being “enjoyable, personally enriching, or a means to balance in life (or a combination of these)” (Brogan *et al* 2006: 174). However, women received messages specifically on the importance of stopping work once children arrived, and that they should choose careers that would accommodate family life. This illustrates the “communicative reproduction of the double bind many adult women often report facing while in the workforce” (Brogan *et al* 2006: 175). Another notable finding is that, even though men did not receive messages on abandoning their career aspirations or choosing particular work to fit family obligations, the importance of making time with family was emphasised by their parents. “This finding may indicate some shifting in traditional gendered ideologies of men’s roles in work and family” (Brogan *et al* 2006: 176). Brogan *et al* (2006) suggested further research on the topic that would allow participants to expand on their memorable messages, and to incorporate narrative methodology.

The literature discussed above illustrates differential communication and behaviour directed to boys and girls, but examining children’s memories of gender socialisation, is important to explore. Understanding the types of gender socialisation young adults remember and choose to share (such as messages), may create more awareness in the ways gender socialisation affects men and women. In a study exploring the memories of adolescent and young adults’ memories of messages received from parents, participants

recalled messages demonstrating the importance of egalitarian gender roles (Epstein & Ward 2011). Epstein and Ward (2011) assessed 291 college undergraduates who completed an online survey, and 259 adolescents in public schools who completed a written survey at home in the Midwest, USA. The data was collected to compare with participants' current gender beliefs. Their study found that, while both males and females received egalitarian messages from their parents, females recalled receiving more messages promoting equal gender roles, while men often remembered the messages relating to toughness. Cornacchione, Laplante, Nazione, Russell, Smith, and Stohl (2011) conducted interviews with 61 undergraduate communication students in the USA to find any memorable messages the students felt helped them throughout college. Many messages were academically themed, for example, "[i]t's very important for you to try to select the right courses" (Cornacchione *et al* 2011: 133). Most messages were delivered by family members (34.4%) and academic personnel (29.5%). A similar study also conducted in the USA on parental memorable messages relating to student success, found that many messages revolved around working hard (Carr *et al* 2012). A total of 419 students (between 19 and 44 years of age) completed the questionnaire online. The messages did not necessarily predict student success, but were predictors of cognitive learning, motivation, and college satisfaction (Carr *et al* 2012). Danaher, Goman, Kloeber, Piemonte, and Waldron (2014) found that most moral memorable messages came from home and were transmitted face-to-face. The researchers defined morality as "an understanding of what constitutes good and evil, a virtuous person, and a good life" (Danaher *et al* 2014: 375). A total of 303 young adults (between 18 and 25 years of age) completed the online survey. The most popular moral message dealt with relational ethics (35.6%): duties/obligations, sex/sexuality, proper treatment of others, and social appropriateness. These studies (Knapp *et al* 1981; Brogen *et al* 2006; Epstein & Ward 2011; Cornacchione *et al* 2011; Carr *et al* 2012; Danaher *et al* 2014) show how messages can be taken to heart and be carried throughout one's life. They also show the impact of gender socialisation through language. If a female remembers being told the importance of stopping work once children arrive, she may feel obligated to do so.

The language young men and women become accustomed to may influence their ideas about the choices they have, such as their future career path. “Language is a guide to ‘social reality’” (Sapir 1929: 209). The Sapir-Whorf hypothesis states that by limiting language, one limits one’s world (Sapir 1929). By limiting the language we use to speak to males and females, we may influence the choices they will make once they reach adulthood. Institutions play an important role in gender socialisation, particularly through language and messages. We need a more “gender-savvy society, where both boys and girls are drawn out to be themselves” (Pollack 1998: 18). The following section explores the role of institutions in the socialisation process and how they may pass on gendered ideals that could possibly influence individuals’ decisions on future career options.

2.3 Institutions

Socialisation is affected by different institutions.

Typically, contemporary sociologists use the term (institution) to refer to complex social forms that reproduce themselves, such as governments, the family, human languages, universities, hospitals, business corporations, and legal systems.

Miller 2014: 1

Miller’s definition shows how within each institution there are certain ways of life that are reproduced. As such, the media, religions, and schools could also be referred to as types of institutions. “The most familiar agents of socialisation are the family, schools, socialising agencies in the community, religion, the peer group, and the mass media” (Kornblum 2005: 124). A social institution (such as a school) plays a significant role, as it has its own system set in place. “It is made up of rules which govern individuals, which compel them to act in such and such a way, and which impose limits to their inclinations and forbid them to go beyond” (Durkheim 1957: 61). Institutions are set up with their own agendas - from who is in control to the roles people are meant to play. “Traditional institutions cast people into relatively defined roles, hierarchies, and power relations” (McAlexander, Leavenworth, Dufault, Martin & Schouton 2014: 859). An institution may

expect the people within it to continue and pass on its messages. When ways of life have been in reproduction for so long, they may be difficult to change since the socialisation process entrenches people's behaviour and ways of thinking.

Institutions are ever-present in society; therefore, they have a significant impact on individuals within them. Through the course of an individual's life, they are affected by these institutions, and they contribute to gender socialisation. "In time, like riding a bicycle, gendering practices become almost automatic" (Martin 2003: 352). Gendering practices within institutions may continue to reproduce gender inequality. If children learn that males and females pursue separate careers, they may pass on these gendered beliefs to their children, which may limit the next generation's potential.

The focus of this research is on gender socialisation within three institutions: the family, school, and the media. These institutions are significant because they often form part of an individual's social environment and therefore they have an effect on an individual's development and socialisation. Since the family exposes children to their parents' ideas and beliefs about appropriate gender roles and behaviours from early on, this was the first institution chosen to explore.

2.3.1 The Family

In Leeder's (2004) research on the family from a global perspective, she states that families share commonalities, but also that families around the world differ with regard to location, resources, class, structures, culture, and language. Families are complex, and society comprises of more than just the nuclear family. Leeder (2004: 25) defines a family as "a group of people who have intimate social relationships and have a history together". These social relationships show children what it is to be male or female. For the purpose of this study this is the definition that will be utilised, since it is beyond the scope of this study to discuss the different conceptions and definitions of "the family". "Mothers, fathers, siblings, and the extended family members present differing role models and behaviours

for children to see, and their experiences with family members provide the foundation for their subsequent understanding of appropriate gender roles” (Best 2010: 536). Gender roles may develop in children due to separate spheres (public and private) (Ferree 1990) they become accustomed to, for example, men as the workers (instrumental) and women maintaining family relationships (expressive). Chodorow (1978) argued that boys identify with their father and girls identify with their mother. Boys will learn independence from their fathers and girls learn nurturing through their mother. Differing gender roles may influence young boys and girls into separate career paths. Gilligan (1982) argued that men and women view relationships differently. Women put value on nurturing and responsibility (social) and men place value on themselves (individual). Boys and girls are influenced by parental roles, and learn to identify which roles are meant for males and females. Historically, the father was seen to be “instrumental” and the mother as “expressive” in order to pass on these gendered personality traits to their children (Bales & Parsons 1955: 45). These defined gender roles (expressive and instrumental) continue to be seen as essential in maintaining proper family structures and some scholars maintain that “if role conflicts appear, it will harm the effective functioning of the family” (Rashotte & Webster 2009: 327). It was of interest to explore if any similar family dynamics (father as instrumental and mothers as expressive) continue to exist among the participants’ families in this study. Traditional family roles may affect young adults’ decisions to enter certain careers.

“Parents are among the primary agents that shape the outlook and disposition of the next generation” (Deutsch, Hirsch, McAdams, and Pagano 2002: 29). They are among the first people children begin to learn from. Parents/guardians can also be called “opportunity providers” who give instruction and guidance to their sons and daughters (Buriel & Parke 2006). “As opportunity providers, parents orchestrate the daily activities of their children” (Lam, McHale & Updegraff 2012: 19). For instance, a father who typically performs outdoor tasks (such as mowing the lawn), may expect his son instead of his daughter, to do the same or to help in these types of tasks. Married women do two thirds of household tasks (Greenstein 2009) and sons are not given as many household chores when

compared to daughters (Manke, Seery, Crouter & McHale 1994; Bonke 2010). This division of household labour is even more pronounced when parents have children of both sexes (Crouter *et al* 2001). “Early socialisation experiences are critical to the formation of gender-based values” (Dyke & Murphy 2006: 358) and one of the many ways that society influences the way in which gender roles are assigned to children is within the household. When boys and girls are expected to perform different chores, they may grow up believing that men and women have differing roles and inherent abilities. Baehr (2007: 13) states that “[girls’ participation in families is, especially in the early years, non-voluntary”. For instance, one’s bedroom décor and clothing have already been chosen. We are born into “family situations” and their “gender structures” (Okin 1989: 16). The participation of boys as well as girls in the family is non-voluntary. When there is constant role division (such as men in the public sphere and women in the private sphere) within families, children are sensitised by this seemingly ‘normal’ family structure. This role division often “perpetuates traditional divisions of household labour” (Anderson & Hamilton 2005: 145). If young boys and girls are exposed to gender role differences from their parents (women and homemakers and males as breadwinners), they may grow up believing that they should follow differing gender roles. The following section discusses studies which have found differing parental treatment (such as emotional expression) towards their sons and daughters.

Research on parental behaviour shows differential treatment of boys and girls as they grow up. It has been suggested that boys are socialised to be more agentic (Karniol, Grosz, & Schorr 2003; Polce-Lynch, Myers, Kilmartin, Frossman-Falck, & Kliwer 1998). For instance, an observational study at the Sacramento Zoo in the USA found that fathers were much more likely to carry their female toddlers than their male toddlers (Burns, Mitchell, & Obradovich 1989). This shows how boys are often raised to be more independent, whereas girls are often raised to be dependent on others for security, resources, etc. “This sex difference of independence behaviour (freedom of movement) appeared to be the specific result of adult male behaviour” (Burns *et al* 1989: 313). In a study examining parents’ perceptions of their children’s gendered attributes and

behaviours, more parents (from diverse backgrounds) expressed negative comments if their sons showed gender non-conformity (Kane 2006). Parents had more positive feelings towards their daughter's gender non-conformity. This shows how male attributes and behaviours are more accepted in society. Forty-two interviews were conducted with parents from Maine, USA, who had at least one child between three and five years of age. Heterosexual fathers were quite active in constructing their child's gender, especially their sons. Heterosexual mothers, lesbian mothers, and gay fathers were more concerned about the treatment if their sons did not grow up conforming to traditional masculinity (Kane 2006). This study highlights the reproduction of heterosexuality among males. If males with heterosexual fathers are growing up learning traditional masculinities (such as boys don't cry), this may limit the ways these boys learn to expressive themselves. In the USA, Clearfield and Nelson (2006) conducted a study on mothers' speech and play behaviour with their sons and daughters ages six, nine and 14 months. The purpose of the study was to explore the development of gender socialisation. There were no differences in play behaviour between the boys and girls, but mothers spoke more often to their daughters than to their sons. They also asked their daughters more interpretative questions. In contrast, mothers were encouraging their sons for exploring on their own, and gave more directives such as "come here" and "attentionals" (calling out their son's name) (Clearfield & Nelson 2006: 135/136). If mothers speak less often to their sons, boys may be receiving less practice with language and expressivity. A study in Israel by Muchnik and Stavans (2009) focused on the interaction between parents and children (between three and seven years of age) during storytelling (Frog Story). The researchers found that mothers used more emotion in their narratives when talking to their daughters compared to their sons. Fathers were much more likely to use directives in their speech whereas mothers were more likely to encourage their children to follow the story, and to provide them with thinking questions about the events. Their study sheds light on how parents can reinforce gender stereotypes in children (Muchnik & Stavans 2009). Not only have studies shown that parents physically (fathers more likely to carry their daughters) and verbally (mothers speak more often to their daughters) treat their sons and daughters differently, but also in the way children learn to express emotion.

The meanings of emotions and appropriateness of emotional expression are socialized; and, in the early years of life, socialization primarily takes place via interactions within the family, and the characteristics of both parents and children may affect the process of emotion socialization.

Denham & Root 2010: 2

Just as children are “gender detectives” (Martin & Ruble 2004: 67) for appropriate gender behaviour, they also search for cues in expressing appropriate emotion. “Gender is one critically important moderator of what and how children learn about emotion because culture determines the appropriateness of emotional displays for males and females” (Denham & Root 2010: 2). Studies have shown that parent’s emotional expression affects their children’s emotional functioning (Denham, Mitchell-Copeland, Strandberg, Auerbach & Blair 1997; Eisenberg, Fabes & Murphy 1996). Chance and Fiese (1999) also found differences in narratives when parents were asked to tell their child a story about their own childhood. Mothers focused more on emotional content whereas fathers focused on instrumental content. Children are socialised by the ways their parents express themselves and may learn to emulate their same-gendered parent’s expressive style. Fivush and Zaman (2013) interviewed 42 mothers and fathers in the southwestern US. The parents were interviewed separately, each time with their child (approximately 4 years old). Each parent was asked to discuss an emotional event with their child: happy, sad, a peer conflict, a conflict with the parent, and a special outing. Researchers found that mothers elaborated and engaged more with their children when discussing past events. They concluded that mothers discuss and work through their child’s experiences more so than the fathers. Even though fathers have been found to be more physical during play with their children (Lamb 2002), mothers engage more with their children when talking about a play time event (Fivush & Zaman 2013). Young boys and girls learn how to express emotion through their parents, which may affect how boys and girls come to understand emotions. Not only do parents express emotion differently, but children perceive their parents’ emotional expressiveness. Balswick and Slevin (1980) examined

children's perceptions of their parents' expressiveness. Children perceived their mothers to be more expressive of all emotions, but physical anger scored highest for fathers. "The female child appears to be presented, with an expressive same-sex role model. The male child does not seem to be so fortunate" (Balswick & Slevin 1980: 298). Young boys may grow up mimicking the way their fathers express emotion. Bosacki and Moore (2004) conducted a study in Nova Scotia, Canada, measuring pre-school children's understanding of simple and complex emotions using a puppet show. They found that girls scored higher on emotional labelling and understanding even though both sexes had equal verbal ability. It may seem as though the girls are receiving more "training" in emotional understanding (Bosacki & Moore 2004) and this may limit boy's emotional intelligence (Mayer & Salovey 1990). Mayer and Salovey (1990: 189) define emotional intelligence as "the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions." If boys are receiving less training in emotional understanding, this could cause them to "bottle-up" their emotions as they grow-up.

The studies referred to above identify some marked differences in the behaviour and language used towards young girls and boys, especially from parents. Parents not only speak to their sons and daughters differently, but they also speak differently about them. Peterson (2004) examined the narratives of mothers and fathers recruited from a hospital emergency room who described their child's injury. Both parents were much more descriptive when talking about their daughter. The interviews were conducted in Canada with parents who had preschool and school-aged children, and with one parent who had witnessed the injury. There were no gender differences in the types of injuries the children had, but parents of daughters gave more detail when describing the event. Another interesting finding was that fathers were more likely to deny any emotional reaction when describing their sons' injury. "This is consonant with stereotypes of males as tough and unemotional and girls as fragile and emotional" (Peterson 2004: 341). If parents, specifically mothers, use more emotive language with their daughters compared to their sons, it could have an effect on boys' ability to express emotion when they grow up and

may limit their desire to enter helping and caring careers. William Pollack states that society forces boys and men in a “gender straightjacket” (Pollack 1998: 6). He remarks that, although we tend to allow girls to express their emotions, we do not allow boys to express their genuine selves. “The idea is that a boy needs to be disciplined, toughened up, made to act like a “real man”, be independent, keep the emotions in check” (Pollack 1998: 11). Traditional masculinities and femininities may continue to proliferate through family generations. The stereotypes, messages and behaviour that get passed on may influence children’s beliefs about themselves and shape their thoughts on future aspirations.

This section has shown that parents, especially fathers, prefer their sons to maintain gender conformity (Kane 2006). Mothers have not only been found to speak more often to daughters (Clearfield & Nelson 2006), but they also use more emotion with their daughters when they speak to them (Muchnik & Stavans 2009; Peterson 2004). When girls are spoken to more often and become accustomed to emotive language, perhaps this is why Bosacki and Moore (2004) found that girls scored higher on emotional understanding. Parents greatly influence their child’s gender socialisation. Not only do boys and girls experience gender socialisation within the family, but also within the school environment. As young children become accustomed to their family’s social structure, then comes along another institution and its influences, the school. Like the family, the school is a place where children may learn about appropriate gendered behaviours. It could also affect what careers males and females see for themselves.

2.3.2 School

Teachers, guidance counsellors (Piquette-Tomei 2005/2006), and coaches (Blumberg, Foltz, Mungro, Speight, Steinfeld, and Wong 2010) are very influential during children’s school years. Educational materials have also been studied as potential socialising agents. Although the representation of females in textbooks has increased (Gooden & Gooden 2001), men are still more likely to be represented (Lee & Collins 2008; Mukundan

& Nimehchisalem 2008). “Classrooms and schools represent a ‘culture of power’ to the extent that they mirror unjust social relations existing in the larger society” (Applebaum 2003: 21). A great deal of time is spent in school during childhood and adolescence, and school is an important place in terms of acquiring and learning about gender roles. It is also a place where students may be taught about what subjects they are better suited for based on their gender. A lingering belief in the education system is that males are stronger in mathematics and science, while females are stronger in languages (Miers, Pollard, and Rickaby 2007). School subjects are often influenced by stereotypes and can have a negative impact on student performance (Leaper & Friedman 2007). Students internalise these stereotypes and they become part of their self-concepts (Skaalvik & Skaalvik 2004). The repetition of stereotyping male and female strengths/weaknesses may affect what children believe they can or cannot do. “The construction of gender differences associated with socialisation, self-efficacy, and school-based experiences, converge into future career choices” (Piquette-Tomei 2005/2006: 53). Schools may pass on traditional belief systems with regards to which disciplines boys and girls may or may not excel in. This may then lead them into a career path that they feel best aligns with their gender. Young adults may select career paths based on what society has taught them. The following section discusses studies that have found differences in communication directed at boys and girls once they enter school.

In 2005, Allyson Jule observed a classroom of students learning English as a Second Language (ESL) in British Columbia, Canada. Over the course of a year, she compared the amount verbal communication used by boys and girls. Her findings show that, on average, the teacher used 80% of the linguistic space leaving the students with 20%. Out of that 20%, boys spoke 88.3% of the time. She found that girls played the role of “classroom observers” (Jule 2005: 32). When boys are more likely to actively speak and girls are more likely to observe, this could reinforce traditional gender roles. She noted that “learning and language happen through talk” (Jule 2005: 34). The classroom is place where males may develop dominance and where females may become submissive. In a ten-month study observing interactions between teachers and students across four

Chinese kindergartens, male students received more interaction than girls (Chen & Rao 2011). It was also found that the teachers “perpetuated traditional Chinese gender values, beliefs, and stereotypes in their interactions with children on a daily basis” (Chen & Rao 2011: 114). Schools are meant to educate and prepare the youth for their future endeavours, therefore teachers should be more aware of how much time they spend interacting with their students. It was previously mentioned that classrooms represent a “culture of power” (Applebaum 2003). If males are receiving more interaction from teachers, females could be learning that they are not equal to their male classmates. The classroom should be a place where both males and females receive equal speaking opportunities as classrooms may influence their future work environments.

The school and the classroom are not the only social institutions where females receive unequal treatment; this is also evident when they receive help selecting courses. A study by Tenenbaum (2009) in the UK, found that parents and children reinforced gender stereotypes when selecting high school courses in a hypothetical situation. It was noted that, even though both boys and girls had similar grades, girls were more likely to lose interest in science. This had nothing to do with cognitive or intellectual ability, but was instead related to their belief or lack of belief in themselves. Boys chose fewer foreign language courses, and females chose fewer science and mathematics courses. Parents were also found to make more discouraging comments (such as mentioning course difficulty) to daughters based on their ability in mathematics and science (Tenenbaum 2009). When females are told that mathematics might be too difficult, it may limit their interest in STEM occupations. Girls may internalise that mathematics is too challenging for them, which may limit their decisions to enter science and mathematics-based careers. In order to have equal opportunities, children need to be aware that no matter what their biological sex, they have the freedom of choice to select the courses that they would like to take. Girls and boys need to be aware that they not only have a choice, but that they also have the ability. “Girls’ increased attainment levels across areas of the school curriculum do not correspond with levels of success they achieve later in life” (Saunston 2012: 16). Even though girls are becoming increasingly educated, their

measures of success in careers are not increasing. One explanation for this could be that females develop a lack confidence in certain subjects, especially mathematics and science. When a female's confidence declines in mathematics and science, they may not work as hard on those subjects and avoid them upon entering university. Ding, Richardson, and Song (2006) performed a study examining mathematical scores in the USA. They found no significant differences between genders on standardised tests across two school districts in two different states. They discovered that females had a higher Grade Point Average (GPA) in middle school and high school when compared to males. Kurtz-Costes, Rowley, Harris-Britt, and Woods (2008) found that when girls had high mathematical skills they still demonstrated lower self-competence when compared to boys. Their study consisted of 302 fourth, sixth, and eighth grade students in the USA. The girls in this study also held the perception that adults favoured boys in mathematics and science. Therefore, even when girls show high competence in mathematics, their self-competence remains low. This is why it is important to explore the factors contributing to women's apparent lack of interest in STEM occupations when they are just as capable as men. If qualitative research can help discover the reasoning behind women's disinterest in STEM, perhaps societal institutions (family, school, and media) can work to change the ways in which they influence females away from STEM careers.

In this study engineering was a significant program to examine because more males graduate with engineering degrees when compared to females in Canada and other regions of the world. In 2010, the National Science Foundation (NSF) in the USA reported 14,478 females graduated with a Bachelor's degree in engineering compared to 65,050 males (National Science Foundation 2013). In 2012, 15,981 women and 67,282 men obtained a Bachelor's degree in engineering. In the same year, 8,536 women and 11,283 men graduated with degrees in mathematics and statistics. When looking at employment rates of women in science and engineering, women are still less likely to be fully represented in these fields (National Science Foundation 2013). While it is important to study the reasons behind women's lack of representation in STEM careers, it also important to examine why men are not pursuing careers in fields like nursing which are

traditionally perceived as feminine disciplines. “Understanding the mindsets of young men is important to developing approaches to increasing college attendance, which take into account their actual thinking, and thus what may motivate them” (Kleinfeld 2009: 174). Understanding the mindsets of both men and women may shed light as to why they made the decision to pursue either engineering or nursing.

The school is a place where traditional masculinities and femininities can develop and become more concrete. Within the classroom, teachers may indirectly teach males that their voice matters more by providing them with more speaking time (Jules 2005) and interaction (Chen & Rao 2011). The school is also a place where young women may start to lose confidence in mathematics (Kurtz-Costes et al 2008) because parents (and/or teachers) may make assumptions that the subject is too difficult for them (Tenenbaum 2009). The school system plays a significant role in gender socialisation. This institution may limit what young men and women may perceive themselves to be capable of. A third powerful force that has been chosen for this study is the media. The media may also influence what children believe they are capable of by portraying males and females in traditional ways of life. The following section explores how the media may also influence gendered belief systems.

2.3.3. Media

The media is a powerful force when it comes to conveying particular ideas and beliefs. It influences us through magazines, music, movies, the internet, radio, books, politics, and television. Elkin and Handel (1989:188) argue that media is a “leveler”. It ignores social distinctions and is uni-directional (Nelson & Robinson 2002). For instance, a music video or a magazine advertisement is not shown differently to each person or group; it is mainstream (what is dominant and may be perceived as ‘normal’). Perceived realism – “the extent to which individuals evaluate media messages as real or true life” (Haller & Zhang 2013: 323) – could have an effect on gender roles. When men and women are constantly seen in separate spheres (Ferree 1990) in the media, it could greatly affect

children's views on what men and women are capable of. "Examples of men in positions of power and women in supportive roles abound in children's books, movies, television programming, and children's actual life experiences" (Crawford & Mendez 2002: 97). In commercials, boys are seen playing more competitively and outdoors compared to girls (Hein & Kahlenberg 2010). Gendered mediation (Ross & Sreberny-Mohammad 1996) argues that the media treats the male as normative. If traditional gender roles are constantly being portrayed in the media, it may create more inequality in real life. This section explores the media's role in gender stereotypes by looking at studies done relating to advertising, books, and the internet.

An interesting study by Johnson and Young (2002), revealed certain gender patterns in advertising. Advertisements directed at girls contained more verb elements of limited activity, more feeling, and more nurturing. Advertisements that were more boy oriented focused on action, competition, destruction, and agency and control (Johnson & Young 2002). Boys were also found to speak more in commercials where boys and girls were both present. Exaggerations in female and male voice-overs were also noted. If girls are portrayed as more nurturing and boys are portrayed as more active, they may internalise these characteristics as normal for their gender. Like the classroom, advertising also gives males more linguistic space, which can be seen as the 'norm'. Language used in advertising reinforces stereotypical behaviours in boys and girls. When "tween" girls (between ten and 12 years of age) in Hong Kong were asked to photograph images of "what girls should be and should not be", and of "what girls should do and not do", researchers found that the tweens perceived gender roles for females to be both "traditional and contemporary" (Cappello, Chan, Tufte, and Williams 2011: 78). They felt that women should be more conservative in sexuality and be aware of their physical appearance, but also expressed concern over women's liberation and individualism (Cappello *et al* 2011). There appears to be juxtaposition between women having a 'traditional' way of life, but also allowing women to be able to express themselves in a variety of ways. With the constant stream of media throughout our daily lives, children and young adults are influenced by the images and language they see and hear. It helps

guide them into conform to certain gender roles. Cappello *et al* (2011) suggested further research with older girls to map any changes in their perceptions as they age.

It is not just advertising that has been found to portray traditional male and female behaviours, but also literature. Diekman and Murnen (2004) had researchers and publishers label books as either 'sexist' or 'non-sexist'. Both categories displayed gender inequality. Women were consistently shown to have a "female-stereotypic personality, domestic roles, and leisure roles" (Diekman & Murnen 2004: 318). When the non-sexist books attempted to reverse the gender roles in order to show the female characters in a more masculine gender role (assertive and independent), they did not represent men in more feminine roles (nurturing and caring). The male characters portrayed masculine characters across both books. "If society's goal is to enable children to pursue a wide range of opportunities in order to make the best use of their individual talents and abilities, children need to see the whole range of opportunities as viable choices" (Diekman & Murnen 2004: 382). For instance, when young boys consistently see women in a nurturing role, they may not choose to enter a nurturing career such as, nursing. Even if a male is interested in nursing, he may shy away from it due to its association as a female career. We seem to begin failing children at a young age in terms of representations of gender equality. By exposing them to traditional gender stereotypes in so many different scenarios/medias/platforms, stereotypes are reinforced and concretised. The following discussion examines the internet's potential role in portraying gender roles and stereotypes.

The Internet is a tool that allows society to have worldwide access to information. Internet news stories are "constructed" (Burke & Mazzarella 2008: 397) and can be summed up as "interpretative packages" (Gamson & Modogliani 1989: 2). The internet may sustain gender stereotypes by advertising different toys to boys and girls and by portraying men and women in different gender roles. Turke (1986: 41) stated that "[t]he computer has no inherent gender bias. But the computer culture is not equally neutral." Online news can play a role in gender bias by giving more attention to males. Burke and Mazzarella (2008)

conducted a study examining leading internet news stories (168 in total) from *CNN.com*, *FoxNews.com*, and *NYT.com*. News coverage was overwhelmingly focused on masculinity (male metaphors/analogies and gendered language) as the norm. For instance, references to warfare and conflict that related to general news and election coverage were present. “The vast majority of individuals featured in stories were male as were the vast majority of sources quoted – in fact over 85% in both cases” (Burke & Mazzarella 2008: 410). Females were much more likely to receive coverage about their personal information. “[T]he use of primarily male sources perpetuates the impression that males are the main purveyors of knowledge and expertise in a given culture” (Burke & Mazzarella 2008: 402). Just as boys are more likely to speak in commercials (Johnson and Young 2002), men are more likely to be featured and source information on news stories. The media may be teaching boys and girls that males are more knowledgeable and dominant. This strengthens gender inequality in society.

Social network also forms part of the media that individuals are exposed to. In a study examining women’s views of a fictional *Facebook* page, the women felt there were social status rewards for online exposure and women are subjected to harsher judgements (Bailey, Burkell, Regan, and Steeves 2013). The fabricated *Facebook* page displayed a very stereotypical 18 year old girl (beach photos, tilted head shot, photos with a boyfriend, drinking, partying, and many posts/updates). Bailey *et al* drew their ideas for the page from an informal public profile scan in Ottawa, Canada (Bailey *et al* 2013). They asked the participants (between 18 and 22 years of age) to compare their *Facebook* pages with the fake profile page and to give their opinions about it. Six women participated in semi-structured interviews and eight took part in a focus group at the University of Ottawa. Comments were found to be much harsher in the focus group (where the participants initiated a debate over the term ‘slut’) compared to the individual interviews. Most participants stated that she was a regular girl, socially successful, but that her page was “overly sexualized” (Bailey *et al* 2013: 103). Even though the researchers created a page that seemed to represent the average 18 year old girl, she was still criticised as being too

sexual. It appears that it's okay for women to show themselves on social media, but there is a fine line of just how much they should show.

Just as females are judged on femininity, males are also judged on masculinity. A qualitative case study that took place in Vancouver, Canada, revealed contradictions when examining the media's role in shaping high school students' views of masculinity. Focus groups, interviews, and a naturalistic observation with 36 males in physical education (PE) were used to gather information over three months. It was found that, although the participants criticised popular representations of gender in the media (males as aggressive and competitive); they also showed support for these types of masculinity. They provided personal narratives in order to negotiate their masculine identities. "[This] displayed an ability to actively assign new meanings that undermine the ways in which gender is commonly understood" (Millington & Wilson 2010: 1683). Although the participants criticised types of masculinity, they also supported them. Although both men and women recognise traditional masculinities and femininities, they still justify them. Perhaps young adults are having a difficult time overcoming traditional male and female traditional behaviours. On one hand, males and females acknowledge how gender is represented in the media, but at the same time, perhaps through their own socialisation, they defend the traditional masculinities and femininities they are accustomed to.

Since boys and girls experience different types of socialisation, it is important to explore the reasoning behind young adults' career choices. One's gender socialisation may influence their future career path. The family, school, and media are powerful socialising agents. Each one functions as an institution and carries its own set of beliefs. Children become accustomed to the ways in which gender socialisation occurs, and may reproduce what they have learned to be appropriate for their gender. The family may teach children that men are instrumental and that females are expressive (Muchnik & Stavans 2009; Bosacki & Moore 2004), teachers may favour boys in mathematics (Kurtz-Costes, Rowley, Harris-Britt, and Woods 2008), and books may show women as nurturing and men as independent (Diekman & Murnen 2004). These examples of gender

socialisation may limit children's ability to seek out and enjoy their full capabilities, which in turn, may guide them into gendered careers paths. This study has chosen to examine nursing and engineering students as each program holds predominantly either males or females. The following section discusses the reasoning behind university students' decisions to enter engineering and nursing programs, and the stigma attached to both.

2.4 Engineering and Nursing

The following sections specifically discuss engineering and nursing because they had a high discrepancy of enrolment between males and females at The University of New Brunswick, Canada. It is not common for females to enter into a career in engineering or for males to pursue a career in nursing. It is important to explore what factors may influence females' decisions to enter engineering and what factors may influence males' decisions to enter nursing career paths in order to narrow the gender gaps in each occupation. Gender socialisation may have played a role influencing young adults' career choices and paths. Socialisers (Dick & Rallis 1991) such as the family, schools, and the media, and the messages absorbed from these societal institutions, play a significant role in the reasons why individuals make the choices they do. Males and females may have developed automatic associations (Cadinu, Galdi, and Tomasetto 2014) between genders and careers (such as females being better suited for nursing and males being better suited for engineering). This is problematic, as there may be many males and females who have always dreamed of a non-gendered career yet by societies influences, were indirectly pushed away.

2.4.1 STEM: Engineering

Gender stereotypes linked to STEM activities begin developing at a young age (Howe, Jones, and Rua 2000). The first STEM related activities have been linked to toys (Yansen & Zukerfeld 2014) for boys and girls. In 2009, Lisa Wade conducted research on a *Toys R US* catalogue. Wade found 13 building or engineering toys marketed to boys and only one building or engineering toy marketed to girls (Wade 2009). If toys are marketed

towards children differently, they learn to associate toys as either male or female. When building and engineering toys are much more likely to be marketed towards boys, girls may assume that they are not supposed to play with such toys. The toys children become accustomed to playing with may influence what school subjects they later become interested in.

Children develop ideas about who is a better fit for certain school subjects, which may be a reason why female's interest in science declines after elementary school (Brotman & Moore 2008). In a study in the USA with sixth grader students (between eleven and twelve years of age), researchers found that females felt that science was difficult and males felt that science was more suited to boys (Howe *et al* 2000). This decline in female's interest in science continues into high school. High school is a place where teenagers begin to think seriously about career choices, and through gender socialisation, females may not be thinking about a career in science and/or mathematics. According to Blessing, Miller, and Schwarz (2006), females enrolled in high school (between fourteen and eighteen years of age) in the USA were found to perceive science as uninteresting and believed that a scientific career would be unattractive. If females have already made up their minds in high school that science and mathematics are not suited for them, they will be hard pressed to enrol in any STEM courses in university. It is of interest to explore why and how this disinterest in science develops as careers in science also carry unpopular stereotypes. High school and college students (males and females) reported scientific professions as being "less creative and less people-oriented than other popular career choices" (Cox, Masnick, Osman, and Valenti 2010: 653). Even though males are more likely to enter STEM career paths, they also carry stereotypes about STEM careers. Kessels and Taconis (2009) found that Dutch students, who did not feel they were a good match for sciences, were not likely to pursue a career in scientific fields. The students selected subjects they felt best suited them; they were not relating to sciences, and therefore not pursuing them (Kessels & Taconis 2009). If a young woman does not relate to mathematics and science, she will not likely pursue a career in those fields. Herzog and Makarova (2015) found that, among male and female high school students and

teachers, mathematics was negatively related to the female gender. Their cross-sectional study surveyed 3,045 students and 123 teachers in secondary schools in Switzerland. The negative stereotype associated with females and mathematics is a factor that might contribute to the limited number of women entering careers in the field of engineering. It's not only students and teachers who hold negative stereotypes about females in science and mathematics, but also parents.

Parents may influence their children's entrance into certain career paths. A study conducted in Mainland China (Liu, McMahon, and Watson 2015) found that students and parents hold career gender stereotypes. Two, two-parent families participated in the study, and each family had a student in grade five (one boy and one girl). Through semi-structured interviews, both students remarked that women did not suit certain careers, such as a firefighter or an archaeologist. Three of the parents commented that females can choose whatever career they like, because they will not be the ones supporting their families. The parents expressed an expectation that males should establish a successful career in order to support their families. What is most interesting about this study is that, even though parents discussed male and female gender roles, they did not believe they conveyed these stereotypes to their children (Liu *et al* 2015). This study highlights the dangers of unintentional gender stereotyping. Assuming males and females are better suited for certain roles shows how ingrained this concept remains in society. Even though Chinese culture practices Confucianism (Gove & Huang 2012), where children are expected to become highly successful in order to make their parents proud, these findings highlight how parents may influence their child's career choice and how male children are often expected to be more successful than female children.

As students near high school graduation, the question of what comes next (such as career path) may dominate their thoughts. "Students face significant pressures in their decision about their career plan" (Dias 2011: 367). First and second year students are often undecided about their career choices (Gordon 2007), and this period may often be in a time of exploration (Carduner, Padak, and Reynolds 2011). Career choice is not an

immediate decision, but a “dynamic process of career construction and ongoing adjustment” (Price 2009a: 268). Price (2009a) also expresses the need for further understanding on how young men and women come to select their career paths as traditional gender beliefs are being disputed. Parents have a pronounced influence on their children’s future career paths (Workman 2015) and parental pressure can affect a student’s wellbeing (Davis 2009).

Studies using qualitative, quantitative, or mixed methods research have found gender differences and many factors contributing to why young adults enter engineering fields in university (Dick & Rallis 1991; Case & Jawitz 1998; Case & Reed 2003; Bagilhole, Dainty, and Powell 2012a), why students have remained in their program (Amelink & Meszaros 2011), and their experiences throughout their studies (Mannon, Rutherford & Schreuders 2009; Foor & Walden 2009). The following paragraphs explore these studies further and examine what influences may be contributing to students eventually entering engineering careers.

As previously discussed regarding the family’s contribution to gender socialisation, “socialisers” (Dick & Rallis 1991) such as parents and teachers, may influence individual choices. One’s peer group may also act as a socialiser. Mehta and Strough (2010) explored adolescent gender segregation (60 boys and 85 girls) in the Mid-Atlantic US. The researchers found that girls peer groups were more likely to identify with expressive traits. When males and females are segregated into different peer groups, and endorse traditional masculinities and femininities within their same-gender group, this may influence their future career paths (Reskin 1993). If young adults continue socialising with only same-gender peers, this may also lead them to select careers that align with their gender (nursing for females). Socialisers have a significant effect on an individual’s life as they can help shape a person’s decisions. They hypothesised that students’ attitudes about career selection were shaped by socialisers and past experiences. Their study took place in Rhode Island, USA with 2,213 senior high school students (1,089 men and 1,124 women) who performed well in mathematics and science, but who did not enter

these programs in university. Dick and Rallis adapted their model from a model developed by Futterman, Goff, Kaczala, Meece, and Parsons (1982) on academic choice.

In this model, a student's career goal directly shapes the student's perception of both intrinsic and extrinsic value of academic tasks. This perception of task value has, in turn, a direct effect on the student's academic choices, performance, and persistence.

Dick & Rallis 1991: 282

Dick and Rallis were interested in what shapes students' career goals and adapted Futterman *et al's* model to primarily focus on socialisers. According to Dick and Rallis, students' beliefs about themselves and their abilities were shaped by "the interpretation of past experiences" and "the perception of the attitudes and expectations of others, such as parents, teachers, counsellors, and so on" (Dick & Rallis 1991: 283). They felt that this model would help explain why women who excel in mathematics and science do not pursue these degrees in university. The survey results showed that women are less likely to choose careers in engineering. If young men and women's career choices are being influenced by the people in their lives, this may set limits on what careers they believe they can pursue.

The fact that even young women with exceptional high school mathematics and science preparation have such different career plans from similar prepared men suggests that the impact of socialisers may be felt quite early.

Dick & Rallis 1991: 291

Gender socialisation about who is better suited for science and mathematics begins early on in a child's life. Subject segregation then continues into high school and university. Students planning a career in engineering mentioned influences from parents and teachers much more often than those students who did not choose an engineering career path; earning potential was much more important to men. Although interesting results were found, "the survey results tell us little about the relative strength student's attribute to each influence on career choice" (Dick & Rallis 1991: 290). Dick and Rallis felt that

more research needed to be directed at understanding when, and at what ages, women feel influenced by career choice. It is important to find out why some women pursue engineering degrees, and if these reasons are similar or different if compared to men's reasons. Discovering what factors lead men and women into science and mathematics, may weaken gender segregation in engineering careers. The following studies explore students reasoning behind choosing engineering degrees from South Africa, Europe, and North America.

Various studies have explored why males and females enter engineering career trajectories. In 1998, Case and Jawitz drew on this work by Dick and Rallis and found multiple reasons why South African students chose to pursue engineering degrees. Their sample consisted of 531 first year students at three universities in the Western Cape. The following themes were identified: socialisers; contact with engineering careers; school subjects; manual activities; mental activities; challenge and variety; social identity; and career rewards. Only one question was asked: "Why did you decide to study engineering?" (Case & Jawitz 1998: 236), and written responses were given. Ten categories were developed: socialiser (SOC); contact with engineering career (CAR); school subjects (SCH); manual activities (MAN); mental activities (MEN); challenge and variety (CHA); social identity (SID); and career rewards (REW). When comparing results from male and female respondents, males mentioned manual activities (MAN) more often and females mentioned challenge (CHA) and social identity (SID) more often. This study identifies the differences between men's and women's interests. It shows that even when both men and women enter STEM fields, gender differences remain. In a separate study, Case and Reed (2003) examined factors that led students to enrol in mechanical engineering at the University of Cape Town. A questionnaire was completed by 94 students in the first year of the study, and 106 students in the second year of their study. In total, 170 males and 30 females participated in the study. Only one question was asked: "What made you choose mechanical engineering as a career?" (Case & Reed 2003: 76). Qualitative analysis resulted in the identification of ten influencing factors, which were further placed into four macro-categories: societal influences; personal career vision;

product related activities; and social/civic responsibility. When examining the responses quantitatively, their results displayed gender differences in terms of social/civic responsibility. Females were more likely to “indicate that they want to make a social impact on their community or country” (Case & Reed 2003: 81). Ahearn, Alpay, Bull & Graham (2008) undertook a quantitative study based in London, UK. They also found that females were more likely to indicate that making a difference was of great importance to them in terms of their career choice. These studies give insight as to why young adults have chosen to pursue an engineering career and highlight the multiple factors that influence men and women into engineering. If making a difference in society is an important factor to females considering their future career, perhaps university recruiters could explain to females how making a difference applies to engineering careers. The following paragraph explores what influences or socialisers students felt affected their choice to enter STEM fields.

Although there are multiple factors that influence a young adult into their chosen career path, the people in their life may also affect their decision to enter a particular field. Dias (2011) used qualitative analysis to examine the reasons and motivations for why electrical and computer engineering (ECE) students in Portugal chose this program and how they developed their career plans. Out of the 25 participants (between 18 and 20 years of age) enrolled in their first year in a university in Portugal, 22% were female. This study found the “distinctive importance of different actors with significant influence on student’s decision-making” (Dias 2011: 375). The family appeared to be a “driving force” (Dias 2011: 373) in the students’ career planning. Participants described their fathers as more active participants in their engineering selections (offered more guidance and influence). Mothers were mentioned to be more supportive and to have more of a social role (expressing excitement to family and friends) in regards to career choice. Although family appeared to be the most significant factor influencing career planning, peer groups also played a role as some students mentioned the importance of having a companion in the program. Students also highlighted the importance of schooling, one’s intelligence, interest in engineering, and social mobility in terms of their choices. Only one female

participant mentioned gender, stating, “There aren’t many girls who like electronics, but I do” (Dias 2011: 371). Although this study did not focus on gender socialisation, it did highlight the importance of the family in career socialisation.

In a study by Bagilhole *et al* (2012a) examining women and men’s reasoning behind their decisions to enter engineering and technology (E&T) fields, most female and male students had similar motives that lead up to their choice to pursue a particular direction of study. Students were influenced by childhood by activities, good grades in math and science, and had a family member who worked in engineering. The researchers sent out questionnaires to all E&T undergraduate students at a UK university with a 21% response rate. Semi-structured interviews were then conducted with men and women, but most female narratives (43) were highlighted in order to explore women’s perspectives. When compared to male E&T students, females indicated having been influenced and encouraged by a teacher or family member, and perceived men as being a more natural fit for engineering. They also identified themselves more with men than with other women.

The women seem to be at once highlighting the so-called ‘natural’ differences between men and women, but also dis-identifying themselves from their own agenda, in making themselves an exception to the general rule of difference.

Bagilhole *et al* 2012a: 550

When women distance themselves from other women, they contribute to their own inequality (Derks, Ellemers & Van Laar 2016). This distancing from other women puts forward that somehow they are better than being female. Perhaps for some women to feel better suited towards engineering, they need to identify with males. Not only have women distanced themselves from other females once in engineering, but women are also more likely to be concentrated in certain types of engineering.

Females are more likely to select industrial engineering (IE) In a qualitative study, Foor and Walden (2006) examined gender identities in an undergraduate engineering program at a university in the USA. Multiple explanations from male and female students

appeared. In total, 149 ethnographic interviews were conducted among 118 engineer majors (some students were interviewed two or three times over four years). Industrial engineering was the focus as 58% of females were enrolled in the program. Results showed that students devalued IE, they believed that it was the lowest point in the engineering hierarchy, and that it was less demanding compared to other engineering programs. IE also was identified as more of a business degree, and as 'girls' engineering. It was even advertised as a program women could do because "IE is a soft, non-technical engineering discipline, 'naturally' suited for women" (Foor & Walden 2006: 51). This type of discourse contributes to the "production and reproduction of gender identities" (Foor & Walden 2006:51). Men re-defined the program by demonstrating "new constructions of masculinity" (Foor & Walden 2009: 55); as one male participant noted, "[e]ngineers with social skills" (Foor & Walden 2009: 55). Although women had a higher enrolment rate in IE, there was a tendency by both men and women to lower the status of the program.

The distancing of IE from 'real' engineering is an important element in the creation of hierarchy and thus legitimizing IE as appropriate and gender-authentic place for women to occupy.

Foor & Walden 2006: 47

As more women entered IE, it moved to the end of the engineering hierarchy. Once in the program, men and women have expressed diverse interests in engineering activities. From 2005 to 2007, Mannon *et al* (2009) conducted a study with 969 students from 21 US universities (27.5% female and 72.3% male) who participated in an online survey. A total of 12 types engineering (with 'other' totalling less than 1%) were identified. They found that men and women were equally prepared for engineering, but there was a different level of comfort between engineering activities. Men indicated a "significantly higher comfort level using computers, tools, and machines" (Mannon *et al* 2009: 110). Women's lack of comfort, they felt, came from "lack of experience with various tools and machinery that are a part of engineering" (Mannon *et al* 2009: 110). Since the research has shown fathers to be more instrumental and mothers to be more expressive (Bales & Parsons 1955), perhaps more females would enter engineering if they also were influenced by these types of skills at home by their fathers (tools and machinery). When

males are more likely to be socialised towards certain skills, they may believe they are better suited for certain careers. If boys are receiving more training in engineering skills (computers and machines), this may influence their decision to enter engineering careers.

From an early age, boys are more likely to have building and engineering toys marketed to them (Wade 2009), reinforcing traditional gender stereotypes. As children grow up, they began to form ideas about who is better suited for certain roles and careers, based on the influences that surround them. Ideas about which sex is better suited for a career in engineering begin to influence children from a young age. These ideas become stereotypes and greatly influence students' career paths. Gender stereotypes play a significant role in guiding students in their choice of career path, and parents and peers have been found to influence career choice (Dias 2011). If a young girl does not have engineering toys marketed towards her, if her father tends to give her brother more instrumental chores (such as mowing the lawn) and if she hears in school that boys are better at math, she has already met barriers that may stop her from entering an engineering career path. Not only do gender stereotypes play a role in students' ideas about which subjects are better suited for them, but even within the engineering program. Industrial engineering was found to be a program better suited for female students (Foor & Walden 2006). The following section looks at some of the reasons behind men and women's decisions to pursue a nursing degree.

2.4.2 Nursing

Gender stereotypes are as prevalent in nursing as they are in engineering fields. Price (2009b: 14) found that "nursing socialisation is strongly associated with a person's preconceived notions and expectations of nursing". Perhaps being socialised that women are more expressive and nurturing leads a child to believe a career in nursing is only for females. If a male considers a nursing career, this preconceived notion of nursing being a female job may deter him. Even the term 'nurse' still carries a gender stereotype (Hilton 2002), and male nurses are sometimes not accepted by patients who hold inaccurate

stereotypes (Hood 2002). Not only is nursing primarily seen as a feminine career, but male nurses often face unique issues within their field. Grasping males' perspectives is especially significant so that societal institutions, such as the family and school, may eliminate traditional belief systems about which sex is better suited towards certain careers. It is important to examine factors and socialisers (Dick & Rallis 1991) which may have had an effect on men's and women's decision to enter nursing. The following paragraphs explore what attracted males and females into nursing, and what socialisers they felt influenced their career path.

A study conducted in New Brunswick, Canada, by Ditommaso *et al* (2003) explored why students entered nursing and what recruitment activities were most influential in their decision making. Questionnaires were handed out to 376 students at the University of New Brunswick (49%) and the University of Moncton (51%). The nursing program at the University of New Brunswick was offered in English and the program in Moncton was offered in French. In total, 308 first year students completed the survey. Both men and women had a positive image of nursing and had a desire to help and care for people, but there were clear gender differences. Men were more likely to mention "the use of complex technology and the inability to get into other programs" (Ditommaso *et al* 2003: np). Women selected nursing "because of the opportunity to learn practical skills for future roles or because of the positive image of nurses" (Ditommaso *et al* 2003: np). Another Canadian study conducted in Newfoundland and Labrador, explored men's experiences in nursing and revealed interesting data for why 27 men chose nursing and the problems they faced within the field. Throughout the five focus groups, researchers found men chose nursing as a career based on "job security, demand for nurses, career mobility and opportunities, nurse role models, and the wish to help others" (Meadus & Twomey 2011: 273). A theme that consistently arose in their interviews was that nursing was viewed as a feminine profession. Many felt discriminated against and felt more visible because they were male nursing students. This study provided true accounts of the dilemmas that many males face in nursing. This leads one to question if women who find themselves in male dominated degrees experience similar challenges. In North Carolina, USA, Larson,

McGill, and Palmer (2003) examined the factors and characteristics that influenced students to study nursing. A total of 495 participants (between 19 and 57 years of age) from three nursing programs completed the survey. Results showed three main factors that influenced participants when they decided to enter the nursing profession: “past experiences with a loved one or oneself being ill and/or hospitalized, past work experience, and having a family member or friend who was a nurse” (Larson *et al* 2003: 170). Other themes included: helping; religion; variety/flexibility/security/money, and nursing being a childhood dream. When the participants were asked about nursing characteristics, results showed that caring, job security, and workplace variety were the most important aspects of nursing. This study highlights the influence of socialisers in the nursing field. If more males are able to come in contact with nurses, it may increase their entrance into a nursing profession.

Globally, studies have identified different factors influencing why young people enter the field of nursing. In South Korea, it was found that most students entered nursing because of high employment opportunities (55%), but only 20% felt that they were well suited for nursing (Cho, Jang, S & Jung 2010). In Ireland, Glacken, Mooney, and O’Brien (2008) found that “helping” was the most prominent theme in their interviews with nursing students. When comparing males and females, males were more attracted to the technology in nursing, the remuneration, and job security (Ditommaso, Gartreau, Rheume, & Woodside 2003; Miers, Pollard, & Rickaby 2007). In an Australian study, job security was important, but isolation was a major theme that arose in interviews with eight male nursing students in Australia (Stott 2007). Another Australian study by Wilson (2005) highlighted the importance in discovering the reasons why men entered nursing. The sample consisted of ten males between 21 and 40 years of age, with between one and three years of training in the nursing program at an Australian university. The most common theme was nursing job satisfaction. Most men felt that nursing matched their personality. Other important themes were stability, opportunity, job security, and previous encounters with males in nursing. This contact was either with a successful male nurse or the participant had been cared for by a male nurse. A negative theme that arose was

related to the perception of males being more competitive compared to females. Overall, positive responses were much more prominent than negative responses. A more recent study in Australia by Cowin, Johnson, and Wilkes (2015) examined why students chose to study nursing. The study questioned participants by handing out open-ended questionnaires. The study is an on-going four-year longitudinal study; the results are from year one. Of the 743 students who participated, 676 surveys were completed. Women were the dominant group, representing 80% of the participants in the study. Gender differences were not noted, but the main reasons to study nursing were: enjoyment; caring/helping others; family images of nursing; seeing oneself as a nurse; and making a difference. The researchers suggested further studies to explore these themes more thoroughly with interviews. These studies show how socialisers, such as parents and teachers, may affect one's decision to enter nursing. They also highlight what attracted men and women into nursing, such as technology for men. If more men know about the use of technology in nursing, perhaps they will be more likely to pursue a nursing career. Since parents and teachers were mentioned as significant socialisers influencing males and females into nursing, it was of interest to explore any role the media played on a young adult's decision to enter nursing.

The media shows men and women in careers. Godfrey (2000) found that television shows, such as *ER*, influenced nursing's image. Popular TV shows may highlight gender differences within a career. However, in Haron, Israel, Reicher, and Riba (2014) found that "personal factors such as knowing a working nurse or the recommendation of friends and family" outweighed all advertising influences (Haron *et al* 2014: 174). Although advertising can perpetuate gender differences, the family remained as the most dominant influencer in nursing. This was supported by Price's (2009b) review among six countries; Canada, USA, UK, Australia, Japan, and Sweden. It seems that socialisers have a significant influence on young men and women's decision to enter nursing.

The studies discussed above have found gender differences in terms of what led young men and women into nursing and which socialisers influenced their decisions. Knowing

that men and women enter nursing for different reasons, it is important to explore types of nursing students. Birnbaum, Finch, and Somers (2010) conducted a study in the USA and discovered two types of nurses following their in-depth interviews with 31 nursing students: traditionalists and instrumentals. The traditionalists mentioned helping others and making a difference (intrinsic rewards), whereas the instrumentals focused more on job mobility and job security (extrinsic rewards). The study comprised of mostly women (84%), and did not mention any gender differences. It leads to the question if women are more likely to focus on intrinsic rewards and if males are more likely to focus on extrinsic rewards. Having students understand that nursing is not only a helping/nurturing career, but that it offers a variety of job factors such as job mobility and security, may attract more men into nursing.

Nursing is labelled as a feminine career and this label may deter men away from a nursing career. In previous research two prominent factors that influenced students to pursue nursing included knowing a nurse (Larson *et al* 2003; Haron *et al* 2014) and helping (DitommSao *et al* 2003; Glacken *et al* 2008). Men were more likely to mention the technology used within nursing and job security (Meadus & Twomey 2011; Wilson 2005) as motivating them to pursue a career in this field. Perhaps if nursing was not only seen as a helping career, but a technological one, more men would be interested in nursing. Birnbaum *et al* (2010) found two types of students within the nursing program: traditionalists (helping and making a difference) and instrumentals (job mobility and security). Linking men's career desires with job characteristics may have a positive effect on them entering a nursing career path. The following section discusses extrinsic and intrinsic values further and young adults' thoughts on their futures.

2.5 Envisioning the Future: Personal Success, and how it Relates to Work, Family and Equality

The previous section discussed multiple reasons why young adults chose to enter the career paths they will eventually follow. This section will explore the motivational factors that have driven young adults in their career choices and how those decisions relate to their life goals. Furthermore, this section will briefly look at the desire to become successful in one's career and how it may interfere with marriage and starting a family.

There are a variety of reasons as to why young adults choose the careers they do. There also different types of values placed on their life goals. Two types of values have been suggested that may motivate one's life goals: extrinsic values and intrinsic values. Extrinsic values are external factors, such as financial rewards and social recognition (Kasser & Ryan 1996; Beutler, Beutler, & McCoy 2008). Intrinsic values focus more on internal factors, such as helping others and individual growth (Kasser & Ryan 1996; Beutler *et al* 2008). Cannon, Lupart, and Telfer (2004) conducted a study in Canada based on the Eccles Model of Achievement Related Choices. A total of 1,419 grade seven and ten students completed the survey. Findings showed that males were more interested in careers that offered a higher earning potential and higher societal status. Females were more interested in social roles such as, making the world a better place. Males also highly rated careers in STEM fields, whereas the females rated more artistic careers more highly. When asked about future family and work life, the girls felt that men and women should contribute equally with income, but that children need more time with their mothers. Men shared similar sentiments about both sexes contributing to income, but at the same time, felt that husbands should work, and mothers should stay at home. Males gave more traditional responses than the females (Cannon *et al* 2004). A similar study by Beutler *et al* (2008) in the USA found that middle school boys also showed preference for careers that offered high income and recognition. The researchers coded extrinsic words (things you could own or purchase) and intrinsic words (way of living or who you could become) in an online survey that measured the students' perceptions of living well. Regarding family, both sexes envisioned themselves having a family one day, but the females were twice as likely to rate this theme as highly important. Another popular theme among both sexes was happiness. Answers varied between extrinsic values, such as

money and having things, and intrinsic values, such as positive relationships. These studies (Cannon *et al* 2004; Beutler *et al* (2008) show extrinsic and intrinsic values are gendered. If males and females could see that both nursing and engineering careers offer extrinsic and intrinsic qualities, perhaps there would be less gender segregation in these fields. The following paragraph explores more recent research on extrinsic and intrinsic life goals among university students.

Extrinsic and intrinsic values are gendered, but these gender differences may be narrowing. Barth, Goldston, Guadagno, and Todd (2010) conducted a study in the USA exploring male and female life goals and found that women were more likely to choose 'making a difference/helping people' as the most important life goal. Participants consisted of first year students enrolled in STEM courses. They completed two surveys: one at the beginning of the semester, and another eight months later. The most interesting finding revealed that both males and females rated family time as an important life goal. This finding suggests that there is a shift happening with men also valuing more leisure time with family. In a recent study in India, researchers found that students majoring in arts/humanities were more intrinsic value orientated, while students majoring in business/technical degrees were more extrinsic value orientated (Ahuja *et al* 2015). The questionnaire on personal values was completed by 400 students (200 from each program). The female respondents in business and technical degrees were less likely to show intrinsic values, and the males in arts and humanities were less likely to be extrinsic. This study shows a reduced gap in male and female personal values. Auster and Ohm (2000), found that males and females felt the importance of having both masculine and feminine traits. These more recent studies (Barth *et al* 2010; Ahuja *et al* 2015) show how males and females are abandoning traditional values. If this continues, there be an increase of young men and women entering non-gendered career paths.

There appears to be a reduced gap between male and female values, which leads one to question if there are any differences between male and female thoughts of work-family balance. Women have been more likely to seek careers that aide in work-life balance

(Hakim 2005), but men are now showing more interest in this area as well (Hakim 2006). Since more women have joined the workforce, it is of interest to examine how young women and men envision work-family balance. "An individual's attitudes towards both work and family may be impacted strongly by perceptions of gender roles" (Coyle, Fulcher, Schroeder, & Van Leer 2015: 548). If a male presumes his female partner will stop work once they start a family, this may limit the woman's chance at career advancement. Jacques and Radtke (2012) conducted a study that examined 30 university women, between 18 and 26 years of age, between 2003 and 2004 at the University of Calgary, Canada. The women participated in 15 research conversations with the first author interviewing them in pairs. They found that

the young women routinely privileged the ideal of women as wives and mothers, yet positioned themselves as autonomous individuals making free choices and, thereby, personally responsible for managing the problems in their lives.

Jacques & Radtke 2012: 443

Although the women insisted on personal choice, they maintained that motherhood and marriage were important as long as it was a woman's choice. "Motherhood remains both a contested identity position and a persistent ideal of womanhood" (Jacques & Radtke 2012: 445). In sum, the women positioned themselves as traditionally feminine showing "'choice' represents 'constraint' and not freedom" (Jacques & Radtke 2012: 458). This study sheds light on women's perceptions of their future selves, but does not include the reasoning behind their choices, nor does it include men. A similar study in California, USA, by Montgomery (2004) found that even though college students (40 women and 19 men) expressed their life choices as individualistic, they still made gendered choices. Women consistently felt their future male partners would continue to work once children were born while the women would stop working to raise their children. Men were more concerned with earning potential while the women felt they would assume more traditional family-oriented roles upon the onset of marriage and the arrival of children. The participants maintained the traditional gender roles: women as mothers and men as providers (Montgomery 2004). A more recent study that assessed college student's

anticipated work-family balance in the south eastern USA, found no significant differences between the male and female students (Coyle *et al* 2015). The survey was completed by 121 undergraduate students; both male and female respondents anticipated work-family balance, but did not think realistically about the potential challenges of working and having a family. Perhaps men and women feel that they can have both a career and a family. A study conducted at a Canadian western university with childless undergraduates (236 men and 119 women) found that women expressed the importance of parenting more and had a stronger intention to become parents compared to the men in the study. Researchers examined to what extent the undergraduates internalised expressive and instrumental traits and how they related to their thoughts on future parenting roles (importance, expectations, and intentions). Both men and women who scored higher on expressive traits were more likely to value family roles. As men identify with expressive traits, they may become interested in nurturing/helping careers.

The last section of this chapter explored young adults' views on personal success and how it related to future thoughts on work and family. Extrinsic values (such as financial rewards) and intrinsic values (such as helping others) may influence one's life goals. Although studies have shown that men focus on extrinsic values and women focus on intrinsic values (Cannon *et al* 2004; Beutler *et al* 2008; Barth *et al* 2010), the gap between these values seem to be narrowing (Barth *et al*; Ahuja *et al* 2015). Even though young men and women described their choices as autonomous (Jacques & Radtke 2012), traditional lifestyle choices and expectations remained. There seems to be conflict on traditional versus modern lifestyle choices. On one hand, more males are identifying with intrinsic values and more females are identifying with extrinsic values. On the other hand, young men and women may also support traditional lifestyle choices, which mimics the lifestyle choices of their parents.

2.6 Conclusion

This chapter began by exploring research on gender socialisation, specifically, through three institutions: the family, the school, and the media. Within the family, children may learn to behave in gender appropriate ways (Clearfield & Nelson 2006). Children also may grow up remembering certain messages directed at them. Studies have shown how memorable messages can have a lasting effect on young adults. (Knapp *et al* 1981; Brogen *et al* 2006; Epstein & Ward 2011; Cornacchione *et al* 2011; Carr *et al* 2012; Danaher *et al* 2014). Since gender socialisation can also be communicated through language (Clearfield & Nelson), studies have found differences in the ways parents speak to their sons and daughters. Mothers have been found to use more emotion when they speak to their daughters (Muchnik & Stavans 2009; Peterson 2004). Bales and Parsons (1955) discussed how mothers are more expressive and fathers are more instrumental. Although slightly dated, research suggests that these gender roles remain. Once children enter the school system, they are then subjected to a new set of gendering ways. For instance, studies have found that males receive more speaking time (Jule 2005) and more interaction (Chen & Rao 2011) within the classroom. When it comes to science and mathematics girls lose confidence even when they have higher grades (Kurtz-Costes *et al* 2008). Media, such as books and advertising also perpetuate gender stereotypes (Diekman & Murnen 2004; Johnson & Young 2002). As children go through life they are subjected to constant gender differences whether it be within the home, classroom, or on social media. By the time a young adult reaches high school graduation their minds may already be geared towards certain life paths. Studies on why young adults were attracted to either engineering (Case & Jawitz 1998; Case & Reed 2003; Ahearn *et al* 2008) or nursing (Ditommaso *et al* 2003; Meadus & Twomey 2011; Cowin *et al* 2014) have found distinct gender differences. Dick and Rallis (1991) use the term, “socialisers” when referring to individuals such as parents and teachers who played a significant role in influencing young men and women in their career choices. It has also been suggested that parents are a “driving force” (Dias 2011: 373) in young people’s decision making. Gender differences in why students chose engineering and nursing were quite apparent; many women highlighted the social aspect (making a difference) of engineering, while

men were more likely to mention manual activities (machinery). When looking at nursing, men noted the use of technology while women mentioned the social aspect. Gender stereotypes also arose once students entered their respective program (Foor & Walden 2009). Men were more likely to mention extrinsic values (such as income and success) in life goals, and females were more likely to mention intrinsic values (family and helping others). The research shows that, even though women are graduating with engineering degrees and men are graduating with nursing degrees, there is a pronounced discrepancy in the number of young women and men enrolled in engineering and nursing programs. These findings suggest that men and women still maintain traditional values.

CHAPTER 3

Epistemology and Methodology

This section will outline the epistemological framework and methodology applied in this study. It will start by exploring interpretive social science and gender socialisation, and will then lead into social learning theory and gender schema theory. The methodology section will set out the steps involved in the design, participant selection and demographics, interview setting, data analysis, problems encountered, and reflections on the study.

3.1 Epistemological Positions

3.1.1 Interpretive Social Science

Interpretive social science is pursued to understand and illuminate key features of social life (Neuman 2007). “[It] aims at giving evidence of the participants making sense of a phenomenon under investigation...” (Pietkiewicz & Smith 2014). Exploring participants’ narratives was central in this particular study. It is also important to note that the study dealt with the participant’s present constructions and reconstructions of past memories. Since the study could not engage with participants’ childhood experiences directly, the interpretive approach assisted with the data analysis. “In the experience of the present, there is always a small difference between the moment of newness and the past and the future” (Lawlor 2014: 25). As students were asked to recall certain childhood memories, there could never be certain certainty within their recollections.

Gender socialisation is a process (Nelson & Robinson 2002), and beliefs about occupations slowly become gendered (Bigler *et al* 2002). In terms of this study, nursing has been viewed as a traditionally female career choice while engineering has been viewed as a traditionally male career choice. Human action and language have affected

the social reality of gendered careers (Heath 2015). Gendered careers (male engineers and female nurses) have long been accepted as normal and taken for granted. It is important to find out why this trend continues, and more significantly, to find out why females are entering engineering and why males are entering nursing. The interpretive approach allowed for an “inner experience of participants” (Corbin & Strauss 2008: 12) and it helped the study to capture “how participants make meaning of a situation or phenomenon” (Merriam 2008: 6). There was something more personal about entering the participants’ homes, or having them choose the interview setting. They accepted the researcher into their world. Students were asked open-ended questions so that they could elaborate and describe past experiences.

In a sense, the researcher was acting as a *bricoleur*.

The interpretive *bricoleur* understands that research is an interactive process shaped by one’s personal history, biography, gender, social class, race, and ethnicity and those of the people in the setting.

Denzin & Lincoln 2011: 5

In terms of this approach, the researcher affects the research and each interview is unique and offers a new perspective of one’s social reality. It was understood that each participant came to be the person they are today through multiple influences. The researcher, as an interpretative bricoleur, pieces together the participants’ narratives looking for commonalities and meaning (Denzin & Lincoln 2011). This is why it was important to grasp the participants’ gender socialisation from childhood in the hopes to understand their experiences and how they made sense of their upbringing.

3.1.2 Gender and Socialisation

Previous studies have shown that parents (Burns *et al* 1989; Clearfield & Nelson 2006; Munhnick & Stavans 2009; Tenenbaum 2009), teachers (Ding *et al* 2006; Jule 2005), and the media (Diekman & Murnen 2004; Johnson & Young 2002) contributes to the

socialisation of children in different ways. Studies have also highlighted multiple reasons why students choose to enter certain university programs. Statistics in Canada and the USA show that men and women continue to enter traditional fields of work (National Science Foundation 2013; Cooke-Reynolds & Zukewich 2004; Bureau of Labor Statistics 2015). This study sought to bridge the gap between past studies involving gender socialisation and gendered and non-gendered career paths. Few qualitative studies have been found in Canadian and international literature that link past experiences of gender socialisation to young adults' career choices. It was important to gather young adults' narratives to illuminate any the gender socialisation influences that were significant while they were growing up. For this study, it was important to investigate how gendered socialisation practices might affect participants until they reach adulthood. Questions regarding gender socialisation, such as family, school, and media influences, were major themes in the interview schedule. During the interviews participants were able to discuss their experiences and memories related to gendered situations and gender stereotypes.

3.1.3 Socialisation Theory

“Socialisation is an ongoing process” (Clausen 1967: 245), and encompasses “a set of institutional practices” (Clausen & Williams 1963: 63). The way children are socialised from the moment they are born will influence the ways in which they participate in social life. Socialisation is further used “to describe the ways in which people learn to conform to their society’s norms, values, and roles” (Kornblum 2005: 110). Learning is a very important part of a person’s development and socialisation plays a large role in the learning process. Gender socialisation was the primary focus in this particular study. Gender socialisation “refers to the ways in which we learn our gender identity and develop according to cultural norms of ‘masculinity’ or ‘femininity’” (Kornblum 2005: 132). The process of gender socialisation is important, as it may influence one’s perceptions of one’s abilities. “Belief in appropriate sex role behaviour is so embedded in culture that it becomes an ‘unconscious ideology’” (Levinson 1982: 78). Sex role identities can develop through many types of socialisation, and although biological factors, cognitive learning

theory, and psychoanalytic theory are all important, this study also highlighted the significance of social learning theory (Rotter 1954) and gender schema theory (Bem 1981).

3.1.3.1 Social Learning Theory

Julian Rotter initially formulated social learning theory in the mid-1950s (Rotter 1954). Jean Stockard describes this theory by stating that “children develop sex-typed behaviours because other people reinforce activities that conform to expectations for their sex group and do not reinforce those that do not conform” (Stockard 2006: 217). This constant reinforcement of one’s behaviour teaches children about what is deemed appropriate and what is not appropriate for their gender.

Most human behaviour is learned observationally through modelling: from observing others one forms an idea of how new behaviours are performed, and on later occasions this coded information serves as a guide for action.

Bandura 1977: 22

Thus, a young girl who observes her mother applying make-up every day, may begin to do so herself.

In this study, it was important to explore participants’ socialisation experiences for any sex-typed experiences they may have encountered while growing up. Institutions (family, school, and media) treat boys and girls differently. Young boys and girls often have distinct gendered bedroom décor, and are given different toys and clothing. Even the language used within these institutions is gendered. When children are exposed to differences between boys and girls, they learn what ‘suits’ their gender. If children are shown that males are more instrumental and females are more expressive (Bales & Parsons 1955) they socially learn these gender differences. As Wharton (2005: 32) remarks, “to simplify somewhat, we can say that social learning theory tends to view children as lumps of clay that are modelled by the environment”.

More specifically to this study, the participants may have learned to participate or avoid certain activities based on their gender while growing up; for example, if a young boy is punished for playing with dolls, he may learn that dolls are only for girls. When children only see certain genders performing certain activities, they make “automatic associations” (Cadinu *et al* 2014) and may learn to avoid activities that do not align with their gender. As appropriate behaviours are learned, gender schemas may develop.

3.1.3.2 Gender Schemas

Sandra Bem introduced the term gender schema in 1981.

A schema is a cognitive structure, a network of associations that organizes and guides an individual’s perception.

Bem 1981: 355

Children may organise what it is to be either male or female, and connections are made that become reliable and predictable (Stockard 2006); for example, if a mother always washes the dishes and a father always mows lawn, one day if they switch chores, it may appear odd or out of place to a child.

Gender schemas are also known to be polarised: children learn what is appropriate and inappropriate for their gender (Bem 1981; Wharton 2005). As children grow up, they gain a clearer understanding of their appropriate script (Bem 1993); a cognitive manual for one’s gender. It may be seen as problematic when a male or female deviates from their gender script. The boy who wants to take dance lessons, and the girl who wants to play hockey, may shy away from their genuine interests in order to maintain ‘proper’ gender structure. “Children develop increasingly more elaborate gender schemas as they develop their gender identity and their understanding of gender roles” (Stockard 2006: 219). This creates a problematic future when one wants to deviate from a traditionally gendered career.

This theory was especially important to this study because participants in this study may have developed a career gender schema in which males are engineers and females are nurses. If gender schemas developed for career choices, it may have made it difficult for participants to enter a non-gendered career. The participants may have developed certain opinions of what an 'appropriate' career would be based on their sex. Gender schema theory helped to explain any doubts or concerns that the participants might have faced when deciding to enter a non-gendered career.

3.1.4 Conclusion

The participants have become the people they are as a result of their participation in social life. This study allowed for a deeper understanding of each participant's gender socialisation through their personal stories and narratives. Using interpretive theory has assisted this study by helping to make sense of the participants' experiences (Corbin & Strauss 2008) and how they find meaning in a situation (Merriam 2008). Gender socialisation served as the primary theory in this research. Boys and girls are sometimes treated in different ways, so questions were developed in hopes to understand each participant's upbringing. Social learning theory aided in discovering what the participants may have learned to be either male or female, such as parental roles - mother as expressive and father as instrumental - while growing up. Gender schema theory allowed exploration and understanding of any frameworks that the participants may have developed that led them to believe that certain careers would be more suited to males or more suited to females.

3.2 Methodology

3.2.1 Introduction

This study has examined current university students (males and females between 18 and 19 years of age) who were in the first or second year of their engineering or nursing program at UNBSJ, UNBF, or NBCC. Gender socialisation was used as a framework to

explore any influences that may have affected each participant's choice of future career. Among Canadian youth (between 15 and 25 years of age) who were asked about career expectations every two years from 2000 to 2010, most males and females did not have the same career expectations they did as teenagers (Statistics Canada 2015). In this study, it was of specific interest to determine whether or not females and males in the same program and in comparing programs, presented any similarities and/or differences in terms of their career motivations. "Students face significant pressures in their decision about their career plan" (Dias 2011: 367). It was important to explore what factors such as gender socialisation, memorable messages, or institutions had influenced the participants' career selections.

This study explored the narratives of young male and female adults 18 and 19 years of age. These narratives included participants' memories of gender socialisation, gender stereotypes, institutions, and the reasoning behind their specific career choices. Each participant was given a pseudonym to ensure anonymity. Ten students (six females and four males) were interviewed regarding their memories of their gender socialisation.

3.2.2 Research Design

A qualitative approach was used for this study because it was important to explore the participants' narratives. "Narrative inquiry revolves around an interest in life experiences as narrated by those who live them" (Chase 2011: 421). Qualitative research is a process of reflecting on existing literature and gathering new ideas (Neuman 2007). The goal of this study was to create an inside view of the participants' lives. "Narrative is the best way to understand the human experience because it is the way humans understand their own lives" (Richardson 1990: 183). It was important to gain an understanding of the participants' past experiences through the narratives that they shared with the researcher. Although a qualitative approach allows for a more personal look into people's lives, it does pose some challenges. "The burden of the social science storyteller is to make meaning out of all the stuff of memory and experience; how it felt then and how it feels now...."

Memory is active, dynamic, and ever changing” (Bochner, 2012: 161). How an experience may have felt in the past may feel different once it has been lifted from one’s memory. The participants had to reflect on their pasts in order to share their experiences. With each question posed, they had to review each memory. A semi-structured interview schedule was developed to gain insight into the lives of each participant (Appendix A). Snowball sampling (Neuman 2007) was used as a means to find participants.

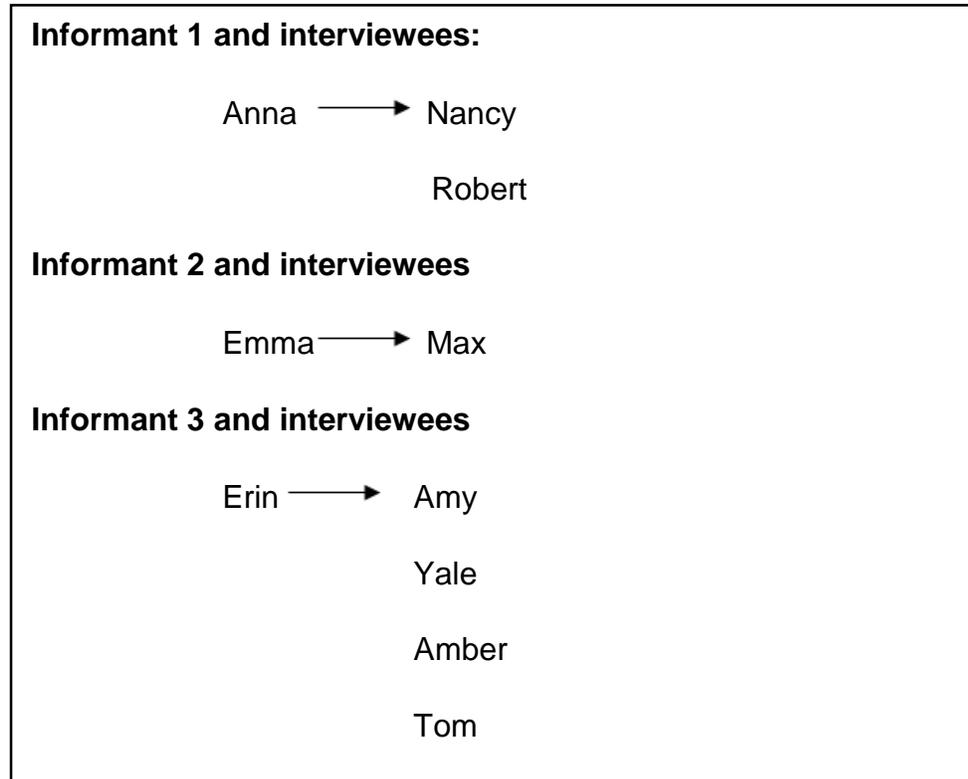
3.2.3 Design

The sampling technique used was purposive and snowballing (Neuman 2007). The sampling technique was purposive because the subjects were between 18 and 19 years of age, were enrolled in post-secondary education in New Brunswick, Canada, and were living at home or on campus during the school semesters. There were specific criteria or “key attributes” (Denzin & Lincoln 2011: 363) that the participants needed to meet, so that they could participate in the study.

The snowball sampling technique was used so that the researcher could locate participants for the study. By having a few participants act as a gateway, other participants who fit similar criteria were located. It is understood that this sample is not representative of the entire Saint John population, but that it has provided insight into this current study. Table 1 illustrates the snowball sampling process used to find participants.

3.2.4 Snowball Sampling

Table 1: Snowball Sample Representation



3.2.5 Participants

Each participant needed to meet certain criteria in order to participate in the study. All the participants were Canadian born, between 18 and 19 years of age (at the time of the study). The participants grew up in New Brunswick, Canada, and all attended post-secondary schools just outside of Saint John in New Brunswick. Six attended Hampton High School, one attended Belleisle High School, and three attended Kennebecasis Valley School. All ten students who were contacted to participate in the study agreed. All participants were Caucasian and ranged from middle class (\$61,929 to \$88,074 CAD household income) to upper class (\$125,010+ CAD household income) family backgrounds (Keown *et al* 2011). Five of the participants were full-time nursing students (three females and two males), and five were full-time engineering students (three

females and two males). According to the Atlantic Common University Data Set (2015), 1,127 males enrolled in full-time engineering, while only 267 females enrolled. For nursing and other health professions, 47 males enrolled full-time, while 677 females enrolled full-time. This discrepancy between males and females enrolled in nursing and engineering programmes served as the main reason behind why these programs were selected for this study.

3.2.6 Character Description

Nursing

Anna

Anna is 18 years of age. She recently graduated high school and will enter the Licensed Practical Nursing (LPN) program at University of New Brunswick Saint John. She grew up on a farm on the Kingston Peninsula, and has two brothers and one sister. She is the youngest of four children. Her parents are divorced and she has always been very close to her father. She is not as close to her mother, but their relationship has improved over the years. Anna loves the outdoors.

Nancy

Nancy is 18 years of age. She recently graduated high school and will enter the Registered Nursing (RN) program at UNBSJ. She grew up and lives in Hampton. Nancy lives with both parents and has an older brother. Nancy said she is close to her mother and shares almost everything that happens in her life with her mother. She is very energetic and talkative.

Emma

Emma is 19 years of age. She is entering her second year of the RN program at UNBSJ. She lives in Hampton with both parents and has one younger brother. She is well spoken and has been told that she has an old soul. Emma danced for most of her life, but has recently stopped as a result of entering university and becoming too busy.

Max

Max is 19 years of age. He is entering his second year of the RN program at UNBSJ. He grew up in Belleisle and lived with both parents. Max has one sister and two brothers; he is the second youngest child. He now lives in an apartment in Saint John. He is musically talented and also plays basketball.

Robert

Robert is 18 years of age. He is half way through his first year of the LPN program at St. Andrews College. He was born in Moncton, but grew up in Hampton with both parents; he has one older brother and one younger brother. He lives in St. Andrews during the university semesters. Robert always has a smile on his face and has a passion for surfing.

Engineering

Erin

Erin is 19 years of age. She is entering her second year of chemical engineering at UNBF. She grew up in Hampton with both parents; she has one older sister. She lives in Fredericton during the university semesters. Erin always did well in math and science subjects, but did not decide to study engineering until she was already enrolled in university. Erin appears to be calm and down-to-earth.

Amy

Amy is 19 years of age. She is entering her second year of civil engineering at UNBF. She was born in Alberta and moved to Ontario as a child; she has lived in Quispamsis for most of her life with both parents; she has one older brother and one older sister. She lives in Fredericton during the university semesters. Amy is talkative and comes across as confident.

Amber

Amber is 19 years of age. She is entering her second year of chemical engineering at UNBF. She was raised in Quispamsis and lived with both parents; she has one younger brother. She lives in Fredericton during the university semesters. Amber seemed to have a positive, happy outlook on life and was easy to talk to.

Yale

Yale is 19 years of age. He is entering his second year of geological engineering at UNBF. He was raised in Quispamsis and lived with both parents; he has one younger sister. He lives in Fredericton during the university semesters. Yale seemed down-to-earth and was friendly.

Tom

Tom is 19 years of age. He is entering his second year of chemical engineering at UNBF. He was raised in Quispamsis and lived with both parents; he has one younger sister. He lives in Fredericton during the university semesters. Tom is well-spoken and has a positive attitude.

Table 2: Participant breakdown:

Participant	Pseudonym:	Age:	Year Entering and Program:	
1	Anna	18	1st	Licensed Practical Nursing
2	Nancy	18	1st	Registered Nursing
3	Emma	19	2nd	Registered Nursing
4	Max	19	2nd	Registered Nursing
5	Robert	18	½ way through 1st	Licensed Practical Nursing
6	Erin	19	2nd	Chemical Engineering
7	Amy	19	2nd	Civil Engineering
8	Amber	19	2nd	Chemical Engineering
9	Yale	19	2nd	Geological Engineering
10	Tom	19	2nd	Chemical Engineering

Table 3: Socio-economic Status and Post-Secondary Education Payment Methods:

Participant	Pseudonym:	Present S.E.S:	Payment
1	Anna	Middle	Student loan
2	Nancy	Did not inform	Did not inform
3	Emma	Middle	Parental aid: first three years Received scholarship money
4	Max	Middle	Full scholarship Parental aid
5	Robert	Middle	Paid by self Parental aid Received a bursary
6	Erin	Middle	Parental aid Contributes summer earnings Had scholarships/bursaries during first year; lost these due to GPA
7	Amy	Middle	Paid by self Small loans Parental aid
8	Amber	Middle	Parental aid; wants to pay them back Received scholarships
9	Yale	Middle	Paid by self Parental aid

Participant	Pseudonym:	Present S.E.S:	Payment
			Student loans
			Small scholarship
10	Tom	Upper	Parental aid: he has paid some back to them
			A few scholarships

3.2.7 Interview and Setting

Semi-structured interviews were conducted in order to explore certain topics and themes of interest. This technique allowed for more exploration in the interviews and allowed the participants the freedom to raise topics that were significant to them. The face-to-face interviews helped to build comradery and trust between the researcher and the participant. Although it is never known the extent of truth in a narrative, there was a sense of connection between the researcher and the participants. The researcher sometimes shared personal childhood memories to help build a trusting relationship (Dixon 2013). The goal was to obtain in-depth, honest responses from each participant to understand their memories regarding gender socialisation. The participants were informed that sharing their honest experiences would be most beneficial to this study and that there were no “correct” answers to give. The interview setting allowed for participants to disclose fully if they wanted to or to not answer questions.

With the purpose of gaining honest answers, the researcher allowed the participants to choose the interview location. This decision was made in effort for them to feel comfortable in the interview setting. Locations included participants’ homes, coffee shops, and in a university library study room. The interviews began on 20 July 2015 and the last interview was completed on 13 August 2015. All participants who were asked to participate in the interview did so voluntarily. Each recorded interview lasted between 39 and 68 minutes. Before the interviews commenced, consent forms were signed (Appendix

B), and a description of the purpose of the interview was discussed. Pseudonyms were used to protect participants' identities. Making sure the participants knew that their identities would be protected also helped gain trust. The interviews were recorded and saved using a 'Smart Voice Recorder' application on the researcher's personal Samsung tablet. Each interview was uploaded to an online storage website as a back-up. The particular online storage website is secure; it is password protected.

3.2.8 Data Analysis

The recordings from each interview were analysed through line-by-line examination. The type of data analysis is thematic in nature. It was explorative, which helped identify key themes in the participants' narratives. "Interpreting oral history as narrative means looking for underlying patterns of meaning with the interview" (Shopes 2011: 459). It was important to gather data through the participants' words (Dixon 2013), so they could explain each experience in detail. Once the interviews were completed, listening and transcribing each interview followed.

"Written reality is always a second-order reality" (Bochner 2012: 160). Each transcribed interview became the interview. Once the narratives became written, the physical interviews became only memories. The researcher was aware that they were working with participants' recollections of memories of gender socialisation, and that these were not exact experiences.

Lived experience cannot be studied directly, because language, speech, and systems of discourse mediate and define the very experience one attempts to describe. We study the representations of experience, not experience itself.

Denzin & Lincoln 2011: 417

When describing a past event, things cannot be exactly remembered. There may be years of time in between the memory of an event and the actual experience. For instance, when participants would describe a past situation in regards to being stereotyped. It is understood that the time lapse can alter the remembered experience.

The interpretation of each interview was guided by gender socialisation theory, social learning theory and gender schema theory. Upon listening and transcribing each interview, these theories helped identify four major themes from the participants' narratives: background and childhood memories, gender stereotypes, direction of study, and future considerations. Participants were able to give life situations from their past, as well the present. For instance, participants discussed gender stereotypes they had directly experienced. Many themes reoccurred (such as parental roles), and new ideas were also gathered during the interviews (such as the participants' descriptions of their bedrooms).

3.2.9 Problems Encountered during the Research Process

A particular problem arose when trying to find male nursing students to participate in the study. Four participants suggested the same male subject, and others either did not know any or they had classmates who were much older and/or did not fit the criteria for this study. The original goal was to interview 16 individuals, but as a result of the difficulty finding male nursing students, the researcher chose not to have an uneven number of males and females in each program. The process of finding female participants in nursing, and both males and females in engineering, was less challenging.

At first, some of the interviews felt awkward. It was the researcher's first opportunity to meet most of the participants; it took time for some of the participants to feel comfortable being interviewed. Because the researcher was a stranger to the participants, it is difficult to say how much the participants chose to discuss and disclose during the interviews. The researcher also wondered if it was more difficult for the male participants to open up to a female researcher when compared to the female participants, and if the age gap

between the interviewer and the participants (approximately 14 years) affected the interviews.

3.2.10 Researcher's Reflections

The researcher endeavoured to make the participants feel comfortable and welcome. The researcher felt that she shared some common ground with the participants; she attended the same high school as some of them, and was born and raised in New Brunswick, Canada. The researcher and the participants also shared the same language, skin colour, and culture. Six of the participants were also female. Small connections were made because the researcher and the participants knew some of the same people, teachers, and shared similar childhood experiences. The researcher understood that the role as a researcher was to be objective, but also that as a human being, the researcher is subjective. "They [researchers] obtain cooperation and build rapport, yet remain neutral and objective" (Neuman 2007: 190). The researcher feels that this was accomplished in the interviews.

When dealing with an individual's past or oral history, it is important to take into account that these stories are memories. "Oral history records accounts about the past, but the recording takes place in the present; memory is the bridge between the two" (Shopes 2011: 459). A dilemma that arises is how well the participants were able to recall past events, and this had an impact on the accuracy of the memory, and how the individual chooses what to share. This is an issue that cannot be fully resolved, but the researcher endeavoured to create a warm and welcoming environment where the participants felt at ease. Portelli (1997: 55) sums up oral history regarding the commitment to honesty and truth:

By commitment to honesty, I mean personal respect for people the people we work with and intellectual respect for the material we receive. By commitment to truth, I mean a utopia striving and urge to know 'how things really are' balanced by openness to many variants of 'how things may be.

Listening to narratives involves a process of exploring an individual's personal truth. It is a quest to find a person's perspective on their own life in hopes to understand how they make meaning to their life experiences.

3.3 Conclusion

This chapter initially focused on the interpretive social science and elaborated on how it helped this study understand how the participants create meaning in social life. This approach made the researcher aware of their own subjectivity and how this can affect the data analysis.

Theories were then introduced that best aligned with this research, namely socialisation theory, social learning theory, and gender schema theory. Socialisation theory was significant to this study as the research involved the participants' pasts within three major institutions, the family, school, and media. These institutions have shown different treatment of boys and girls. Social learning theory contributed by showing that when behaviours and ideas are reinforced, children learn gender differences, such as girls wear pink and boys wear blue. Gender schema theory highlighted that once something is socially learned, for example males are engineers and females are nurses, it may become a normal way of thinking, or a mindset. For instance, even though a female student excels in mathematics and science, she may not believe an engineering career is right for her.

A qualitative approach was selected for this study as it was important to hear each participant's narrative. Allowing participants to freely answer open-ended questions can lead to new ideas, and allows them to express what is significant to them. Participants shared their thoughts about family, school, and media, as well as socialisation experiences which helped gather information about their pasts.

Snowball sampling was practical for gathering participants in this study. This sampling technique made it easier to find participants in each program. Semi-structured interviews were used to allow more freedom in the interviews, and the participants chose the interview setting. Semi-structured interviews also allowed the researcher to explore and probe certain themes that arose during the interview process. Although some themes clearly emerged during the interviews, other themes arose once transcription began. The epistemological approach helped navigate through each participant's narrative. Line-by-line analysis was completed which resulted in four major themes: background and childhood memories, gender stereotypes, choice of direction of study, and future consideration. The following chapter explores each theme among the participants' narratives. The themes reflect on previous research and allow for a personal look into each individual's gender socialisation.

CHAPTER 4

Memories of Gender Socialisation & Gender Stereotypes

4.1. Introduction

The intent of this study has been to explore the reasoning behind young adults' gendered and non-gendered career choices. Participants' experiences with gender socialisation were examined to seek any influences that may have affected their choices. This chapter focuses on significant early life influences; it explores the participants' earliest memories of their bedrooms, memorable messages, their experiences with gender stereotypes, and how the stereotypes related to the family. In line with the objectives, it was of interest to explore what each participant had experienced in terms of gender socialisation as they may have attached certain behaviours to their gender. Participants may have socially learnt what is appropriate for their gender and this could have later developed into gender schemas (Bem 1981). Since there was no way to study the participants' pasts directly, some of the participant's earliest memories were explored. Although the literature review explores many gender socialisation influences, three major themes were highlighted during the interviews: bedrooms, memorable messages, and gender stereotypes.

4.2 Memories of Gender Socialisation

This study aimed to understand the participants' earliest memories of gender socialisation. Since it is impossible to know their exact experiences, it was of interest to hear what was remembered and what the participants chose to share. The topic, bedrooms, arose in the participants' interviews, and became a significant theme in the data analysis. The following section begins with the participants' earliest memories of their bedrooms, specifically the colours, décor, etc.

4.2.1 Bedrooms

“The children’s room is an apartment of major importance; a microcosm in which the child will have to prepare himself for the macrocosm of his future existence” (Mattias 1907: 13). A child’s bedroom gives boys and girls their own tiny world; a place that is their own that could very well influence them depending how the environment has been created. It was not until the early 20th Century in the USA that bedrooms for boys and girls became distinctively different (Calvert 1992). Boys’ rooms became more military-themed, displaying ships and maps. Darker colours and bunk beds were more common in boys’ rooms than in girls’. Girls’ rooms were more ‘old-fashioned’ and often contained mirrors, ruffles, pillows, and pastel shades (Calvert 1992). The child’s bedroom became a place where they could, perhaps, be guided into certain gender roles (Cieraad 2007). The emergence of masculine and feminine themed bedrooms appears to be important to parents. “The imaged traditional boys’ toys refer to the public domain of sports, transport, adventure and technology, like the traditional girls’ toys refer to the private, domestic domain and to domesticated nature” (Cieraad 2007: 207). While girl’s bedrooms reflect domesticity, boy’s bedrooms promote work outside the home. Studies in the USA and Canada continually found distinct differences between boys’ bedrooms and girls’ bedrooms throughout the 20th Century (Cook & Rheingold 1975; Bolduc, Cossette, Malcuit & Pomerleau 1990). Parents, being the primary decorators, continue to style their children’s bedrooms in a gendered way (Bowles, Fulcher, Patterson & Sutfin 2008). The following section contains descriptions of the participants’ earliest memories of their bedrooms and shows the emergence of “gender structures” (Okin 1989: 16).

Many female participants described a bedroom typical to their gender, for instance, Emma remembers a pink room. She had a bed with a canopy that had butterflies on it:

“I remember feeling like a princess under it when I slept” (Emma).

Not only did the colours (mainly pink and yellow) represent traditional femininity, but the rooms often contained a reference to female characters. Amy’s room was decorated in a

'Snow White' theme. She had bunkbeds, and everything, from the walls to the duvets, was covered in 'Snow White' décor:

"Snow White everything" (Amy).

Amber's room was bright pink and had a 'Winnie the Pooh' theme:

"Pooh Bear everything" (Amber).

Male participants also described traditional masculine bedrooms. Room colours were described as brown, blue, and/or green. Max remembers his first bedroom as white with a brown trim around the windows. Robert remembers his room being either blue or green, with a bookcase and a closet. The male participants also described having wallpaper with cars, hockey players, and truck stickers in their rooms.

Nearly all the bedroom descriptions reflected either a traditional female bedroom or a traditional male bedroom. Anna was the only female who did not describe having a traditional female bedroom; the other female participants described their rooms as decorated with colours such as pink, yellow, or a feminine theme. The males described their rooms as being white, brown, blue or green, with themes such as boats, cars, and trucks. There were no notable differences between children's bedrooms in previous studies (Cook & Rheingold 1975; Bolduc *et al* 1990; Bowles *et al* 2008) compared to the bedrooms described in the current study. Bowles *et al* (2008) posed the question whether or not boys and girls physical environments could affect their future choices. Nancy, Emma, Amy, and Amber, all described traditional female bedrooms. All engineering and nursing males described traditionally decorated male bedrooms. Having a gendered theme bedroom did not seem to influence the participants (three females in engineering and two males in nursing) into gendered career paths. It allows one to question whether the participants' gendered bedrooms influenced any current gendered stereotypes.

The second significant theme related to memories of gender socialisation was memorable messages. Most of the participants could almost instantly recall a message they received

from someone that remained with them throughout their lives. In the following section, participants were asked to recall a memorable message.

4.2.2 Memorable Messages

Knapp *et al* (1981: 27) described memorable messages as “verbal messages which may be remembered for extremely long periods of time and which people perceive as a major influence on the course of their lives”. Knapp *et al*'s (1981) study on memorable messages showed that participants were able to remember at least one message. In this study, most participants were able to remember one or more messages and the sender of the message was always a family member.

Language carries meaning and represents reality (Dias 2011). At age ten, children's self-confidence and motivation begins to decline and continues throughout adolescence (Eccles 1999). It is important to recognise a child's need for continual inspiration and support. “Individuals are not likely to do very well, or to be very motivated, if they are in social environments that do not fit their psychological needs” (Eccles 1999: 37). This study acknowledges that language conveys meaning, and so it was important to find out what messages the participants could easily recall that related to early childhood experiences, specifically gendered experiences.

One of the major objectives in this study was to explore any ‘significant’ messages the participants received from a family member or authority figure during childhood. “Although children may forget, ignore, or discount many of the messages they hear, they may also remember, accept or internalize some of these messages” (Wang 2014: 270). Since children receive a flood of messages, it was important to find out what messages they remembered and chose to share. Two themes stood out in the analysis: encouragement to work hard, and ‘staying true’ to oneself.

All participants remembered receiving positive messages. The following paragraph deals with encouragement, which was the most popular category for memorable messages. Anna's father played a major role in her life. She remembers him saying:

"You gotta do your full potential"

"You can do it, even if it's hard" (Anna).

Although Anna remembered positive messages, she also recalled a negative one involving her decision to enter nursing from her mother:

"Mom's like, 'it's gonna be a waste of money if you don't like it'" (Anna).

Anna later shared a quote that has remained close to her heart that she came across on her own. It reminded her of her father:

"Courage isn't having the strength to go on, it's having the courage to go on when you don't have the strength" (Anna).

She later tattooed this quote on her shoulder and placed her father's initials underneath it.

Emma remembers both of her parents telling her to:

"Work hard and follow my dreams" (Emma).

Max explained:

"[My parents] tell me that I'm capable, not to restrict myself to certain things" (Max).

Tom remembered his mother saying:

"You can do it"

"Keep on going" (Tom).

The second theme was 'staying true' to oneself. Erin remembers her mother giving her advice growing up. She would tell her

"[T]o stay myself and don't change for people"

"[S]tay strong through everything" (Erin).

Amber's most memorable messages came from her grandmother, whom she refers to as 'Nan'. She described her Nan as

"A really proud, strong woman".

She remembers her saying,

"[B]e true to who you are"

"[B]e yourself" (Amber).

The findings mirror the findings of Knapp *et al's* study in 1981; all message senders were adults over the age of 21. The messages also came primarily from the participants' parents and this correlates with previous studies (Ellis & Smith 2004; Carr *et al* 2012; Cornacchione *et al* 2011).

One theme that did not appear in the participants' memorable messages, like in Danaher *et al's* study (2014), were moral messages; and contrary to Brogan *et al's* study in 2006, which found women received messages relating to the importance of stopping work once children arrived, none of the women in this study shared such messages. In total, most messages the participants shared were similar and mainly concerned working hard (Carr *et al* 2012; Cornacchione *et al* 2011), not giving up, and 'staying true' to yourself (Cornacchione *et al* 2011).

This chapter began by exploring participants' earlier memories of gender socialisation. The theme, bedrooms, highlighted the gender differences (colours and themes) that has been shown in boys' and girls' bedrooms from previous research (Cook & Rheingold 1975; Bolduc *et al* 1990; Bowles *et al* 2008). The memorable messages exposed how individuals remember messages that they felt were important to them. Although the males and females gave quite different descriptions of their bedrooms (such as colour differences and themes), they recalled similar memorable messages (such as working hard and staying 'true' to oneself).

4.3. Gender Stereotypes

The second section of this chapter begins by exploring gender stereotypes. Gender stereotypes became a significant theme throughout the interviews as participants discussed their childhood. At first, participants were asked in general about any stereotypes they have heard, but as the narratives moved on, certain gender stereotypes became quite prominent. A pattern became clear as gender stereotype examples became more specific. Parental roles (indoor versus outdoor tasks and expressive versus instrumental roles) and emotional expression were highlighted in the participants' narratives. This section begins by exploring general stereotypes the participants shared and then shows how these stereotypes also appeared with the participants' families.

4.3.1 General Stereotypes

The Office of the United Nations High Commissioner for Human Rights (OHCHR) defines a gender stereotype as

[A] generalised view or preconception about attributes, or characteristics that are or ought to be possessed by women and men or the roles that are or should be performed by men and women.

Office of the United Nations High Commissioner for Human Rights 2014

When boys and girls grow up with stereotypes (such as males are engineers and females are nurses), these may affect their life choices. Gender stereotyping careers as either male or female, may limit men's and women's beliefs in what they feel they can and cannot do.

Martin and Ruble (2004: 67) described children as "gender detectives". Children learn what is appropriate for their gender from a variety of sources. There are two types of stereotypes: implicit and explicit. Implicit stereotypes are stereotypes we are not aware of, whereas explicit stereotypes are overtly stated (Kilianski & Rudman 2000; Bakermans-Kranenburg et al 2013). Both implicit and explicit stereotypes may influence what children believe they are capable of. Learning what may or may not be appropriate for their gender

constitutes social learning theory (Stockard 1999). In line with the objectives of this study, it was important to explore participants' memories and experiences related to gender stereotypes that they were exposed to during the process of growing up.

To the extent that the child grows up in a gendered world with strong pressures toward conformity to that world, the child will attach great importance to behaving in accord with the norms of this gendered world.

Barber, Eccles & Jozefowicz 1998

If a young girl is told that boys are naturally better at math, this gender stereotype may develop into a gender schema. This could affect her interest and ability in mathematics once internalised, and limit her career choices.

The following section explores any general gender stereotypes the participants shared when asked about stereotypes between men and women.

Nearly all participants were able to think of gender stereotypes about men and women. The following narratives show women as being primarily in charge of indoor tasks such as household duties and men doing more outdoor tasks and work outside the home:

"That they like [women] do the dishes, they [women] do the easy things...and girls work inside" (Nancy).

"...girls are supposed to be the ones in the house who are cooking, cleaning, and guys are the ones at work" (Erin).

"...girls like, are supposed to be good at cooking and cleaning and stuff, and guys are supposed to be like...the bread makers of the family like, be like the main male dominant figure, supposed to support everyone like, bringing in all the money, and girls supposed to like, look after children and stuff" (Yale).

These narratives clearly show a traditional way of life: the mother within the household and the father as the breadwinner. Men and women are sometimes expected to perform certain tasks based on their biological sex.

The last two themes focused on expressive and instrumental qualities between men and women. Women were described as being more 'lady like' (sincere, soft), more verbal, and better at crafts. Men were described as being more physical (strong and rough), and better at sports:

"You know, my mom was always like, classy, and I always believe in that, too, that a girl should be, and guys should be classy, too, don't get me wrong, but it's so much easier for a girl not to be classy and get like a really bad name for it than it is for a guy. You know what I mean?" (Nancy).

"Boys are better at sports and gym...more physical things, and girls are better at like...crafts...like more girly things" (Emma).

"Whenever we played sports [with girls] it was always like we had to, you know like, ease off a bit. We couldn't kick the soccer ball too hard, and we couldn't play too rough, which is understandable" (Max).

"...girls would be more verbal and that is how we are expected to be, and guys are more physical" (Erin)

"...if somebody is talking to a girl they'll be more sincere like, softer voice, but with a guy people aren't afraid to be rough with them" (Erin).

"...growing up you'd always hear about like, how guys are supposed to be like, better at sports than girls...and guys are supposed to like sports...it's just how you're brought up" (Yale).

“...girls were supposed to be ah, like, more lady like, have better manners like, they should know how to like, do arts and crafts like, the arts, they were the best, and then like, obviously, gym class like, the guys kind of took over there I guess”
(Tom).

Bales and Parsons (1955) suggested that mothers and fathers served the family with different functions: the mother as expressive and involved in caregiving, activities, and companionship, and the father as instrumental and involved in discipline and income. Four (two for women and two for men) themes arose while interviewing participants about gender stereotypes: dominant/physical (instrumental qualities), being ‘lady like’ (expressive qualities) (Bales & Parsons 1955), breadwinners (outdoor tasks), and cooking/cleaning (indoor tasks). The participants were able to clearly articulate gender stereotypes that they were exposed to. These stereotypes show women as more expressive and men as more instrumental. The topic of women being perceived as more emotional and expressive, and men as more tough and instrumental, is discussed further in the following section on emotion.

4.3.2 Gender Differences in Emotional Expression

In North America, females have been shown to be more emotionally intense (Johnson & Robinson 1997), more emotionally expressive (Briton & Hall 1995), and have also rated themselves as more emotionally expressive (Nath & Simon 2004) as compared to their male counterparts. Internationally, women report intense emotion lasting longer and are more likely to show their emotion (Fischer & Manstead 2000). The literature shows differential emotional treatment from parents towards children (Chance & Fiese 1999; Peterson, 2004; Clearfield & Nelson 2006; Munhnik & Stavans 2009), but examining what emotional stereotypes still exist was important to explore. William Pollack states that society places boys and men into a “gender straightjacket” (Pollack 1998: 6). He remarks that, although we tend to allow girls to express their emotions, we do not allow boys to express their genuine selves. It is a common belief in the USA that men are less emotional

and emotionally expressive than women (Nath & Simon 2004). "It is possible that males learn to conceal their feelings, whereas females learn to more freely express their emotions" (Nath & Simon 2004: 1167). Perhaps this difference has been socially learned throughout childhood and adolescence. If young men are lacking emotional intelligence (Mayer & Salovey 1990), it may limit their interests in "helping" careers such as nursing. The following section shares participants' narratives about gender and emotion.

A clear difference appeared when the participants shared their thoughts on males and females expressing emotion. Women were described as more emotional and sensitive while men were described as tough and strong:

"...when you see a guy upset, you hear people like, 'You're not supposed to share your feelings'" (Anna).

"Girls are emotional, and that boys can't be" (Emma).

"Women as more sensitive, men as more macho, ya, gotta hide their feelings" (Robert).

"Like the stereotypes that like, girls are emotional and guys are rough...In like, high school and stuff and in university like, guys are just trying to be like, hard asses, and girls are kinda like, 'No like, it's okay, it's okay'...cause when you are a kid guys are kinda like, don't get that idea cause they don't see their father figures like that, but whereas when they grow up girls are like, 'No like, I like a sensitive man'" (Amber).

"...as a guy, you're supposed to be like, to be like, strong. You are not supposed to show your emotions...even now people are like, 'Don't be a pussy'...that's a massive one I think about...but if a girl is upset it's like, normal...ya, like a typical girl" (Yale).

Many participants described females as more emotional than males. Nath and Simon's (2004) study investigated whether or not men and women's self-reports of feelings and expressive behaviour differed. They found that women express their emotions more freely than men (Nath & Simon 2004).

Gender is one critically important moderator of what and how children learn about emotion because culture determines the appropriateness of emotional displays for males and females.

Denham & Root 2010: 2

If young boys are growing up in a world where emotional expression, such as crying, is regarded as feminine, they may grow up feeling this is something they cannot express. This, in turn, could affect how they relate to people and steer them away from nurturing careers.

Learning that a certain emotion is perhaps only displayed by one sex, may develop into a gender schema (Bem 1981). Children may grow up learning to conform to expectations thus turning it into a "display rule: cultural norms regulating how, when, and where emotions can be expressed by males and females in any particular culture" (Brody & Hall 2008: 396). Participants may have carried emotional display rules from their childhood into their adult life. This is an example of something that has been socially learned (Stockard 1999), that later developed into a gender schema (Bem 1981).

The participants shared many general gender stereotypes about men and women; therefore, it was of interest to explore if there were any stereotypes within their families. The following section explores gender stereotypes specifically within the family.

4.3.3 The Family's Influence on Gender Stereotypes

Parents and caregivers are some of the first primary agents in their child's life (Best, 2010). They can also be called "opportunity providers" (Buriel & Park 2006) who instruct

and guide children throughout their lives. Although the literature review discusses the media and education as major socialisation influences, through the interviews conducted in this study, it was found that the family played the most significant role. In the USA, it was found that fathers have maintained the instrumental functions and mothers the expressive functions within the family (Finley & Schwartz 2006; Finley, Mira, and Schwartz 2008). A more recent study conducted in Malaysia found that mothers continued to perform an expressive role, yet no differences were found on instrumental involvement (Han & Jun 2013).

One of the main objectives of the study aimed to explore parental socialisation experiences among participants. Participants were asked about any differences they noticed between their parents. The following section shows how the participants' stereotypes about men (instrumental and outdoor tasks) and women (expressive and indoor tasks) appeared within their families. Participants provided clear distinctions between parental roles. The mother was almost always described as the more expressive parent. The following narratives share how mothers are described as more talkative and 'free-spirited'.

"My mom...she's not afraid to say how she feels at all... I tell my mom everything. She knows everything... most of the time I am emotional, it is when I am with my mom" (Nancy).

"...My mom was more like a free spirit" (Max).

"She [mother] talks more than dad. He doesn't really talk" (Robert).

"...My mom gets really excited like, she's super cute" (Amber).

Fathers were described as more instrumental (hard-working, logical, and the decision makers).

"...My dad is like, super hard working, probably the most working hard person I've ever met in my life" (Nancy).

"My dad was more logical in his thinking" (Max).

He's [father] behind the videotape [video recorder/camera] capturing the pictures" (Amber).

Fathers were also described as being the rule makers in the household.

"[Dad] just kind of the decision maker. My mom had her input, but he...kind of the overall" (Max).

"...No elbows on the table was a big one, still is...don't forget to say please...dad was always the one to jump on that" (Robert).

"...He's (father) like really set in his ways like, he doesn't like that I have facial hair...that's something that really bothers him" (Yale).

This was also the case in Balswick and Slevin's study (1980), which found that children (both boys and girls) perceived their mothers to be much more expressive when compared to their fathers. The only emotion fathers expressed more than mothers was anger. Researchers concluded that since men are portrayed as "doers" expressing physical anger may be seen as normal because they are male. This may especially affect young boys with the way they learn and grow to understand emotion as they do not receive as much emotional training from their father as young girls do from their mother (Balswick & Slevin 1980). These descriptions also support more recent research findings as mothers being more emotionally expressive (Clearfield & Nelson 2006, Muchnik & Stavans 2009; Fivush & Zaman 2013). Many participants portrayed their mother as more talkative and free spirited. This highlights how children and mothers have a more verbal relationship (Fivush & Zaman 2013). Fathers were said to be more disciplinary, making

the decisions, and explaining how things worked. Fox and Murray (2000) found that men usually had the upper-hand in the decision making in family contexts. The men usually had the final say in family decision making.

Most participants said they talked to their mothers more, but Anna said she's always been closer to her father. She felt that growing up closer to her father allowed her a different experience (when compared to those who had parents living in the same household).

"...well, if you grow up with just dad or just your mom you would be, you would have a different outlook because if you were raised with just your mom, you wouldn't be doing the things that you do with your dad like...I know how to change my own oil in my car, I know how to do all that stuff in my car. Whereas if I think I lived with my mom...like, my sister has no idea how to do that stuff" (Anna).

Hochschild (1989) highlighted the experiences of working women coming home after work to do perform a 'second shift' of household labour or unpaid labour. A review of research from 2000 to 2010 showed that women still do the bulk of household labour (Bouchard & Lachance-Grzela 2010). According to the International Social Survey Program (ISSP) in 2002, married women performed two-thirds of household tasks among 30 nations (Greenstein 2009). In Canada, men reported performing 8.3 hours of domestic labour per week, while women reported 13.8 hours per week (Keown *et al* 2011). Similar findings were found in the USA with men performing 6.6 hours and women performing 13.2 hours per week (Cohen & Fuwa 2007). Traditionally, men have performed agentic roles (assertive and self-orientated), and women have performed communal roles (nurturing) (Diekman & Eagly 2003). Even though women have increased their time in paid labour, men have not followed suit with domestic labour (Block, Croft & Schmader 2015). "The modern female gender role thus includes both agentic and communal traits, and both achievement-orientated and caregiving roles" (Diekman & Johnson 2015: 18).

The following narratives show participants' perceptions of division of labour or tasks within the household by mothers and fathers.

“Definitely mom my [who cleans]...cause she takes care of like, everything...Our dad’s our pool boy, so he does that stuff...he like, walks around and cleans it and stuff but for the most part it’s basically my mom” (Amber).

“My mom definitely did all the cleaning around the house...my dad did more of the yard work” (Yale).

“This year we got a cottage and so he’s [father] been like, building it there, and been working really hard there...He does more of the outdoor, she does more of the indoor” (Tom).

Most participants stated that their mothers performed most of the indoor tasks and fathers were more likely to perform outdoor tasks. Emma described this difference quite clearly:

“Mom does most of it [cleaning], like indoors and stuff...dad does a lot of stuff outside” (Emma).

Traditional female tasks have been referred to as routine tasks (laundry, cooking, and cleaning), and male tasks have been referred to as intermittent tasks (repairs, car maintenance, and yard work) (Bartley, Blanton & Gilliard 2005; Bouchard & Lachance-Grzela 2010). These tasks have also been differentiated as low-control (done daily) and high-control (done less often) tasks (Barnett & Rivers 1996; Barnett & Shen 1997). If parents continue perpetuating differing roles (women working inside the home and men outside the home), children may grow up repeating these gender roles (Best: 2010).

Many participants stated that their mothers did most of the work around the home, like cleaning, but fathers did more work outside of the home, such as pool cleaning, yard work, and building. None of the participants in this study suggested that daughters specifically did more household chores compared to previous research (Manke *et al* 1994). This is a significant finding; even though most of the participants stated their

mothers did more household tasks, they did not state that the daughters in the family did more household tasks than the sons. This finding shows a narrowing in gender roles.

Since the topic of emotion was a significant theme discussed in reference to gender stereotypes, it was important to explore the origin of this stereotype, according to the participants.

4.3.4 Gender Socialisation of Emotional Expression

Since emotion was one of the most significant gender stereotypes in the interviews, it was of interest to explore where the participants felt gender differences in terms of emotional expression came from.

The meanings of emotions and appropriateness of emotional expression are socialised; and, in the early years of life, socialisation primarily takes place via interactions within the family, and the characteristics of both parents and children may affect the process of emotion socialisation.

Denham & Root 2010: 2

As children grow up, they are affected by the way their parents' express emotion. Mothers and fathers portray emotion differently to their sons and daughters (Muchnik & Stavans 2009; Chance and Fiese 1999; Pollack 1998). When children are influenced by men and women expressing emotion differently, it may teach children to emulate what they see from their same-sex parent. If young females grow up with more practice expressing their emotions, it may influence their journey into nurturing careers, and limit males' entry into such professions.

The family emerged as the most significant institution, and emotion was the most discussed gender stereotype in this study. As such, this study explored the participants' thoughts on family and emotion.

When participants were asked who they perceived as the 'most emotional' member of their family, there was no hesitation in their answers. Mothers and the females in the family were consistently described as the most emotional. They were then asked who they felt taught them to become either masculine or feminine, and where they felt stereotypes came from. Although a few topics arose in the interviews, the most significant explanation on the influences of masculinity and femininity was said to be the family, in particular, parents.

Anna felt it was who you spent more time with (which in her case was her father):

"It's kind of who you spend more time with" (Anna).

Nancy felt that it was an unconscious decision:

"Well, I feel like everyone has like, their little idea of what is a girl and a guy, so I feel like you would raise your kid like, not knowing that, what you thought like, you would not really try to like, most people raise their kids thinking that" (Nancy).

Emma and Robert felt that the same-sex parent of the child influenced them more:

"I think like, our moms, and um, our aunts and grandmothers... [How to be a man?]...."definitely from like, the father figure..." (Emma).

"Usually the dad [teaches masculinity]...the mom [teaches femininity]" (Robert).

Yale also felt that parents played a significant role and also expressed that being given certain toys and clothing influenced one's idea about masculinity and femininity:

"...your parents play a major role in that growing up...I don't think like, when you are first born you really think like, this is like, what a guy likes, this is what a girl likes, but being given toys like, certain toys...guys toys like, action figures, sports equipment stuff, and being shown like, violent movies or something, and like, clothing, too. So it's like, what they get you, influences you a lot" (Yale).

Many participants felt their parents played a significant role in developing their ideas around masculinity and femininity. Although the media and education could also have major socialisation influences on one's gender socialisation, it was the family that proved to be the most significant influence among participants in this study. Participants also mentioned influences such as media, history and tradition, what is perceived to be socially acceptable, and a fear of being different.

Two female participants discussed direct encounters they had experienced with gender stereotypes. The first experience deals with a woman doing a "man's job", and the second deals with the aspect of males making fun of other males in sports. Anna remembers a time when she was loading turkeys onto a truck. One of the male truck drivers (approximately 40 or 50 years of age) asked,

"Why are you doing it? That's a man's job". She remembers feeling shocked by this as she had always worked on the farm (Anna).

Even though Anna did not see herself doing 'a man's job', the truck driver had. "Doing heterosexuality" (Davis-Delano & Morgan 2016) can sometimes reinforce gender inequality. If a male's heterosexuality appears to be threatened, he may feel the need to signify his masculinity (Schrock & Schwalbe 2009).

Nancy's experience shows how males can be 'put down' or insulted by associating them with females; and that this insults females at the same time:

"You know, I've heard boys called-or said to them before like, 'Oh you throw like a girl', and I'm standing there like, 'What?'...if someone is complaining like, guys like, are complaining it's like, 'You're being a girl'...and then I'm like, 'I'm a girl, you can't say that'" (Nancy).

Clear stereotypes were provided on women being classy, more mature, verbal, sincere, polite, and doing household tasks (expressive qualities and indoor tasks). Men were seen as doing more physical work, having strength, being dominant, rough, and giving financial

support (instrumental qualities and outdoor tasks). Even though gender differences in masculine and feminine traits have narrowed (Flinn et al 2007), these narratives show how ideas and beliefs regarding traditional masculinity and femininity still exist today. All nursing and engineering participants were able to give gender stereotypes with some even giving direct examples from their lives. They did not seem to be influenced by the discourse since half of them chose non-traditional careers. Perhaps being aware of gender stereotypes makes it easier for one to ignore them.

The following section explores other current gender stereotypes the participants have encountered.

4.3.5 Gender Stereotypes: Current Experiences

Participants gave clear gender stereotypes of their socialisation (expressive versus instrumental qualities and indoor versus outdoor tasks), so it was of interest to explore any current gender stereotypes they have experienced. Although half of the participants chose non-traditional career paths, society may still have trouble accepting them in their career. It is now known that “unconscious gender-based assumptions and stereotypes are deeply embedded in the patterns of thinking of both men and women” (Carnes 2012: 4). Holding onto gendered belief patterns, such as women being more suited to helping careers, and males being more suited towards STEM careers, may limit young peoples’ career paths. As society holds onto gendered belief patterns, it may have a negative impact on those who choose non-gendered careers for themselves.

This study sought to find out if participants could recall any direct gender stereotyping experiences specifically among male nursing participants and female engineering participants.

Meadus and Twomey’s study (2011) in Newfoundland and Labrador, Canada, developed three themes in their male nursing student narratives: nursing as a feminine profession;

men as lifters and more muscular; and being more visible. By listening to the male nursing students' narratives in this study, it was important to find out what gender stereotypes, if any, they had encountered. A prominent theme that arose was a male's perceived ability of greater strength (their ability to lift more weight).

Max felt that he was required to 'lift' more because he was a male in nursing:

"In the hospital, it's a lot of lifting things like, get a guy to help you lift that...which is kind of strange because we aren't supposed to lift over a certain weight. So if there were two girls lifting, you know, 50 pounds, I think that's pretty manageable...Not that I can't do it, but it's just the principle of it" (Max).

The female nursing participants also commented on the need for male nurses, because their ability to lift more:

"They [males] are stronger...Just their strength. Not that females can't do it cause obviously they do...but it, it would be easier for a male to pick up a patient than it is for a female" (Anna).

Earlier in the interview, Anna recalled a time when a man questioned her ability to load turkeys on a truck and was offended; here, she states the need for males in nursing because they are stronger. Depending on the situation, women may adopt either traditional or non-traditional views (Sinclair 2005).

Emma shared similar feelings on the need for males in the nursing profession:

"...we need them [males]...you definitely need males in there because patients are heavy...they can lift a lot more than we can. We are technically only supposed to lift 40 pounds so that's like our protocol...so it's nice to have somebody who can lift...and it's also nice to have um, a gentleman in there like, if you are doing care on a man and maybe he wants a male in there" (Emma).

This description of men being naturally stronger than woman has been referred to as “he-man” or “human fork-lift” (Heikes 1991; Williams 1989). It refers to men’s perceived greater physical strength. Males are more likely to be called upon by their female colleagues when it comes to lifting. Keogh and O’Lynn’s (2007) male nursing participants expressed how they were often used for their physical strength. Women play a role in perpetuating the perception of men’s greater physical strength.

Female engineering students sometimes face gender stereotyping in their program. Like the male nursing students, gender stereotypes also arose in the narratives with the female engineering students. Amy shared two examples in our interview, one from a close friend and a direct experience she encountered one afternoon in the gymnasium:

“...my friend who is in engineering with me at UNB, she works at Service New Brunswick so there’s a lot of older ladies there...when she tells them that she’s in engineering, they just don’t believe it. They’re like, ‘What? No, you’re not’, and they think she’s some like, endangered animal...I just want to prove them wrong and so like-like, you think you shouldn’t be able to stereotype, especially for like, older people it’s still like, ‘good for you’. It’s like, why should that be good for me? Like, you know what I mean? I’ve never heard someone say that like, so many times like, ‘Good for you!’...Oh and this is the most offensive thing that I think has ever happened to me...I was wearing like, my UNB engineering hoody...I think I was at the gym...and some guy goes to me like, ‘Oh, is that your boyfriend’s sweater?’...That was the most offending thing I’ve ever heard. (Amy).

Erin remembered a time where a professor gave her some advice on whether or not she would continue in engineering:

“...I was talking to one of the profs at UNB[F] and I remember them saying to me, they said, that I come off as a very shy person, and they said that if you are a girl in engineering you have to toughen up” (Erin)

Both Amy and Erin encountered situations where they were stereotyped; someone assuming Amy was wearing her boyfriend's sweater and Erin being told to toughen up in her engineering program. In a study by Bagilhole *et al* (2012a), female participants shared experiences of discrimination such as being told to wear a dress to receive better marks and that female students should not be engineers. This discourse highlights the problems many women face when entering a traditionally dominated career path.

Tom explained how chemical engineering was often referred to as, 'fem-eng', as this program had the highest female enrolment compared to the other engineering programs:

"...for chemical... they call it, 'fem-eng', instead of, 'chem-eng', because of the amount of girls" (Tom).

A similar finding by Foor and Walden (2009) arose when interviewing engineering students in the USA. Industrial engineering was referred to as, 'girls' engineering'. It was devalued as being the lowest program in the engineering hierarchy because of it being similar to a business degree and was considered less demanding (Foor & Walden 2009). Although none of the engineering participants in this study devalued chemical engineering (perhaps because many were chemical engineering students), both programs were labelled as engineering programs for females; each program in both studies had the most females when compared to the other engineering programs.

Amber mentioned why she felt that there were more females in chemical engineering:

"...probably cause more woman are into chemistry...it's more exciting...more women are not as interested...in like, roads and bridges, and architecture, and like, electricity...mechanical stuff like...I find more men find that more interesting...obviously there are exceptions, but that just seems like how we are..."
(Amber).

Amber's final comment,

“but that just seems like how we are” (Amber) highlights the dangers of stereotyping.

When stereotypes go unchallenged and we assume (consciously or not) certain roles and attributes for the sexes, both men and women’s opportunity to choose a life outside of those roles is restricted.

Chapple 2016: 563

Perhaps these themes of men being more instrumental and performing more outdoor tasks and women being more expressive and performing more indoor tasks, has led many to believe that men and women are better-suited for certain careers.

4.4 Conclusion

This chapter first introduced the participants’ descriptions of their childhood bedrooms and memorable messages. Childhood bedrooms reflected traditional gender themes through colour and décor. Most messages the participants remembered were similar such as working hard and staying true to oneself. No gender differences were noted.

The second theme discussed gender stereotypes the participants felt existed in their lives. The family as a significant influence was then explored to see what parental differences existed. Participants gave examples of their mothers being more expressive (more talkative and free-spirited), and examples of their fathers being more instrumental (discipline, decision maker). Participants also described their mothers’ doing more indoor chores, while fathers were described as doing more outdoor chores.

The topic of emotion was a noteworthy part of the interviews. Clear stereotypes were shared between men and women’s emotional expression, with men being less likely to show their emotion. Current experiences with gender stereotypes were also expressed. One male nursing student and two female engineering students discussed situations

where gender stereotypes arose. Max shared his experience with being expected to lift patients because he is male and has perceived greater strength. The nursing females also reinforced this by stating that males were needed in nursing to lift patients. Two engineering participants, Amy and Erin, also shared instances of gender stereotypes they had encountered. Tom highlighted the fact that chemical engineering has been labelled as, 'fem-eng' due to its high enrolment of female students when compared to other engineering programs.

Through the participants' earliest memories, clear gender stereotypes arose in their descriptions of their bedrooms. The family unit also displayed traditional male and female roles, and emotional expression has also remained expectant of females and looked down upon among males. Some participants were able to share current gender stereotyping experiences as well. The only topic that did not clearly highlight gender differences was memorable messages. Both male and female participants shared similar messages. Although gender socialisation has continued, at least for these participants, it appears that males and females received similar messages while growing up. Perhaps these messages, working hard and staying true, played an important role throughout their lives.

The next chapter explores the reasoning behind the participants' career choices and their thoughts on personal success, work-family balance, and gender equality. Since the participants' narratives on gender socialisation highlight that male and female traits (expressive and instrumental) and parental roles (indoor versus outdoor) remain, it was of interest to explore what they saw for their future selves.

CHAPTER 5

Direction of Study, Personal Success, Work-Family Balance, and Gender Equality

5.1 Introduction

This section begins by exploring each participant's childhood 'dream job'. All the participants stated they dreamed of a career, throughout childhood and adolescence, which is different to the one they currently aspire to. Since none of the participants pursued their childhood dream job, it was of interest to find out what factors could have influenced their decisions. This chapter also focuses on factors that could have influenced participants' current direction of study, their personal definitions of success, work-family balance, and gender equality.

5.2 Direction of Study

5.2.1 Reflections of Childhood Dream jobs

According to Auger, Blackhurst & Walk (2005), third to fifth grade children (between nine and 11 years of age) go through developmental changes in terms of career choice. They are unlikely to hold onto the same career choice for too long. At age ten, children's self-confidence and motivation begins to decline and continues to do so throughout adolescence (Eccles 1999). Knowing that a child's momentum to learn weakens, it is important to recognise their need for inspiration and support. "Individuals are not likely to do very well, or to be very motivated, if they are in social environments that do not fit their psychological needs" (Eccles 1999: 37). It was important to ask each participant about their childhood dream job; none of the participants aspired to follow their current career choice in childhood, therefore it was important to explore how the decision to become either a nurse or an engineer developed.

Participants were asked what dream job they aspired to as children, and then why they chose not to continue on that particular path. The participants identified a variety of childhood dream jobs. The most popular childhood dream job was a veterinarian. Other dream jobs included becoming a doctor, dentist, chiropractor, chef, paramedic, marine biologist, sports journalist, police officer, and a teacher. Participants were then asked why they thought they did not pursue these childhood 'dream' careers. Nine themes were identified in the narrative analysis with the most popular reason being the length or number of years of schooling to become a veterinarian, medical doctor, dentist, or a chiropractor.

Anna, Nancy, and Max felt it would have just taken too long:

"... [Vet school is] 8 years at least...it's a lot of work..." (Nancy).

Two participants, Anna and Amber, said they would have needed to *leave home* for schooling or to leave later find a position.

"...if it wasn't so long and so far away. You can't do it here. You have to leave cause it's eight years for the large animals, so you can do a little bit of it at UNBSJ, but then you have to go to UPEI [University of Prince Edward Island] or Truro [Nova Scotia]...I don't want to be so far away from home" (Anna).

"I wanted to be a marine biologist...from the age of like, six to probably like, 12 or 13...my dad's sister and her husband are both marine biologists...they go on trips like, six to eight months at a time away from their kids...definitely not what I want to do" (Amber).

Some of the nursing participants, Anna, Nancy, and Max, discussed the amount of schooling it would take to accomplish their childhood dream jobs. Other themes included being away from home, the cost of schooling, the realities of the job, not having high enough grades, and not having a positive on-the-job experience. The engineering students provided different reasons as to why they felt they did not pursue their dream jobs; for example, not believing they would be good care providers, having to be away

from home, the lack of or no job opportunities in their field of interest, and the job not being recommended by others in the career.

Since none of the participants chose to pursue their childhood dream jobs, it was one of the main objectives of the study to explore the reasoning behind their decision to pursue their current direction of study. Students face significant pressure (Dias 2011) and undecidedness (Gordon 2007) when choosing a career path. It is not an easy choice to make for many students nearing high school graduation, so it was important to unearth each individual's career choice journey. Price (2009a) also called for further exploration as to why young adults select the career paths they do. Barber, Eccles, and Jozefowicz (1998: 170) developed four sets of values and beliefs that influence career selection: lifestyle values; valued job characteristics; future success; and self-perception of skills. What they found was that young men aspired to mathematics and science occupations whereas young females aspired to human service occupations. When students aspire to careers in health sciences (nursing), or in science and mathematics (engineering), they tend to value tasks (helping people versus excelling in mathematics and sciences) related to the job field (Barber *et al* 1999). "Forming occupational aspirations is a process of comparing one's self-image with the images of occupations and judging degree of match between the two" (Gottfredson 2002: 93). A young adult's belief in what they can achieve and what they value will influence their career trajectory. In Canada, Davey and Lalande (2004) used chi-square tests that compared engineering and nursing students' reasons for entering their respective programs. Men and women in nursing both gave altruistic reasons, such as concern for others, for entering nursing, while men and women indicated interest as their primary reason for entering engineering.

5.2.2 Why Nursing?

The nursing students supplied a variety of reasons as to why they entered nursing with the most popular being knowing someone in the nursing field, helping and working with people, options, obtaining a 'real job' after only four years, and having hands-on work

experience. Many participants discussed knowing someone who is a nurse. For the male participants Max and Robert, knowing a nurse played significant roles in their decisions to enter nursing.

“It was definitely my sister who had the most impact [to enter nursing]...it was really my sister who I thought about” (Max).

“It was kind of like my friends were talking about like, my girlfriends’ friends, were doing nursing at Saint John and I thought it would be different like, cool different like, male nursing would be different” (Robert).

Anna and Nancy showed interest in the people they will get to meet and help:

“To help people...you get to meet a lot of people and you get to hear stories...they [patients] talk about themselves...you get to hear stories of things of what they’ve done...” (Anna).

“...I’m a people person, so I just thought about that. That’s important. You gotta like people to work with them all day...” (Nancy).

Many participants felt that a degree in nursing gave you many options, and that after only four years you would have a job:

“...everyone I know says it’s like, the most rewarding thing ever...four years and you’re done...a secure path to a good job eventually...and you’ll have a real job” (Nancy).

“It was the options...I was accepted into sciences, but I knew I didn’t want to do that because I wanted to come out of school with a career being trained for something. I didn’t want to go into an art’s degree, or a science degree and not have anything after” (Emma).

“Just before I graduated grade 12, I thought that this [nursing] was probably-also the most strategic things to go into because it was either this or sciences, and at the end of sciences, what can you do? It’s tough. At the end of this at least you’re graduated. You have a lot of clinical experience and it would kind of put you ahead of everyone else” (Max).

Both female and male nursing participants mentioned a variety of factors which influenced them into nursing. Dick and Rallis (1991) developed the term, “socialisers”, referring to the different factors that may influence young adults’ career choices. Most participants knew someone in nursing whether it was a family member, a friend, or a family friend. Perhaps as females and males become part of the same peer group, they start to identify with traditionally labelled gendered traits (such as males identifying with nurturing or expressive traits they see in their female peers). Since Robert had female friends, this may have greatly influenced his decision to enter nursing. It seems knowing a friend or family member in nursing was the most significant factor leading the men into nursing. Max’s sister had a significant influence on his decision to enter nursing and Robert had a group of female friends he felt influenced him. It seems that knowing a nurse was an important factor for males entering nursing. This was also a prominent theme in past studies (Larson *et al* 2003 & Haron *et al* 2014).

Another recurring theme involved graduating college or university with job experience and immediate employment (Cho *et al* 2010). Becoming a nurse also meant job security (Ditommaso *et al* 2003; Angus, Hall, Peter & Price 2013; Wilson 2005; Miers *et al* 2007; Birnbaum *et al* 2010), and getting a ‘real job’ after four years of schooling. Helping also arose as a theme, as it has in past studies that dealt with students reasoning behind career choice (Glacken 2008; Ditommaso *et al* 2003; Angus *et al* 2013). Birnbaum *et al* (2010) discovered two types of nursing students in their study: traditionals and instrumentals. The traditionals highlighted making a difference and helping others, while instrumentals focused on job security and mobility. Similar themes also became evident

in this study, with some students mentioning helping others and others discussing job security. There were no distinct differences between the sexes.

5.2.3 Why Engineering?

The engineering participants were also asked why they chose the engineering field. Most engineering students said they had high grades and/or really enjoyed mathematics and sciences. Influencers were almost always mentioned as playing a significant role in choosing to study engineering, especially among the female participants. Originally, Erin did not want to study engineering because she felt it was for males, but her perspective changed once she entered university:

“My friends, the four girls that were in engineering, seeing them all in it and then me kind of being left out...they would show me what they were working on and it was really interesting, so that definitely influenced my choice...my friends were probably the biggest part of it, and then probably the fact that I did a lot of research on it and knowing I was good at math and sciences, having that...and my parents saying that I should do something like that [engineering]” (Erin).

Amy had a lot of support from family members and friends already in the engineering field, but she felt that her brother was her biggest influence to study engineering:

“Definitely my brother...where I saw my brother like, go through it and like, ‘Oh look! He survived’...it’s kinda nice having a role model, someone to look up to...he was willing to help me, and he’s awesome at helping me...you need to have resources in engineering...you need to find friends...especially having him [brother] it’s like, the nicest thing ever...” (Amy).

Both Erin and Amy did not choose to study engineering until they entered university. They had originally entered different programs. It seems that influencers played a significant role in their decisions to enter engineering. Bagilhole *et al* (2012b) found that the female students in their study reported a lack of female role models in engineering. Foor and

Walden (2009) also found that the participants in their study mentioned the need for more female role models in engineering; as one participant in their study stated, “communicate an idea through example” (Foor & Walden 2009: 53). The more females who show interest in mathematics and sciences, and pursue engineering careers, the more likely younger generations will follow.

The male engineering students also mentioned having support from family, but they were more likely to mention financial rewards and job availability:

“I think a big thing is that you make a lot of money, and like, that’s something important. You want to have a good quality of living...and also that there’s lots of jobs like, available” (Yale).

Tom’s parents, especially his mother, felt that engineering was his best option:

“[My parents] said, ‘It’s a great living, you’ll make good money, there’s plenty of job opportunities anywhere you go” (Tom).

Besides having high grades and/or interest in mathematics and sciences, another common theme emerged between both sexes: warnings. Most participants said they were warned about how difficult engineering was. Amy shared her experience in high school when she first started thinking about engineering as a career choice:

“I had three teachers who, one said, ‘You’ll be absolutely bored in engineering, Amy. Why are you doing that?’ She goes, ‘You-you stress out way too much, you’re not gonna like that’ I had another teacher saying, ‘You probably think engineering it’s all like, hands on like, you’re not even going to be like, building’...‘You don’t want to be going into engineering’...I couldn’t really believe like, they were like, ‘You’re going to hate it’” (Amy).

Amber said she did have great support from one of her teachers, but what came with support also came with a warning:

“They [teachers] would be like, tentative like, ‘Oh it’s hard, but like, of that’s what you are interested in, then that’s what you should pursue” (Amber).

Yale also mentioned the warnings he received:

“People were like, saying, ‘Oh it’s [engineering is] such a hard course like, it’s incredibly hard.’ Not like, don’t do it, but if you’re gonna do it, you like, you gotta work like, super hard, because it’s really challenging...ya, a lot of warnings” (Yale).

Like the nursing participants, the engineering participants also shared multiple influences that led them into engineering. Two out of the three females, Erin and Amy, said that their decision to enter engineering did not take place until they entered university. They also both mentioned the influence of peers, especially Erin. As teenagers spend more time at school and in activities, they begin to develop close relationships with friends and conformity to their peers (Eccles 1999).

They are likely to choose friends whose views on important issues resemble those that are espoused at home...the peer group acts more to reinforce existing strengths and weaknesses than to change adolescents’ characteristics.

Eccles, 1999: 39-40

If females believe themselves to have traditional feminine traits (expressive), value these traits in their same-gendered peers (Mehta & Strough 2010) and experience them within the home, this could limit their entrance into STEM careers. Having more females enter engineering could impact more young women to do so as well. This is especially relevant to Erin’s case, as her parents did see her as an engineer, but it took her group of friends to really convince her to enter the field of engineering. She expressed in her interview that engineering was mostly for males, and felt she would be the only female. This was a major boundary. “Boundaries mark the social territories of interpersonal relations, signalling who ought to be admitted or excluded” (Foor & Walden 2009). Erin and Amy both mentioned that they were not sure if they were well-suited for engineering. Students’ perceived match for their degree program influences which program they will choose

(Kessels & Taconis 2009). If students do not feel they are the right fit for a degree they are much less likely to pursue it. Reskin (1993) felt that adolescent's gender-segregated peer groups could impact their career trajectories. Even though Erin and Amy struggled with their decision to enter engineering, their influencers, such as family and friends, and high grades in mathematics and science outweighed their doubts. Amber did not share similar experiences as Erin and Amy. Perhaps her father being an engineer played a role in her decision to follow that career.

Even though most participants mentioned the warnings they received about the engineering program, they also received support from family and friends (Dias 2011; Bagilhole *et al* 2012a/b). The men were more likely to mention the quality of living, financial reward that a degree in engineering offers. This finding was also illustrated in a previous study (Dias 2011). Other themes such as good grades in math and science (Dias 2011; Bagilhole *et al* 2012b), interest, and plentiful opportunities were also factors in selecting engineering. Although Case and Reed (2003) found that females entered the engineering profession to make a social impact, this theme did not arise among participants in this particular study. Unlike Bagilhole *et al*'s study (2012a), the engineering participants in this study did not mention any natural ability, such as men being better suited for engineering.

This chapter explored each participant's childhood dream job and why their childhood career aspirations changed. None of the participants held the same career ambitions as they did in childhood; some only decided their career path in the period close to high school graduation or upon entering university. This especially held true for the males who entered nursing, and the females who entered engineering. Family and friends played a significant role in the decision-making processes for these two groups.

There were no notable differences between the male and female nursing students when asked what factors attracted them to the profession. Within the engineering group, males

were more likely to mention job security and quality of living (instrumental factors) when compared to the engineering females.

Since the participants described gender differences throughout their lives, such as bedrooms, gender stereotypes, and parental traits and roles, it was of interest to explore their thoughts on their future selves.

5.3 Future Prospects on Personal Success and Work-Family Balance, and Thoughts on Gender Equality

The final section explores the participants' definitions of personal success, their thoughts on work-family balance, and gender equality. Most of the participants were able to offer clear gender stereotypes in Chapter Four; it was of interest to examine any current gender stereotypes the participants held. It was essential to explore whether what the participants had learned or experienced socially in their childhood and adolescent years about gender differences had carried into their current definitions of personal success, future work-family balance, and their thoughts and feeling towards gender equality.

This section begins by considering the participants' definitions of success. Many discussed having a future career and family; because many participants discussed having a career and family, this led to discussing how each participant felt about work-family balance. None of the participants stated they would stop working once they married and had children. In Chapter Four it became apparent that the participants experienced gender differences in terms of parents' behaviour. Therefore, it was of interest to explore the participants' thoughts on gender equality in contemporary society.

5.3.1 Participants' perspectives on personal success: intrinsic and extrinsic values/motivation

How one defines success is personal and subjective. Therefore, each participant was asked how they would define success according to their lives.

If organisations are to provide equal opportunities for women and men to realise their dreams, we need to better understand what success means to both women and men.

Dyke & Murphy 2006: 357

Nearly all the participants in the study shared similar backgrounds, traditionally gendered bedrooms, memorable messages, expressed similar gender stereotypes, and discussed similar roles within the family. Half of the participants chose gendered careers and half chose non-gendered careers, therefore was important to explore how each group (nurses and engineers) defined success.

Previous studies have found differences in what men and women value in terms of life goals (Kasser & Ryan 1996; Cannon *et al* 2004; Beutler *et al* 2008; Barth *et al* 2010; Dyke & Murphy 2006; Jacques & Radkte 2012). It was of interest to explore any extrinsic or intrinsic values (Kasser & Ryan 1996) the participants placed value on in their personal definitions of success.

In exploring the narratives, it was important to reveal any traditionally gendered ideologies (family/relationships versus material success), and any differences between the nursing and engineering participants' explanations of personal success.

Several themes were identified in the explanations of personal success with some being more pronounced than others. The most popular themes among the nursing students were having a house and family, graduating, having a good job, and helping people. Nursing students, Anna and Nancy, discussed having a house and a family (Beutler *et al* 2008) and how it relates to their notion of success:

"I feel like I'll reach success in life, will be like, when I have a good job, when I have a family, and I have a house, and I can just call what I have my own because I earned it" (Anna).

"...being comfortable and happy when you're out of school. I want a family, a good job...I want a nice house...I want to live comfortable for sure" (Nancy).

Emma and Robert's definitions of personal success were more short term and focused mostly on completing their degrees:

"Passing everything...graduating. I can't wait to graduate and I really want to. That's my goal and I really hope I can finish it" (Emma).

As well as graduating, Robert also mentioned having a family:

"I just want to graduate. That's the only things on my mind...graduate...get my own house is the big-big thing...I want to come back here to raise a family" (Robert).

Max's definition of personal success was unique since it emphasises the importance of helping others:

"When I know that I'm in a place where I can help other people. That's kind of what I'm looking for, so that's just it. If I'm in a job where I'm doing nothing to help other people, then that would be the opposite of success for me" (Max).

The nursing students expressed more short-term ideals in terms of success such as graduating. Only one nursing student mentioned happiness as key to success.

The main theme that arose in the engineering participants' narratives was the importance of happiness. Other themes mentioned were balance, stable job, family, material possessions, and making a difference. Nearly all engineering participants believed that being happy in terms of what one does, is very important:

"I would say doing well in what I do and enjoying it. If I don't like what I am doing then there is no point. I'd say doing well in what you like" (Erin).

"To be truly happy with what I'm doing...with like, doing my job...like outside life of work I have, too...enjoying both and having a good balance" (Amy).

“...happy doing what I’m doing...being successful is...finding a goal and like, pursuing it...it doesn’t really matter what I’m doing as long as I’m happy...doing what I want to...growing as a person would probably be how I define success” (Amber).

Some of the male participants mentioned job stability and material possessions as contributing to their idea of success:

“To have a stable job and like, a family” (Yale).

“Material possessions, I guess...I’d want to show some stuff off if I felt I had money...personally successful like, maybe that I love my job, I am happy where I am in my life. Maybe making a difference” (Tom).

Only one engineering participant mentioned having a family (Yale), and all but one participant, a male, mentioned the importance being happy in their definitions of success.

Unlike Dyke and Murphy’s (2006) study, only one male engineering student mentioned the importance of material possessions in terms of success. Another interesting finding is that two out of four males, one engineering student and one nursing student, felt that helping others and making a difference were important aspects of personal success. In Jacques and Radkte’s (2012) study, marriage and children were not specifically mentioned in terms of how participants defined success, but having a family was highlighted. Contrary to Barth *et al*’s study (2010), there were no gender differences regarding the importance of having a family among the participants. Both males and females mentioned the significance of family in their definitions of personal success. Like Beutler *et al*’s study (2008), engineering students were more likely to mention happiness as part of their definition of personal success. Cannon *et al*’s (2004) study noted clear gender differences. Their study revealed that both men and women wish to help others

and be happy. The following section explores work and family more specifically as many participants in this study mentioned having a family in terms of feeling successful.

5.3.2 Work-Family Balance

Carlson and Grzywacz (2007: 458) defined work-family balance as an “accomplishment of role-related expectations that are negotiated and shared between an individual and his/her role-related partners in the work and family domains.” Finding balance between work and family is unique for each individual and participating in both roles may create tension. Career choice and parenthood are two significant life choices faced by emerging adults (Lawson & Yaremko 2007). Since all participants plan on working upon graduation, it was of interest to find out how each participant felt about balancing responsibilities to work and family. Gender roles have been changing in Canada. Even though men and women are sharing more economic and domestic duties, men are still more involved in paid work, while women do more unpaid labour (Keown, Milan & Urquijo 2011). It has been found that men place greater value on financial rewards, while women value family and altruism (Dinella, Fulcher & Weisgram 2011). It has also been found that men and women place importance on having both masculine and feminine traits (Auster & Ohm 2000). The following narratives illustrate the participants’ thoughts on work-family balance.

Anna felt that she could balance work and family:

“I think I want to keep working...balance it, but maybe while my kids are younger, well, you get your maternity leave when they’re a year. I would rather keep working than stay at home. I just feel I would be the cranky mom that stays at home...women work right up until they’re 8 months pregnant doing the nursing, which I want to be able to do it as long as I can, so I can have the long-the year with the child, but once it’s after a year, as long as we can find good day care...”
(Anna).

Emma highlighted the realities of shift work:

“I think being a nurse is going to be harder because of shift work...working night shifts and then coming home and then having to-wanting sleep and having kids...it’s something I’d have to balance out” (Emma).

The male nursing participants shared similar concerns:

“...with nursing...you get those overnight shifts which is something I’m kind of dreading now, but maybe once I get into it, it won’t be so bad” (Max).

“I feel like it would kind of be hard. Just like, shift-work in general...to balance family would be-if I was working days and she [girlfriend] was working nights, and with kids...” (Robert).

Three of out the five nursing participants highlighted the realities of a nurse’s work schedule. They felt that shift-work might pose certain challenges, especially if one is raising a family. Anna was the only one who mentioned the one year maternity leave you receive to care for your child in Canada, but she did say she planned on returning to her job after the year was over, as long as she could find good childcare. Neither sex suggested leaving their careers to raise a family nor did one sex expect the other to quit their career. In line with Coyle, Fulcher, Schroeder, and Van Leer’s 2015 study, these students were not yet discussing the challenges ahead. This is significant, as most participants mentioned having children at some point in the future.

When the engineering participants were questioned about balancing work and family only Amber and Tom expressed their thoughts:

“I think I’d want to be comfortable enough in my career before I like, start to like, have a family. That I can take my time with my family like my mom did...that was really important to me...that is a huge base as why our relationship is so great cause my mom and I did a lot of things together while growing up” (Amber).

Tom did not express too much, but did say he'd eventually like to have children.

"...I do wanna have kids actually...I'd be happy with it. I think it's going to be a lot of work...and also, my parents, they want to be grandparents...but I haven't thought that far into the future" (Tom).

Erin, Amy, and Yale said they had not thought much about balancing work and family responsibilities.

Unlike the findings of Montgomery's (2004) study, which found that students mentioned stopping work once family life began, none of the nursing or engineering participants discussed resigning from their jobs upon marriage and/or having children. In Lawson and Yaremko's study (2007), women indicated a stronger intention to have children compared to the men. Among the participants in this study, no gender differences arose when discussing having children. The nursing students showed more concern in terms of balancing work and family roles, which was mainly due to the shift-work they will begin once their careers start. The engineering students had not put too much thought into balancing work and intrinsic family roles and responsibilities. Perhaps the engineering students do not see their careers affecting family time since engineering professions do not traditionally require shift-work or perhaps they are more extrinsic and career-focused than the nursing students. Since balancing work and family roles require communication and compromise between partners (Carlson & Grzywacz 2007), the following section discusses the participants' thoughts on gender equality.

5.3.3 Gender Equality

One of the objectives of this study was to probe participants' awareness of and feelings about gender equality. In general, none of the male or female participants felt there was equality between men and women at this point in time. This is significant, as more men need to recognise and support gender equality (United Nations 2008). The United Nations High Commissioner for Human Rights stated that, "No country has yet achieved equality

between men and women” (Hussein 2015). It is important that all of the participants in this study recognised this imperative issue. When participants were asked if men and women were equal, the most discussed theme was the gender wage gap. According to the Organisation for Economic Co-operation and Development (OECD) (2014), which compared 34 countries, Canada had the seventh highest (18.97%) gender wage gap in 2013. Statistics Canada (2015) has shown a moderate increase in women’s wages from 1981 to 2011, with most of the wages narrowing after 2005. In nursing and in engineering fields, males continue to earn a higher income than their female counterparts (United States Census Bureau 2014).

The following narratives highlight the participants’ perspectives on gender equality and the gender wage gap:

“I still hear that like, men get paid more in like, business here, and that doesn’t make sense to me. Like, if you are doing the same job, you should be getting the same amount” (Nancy).

“Ahh, no, not necessarily because I think like, talk about like a-like in jobs or whatever, men get paid higher than women do. I don’t think that’s fair, right?” (Emma).

“I think it should like be more equal...males always make...a whole lot more money. Even if a guy and a girl have the same job like, a guy would like make on average, a certain percentage more...not really fair, it doesn’t make sense” (Yale).

Tom expressed his frustration with the gender wage gap:

“The fact that it’s 2015 and there’s not equal wages because you’re a girl or a guy, it doesn’t make sense. It should be how you do work. It should be how you do it” (Tom).

Many participants felt that employers were more likely to hire men over women. Studies have shown that men are still more likely to be favoured by faculty in sciences (Reuben, Sapienza & Zingales 2014) and more likely to be hired over females in mathematics fields (Brescoll, Dovidio, Graham, Handelsman & Moss-Racusin 2012). In the following narratives the participants express this concern:

“...men, well, people look towards men as power I guess, so politicians usually they’ll go with the male [rather] than the females” (Robert).

“...a guy I’m in engineering with, he’s from Sussex, and he’s working some job...and it’s an engineering job, and it’s a bunch of really old men, and they don’t hire women” (Amy).

Tom discussed how being an older, straight, white guy meant you had the most opportunities:

“No. Definitely no...in general, if you are a straight white guy, particularly older, you have the best chance out of anyone...” (Tom).

He then brought up the topic of women and pregnancy, and how he feels that his generation is more open:

“I actually heard someone in my office complain...she was talking to somebody about like, that there were no female candidates for the job, and his response was like, ah, it wasn’t bad, but he said, ‘Well what happens if she gets pregnant and needs to take this much time off?’ They were very upset about that...I thought it was an odd comment to hear...it was just a dumb comment to make...dumb and in the past...I think my generation is open to everyone, definitely” (Tom).

Although all participants felt that equality between genders has not yet been achieved, some felt it was improving, or at least in Canada:

“I would say now it’s better, but I would still say that there’s an obvious like...there’s studies being shown that like, men get paid more in certain jobs...we’re lucky here

[in Canada] that we basically get treated equal, but we don't really...there's proof that we're [women] not [equal], but it's like, we're striving to be, so it's not really that bad"

(Amber).

"I'd say like, in Canada...it's pretty equal, but I'd say still not to the level that it should be" (Yale).

Fields, Kloos, and Swan (2010) also found that undergraduate women perceived more gender equality in their lives compared to previous generations even though most of the women in their sample experienced sexism.

One participant shared his frustration with gender inequality and how he feels he has the power to stand up for others:

"...if somebody said, 'girls and guys aren't equal', I couldn't-I couldn't take that sitting down, or if like, 'gay people and straight people aren't equal', I couldn't take that one sitting down...I stick up for like, somebody who is obviously doesn't have the same privileges...I understand that I was born privileged...I understand that I have a great life...I should as the person with privilege, defend the people that don't have [privilege]" (Tom).

All participants felt that equality between men and women has not yet been achieved; with one participant expressing his frustration with the gender wage gap. Others mentioned how they felt males were more likely to be hired over females. Even though the participants recognised the societal inequalities between men and women, many felt that it was getting better. One participant expressed the need to defend the rights of others. In a world where white male privilege exists, this is a significant statement made by a young white male, who also feels privileged. "Male privilege is blatant, subtle, and pervasive. The seeming naturalness and invisibility of male privilege is challenging and

difficult to confront” (Philips & Philips 2009: 683). Peggy McIntosh (2003) refers to male privilege as an ‘invisible knapsack’. It refers to the way in which males unknowingly carry taken-for-granted privileges. Having a young white male make note of his privilege shows that there may be a gender equality discourse happening between today’s young adults.

5.4 Conclusion

At the beginning of this chapter, participants were asked about their childhood dream jobs and what factors they felt influenced them into their current direction of study. The most popular and influential factors included family, peers, and good grades. For male participants in nursing and the female participants in engineering, it became clear that knowing someone in the field, such as a friend and/or a family member, played a significant role in their decision to enter a particular program.

The next section focused on what participants defined as personal success. Popular definitions included having a good job, a house and family, happiness, making a difference and obtaining material possessions. Both males and females discussed extrinsic and intrinsic values (Kasser & Ryan 1996) in their definitions of personal success. Although some themes were traditional (family), there were no distinct gender differences which previous studies have found (Cannon *et al* 2004; Beutler 2008; Dyke & Murphy 2006; Jacques & Radkte 2012). However, nursing students were more likely to highlight helping others, and the engineering students were more likely to mention happiness.

The third section examined future perceptions of work-family balance. Many participants stated they had not put too much thought into work-family conflict, but most of the nursing participants were concerned about the shift work they would be required to fulfil once they started their careers. Neither sex discussed resigning from their jobs once they entered into marriage and had children, as a previous study had found (Montgomery 2004).

The final theme in this chapter focused on participants’ knowledge and feelings with reg

ard to gender equality. All participants recognised the lack of gender equality in society with most commenting on the gender wage gap. Some mentioned that men were more likely to be hired over women, and others provided a positive view of gender equality.

CHAPTER 6

Conclusion

This study focused on ten young men and women who have selected either nursing or engineering as a career path. All participants were white and either 18 or 19 years of age at the time the study was conducted. Chapter One highlighted the discrepancy between males and females in careers and proved why research on gender socialisation may help in understanding young adults career paths. The following chapter focused on the importance of institutions (family, school, and media) and how they may influence gender stereotypes. Chapter Three outlined the epistemological framework and the study's methodology.

One of the main objectives of this study was to determine what factors influenced participants to pursue their current career paths. Chapter Four explored earlier life influences (childhood and adolescence) such as bedroom descriptions and any messages they remembered hearing while growing up. All but one female participant described having a traditionally feminine decorated bedroom. The males also described traditionally masculine decorated bedrooms. No gender differences were noted in the section examining memorable messages. Most messages the participants shared revolved around working hard and staying true to oneself.

Gender stereotypes also played an important role. Most participants were able to discuss traditionally gendered roles, particularly within the family. Mothers were described as more expressive (talkative, free-spirited) while fathers were described as more instrumental (rule makers). The participants also shared that their mothers performed more indoor tasks such as cooking and cleaning, while their fathers performed more outdoor tasks like yard work or building. In particular, the male participants in nursing and the female participants in engineering shared direct experiences with gender stereotypes within their programs.

Chapter Five focused on current life influences, such the reasoning behind participants' decision to enter either nursing or engineering, personal definitions of success, work-family balance, and gender equality. The chapter began by exploring childhood dream jobs in order to determine if any participants held the same career aspirations in childhood as they do today. None of the participants in this study chose to pursue their childhood dream job. This led to the question of what factors influenced their decisions to enter nursing or engineering. Influencers, such as a friend and/or family member, played a significant role in the decision by the male participants to pursue a career in nursing and the female participants to pursue a career in engineering.

Definitions of personal success were gathered to note any gender differences among the participants. Nursing students were more likely to mention graduating, getting a job, and having a house and family. Engineering students expressed the importance of life happiness. The male engineering participants mentioned job stability and having material possessions. The future of work-family balance was also significant as all participants planned on working full-time upon graduation and many mentioned they would like to have a family. The nursing students did express concerns about shift work while most of the engineering students had not thought much about work-family conflict.

At the end of the interviews, it was of interest to hear the participants' thoughts on gender equality. None of the young men and women in this study felt gender equality existed yet, and particularly noted the gender wage gap.

The final chapter will begin by examining the initial research questions, and examining how well they were answered in the data analysis. Theoretical significance will then be discussed and suggestions for future research will be made.

6.1 Answering the Research Questions

The aim of this research project was to explore the factors that had influenced the participants to choose their current career paths. Chapter Four examined significant childhood life influences, which dealt with two research questions. The first research question explored how family socialisation processes could influence current career aspirations. Most of the participants described similar socialisation experiences. Most had described traditionally gendered decorated bedrooms (nine out of ten), and all of the participants recalled positive messages about working hard, and staying true to oneself. It is not determined whether or not traditionally decorated bedrooms influenced participants into their career paths (as half entered gendered careers and half entered non-gendered careers), but it does show the emergence of gender socialisation at a very young age. There were no gender differences noted in the messages the participants shared, but these messages had an obvious influence on the participants as these messages of encouragement and staying true stood out in their minds.

The second research question discussed in Chapter Four sought to determine what gender stereotypes continue to exist within the participants' lives. It was clear that gender stereotypes continue to exist, for example females being more talkative and emotional and males being more aggressive and active. All participants were able to provide distinct examples of gender stereotypes, particularly within the family, such as males being more instrumental and females being more expressive. Some participants gave examples of gendered stereotypes from their own lives, for instance, a male in the gymnasium asking a female engineering student if she was wearing her boyfriend's engineering sweatshirt. There were also instances of gender stereotypes being reinforced such as male strength and males being better suited to do lifting work; a female participant discussed a situation of a male questioning her ability to perform farm work. This same participant later suggested in the interview that male nurses were needed in order to assist with heavy lifting. This shows a conflict between traditional and non-traditional views (Sinclair 2005).

Chapter Five examined significant current life influences; participants reasoning behind their career choices, personal success, work-family conflict, and gender equality. These topics explored research questions three and four. The third research question asked what factors led each participant to pursue their current career path. Clear differences were mentioned in terms of the participants' childhood dream jobs and their current career paths; none of the participants stayed on the path related to their childhood dream job. Factors determining why their career aspirations had changed were explored, as well as the important factors that led each of them to enrol in their current direction of study. The most influential factors leading the male participants to pursue a career in nursing and the female participants to pursue a career in engineering were peer groups and/or having a close relative already in the program or occupation.

The final research question examined participants' definitions relating to personal success, their thoughts on future work-family conflict, and gender equality. The most popular themes among nursing students included having a family and a career, while the engineering students highlighted the importance of happiness. Perhaps the nursing participants see success as caring for others which may relate to why they chose nursing as a career choice and why they see having a home and family as a sign of success. When discussing success with the engineering participants, they were more likely to mention the importance happiness. Perhaps their definitions of success relate to a more individual choice as engineering is not a traditionally caring/nurturing career. Many participants mentioned having a career and family, and this led to the topic of work-family balance. It was of interest to explore how each participant felt about the prospect of balancing work and family roles. Most of the nursing students were able to articulate their thoughts on future work-family balance, but the engineering students had not considered the matter. Perhaps this reflects a more personal choice by the engineering students where the nursing students reflect a more communal choice.

Participants were asked about their current perceptions of gender equality in the world. None of the participants felt that equality between genders exists at this point in time. The

most common point that was raised was the gender wage gap between men and women. Both male and female participants were aware that a gender wage gap exists, but felt that Canada was largely becoming more gender equal, and were positive that gender equality would improve in the future.

6.2 Theoretical Significance

Interpretive social science was significant to this study because it allowed the participants the freedom to share what was important to them. It was essential for participants to think about each question and give answers freely the individuals were able to recall what was significant to them.

Most of the data analysis dealt with the participants' gender socialisation and so, gender socialisation theory played a fundamental role throughout this project. Socialisation is a continuing process (Clausen 1967), and gender socialisation is how boys and girls learn what is normal for their gender (Kornblum 2005). The data analysis revealed that traditional gendered ideologies and ways of life continue to exist among the participants in this study. The participants' descriptions of their traditionally decorated childhood bedrooms and their parents acting out traditional family roles reveal that these participants experienced traditional gender socialisation.

Using social learning theory, where certain sextyped behaviours are learnt due to reinforcement or non-reinforcement (Stockard 1999), it was important to learn what behaviours the participants had learned that reflected being male and female. Clear examples of gender stereotypes were given, such as males being more instrumental and females being more expressive. These gender stereotypes reflected the participants' descriptions of their parents' in the narratives (the mother being more emotional, talkative and free-spirited and the father being more hard-working, logical, and making decisions). It was of interest to explore if any of these socially learned behaviours developed into gender schemas.

Learning what is 'normal' for one's gender can develop into a gender schema. Sandra Bem (1981: 355) termed gender schemas as "a network of associations that organizes and guides an individual's perception". The participants' gender stereotypes, women as sincere, verbal, and performing household tasks and men as dominant, rule-setting, and performing outdoor tasks, reflected what they experienced in their household. Perhaps the stereotypes and gender schema of the participants, such as males being more instrumental and performing the majority of outdoor tasks, led some of the nursing females to believe that the male nursing students were better suited for lifting.

The males entering nursing and the females entering engineering expressed the most difficulty on deciding to enter these programs. Most of their decisions were made towards the end of their last year of high school or upon entering university. The male nursing students and the female engineering students were influenced by having peers in the program or having a family member in the program or in the career. Perhaps the decision to enter a non-gendered career choice was difficult because of the gendered stereotypes the participants were exposed to and could have affected their beliefs on what careers men and women are better-suited for.

Although gender socialisation and gender stereotypes played roles in the participants' lives, not all participants followed a gendered career path. Half of the participants chose to enter non-gendered career paths with the support from peers and/or family members. Influencers, or a respectable role model, in this study have shown to play a more significant role than one's socialisation.

6.3 Limitations and Future Research

There were some limitations in this project, with the first being the sample size. Only ten white individuals (six females and four males) were interviewed. This data only represents

a small portion of nursing and engineering students in New Brunswick, Canada, therefore cannot truly represent the entire province or the country.

Future research could explore a larger sample size in Canada that encompasses more ethnicities and examines students from every province. This suggestion would be best accomplished by a quantitative study. Future research could also compare the socialisation of individuals who entered post-secondary education with those who did not. It would be interesting to compare their gender socialisation to note any differences or similarities, and to find out what factors led the participants' decisions to not enter post-secondary education to those who did.

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Appendix A: Participant Questions

A) Background information

1. Tell me about your early childhood.

Where were you born; which places did you move to; why did you move; what work did your parents do, etc.?

2. Describe your parents' socio-economic status over the years.

Was it high or low; were there changes?

3. Were both your parents employed?

Describe their level of ambition.

4. Describe your parents' relationship.

Was it egalitarian; what were your feelings towards their relationship; who would you say is/was the "head" of the household?

5. Describe your relationship with your parents.

Did they push you to achieve, or were they casual about their expectations for you?

6. Did you find your relationship to your parents much like the relationships that your friends had with their parents?

7. Did your parents inspire you; did they talk to you about good role models that they respected?
(i.e.: when I grow up I want to be just like my mom/dad)

8. When you were a child, did you have a dream job?

What do you want to be when you grow up?

9. What were, if any, activities your mother and/or father enrolled you in when you were a child
(before you could decide for yourself)?

Did they push you to continue if you didn't want to?

10. What activities were you not allowed to participate in?

"Girls only" or "boys only" activities that you might have been excluded from, because it was not considered "appropriate".

B) Socialisation

1. Do you think you were brought up differently in comparison to a male or female sibling, if any? Were there any differences in language directed towards you, the expectations of you, clothing, toys, activities, etc.?

2. Do you recall having a particular role model; someone in the family or a character on a television program?

Tell me about them: What did they do, what are their characteristics, describe them?

3. Were you taught that there were differences in competencies between men and women? Only boys can do this, only girls could do that.

4. What are some male and female stereotypes (current or in the past) you have been exposed to at home, in school, in the media, and among friends?

5. Can you remember any instances where you or another classmate was treated differently, based on gender or race, etc.? Have you seen certain students receive more attention from the teacher than others?

6. What kind of support, if any, did your mother and father give you throughout school and your activities; financial, emotional, physical - driving you around for example?

7. Have your parents ever wanted you to pursue a specific career path? Discuss.

8. What do your parents tell you that you are 'good' at?

What did they say you were not 'good' at?

10. What are some things about your parents that annoy you?

9. Does your mother speak differently when she speaks to a female or male?

Does your father speak differently when she speaks to a female or male?

How is it different?

For example, when either your mother or father is on the phone, can you tell if they are talking to a male or female?

10. Who teaches us to become masculine or feminine?

11. Do you think men and women have equal life chances? Explain.

C) University/Career Choices

1. What program are you currently enrolled in at University?
2. Are you happy with your decision to pursue this particular course, or would you have liked to choose differently? Explain.
3. What factors do you think influenced your decision?
Friends, family, ability, aspiration, etc.
4. Who did you talk to concerning your choice?
Role model, family, etc.
5. Do you feel you are supported in your choices so far?
6. In your courses, do you feel there are more males/females? Or is it equally shared?
7. Do you notice more males and more females in particular fields of study?
Why do you think this is?
8. Do you feel that you are being treated differently (i.e. discriminated positively or negatively) on the basis of race or gender?
Is there anything you notice in your University classes that bothers you?
9. What career do you see yourself doing in the future?
Do you have any particular hopes and/doubts regarding your future?

Appendix B: Consent Form

Consent form for “A sociological investigation of gender and non-gender specific career choices by young adults in Saint John, Canada”

My name is Brooke Hanlon and I am an online international student of UNISA. I am conducting research as part of the fulfilment of my Master’s degree at UNISA in the Department of Sociology. The title of my dissertation is “An in-depth sociological investigation of the possible reasons why young adults in Saint John, Canada choose particular ‘gendered occupations’”. I am asking for your formal permission for you to participate in the interview that will be held at a convenient venue. The interviewer will be dealing with your past and current experiences of gender, language, socialisation, and your present career aspirations. This research seeks to investigate how the socialisation process has influenced young adult’s decision making on their career selections.

Your participation in this study is entirely voluntary. Anonymity will be assured as pseudonyms will be used to protect your identity. Your real identity will not be revealed in the dissertation or transcripts.

If you agree to participate in this study, I would like to request that you please sign the consent form in the space allocated below. Once we start the formal interview you are under no obligation to continue with the interview and you can terminate the session at any time.

The interview will be recorded using a digital recording device. The duration of the interview will be approximately 1 hour. Only I, as the researcher and my supervisor, Ms Sinteche van der Merwe of the Department of Sociology, will have access to these transcripts. The Department of Sociology will store these transcripts for legal and ethical purposes.

Dissemination of research results: The results will be used to complete a master's dissertation and could be used in relevant meetings/conferences and published in relevant academic journals. If you have any questions about any aspect of this research (now, or in the course of this study or later) please do not hesitate to contact me at the following number, 506 832 4460 or by email, brooke.hanlon@gmail.com. I will be happy to answer all questions.

Thank you

Brooke Hanlon

Formal acknowledgement and consent

I, on this day of 2015, agree to participate in the interview for the masters research project on the influences of gender socialisation. I understand that I will be asked questions regarding my past and current experiences of gender socialisation.

Signed.....