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Pepperdine University
Graduate School of Education and Psychology

EMOTIONAL INTELLIGENCE IMPLICATIONS ON THE CAREER ADVANCEMENT OF
WOMEN IN A FORTUNE 500 PHARMACEUTICAL COMPANY

A dissertation submitted in partial satisfaction
of the requirements for the degree of
Doctor of Education in Organizational Leadership

by

Shawn D. Andrews

September, 2013

Kent Rhodes, Ed.D. – Dissertation Chairperson

This dissertation, written by

Shawn D. Andrews

under the guidance of a Faculty Committee and approved by its members, has been submitted to and accepted by the Graduate Faculty in partial fulfillment of the requirements for the degree of

DOCTOR OF EDUCATION

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DEDICATION

To my family, friends, coworkers, and academic colleagues, thank you for your support, encouragement, and words of wisdom throughout this journey. To Janet, thank you for your unwavering support, understanding, and patience for climbing each mountain. I am very proud to share this accomplishment with each of you. In addition, I would say to all of you, yes, you need to start calling me Doctor!

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VITA

Shawn D. Andrews

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“Turning SMEs into best-in-class trainers” June 2012
“Applying the science of learning to science-based training”
“Developing engaging eLearning using Articulate software”
Society of Pharmaceutical and Biotech Trainers Annual Conference

“Turning SMEs into best-in-class trainers” Oct 2011
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ABSTRACT

Women account for more than 50% of college graduates, more than 50% of professional degrees such as M.D. and J.D., and more than 50.0% of management, professional, and related occupations (Labor, 2011). However, women hold only 14.3% of executive officer positions of the Fortune 500 companies, and the number of female CEOs at these companies is 3.8% (Catalyst, 2012). Given these statistics, a natural shift to a more gender-balanced senior management should be a reasonable, expected outcome.

In addition, research in the past decade lead by Daniel Goleman (1995, 2000, 2004) has identified an individual's emotional intelligence as a key aspect and driver of leadership effectiveness. Emotional intelligence assessments have found women and men to be equally as intelligent emotionally, but they are strong in different areas or attributes that are considered gender-specific.

This mixed method phenomenological study was grounded in research by Goleman (1998, 2000, 2004) and Bar-On (2005) which explored emotional intelligence as it relates to leadership and success in organizations. The purpose of this research study was to apply Goleman's leadership theory and Bar-On's gender-related emotional intelligence in a way that examines the possible relationship between gender-specific emotional intelligence attributes and women's career advancement in a Fortune 500 pharmaceutical company.

12 participants at four levels of the company were selected – vice president, director, manager, and administrative assistant. Each participant completed the EQ-i 2.0 assessment followed by a 30-minute in-depth interview. The data was analyzed to assess specific EQ attributes, and to understand each participant's lived experiences with leadership, emotional intelligence, and gender bias or barriers.

Women at the vice president level had group mean EQ scores that were higher in the male-specific EQ attributes, and women at the manager level had group mean EQ scores that were higher in female-specific attributes, which suggests that women adapt their EQ attributes as they rise to ranks of leadership. To help close the leadership gap and address barriers that women face, the researcher recommends that organizations provide diversity training, mentoring programs, robust talent management, EQ education and training, and leadership support from the top.

Chapter 1: Introduction

In the business world, women leaders are still a minority. During the past three decades, women have achieved parity with men in both number of employees in the workforce and positions in middle management. Despite this fact, female leaders remain the minority, especially in key executive leadership positions. Women represent 58.6% of the labor force in the United States and occupy 51.4% of all management, professional and related occupations (Labor, 2011). However, they hold only 14.3% of executive officer positions of the Fortune 500 companies, and the number of female CEOs at these companies is 3.8% (Catalyst, 2012).

In addition, research in the past decade lead by Daniel Goleman (1995, 2000, 2004) has identified an individual's emotional intelligence as a key aspect and driver of leadership effectiveness. Emotional intelligence is defined as a form of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them, and to use the information to guide one's thinking and action (Salovey & Mayer, 1990). Emotional intelligence assessments have found women and men to be equally as intelligent emotionally, but they are strong in different areas or attributes that are gender specific. For example, women score higher than men do in areas of empathy and social responsibility, which are generally considered female-specific emotional intelligence attributes. In contrast, men outperform women on stress tolerance and self-confidence measures, which are generally considered male-specific emotional intelligence attributes (Murray, 1998). Examples of other types of emotional intelligence attributes include self-awareness, assertiveness, independence, flexibility, problem solving, impulse control, optimism, and happiness (Bar-On & Handley, 1999). Some of these attributes are considered gender-neutral; however, gender-specific attributes may play a significant role in leadership.

In considering emotional intelligence as it pertains to leadership, the importance of one emotional intelligence attribute compared to another and the impact it has on leadership effectiveness, or the achievement of a top leadership position, may carry different weight and value at a given corporation. Further, these attributes, or lack thereof, could have a negative effect on a woman's advancement into leadership positions within an organization. This study examines the implications of emotional intelligence on the career advancement of women in a Fortune 500 pharmaceutical company, and characterizes differences between gender-specific emotional intelligence attributes, type of position in the company, and age of the participants. The population includes women at four levels of the pharmaceutical company. The first level of female participants includes women in roles as administrative assistant or executive secretary, the second level are women in roles as managers or specialists, the third level are women who serve as directors, and the fourth level are women in the roles of vice presidents.

Problem Statement

Women enter professional and managerial ranks in equal or greater numbers than men, yet very few hold senior leadership positions (Labor, 2011; Catalyst 2012), and have been unable to advance in their careers or break through the proverbial glass ceiling. Although women have made some strides in the past decades, men still occupy far more positions that confer decision-making authority and the ability to influence other's pay or promotions (Eagly & Carli, 2003).

In comparison with other industries, the pharmaceutical business has been ahead of the curve in bringing women into middle management positions, and in the vast majority of pharmaceutical companies, more than half of the sales representatives are women. Despite the larger number of women at middle management levels, there is still opportunity for greater contributions at senior and executive levels (Blackwell, 2002). To further compound this issue,

women have also been shown to be as emotionally intelligent as men (Murray, 1998), but this has not proven to be an asset in women's career advancement in the pharmaceutical industry.

Statement of Purpose

This mixed method study is grounded in research by Goleman (1998, 2000, 2004) and Bar-On (2005) which explored emotional intelligence as it relates to leadership development and success in organizations. Emotional intelligence (EQ) has gained acceptance and validity in describing leadership styles and capabilities, and women are recognized as being equally as emotionally intelligent as men are.

The purpose of this research study is to apply Goleman's leadership theory and Bar-On's gender-related emotional intelligence in a way that examines the possible relationship between gender-specific emotional intelligence attributes and women's career advancement in a specific industry.

Research Questions

The research questions that explored in this study are as follows:

1. To what extent, if any, is there a relationship between emotional intelligence attributes and women based on type of position in a Fortune 500 pharmaceutical company?
2. To what extent, if any, is there a relationship between emotional intelligence attributes and women in leadership positions in a Fortune 500 pharmaceutical company?
3. To what extent, if any, is there a relationship between gender-specific emotional intelligence attributes and the career advancement of women in a Fortune 500 pharmaceutical company?

4. To what extent, if any, is there a relationship between emotional intelligence attributes and the career advancement of women in a Fortune 500 pharmaceutical company based on generation (i.e., Veterans, Baby Boomers, Generation X, and Millennials)?

Significance of the Study

The significance of the study relates to the ability of corporations to leverage the enormous pool of talent inherent in their employees. Given that women account for more than 50% of college graduates, more than 50% of professional degrees such as M.D. and J.D., and hold 50.6% of management, professional, and related occupations (Labor, 2011), a natural shift to a more gender-balanced senior management should be a reasonable, expected outcome. This has clearly not happened, as only 3.8% of Fortune 500 CEOs are women (Catalyst, 2012).

When corporations are seeking to develop new leaders, the female population of employees is underrepresented. If companies tap their female employees, it would have a positive impact on diversity both in middle management and the board of directors (Smith, Smith, & Verner, 2006). In addition, stakeholders of a corporation expect that the company will appropriately manage and maximize their resources, including human capital. If companies that have more women in their senior ranks have better return of investment, then companies that do not have women in their senior ranks may be missing an opportunity to enhance their effectiveness.

Additional significance of this study is based on Goleman's research (1995, 2000, 2004) that identified an individual's emotional intelligence as a key aspect and driver of leadership effectiveness. Unlike intellectual aptitude, which is what an individual is born possessing and remains static, research indicates emotional intelligence can be enhanced or improved (Goleman, 1995, 1998). As pointed out earlier, women and men are equally emotionally intelligent, but

have strengths in different areas. Companies that do not leverage the full spectrum of emotional intelligence attributes in their employees, will be at a disadvantage to companies that do.

Limitations of the Study

Limitations of the study include those that are inherent in the study design, and the researcher's own potential bias. The limitations of this study include the following:

- First, the study is reliant upon access to women in different roles and levels at the pharmaceutical company based in California. If permission cannot be obtained, the researcher will not be able to assess and determine if emotional intelligence plays a role in leadership or on the career advancement of the participants.
- Second, the researcher will need to obtain representation from women at all levels of the company, which includes administrative assistants, managers and specialists, directors, and vice presidents. The study may be skewed in favor of women at a particular level if adequate representation is not achieved.
- Third, since the researcher is a current employee, a female, and a manager at the pharmaceutical company, views and assumptions of the participant's responses may be biased. In addition, the researcher may be familiar with company language or information that may skew interpretation of the results.
- Fourth, the researcher believes that the level of emotional intelligence corresponds directly to a person's level of leadership in a given industry. This belief is based on the work by Goleman (1995, 2000, 2004) that identified an individual's emotional intelligence as a key aspect and driver of leadership effectiveness. Therefore, potential leadership bias of the researcher may also be a limitation of the study.

- Fifth, emotional intelligence may be absent from the company's culture and the researcher may not be able to determine the participant's views on specific emotional intelligence attributes due to a general lack of awareness or knowledge of the topic.
- Sixth, in looking at gender-specific emotional intelligence attributes, the researcher believes that traditionally male EQ attributes, such as independence, assertiveness, and stress tolerance are valued more than traditionally female EQ attributes, such as empathy, social responsibility, and interpersonal relationships (Murray, 1998).
- Seventh, since emotional intelligence generally increases with age (Goleman, Working with emotional intelligence, 1998), the researcher believes that the older female participants will occupy more leadership roles than their younger counterparts, resulting in higher levels of career advancement.

Assumptions of the Study

The researcher has made some assumptions in designing this study, which are listed below.

- First, it is assumed that the study participants will have a general awareness or knowledge of emotional intelligence, be willing to take an EQ-i assessment, read background information on emotional intelligence and leadership, sign IRB consent information, and be interviewed for 30 minutes on the topic.
- Second, since the researcher is a current employee, a female, and a manager at the pharmaceutical company, certain assumptions may be made about participant interview responses and EQ-i profile results.
- Third, it is assumed that the organizational culture at the company is supportive of emotional intelligence to some extent. For example, at least minimal training or communications have

been provided about what emotional intelligence is, what it means, and how it relates to leadership.

- Fourth, because emotional intelligence is a key aspect of leadership, it is assumed that there will be a relationship between participants who score high on overall emotional intelligence and their level of advancement, or leadership level, in the company. That is, that the vice presidents will be more emotionally intelligent than the administrative assistants or executive secretaries.
- Fifth, it is assumed that the female leaders at this pharmaceutical company will have a general awareness or knowledge of emotional intelligence, and that they will have a bias, either conscious or unconscious, of the effectiveness of certain gender-specific emotional intelligence attributes, such as assertiveness, self-confidence, and independence, which are typically male attributes.
- Sixth, it is assumed that there will be a difference in emotional intelligence attributes and attitudes between women of different generations. For example, older women, such as the Baby Boomers, will score higher on measurements of independence, empathy, problem solving, and stress tolerance than their younger female counterparts (Bar-On, 1999). Most people begin to develop their careers between the ages of 20-25 and search for their own way of life. According to Erikson (1968), this age is characterized by an identity crisis, which includes the re-evaluation of individual and social choices, identification and self-determination. However, at the age of 30-35 people begin to seriously assess what they have achieved and re-define their values. According to Erikson, this period of life is characterized by feelings of togetherness and search for balance in one's relationships. Taking into consideration these characteristics, one can hypothesize that younger people, because of the

necessity of making serious choices and the process of self-determination, experience more anxiety and confusion in response to these challenges, and therefore, in comparison with older people, would have lower scores of emotional intelligence.

Delimitations of the Study

The following are delimitations as imposed by the researcher.

- First, since the study will be conducted using purposeful sampling of 12 women at one pharmaceutical company, the data cannot be extrapolated to all women at this pharmaceutical company.
- Second, since this study focuses on women at one pharmaceutical company, the data cannot be extrapolated to women at different pharmaceutical companies or across the pharmaceutical industry as a whole.
- Third, this study focuses on a pharmaceutical company, and will not be dispersed across organizations in different industries. Because women in other industries will not be selected to participate, it cannot be determined whether emotional intelligence has positive or negative implications on the advancement of women in other industries.
- Fourth, this study will focus on females in roles at four levels, not all levels, of the pharmaceutical company. The researcher will select and contact participants based on role in the company in order to address the proposed research questions. The target population will include three women at each of the four levels of employment, which are administrative assistants, managers, directors, and vice presidents, yielding a sample of 12 women.
- Fifth, the original research proposal targeted 50 female participants across various organizations in California, which included healthcare, education, non-profit, financial services, and professional organizations. Since the sample size will be purposively small and

focused, the study cannot correlate or extrapolate the impact of emotional intelligence on women in all leadership positions.

- Sixth, the researcher will select participants based on personal contacts, purposive sampling and referrals from human resources or the participants themselves. Although the study will include participants throughout the United States, it will be concentrated primarily on female participants who live and work in California, as the headquarters are based in California.
- Seventh, the study will be devoted to researching female employees only. The opinion of male leaders and non-leaders as it relates to emotional intelligence and leadership will not be examined. By delimitating the study to focus only on female employees, the objective is to yield significant new knowledge in the area of female leadership and gender-specific emotional intelligence.

Definition of Terms

Agentic behavior is typically associated with stereotypical masculine traits such as assertiveness, aggression, competitiveness, dominance, independence, and self-reliance.

Communal behavior is typically associated with stereotypical feminine traits such as caring, concern, and nurturance as well as being gentle and soft-spoken.

Emotional intelligence is the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to regulate emotions reflectively so as to promote emotional and intellectual growth (Mayer & Salovey, 1997).

Emotional intelligence attributes are subscales or factors of larger emotional intelligence scales or categories. These attributes include self-awareness, self-actualization, self-regard, assertiveness, independence, flexibility, problem solving, empathy, social responsibility,

interpersonal relationships, reality testing, stress tolerance, impulse control, optimism, and happiness (Bar-On, 1999).

Gender specific emotional intelligence attributes refers to attributes that are generally considered to fall along gender lines. For example, women score higher than men in areas of empathy and social responsibility, whereas men outperform women on stress tolerance and self-confidence measures.

Glass ceiling is commonly referred to as an invisible barrier preventing women from ascending into elite leadership positions.

Glass floor is commonly referred to as an invisible barrier that implies if a woman falls from an elite leadership position, she may never rebound or appear in other organizations.

Role congruity theory is defined as the prejudice that exists when one person holds beliefs or stereotypes about a group that are inconsistent with the behavior thought to be necessary to succeed in a specific role.

Senior or executive leadership include chief executive officer, chief financial officer, chief learning officer, president, vice president, or director.

Transactional leadership refers to a relationship between leader and follower that result in an even exchange of transactions between one another. This has been generally associated with male leaders.

Transformational leadership refers to a relationship between leader and follower that is built around cooperation, lower levels of control, collaboration, and collective problem-solving and decision-making. This has been generally associated with female leaders.

Organization of the Study

Chapter 1 will introduce the problem that women continue to be sparsely represented at senior leadership levels across organizations. Chapter 1 will also introduce the research that ties emotional intelligence to leadership effectiveness and state that women and men are equally emotionally intelligent, although this fact has not seemed to have made an impact on a women's career advancement in her organization. Research that attempts to explain possible reasons for this will be introduced, with a further analysis examining emotional intelligence attributes on the advancement of women based on generational differences, and women specifically in the pharmaceutical industry. The problem statement, purpose of the study, significance of the study, and limitations, assumptions, and delimitations of the study will also be presented. Finally, definitions of key terms found throughout the paper will be stated as well as how the paper is organized overall.

Chapter 2 will consist of a review of the relevant literature on several topics central to the research to provide a historical background and context of the issues. Literature will be reviewed and synthesized, beginning with a broad scope of topics and ending with topics specific to the subject matter of this research paper. The review will include leadership theories, gender studies, leadership and gender, emotional intelligence (EQ), EQ and gender, EQ and leadership, leadership and generational differences, leadership and ethnicity, women leaders in the pharmaceutical industry, and finally dissertation research on related topics. These theories and research will be discussed and analyzed to determine the implications that emotional intelligence has on the career advancement of women and leadership.

Chapter 3 will outline the methods used in addressing each of the four research questions. This mixed method study includes a quantitative design to measure variables, and a qualitative design to examine characteristics. The quantitative design will allow for measurement and

evaluation of specific EQ attributes identified as gender-specific and important to leaders. The qualitative design will include interviews of women at multiple levels in a pharmaceutical company to enrich the study and glean personal insights into their perceptions of EQ and the impact it has had on their career advancement. Chapter 3 will describe the sampling technique and data collection plan for this population. Human subjects considerations and institutional review board (IRB) requirements will be followed, and confidentiality of participants will be addressed in detail. Chapter 3 will also include a description of the statistics to be employed to analyze the instrument and interview data, characteristics, and trends.

Chapter 4 will present the results of the study, including detailed statistical analysis using tables and figures, to illustrate the results. Participant demographics will be presented and each of the four research questions will be stated, followed by the analysis and findings for each. The findings included data from both the quantitative phase and qualitative phase of the study.

Chapter 5 will provide a discussion of each research question as well as the overall themes gleaned from the study. A discussion of gender barriers will be presented along with implications for women in leadership and the role that emotional intelligence plays in a woman's career advancement. Finally, recommendations for organizations to help support a woman's advancement into leadership will be outlined as well as recommendations for future research on this topic.

Summary

At the conclusion of this study, the researcher hopes to have sufficient data to support conclusions regarding emotional intelligence factors that contribute to the paradox of women in leadership roles. Women make up more than half of the students in U.S colleges and universities, women enter professional and managerial ranks in equal or greater numbers than

men (U.S. Department of Labor, 2011; Catalyst, 2012), yet very few women hold senior leadership positions, and this trend has not changed for the past ten years.

The study will be grounded in research by Goleman (1998, 2000, 2004) and Bar-On (2005) based on their theories of leadership and gender-related emotional intelligence. These theories will be applied in a way that examines the possible relationship between gender-specific emotional intelligence attributes and women's career advancement as leaders in a specific industry, given that women have been shown to be as emotionally intelligent as men (Murray, 1998). Finally, the objective of the study is to answer four primary research questions:

1. To what extent, if any, is there a relationship between emotional intelligence attributes and women based on type of position in a Fortune 500 pharmaceutical company?
2. To what extent, if any, is there a relationship between emotional intelligence attributes and women in leadership positions in a Fortune 500 pharmaceutical company?
3. To what extent, if any, is there a relationship between gender-specific emotional intelligence attributes and the career advancement of women in a Fortune 500 pharmaceutical company?
4. To what extent, if any, is there a relationship between emotional intelligence attributes and the career advancement of women in a Fortune 500 pharmaceutical company based on generation (i.e., Veterans, Baby Boomers, Generation X, and Millennials)?

Chapter 2: Literature Review

This chapter provides a review of leadership theory, emotional intelligence theory, and gender studies as it applies to women and presents a foundation to understand certain expectations and attitudes relating to women's career advancement. Theories such as role congruity and gender bias are presented, and concepts such as the glass ceiling are discussed, in the context of why women are noticeably absent from top leadership positions in corporate America. The literature review includes data as it pertains to leadership and specific emotional intelligence attributes, and an examination of women leaders as it relates to generational differences, and leaders in the pharmaceutical industry. Finally, a review of scholarly dissertations that explore the confluence of leadership, gender, and emotional intelligence are presented.

Review of Literature

Evolution of leadership theories. Leadership is a universal, highly valued commodity, and the literature abounds with distinguished scholars' attempts to define and understand the concept of leadership. Stogdill (1974) believes that there are almost as many different definitions of *leadership* as there are people who have tried, in one way or another, to define it.

Leadership theory has encompassed centuries of evolution, beginning in the 16th century with Niccolo Machiavelli's writings in *The Prince*. In this handbook, Machiavelli advises that "only by carefully amassing power and building a fearsome respect could one become a great leader" (as cited in Conger, 1999, p. 17). Much of leadership research in the 20th century has also focused on strategies and tactics to increase leader power and influence. However, more recent leadership theorists have suggested the need for leaders to share power with followers to empower them to achieve extraordinary results.

Early scholars and researchers studying leadership defined the field of leadership in a strictly male context. Not surprisingly, these scholars and researchers were men; men practiced leadership and men wrote about it. This male dominance in leadership history is perceived, even today, as a major reason for the exacerbation of the problem of “women not being seen as an appropriate fit in a management or leadership role” (Jogulu & Wood, 2006, p.236). The road to raising the profile of women in leadership has been a long and difficult journey fraught with controversy.

In the 18th and 19th centuries, philosophers suggested a theory of leadership called the Great Man theory (Denmark, 1993). The great man was believed to have innate “unique and exceptional features and qualities that distinguished him from his followers” (Jogulu & Wood, 2006, p. 237). This theory was constructed as a male model when women were not visible in paid employment. The mere title of this theory illustrates that women were not perceived as leaders, resulting in research during this time period that was focused solely on males.

Spawned from the Great Man theory were the traits and characteristic leadership theories. Traits theories were prominent in literature from 1904–1947. These theories focused on traits that were “fundamentally describing traits in masculine terms and these characteristics were considered vital for successful leadership” (Jogulu & Wood, 2006, p. 237). Few women held management or leadership roles in this time frame.

Soon after the 1940s, researchers began to suggest that traits alone were not sufficient to explain effective leadership, thus giving birth to both behavioral theories and group theories during the 1950s (Jogulu & Wood, 2006). Research during this era was beginning to recognize the importance of concern for people as being an effective leadership quality. “A concern for people could be seen as a behavior more typically associated with feminine characteristics” (p.

239), thus injecting into the literature the first notion of women as leaders. In today's terms, this *concern* is widely regarded as empathy, which is apparent in many leadership models, including emotional intelligence and transformational leadership which will be discussed later in the chapter. Although the behavioral theories were proposed in the 1930s, they did not gain prominence until the 1960s. Women in positions of authority or power in organizations were still relatively infrequent at this time.

During this same time period, situational theories also gained in popularity. These theories, also known as contingency theories, embrace both leadership traits as well as situational aspects of leadership. The most popular situational model that has emerged was developed by Hersey and Blanchard (1969) based on Reddin's (1967) 3-D management style theory. As the name of the approach implies, situational leadership focuses on leadership in situations. The premise of the theory is that different situations demand different kinds of leadership, and to be an effective leader requires that a person adapt his or her style to the demands of different situations. Because these theories were developed and researched during a period when women were more likely to be in supportive, non-management type roles, these theories "would have predominately been seen as applying to males in management or leadership roles" (Jogulu & Wood, 2006, p. 239).

During the 1970s, leadership research emphasized organizational management and social exchange theories, whereas leadership is a process of influence between leaders and those who are followers. While the leader may have power, influence depends more on persuasion than on coercion. A leadership process usually involves a two-way influence relationship aimed primarily at attaining mutual goals, such as those of a group, organization, or society. Further, leadership is not just the job of the leader but requires the cooperative effort of others, in that the

process of leadership involves a social exchange or transaction between the leader and followers (Jogulu & Wood, 2006).

In the 1980s, three styles of leadership were proposed in situational leadership theories: (a) autocratic, (b) democratic, and (c) laissez-faire. The autocratic and laissez-faire styles focused on male characteristics. The democratic style, defined as a style whereby the leader pursues an open, trusting, and follower-oriented relationship (Jogulu & Wood, 2006, p. 240), was the first body of literature aligning leadership to favorable feminine characteristics, thus calling attention to women in leadership. Unfortunately, even though research was beginning to acknowledge women, the perspective appeared to be that the differences noted in women leaders were equated with deficiency (Fagenson, 1990).

Also significant during the 1980s, was research by Bass (1985) who built upon Burns' (1978) early work of transactional and transformational leadership. Burns' work aligned transactional leadership style with strong masculine characteristics and qualities of competitiveness, hierarchical authority, high control, and analytical problem solving. In contrast, transformational leadership more closely aligns with feminine qualities such as cooperation, collaboration, lower control, and problem solving based on intuition and rationality (Klenke, 1993). Research on transformational leadership by Bass (1985) "opened opportunities for further investigation of the leadership styles of men and women" (Eagly, Johannesen-Schmidt, & van Engen, 2003, p. 570).

In the early 1990s, there was a new era in the literature that could be seen as contributing to women's career advancement in leadership. "The beginning of gender differences theories marked a shift in the leadership literature, as the behavior, skills, and attitudes of women were

considered, recognized, and evaluated” (Jogulu & Wood, 2006, p. 243). More on transformational leadership will follow in subsequent sections.

Gender and leadership. The topic of gender and leadership has become increasingly popular during the past three decades. This roughly corresponds to the rise of the women’s movement and the influx of college-educated, career-focused women into the work force and academia, which have fueled scholarly interest in the study of female leaders. Thus, research questions have shifted from whether women can lead, to the style and effectiveness of women compared to men and the biases associated with women rising up the corporate ladder. In addition to the increasing presence of women in corporate and political leadership roles, we can point to highly effective female leaders in a variety of domains. These women include Prime Minister Indira Gandhi, President Veronica Michelle Bachelet of Chile, PepsiCo’s CEO Indra Nooyi, Avon’s CEO Andrea Jung, U.S. Speaker of the House Nancy Pelosi, U.S. Secretary of State Hillary Clinton, Four-Star General Ann E. Dunwoody, and the founder of Teach for America, Wendy Kopp (Northouse, 2007).

Meta-analyses (Eagly & Johnson, 1990; Eagly, Makhijani & Klonsky, 1992; Eagly, Karau & Makhijani, 1995) have revealed that there are very few differences between male and female leaders. Contrary to stereotypic expectations, women were not found to lead in a more interpersonally oriented and less task-oriented manner than men in organizational studies. These differences were found only in settings where behavior was more regulated by social roles, such as experimental settings. The one potentially significant difference that was detected is that women use a more participative and democratic style and are less autocratic and directive in their leadership style than men (Eagly & Johnson, 1990). Another meta-analysis examining research between 1987 and 2000 found similar results (van Engen & Willemsen, 2004).

It is important to consider these results with findings from another large-scale meta-analyses looking specifically at evaluations of both female and male leaders who were equated on all characteristics and leadership behaviors (Eagly et al., 1992). These studies showed that women were devalued compared with men when they led in a masculine manner (e.g., autocratic or directive), when they occupied a typically masculine leadership role (e.g., athletic coaches or managers in manufacturing plants), and when the evaluators were men. These findings not only point to the prejudice women experience in leadership positions, but also indicate that women's greater use of democratic style appears to be adaptive, suggesting situational theory, in that they are using the style that produces the most favorable evaluations (Northouse, 2007).

In addition to style, the relative effectiveness of male and female leaders has been assessed in a number of studies (Jacobson & Effertz, 1974; Tsui & Gutek, 1984). In a meta-analysis comparing the effectiveness of female and male leaders, men and women were equally effective leaders, overall, but there were gender differences such that women and men were more effective in leadership roles that were congruent with their gender (Eagly et al., 1995). Thus, women were less effective to the extent that the leader role was masculinized. For example, women were less effective than men were in military positions, but were somewhat more effective than men in education, government, and social service organizations, and substantially more effective than men in middle management positions, where communal interpersonal skills are highly valued. In addition, women were less effective than men were when they supervised a higher proportion of male subordinates or when a greater proportion of male raters assessed the leaders' performance (Northouse, 2010). In summary, the empirical research supports small differences in leadership style and effectiveness between men and women. Women experience slight effectiveness disadvantages in masculine leader roles, whereas roles that are more feminine offer

them some advantages. Additionally, women exceed men in the use of democratic or participatory styles, and they are more likely to use transformational leadership behaviors and contingent rewards, styles that are associated with contemporary notions of effective leadership.

Research by Helgesen (1990) further supports the findings that women offer a unique style of leadership, apart from men, for today's organizations. Her best-selling classic *The Female Advantage* was the first book to focus on what women have to contribute instead of how they need to change and adapt. Continuing to focus on opportunity, the author highlights the reasons that women's gifts are particularly suited to the demands of today's workplace. These skills include building and managing relationships, having a bias for direct communication, leading from the center rather than the top, comfort (as opposed to tolerance) with diversity, and the ability to integrate work and life and draw information broadly. Furthermore, her research also shows how marketplace trends of the last two decades have supported women's skills and brought them into the mainstream. For example, organizations today seek to connect directly with customers and clients, new architectures of technology support webs instead of hierarchies, the global economy expands the pool of diverse talent and markets, 24/7 intensity requires greater work-life integration, and teams and partnerships become the dominant unit of work.

Finally, research by McKinsey & Company, a global management consulting firm, publishes annual reports as research partner to The Wall Street Journal's Executive Task Force for Women in the Economy. Since 2007, the McKinsey Institute has been researching intensively the advancement of women in the workplace. They have concluded that the business benefits are clear: a wider, deeper swath of talent to solve problems, spark innovation, and, in many cases, mirror a company's own customer base is the most successful model for any business. Yet, the top circles of corporate America remain stubbornly male.

In 2011, only 14% of women served on executive committees, and only 3% served as CEOs in Fortune 500 corporations (Barsh & Yee, 2012). However, these numbers don't tell the whole story. For the second year in a row, McKinsey & Company undertook an ambitious U.S.-based research project by studying 60 Fortune 500 or similarly sized companies. The research took a closer look at the progress these companies were making in advancing their women. McKinsey developed four metrics that can serve as hallmarks of a truly gender-diverse company. They include a starting position that reflects individual talent, the number of women at the top of the organization, odds of promotion equivalent to men, and the mix of women in line roles versus staff roles. Of the 60 companies whose talent pipelines they reviewed, only 12 met three out of the four measures for success and none fulfilled all four (Barsh & Yee, 2012). Among the highest-achieving companies, two archetypes of talent pipelines emerged: *fat* funnel companies, which started with a remarkably high number of women (well over 50% in their pipelines) and then moved a still-impressive amount of women (in some cases up to 40%) into senior roles; and *steady* pipelines, companies that started with a smaller mix of women early on but retained them as they progressed through the pipeline. In addition, interview data from 200 successful women yielded intriguing insights, that despite their career success, 59% of women said they did not aspire to the C-suite (Barsh & Yee, 2012). These results need to be considered when examining reasons for the leadership gap at the highest echelons of corporate America. A discussion of these results will be included in Chapter Five.

Transformational leadership. As women increasingly enter traditionally male-dominated roles, there is a growing interest in the relationship between gender and transformational leadership. Approximately one third of leadership research from the early 1980s has focused on transformational or charismatic leadership (Lowe & Gardner, 2000),

demonstrating a growing interest in the relationship between leader and follower. This popular approach to the conceptualization of leadership has arguably evolved to be central to the field (Hay & Hodgkinson, 2006). Bass and Riggio (2006) suggested that its popularity might be due to its emphasis on intrinsic motivation and follower development. Transformational leadership fits the needs of today's work groups, who want to be inspired and empowered to succeed in times of uncertainty.

As the name implies, transformational leadership is a process that changes and transforms people. Bass (1990) asserts that it is concerned with emotions, values, ethics, standards, and long-term goals. It includes assessing follower's motives, satisfying their needs and treating them as full human beings. In addition, the leadership style involves an exceptional form of influence that moves followers to accomplish more than what is usually expected of them, and is a process that often incorporates charismatic and visionary leadership. This approach can be used to describe a wide range of leadership, from specific attempts to influence followers on a one-on-one level, to very broad attempts to influence entire organizations or culture. Northouse (2010) cautions that although the transformational leader plays a pivotal role in bringing about change, followers and leaders are inextricably bound together in the transformation process

It is important to note that in addition to research by Bass (Bass, 1985; Bass 1990; Bass & Avolio, 1994), two other lines of research have contributed in unique ways to our understanding of the nature of transformational leadership. They are the works of Bennis and Nanus (1985) and the work of Kouzes and Posner (1987, 2002). The researchers used similar research methods. They identified a number of middle- or senior-level leaders and conducted interviews with them, using open-ended, semi-structured questionnaires. Based on a content analysis of

these descriptions, they constructed their models of leadership. The next section explores the relationship between transformational leadership and gender.

In 2003, an empirical study done by Mandell and Pherwani (as cited in Jogulu & Wood, 2006) found, “Transformational leadership to a large extent...characterizes a feminine model of leadership, built around cooperation, lower levels of control, collaboration, and collective problem-solving and decision-making” (p. 244). In today’s organizations, which are flatter and less hierarchical in structure, these are precisely the characteristics and qualities that are required of effective leadership.

A meta-analysis conducted by Eagly et al. (2003) linked the effectiveness of transformational leadership to women. The researchers concluded that, “All of the aspects of leadership style on which women exceeded men relate positively to leaders’ effectiveness, whereas all of the aspects on which men exceeded women have negative or null relations to effectiveness” (p. 569). These findings confirmed that women are more likely to possess leadership characteristics and attributes that are predominately effective in contemporary organizations as compared with their male counterparts. In addition, their data showed small but robust differences between female and male leaders on these styles such that women’s styles tend to be more transformational than men’s, and women tend to engage in more contingent reward behaviors than men by nature.

Sharpe (2000) showed similar results and stated “After years of analyzing what makes leaders effective and figuring out who’s got the Right Stuff, management gurus now know how to boost the odds of getting a great executive: Hire a female” (para 1). Leadership experts have developed several theories that research and support these bold assertions. Although these styles predict effectiveness, recent findings suggest that the devaluation of female leaders by male

subordinates has shown to extend to female transformational leaders (Ayman, Korabik & Morris, 2009). Female leaders have cited this behavior by male subordinates as a common issue.

According to Bass and Avolio (1994), transformational leadership is the process whereby a person engages with others and creates a connection that raises the level of motivation and morality in both the leader and follower. The transformational leader motivates and inspires the follower to aspire to and maintain higher levels of productivity than they would have reached if they had been operating only through the transactional process (Bass, 1985). Significant research illustrates that all four components of transformational leadership (idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration) and the contingent reward component of transactional leadership are positively related to leadership effectiveness (Northouse, 2010).

The current research emphasizes transformational leadership in terms of follower empowerment and the need for organizations to become less hierarchical, more flexible, more team-oriented, and more participative (Kark, 2004). Follower empowerment can be associated with how women are expected to act as leaders, based upon common stereotypes. Studies by Kark (2004) have shown that women are perceived, and perceive themselves, as transformational leaders more than do men. Eagly and Carli (2003) found small but significant gender differences that rated women higher than men on all transformational factors. Yammarino, Dubinsky, Comer, and Jolson (1997) found that women leaders provided a working environment that “encourages considerate, warm, participative, and interpersonal relationships” (p. 219), thus facilitating stronger dyadic bonds that fostered productivity, effectiveness, satisfaction, and commitment. As such, they provided support that transformational and

contingent reward leadership positively relates to follower empowerment and significantly correlates with female leadership.

Role congruity theory. As a Western culture society, we have specific expectations about how men and women should dress, act, interact with others, and comport themselves. Women are viewed positively when they meet or align themselves with the typical expectations of the female role. The same can be said for men. While it is clear that the standard of typical requirements has changed throughout the years, from the Victorians to the present day, there is still a set of traits that women, as a gender, are expected to embody and personify.

Eagly and Karau (2002) originally coined role congruity theory. It is defined as the prejudice that exists when one person holds beliefs or stereotypes about a group that are inconsistent with the behavior thought to be necessary to succeed in a specific role (Eagly & Karau, 2002; Eagly et al., 1995). This inconsistency lowers the evaluation of the group member as an actual or potential occupant of the role. Put another way, the role congruity theory proposes that a group will be positively evaluated when its characteristics are recognized as aligning with that group's typical social roles (Eagly & Diekmann, 2005). Prejudice toward female leaders occurs because inconsistencies exist between the characteristics associated with the female gender stereotype and those associated with the typical leadership.

One of the two main causes of prejudice preventing women from achievement of high-status positions or success is the perception of women when placed in leadership roles. In an article on prejudice towards female leaders, Eagly and Karau (2002) found that women who are leaders are perceived in a less positive manner when compared to male leaders. Their data showed that women have a more difficult time achieving high status positions in the workplace and in maintaining these positions through achievement and success. Evidence suggests that

prejudice towards women in leadership positions occurs more frequently in situations where larger inconsistencies between female gender roles and leadership roles are present. Eagly (1987) suggest women due to their socially accepted roles are more often perceived in lower status positions than those of their male counterparts. These accepted gender stereotypes allow for a greater prediction of sex differences between males and females in social behaviors. Findings consistent with this theory can be seen in evidence presented by Eagly and Karau (1991), who found that men emerged more often than women did as leaders. Although women do advance in social leadership roles, positions of leadership involving specialization or behaviors related to a groups purpose are more often attributed to men.

Ritter and Yoder (2004) provide further evidence of gender role differences in leadership positions between men and women. Women and men, based on their level of dominance, were placed in groups consisting of either (man, man), (woman, man), or (woman, woman) and then assigned task randomly. Participants with higher dominance ratings emerged as leaders in all groups except for (woman, man) pairs. When assigned tasks were of a masculine or gender-neutral nature, males emerged more often than females as leaders. These findings suggest that even when women possess dominant characteristics, masculinized task as well as gender stereotypes prohibit the emergence of women into leadership positions.

Under the concept of social role theory, the distribution of men and women into social roles is the root of broader gender roles, or shared expectations stemming from a person's identification as a man or a woman (Diekman & Goodfriend, 2006). Occupations and broader social role expectations fall under the theory, which leads to the generalized assumption that to the extent women "typically occupy social roles related to caring for others (e.g., homemaker, nurse), the communal characteristics that are required by these specific roles (e.g., kind,

sensitive) are associated with women” (p. 369). Conversely, leadership and power roles are expected to be held by men, and men are expected to have characteristics such as independence and competitiveness as a result.

The social role contains all of the direct and indirect messages a child receives growing up in their respective culture. Leaders, whether male or female, carry those messages around with them and, theoretically, those messages are part of who that leader is and how he or she performs as a leader. The same holds true for the followers.

Effective leadership has been studied for some time, but comparing women leaders with male leaders in terms of style and effectiveness is a more recent area of analysis. The style used by women tends to be less hierarchical, more cooperative and collaborative, and more oriented to enhancing others’ self-worth (Eagly et al., 2003). Under the social role theory, leaders occupy roles defined by their specific position in a hierarchy and simultaneously function under the constraints of their gender roles.

Gender and gender bias. Over the past two decades, a number of scholars have researched differences between men and women in the workplace. These differences have focused on language, culture, leadership style, effectiveness, and relationships. Heim (2005) has revealed that from birth, men and women are raised in two distinct cultures, and these socialized behaviors are taken directly into the workplace as adults. For example, boys learn to be competitive through the types of toys, games and sports they play. In fact, they are strongly encouraged to be competitive. On the other hand, girls are encouraged to get along with others, communicate, and harmonize through toys and games that they play. This helps explain why men are more comfortable in hierarchical structures and women are generally more comfortable in flat structures, where communication can flow more easily. Another example of gender

difference is in the way men and women conduct meetings. Men spend a significant amount of time getting buy-in from the meeting attendees prior to the meeting. A woman, instead, shows up to the meeting ready to discuss her ideas with the group, and is unaware that the meeting has already occurred, which puts her at a significant disadvantage (Heim, 2003).

Self-promotion is another area of difference between men and women that can lead to gender bias. Self-promotion may be a way to counteract gender stereotypes in the workplace because it enhances the perception of competence (Rudman, 1998). However, women who behave assertively and confidently and adopt a direct, task-oriented leadership style are evaluated more negatively and are not as well received as men who engage in exactly the same behavior. These opposing expectations for women translate into fewer growth opportunities for them. Very often women are put at a disadvantage early on because the double standard is so pervasive in the workplace. While men are perceived to hold an intrinsic right to managerial roles, many women are merely tolerated as interlopers and bear the burden of proving that they belong in management (Swiss, 1996).

Beyond gendered expectations of the followers, the leaders also internalize their gender role to some extent. Because of the differing social identities that result, women and men tend to differ in their expectations for their own behavior in organizational settings (Eagly et al., 2003). Thus, gender roles create an inconsistency that exists between the communal qualities of caring and kindness associated with women and the agentic qualities, such as assertiveness and competence, associated with a leader. The problem is that leadership qualities or agentic qualities are the same as those used to describe males; the socialization process has produced the expectation that male social qualities also happen to be leadership qualities. Therefore, when women are in a leadership position, they should demonstrate agentic qualities, fulfilling the

expectation that leaders are assertive, masterful, competent, and dominant. However, agentic behavior is viewed as less desirable in women, creating the classic double standard that favors men.

Prejudice occurs when leadership behavior carried out by women is rated less favorably than the same behavior demonstrated by men. In their meta-analysis of 45 studies, Eagly et al. (2003) demonstrated that particularly consequential are the negative reactions that women may encounter when they behave in a clearly agentic manner, especially if that style entails exerting control and dominance over others. When female leaders fail to temper the agentic behaviors required by a leader role with sufficient displays of female-typical communal behaviors, they can incur a backlash whereby they may be passed over for hiring and promotion.

Using Lord and Brown's (2004) follower-centered model of leadership, Scott and Brown (2006) developed a study to detect biases that individuals encode as they take in new information relative to male and female leaders. The authors believe that preexisting gender stereotypes may interfere with an individual's ability to accurately assess leadership behavior. They conclude that, because of the bias, women experience substantially more difficulty in being seen as leaders and added "stereotypes color how behavioral information is encoded, and as a result, women may be viewed as a female first and a leader second" (p. 240).

The incongruence of agentic behavior with female leaders is further exacerbated when the leader role is expected to be culturally masculine or the environment is male dominated. This incongruence not only restricts women's access to such leadership roles but also can compromise their effectiveness. When leader roles are extremely masculine, people may suspect that women are not qualified for them and they may resist women's authority (Eagly, 2007). The cross-pressure of communal qualities people prefer in women and agentic qualities people prefer in

leaders puts a tremendous burden on women leaders who are trying to find a leadership style that works for them. The consensus of much of the research is that a coach or teacher style, as epitomized by transformational leadership, might approximate a balance because it has culturally feminine aspects, especially in its individualized consideration behaviors, and is otherwise considered androgynous (Eagly, 2007).

Sally Helgesen has been conducting research and publishing work on women and leadership for over a decade. One key distinction she notes between men and women is how they manage power and influence. Since women often do not have positional power, they have to lead by natural influence or non-positional power. This is power that does not derive from or reflect an individual's formal position, but is instead based upon relationships and connections, expertise, or personal authority and charisma (Helgesen, 1990). Few companies are adept at acknowledging and harnessing non-positional power, while most organizations view it with suspicion. Webs of structure and information form more easily in companies where power is not stuck because of an over-emphasis on the power of position.

As stated earlier, women are generally more comfortable in a flat organizational structure where there are many points of inflection and decision-making opportunities. Helgesen (1995) cites an example of her work with the Miami Herald in creating a web of inclusion. The web evolved from a more traditional task force by redistributing power in the organization and by changing how it worked, so that it began operating by means of inclusion. The web shook up the Herald by publishing raw data from its employee surveys; by including the squeaky wheels at the paper in decision-making; and by loosely defining its task as addressing any area of perceived unfairness, even if that meant jettisoning such formerly sacrosanct practices as reserved parking spaces for senior executives (Helgesen, 1995). She believes that great companies will all operate

as webs of inclusion in the future. Webs allow organizations to draw on the widest possible base of talent, a huge advantage in an economy based on knowledge. They allow resources to flow to where they are needed, and undermine the tendency to become hierarchical. They put organizations more directly in touch with those they serve, and make partnerships easier to achieve. Perhaps most importantly, they break down the old industrial-era division between the heads of organizations and the hands, which are those who come up with ideas and those who execute them. In doing so, they return joy, creativity and a firm sense of participation to the work done at every level.

The glass ceiling. Does a glass ceiling prohibiting women from ascending to the upper echelons of a corporation really exist? If it does, how did it come about and what are some of the strategies women can utilize to break through this barrier? Numerous studies have been conducted to determine why a glass ceiling exists for women. The term *glass ceiling* first entered America's public conversation less than a decade ago, when *The Wall Street Journal's* Corporate Woman (Unknown, 1986) identified a puzzling new phenomenon. There seemed to be an invisible, but impenetrable, barrier between women and the executive suite, preventing them from reaching the highest levels of the business world regardless of their accomplishments and merits. The phrase immediately captured the attention of the public as well as business leaders, journalists, and policy makers. The metaphor quickly extended to refer to obstacles hindering the advancement of minority men, as well as women (Redwood, 1995).

Every year, Catalyst (2012) conducts a survey of thousands of employees in Fortune 500 companies. In 2012, they found that women occupy 51.4% of all management, professional and related occupations, held 14.3% of executive officer positions, and only held 8.1% of executive officer top earner positions. They also showed that in 2012, women held 16.6% of all board

seats at Fortune 500 companies, and of that number, women of color, defined as Black, Latina or Asian, only held 3.3% of board seats. Finally, the number of female CEOs at these companies is 3.8%. These sobering statistics indicate the effects of the glass ceiling, and have barely budged in the last ten years.

According to the United States Bureau of Labor Statistics (2011), women make up 58.6% of the U.S. labor force, receive 57.5% of both bachelor's and master's degrees, and 48.9% of all doctorates. Yet, women only hold 98, or 18.3%, of the 535 seats in the 113th U.S. Congress, which represents 20, or 20.0%, of the 100 seats in the Senate and 78, or 17.9%, of the 435 seats in the House of Representatives. In addition, six women hold federal executive positions, which are cabinet or cabinet level, and three women are Supreme Court justices (Politics, 2013).

Even in female-dominated occupations, women face the glass ceiling, whereas white men appear to ride a glass *elevator* to the top leadership positions (Maume, 1999; Williams, 1992, 1995). Eagly and Carli (2007) have recently identified limitations with the glass ceiling metaphor, including the implication that everyone has equal access to lower positions until all women hit this single, invisible, and impassable barrier. They posit an alternative image of a leadership labyrinth conveying the impression of a journey riddled with challenges all along the way, not just near the top, that can and has been successfully navigated by women.

A common explanation for the leadership labyrinth is that women have less human capital investment in education, training, and work experience than men. This supposed lack of human capital is said to result in a dearth of qualified women, sometimes called a *pipeline problem* (Eagly & Carli, 2004, 2007). However, a closer look at the problem reveals that women are indeed in the pipelines, but fall out at different points. The statistics stated above also show that women are not behind men in education and training, in fact, they exceed men in these areas.

Women are somewhat behind men in work experience and employment continuity, driven largely by the disproportionate responsibility women assume for child rearing and domestic duties (Bowles & McGinn, 2005). Women often respond to these work-home conflicts in a variety of ways. Some women choose not to marry or have children, others choose to become *superwomen* and attempt to excel in every role, and others take leaves of absences, sick days, or choose part-time employment to juggle the conflicts. Moreover, those that take time off from their careers often re-enter at a lower level than they left, making it that much more difficult to rise in the leadership ranks (Hewlett, 2002). In the next section, the common barriers that cause women to be underrepresented in high-level leadership positions will be explored.

Gender barriers. Although women occupy more than half of all management and professional positions, they have fewer developmental opportunities at work than do men (Catalyst, 2005). Many of these gender differences in opportunities may be driven by the prejudice women experience in the domain of leadership. Women are typically given positions with less responsibility, those that have less leadership opportunities. In addition, women are less likely to receive encouragement, be included in key networks, and receive formal job training than their male counterparts (Powell & Graves, 2003). Ensher and Murphy (2005) suggest that one very important developmental experience that affects career success is effective mentor relationships, and women confront greater barriers to establishing informal mentor relationships than men do. Bowles and McGinn (2005) continue by stating that women are disproportionately represented in business positions that are less viable, have less responsibility, and do not lead to top leadership positions. For instance, women are clustered in the fields of accounting, education, and the velvet ghetto of human resource management.

Other barriers that have contributed to prejudice against women leaders are views on gender differences. One argument is the notion that women are just different from men in their leadership style and effectiveness. As discussed earlier, any substantial leadership style differences between women and men should not disadvantage women and can even offer a female advantage (Vecchio, 2002). Further, women face significant gender biases and social disincentives when they self-promote. Unlike men, self-promoting women are seen as less socially attractive and less hireable (Rudman, 1998). Thus, women who want to pursue leadership positions may choose not to do so because they have internalized these expectations or are simply aware of the social costs of ambition (Powell & Graves, 2003).

According to the role congruity theory discussed earlier, the agentic qualities thought necessary in the leadership role are incompatible with the predominantly communal qualities stereotypically associated with women, thus resulting in prejudice against female leaders (Eagly & Karau, 2002). In addition, women are confronted with cross-pressures: As leaders, they should be masculine and tough, but as women, they should not be *too manly*. These opposing expectations for women often result in the perception that women are less qualified for elite leadership positions than men, and in harsh evaluations of effective female leaders for not being *female enough* (Carroll, 2009).

Research conducted by McKinsey and Company (Barsh & Yee, 2012) found similar barriers to women's career advancement. They identified these barriers as structural obstacles, lifestyle choices, institutional mind-sets, and individual mind-sets. Structural obstacles refers to the fact that it is simply harder for women to get into the right networks of powerful executives and to cultivate sponsor relationships. In their research, they found that although CEOs made gender diversity a priority in more than 80% of the 60 participating Fortune 500 companies, only

about half of employees from those companies agreed that the CEO is committed to the issue; they cited that seeing is believing, and there are few women at the top (Barsh & Yee, 2012). Lifestyle choices were evident in about half the women they surveyed, who said that they are both primary breadwinners and primary caregivers. Most of the men who are primary breadwinners are not primary caregivers. Accordingly, women may choose to slow their careers or shift roles to increase predictability and lessen travel (Barsh & Yee, 2012). Institutional mind-sets are when successful executives are supposed to be and act like men, and leaders expect women to model the same behavior. Barsh and Yee (2012) state in their data that one CEO said, “Women don’t knock on my door the way men do or ask for advice. I wish they were more proactive.” Finally, individual mind-sets have the same impact on women as on leadership in an organization. Even when successful women were interviewed, more than half felt they held themselves back from accelerated growth, and most said they should have cultivated sponsors earlier and taken more risks.

Next, consider the differences between men and women’s compensation, which can be viewed as both a double standard and a barrier for women. Understandably critics of the women’s movement and women’s rights will claim the reason for a pay gap, is due to the lack of time for qualified women to matriculate into the workforce. On the surface of things, these arguments make sense, but consider the following data. In their first year out of college, millennial women were paid 82 cents for every dollar paid to their male peers, according to a new report from the American Association of University Women (Corbett & Hill, 2012). With many of those college graduates saddled with student loans, the pay gap is making student debt more burdensome for women.

The report shows women are less likely than men are to be fully employed one year out of college, and when they do have a steady job, women are earning less. Consequently, more of them are contributing a higher percentage of their salary toward repaying student loan debt. “The report paints a disturbing picture for college-educated women, who are losing out financially, from their first paycheck to their last Social Security check,” said AAUW Executive Director Linda D. Hallman. She goes on to state that “We must address this workplace barrier so that our daughters have the same economic opportunities as our sons.” (Corbett & Hill, 2012).

AAUW's report looks at men and women straight out of college with equivalent backgrounds and experience, most of whom are young, relatively inexperienced in the workplace, and have not started families. The subjects they studied in college can explain part of the reason women typically earn less. The report showed that men are more likely than women to major in fields like engineering and computer science, which typically lead to higher-paying jobs. Women are more likely than men are to major in fields like education and the social sciences, which usually come with lower salaries (Corbett & Hill, 2012). However, this does not account for everything. Among business majors, women earned just over \$38,000, while men earned just over \$45,000 on average in the first year after college. When researchers controlled for factors such as hours worked and type of occupation, they still found an unexplained discrimination. Among teachers, for example, women earned 89 percent of what men earned. In sales occupations, women earned just 77% of what their male peers earned. When the hours worked per week went up, the wage gap between men and women increased (Kingkade, 2012). Pay discrepancy early in a woman's career can have lasting effects, notes Francine D. Blau, Frances Perkins Professor of Industrial and Labor Relations and Professor of Economics at Cornell University.

The leadership gap is a global phenomenon whereby women are disproportionately concentrated in lower-level and lower-authority leadership positions than men (Powell & Graves, 2003). Although the barriers are generally conceived to be against women, the labyrinth can be generalized to encompass other nondominant groups such as ethnic and racial minorities. Northouse (2010) asserts that there are a number of important reasons for removing these barriers into the upper echelons of leadership. First, doing so will fulfill the promise of equal opportunity by allowing everyone the possibility of taking on leadership roles. Second, by increasing the pool of potential candidates, the company will have a greater chance of finding talented human resources. Third, promoting a richly diverse group of women into leadership roles will help make societal institutions, businesses, and governments more representative of society. Finally, group member diversity is associated with greater group productivity (Forsyth, 2010). Research has shown a strong connection between gender diversity and organizational financial performance; as the number of women at the top increases, so does financial success (Catalyst, 2012).

Emotional intelligence. When psychologists began to write and think about intelligence, they focused on cognitive aspects, such as memory and problem solving. However, there were researchers who recognized early on that the non-cognitive aspects were also important. For instance, in the late 1920s, Edward Thorndike (1927) described the concept of "social intelligence" as the ability to get along with other people. David Wechsler (1958) defined intelligence as "the aggregate or global capacity of the individual to act purposefully, to think rationally, and to deal effectively with his environment." As early as 1940, he referred to *non-intellective* as well as *intellective* elements by which he meant affective, personal, and social factors. Thorndike and Wechsler were not the only researchers who saw non-cognitive aspects

of intelligence to be important for adaptation and success. Some other researchers wrote about *social intelligence*, but the work of these early pioneers was largely overlooked.

In 1985, Reuven Bar-On coined the term emotional quotient or EQ when he was a Ph.D. student in South Africa. He began his curiosity by saying

My simple, almost simplistic, question in the beginning was, ‘Are there factors that determine one’s ability to be effective in life?’ Very quickly, I saw that people can have very high IQs, but not succeed. I became interested in the basic differences between people who are more or less emotionally and socially effective in various parts of their lives and those who aren’t. (Schwartz, 2000, p. 296)

Salovey and Mayer (1990) expanded on Bar-On’s earlier work and introduced the term emotional intelligence in several scientific journal articles. They described emotional intelligence as a form of social intelligence that involves the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them, and to use the information to guide one’s thinking and action. Salovey and Mayer also initiated a research program intended to develop valid measures of emotional intelligence and to explore its significance. For instance, they found in one study that when a group of people saw an upsetting film those who scored high on emotional clarity (which is the ability to identify and give a name to a mood that is being experienced) recovered more quickly (Salovey, Mayer, Goldman, Turvey, & Palfai, 1995).

In the early 1990s, Daniel Goleman became aware of Salovey and Mayer’s work, which eventually led to his groundbreaking book, *Emotional Intelligence* (Goleman, 1995). Goleman was a science writer for the *New York Times*, whose beat was brain and behavior research. He had been trained as a psychologist at Harvard where he worked with David McClelland, among

others. McClelland (1973) was among a growing group of researchers who were becoming concerned with how little traditional tests of cognitive intelligence told us about what it takes to be successful in life. In doing the research for his first book, Goleman (1995) became familiar with a wealth of research pointing to the importance of social and emotional abilities for personal success. Some of this research came from personality and social psychology, and some came from the burgeoning field of neuropsychology.

Emotional intelligence is born largely in the neurotransmitters of the brain's limbic system, which governs feelings, impulses, and drives. Research (Bar-On, 1999; Goleman, 1995, 1998, 2000; Mayer & Salovey, 1993, 1997) indicates that the limbic system learns best through motivation, extended practice, and feedback. In contrast, the neocortex, which governs analytical and technical ability, grasps concepts and logic. Emotional intelligence entails not only being aware of one's own emotions, but also using these emotions in cognitive processes, such as decision-making and planning (Goleman, 2006).

According to researchers Emmerling and Goleman (2005), while social scientists are primarily interested in the main predictive relationship between IQ and work success, practitioners and those who must make decisions on hiring and promotion in organizations are far more interested in assessing capabilities related to outstanding performance and leadership. Nevertheless, there has been virtually no quantitative social science research on top leaders. This is largely because top leaders are resistant to allowing themselves to be assessed by objective measures. However, there is a large body of evidence (Bar-On, 1999; Cherniss & Goleman, 2001; Goleman, 1995; Simmons & Simons, 1997) on top performers which suggests that mental intelligence alone does not predict success.

What makes Goleman's research so relevant is that he has applied it within the context of work performance, competencies, and leadership, thus separating his theory of emotional intelligence from the primary research focuses of Bar-On and Salovey and Mayer, who frame their theories as general constructs of emotional intelligence (Emmerling & Goleman, 2005). Goleman suggests that emotional intelligence consists of a set of personal and social competencies. Personal competencies consist of self-awareness, confidence, self-regulation, conscientiousness, and motivation. Social competence consists of empathy and social skills such as communication and conflict management (Goleman, 1995). Based on the work by Goleman and others, emotional intelligence has become a major topic of interest in the study of leadership during the past 20 years.

Emotional intelligence and gender. Developing leadership strategies that effectively respond to workers has become increasingly important to organizations. Gender differences in the need for connection to the leader have been assumed for many years, but empirical data to support the assumption had been lacking. However, in a study conducted by Boatwright and Forrest (2000), the researchers were successful in testing the relationship between gender and connectedness of adult workers. They found that both female and male workers performed best with leaders whose styles provided a connection or bond with workers, and that female leaders were rated significantly stronger in this style of leadership. The results of the research suggest that developing leadership styles that support workers' needs to connect, while simultaneously providing structure and task-orientation, is important to successful leadership.

Additional studies into leadership and gender difference (Eagly & Johannesen-Schmidt, 2001) found that women exceeded men on three key leadership scales: the attributes version of idealized influence; inspirational motivation; and individualized consideration. Furthermore,

Eagly and Johannesen-Schmidt's (2001) research suggested that female leaders manifested attributes that motivated followers to feel respect and pride because of their association with them, showed optimism and excitement about future goals, and attempted to develop and mentor followers and attend to their individual needs. To the contrary, men were more likely to manifest ineffective styles, such as waiting until problems became severe before attempting to solve them, and being absent and uninvolved at critical times. However, these findings also indicated that men have more leeway in attaining and remaining in leadership roles despite poor performance. Therefore, gender roles have different implications for the behavior of female and male leaders.

From his studies of CEOs, researcher Douglas Branson (2007) found what he coined as the glass floor concept. When men in executive positions fall out of favor, they frequently do not fall far and typically rebound very quickly; whereas, when female executives lose their high offices, such as Carleton Fiorina at Hewlett Packard, they are likely to hit the glass floor and never reappear in other organizations.

Hopkins (2004) discovered a strong pattern of significant differences between male and female leaders in her research of 105 managers in one financial services institution. She found the profile of successful female leaders included a broad range of emotional intelligence competencies, although there was a negative effect upon the female leaders' success when they exhibited the gender role-expected competencies related to developing others. Hopkins' research indicated that for female leaders to be successful, they were required to demonstrate a combination of gender congruent and incongruent ways of behaving in order to be successful. Nevertheless, while successful male leaders also had a broad range of emotional intelligence competencies, those who exercised male-expected behaviors were rewarded and were not successful if they exhibited leadership styles incongruent with their expected gender role.

In addition, research in the past decade lead by Daniel Goleman (1995, 2000, 2004) has identified an individual's emotional intelligence as a key aspect and driver of leadership effectiveness. Emotional intelligence assessments have found women and men to be equally as intelligent emotionally, but they are strong in different areas. For example, women score higher than men in areas of empathy and social responsibility, whereas men outperform women on stress tolerance and self-confidence measures (Murray, 1998).

Emotional intelligence and leadership. Emotional intelligence refers to the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions in ourselves and in our relationships (Goleman, 1998). An illuminating example of emotional intelligence and its effects on leadership can be seen from a study looking at the successes and failures of 11 American presidents, from Franklin Roosevelt to Bill Clinton (Greenstein, 2001). They were evaluated on six qualities – communication, organization, political skill, vision, cognitive style, and emotional intelligence. The findings showed that the key quality that differentiated the successful (such as Roosevelt, Kennedy, and Reagon) from the unsuccessful (such as Johnson, Carter, and Nixon) was emotional intelligence.

Goleman, along with the consulting firm Hay/McBer, drew on a random sample of 3,871 executives selected from a database of more than 20,000 executives worldwide. The research found six distinct leadership styles, each springing from different components of emotional intelligence. These styles are Coercive, Authoritative, Affiliative, Democratic, Pacesetting, and Coaching (Goleman, 2000). The styles, taken individually, appear to have a direct and unique impact on the working atmosphere of a company, division, or team, and in turn, on its financial performance. Perhaps most important, the research indicates that leaders with the best results do not rely on only one leadership style; they use most of them in a given week, seamlessly and in

different measure, depending on the business situation (Goleman, 2000). See leadership styles as shown in Table 1 below.

Table 1

The Six Leadership Styles at a Glance

	Coercive	Authoritative	Affiliative	Democratic	Pacesetting	Coaching
The leader's modus operandi	Demands immediate compliance	Mobilizes people toward a vision	Creates harmony and builds emotional bonds	Forges consensus through participation	Sets high standards for performance	Develops people for the future
The style in a phrase	"Do what I tell you"	"Come with me"	"People come first"	"What do you think?"	"Do as I do, now"	"Try this"
Underlying emotional intelligence competencies	Drive to achieve, initiative, self-control	Self-confidence, empathy, change catalyst	Empathy, building relationships, communication	Collaboration, team leadership, communication	Conscientiousness, drive to achieve, initiative	Developing others, empathy, self-awareness
When the style works best	In a crisis, to kick start a turnaround, with problem employees	When changes require a new vision, or when a clear direction is needed	To heal rifts in a team or to motivate people during stressful circumstances	To build buy-in or consensus, or to get input from valuable employees	To get quick results from a highly motivated and competent team	To help an employee improve performance or develop long-term strengths
Overall impact on climate	Negative	Most strongly positive	Positive	Positive	Negative	Positive

Note. Reproduced from Goleman (2000, pp. 41-42).

First, the coercive leader demands immediate compliance based on "do what I tell you" commands or orders to subordinates. Underlying EQ competencies of the coercive leader are the drive to achieve, initiative, and self-control. The coercive style works best in a crisis, to kick start a turnaround, or with problem employees; however, this style of leadership has an overall negative impact on organizational climate.

In contrast to the coercive leader, the authoritative leader mobilizes people toward a

vision and gains commitment to the organizational goals through compelling “come with me” verbal and non-verbal communications. EQ competencies of the authoritative leader are self-confidence, empathy, and the capacity of being a change catalyst. The authoritative style works best when changes require a new vision, or when a clear direction is needed. This leadership style has the most positive impact on organizational climate (Goleman, 2000).

Goleman’s (2000) third EQ leadership style, the affiliative leader, creates harmony and builds emotional bonds. The affiliative leadership style with its focus on people has an overall positive impact on organizational climate and works best to heal rifts in a team or to motivate people during stressful circumstances. Underlying emotional intelligence competencies of the affiliative leader are empathy, building relationships, and communications.

Another overall positive EQ leadership style is the democratic style, which forges consensus through participation and engages people through asking, “What do you think?” in order to obtain buy-in, gain consensus, or get input from valuable employees. The democratic leader possesses emotional intelligence competencies in collaboration, team leadership, and communication.

Goleman’s (2000) fifth EQ style is pacesetter. Pacesetter leaders set high standards for action and performance for themselves and the organization. The pacesetter style works best to achieve quick results from a highly motivated and competent team. Pacesetter leaders are conscientious and have a drive to achieve; however, they give little feedback to subordinates. Because the pacesetter leader is obsessive about doing things better and faster, employees become overwhelmed and burn out. The pacesetter style not only has an overall negative impact on organizational climate, but actually destroys climate.

Lastly, the sixth leadership style, coaching, develops people for the future and has an overall positive impact on the organizational climate. The coaching leadership style works best to help an employee improve performance or to develop long-term strengths. Coaching leaders possess underlying EQ competencies in developing others, empathy, and self-awareness. Of the six styles, Goleman (2000) found that the coaching style is used least often, primarily because leaders are unfamiliar with it.

According to Goleman (2000), the authoritative, coercive, and pacesetter leadership styles are generally considered male styles; whereas, affiliative and democratic styles are deemed feminine leadership styles. The coaching leadership style is typically viewed as being gender-neutral. Goleman states that the most effective leaders have mastered four or more of the six leadership styles. Additionally, they are keenly sensitive to the impact they are having on others, and switch flexibly and fluidly among the leadership styles as needed.

Leadership and generational differences. Managers today are faced with expanding diversity in their work force, and one of the most overlooked challenges concern the widening age range of their employees who, despite their vast experiential and attitudinal differences, must come together to form a coherent and viable corporate culture. In a working paper, Janet Polach (2006) of Leadership Solutions Inc. identifies four distinct generations that make up the working population. Each generational cohort has unique descriptors that help explain why its members act the way they do in today's work force.

The Veterans or Traditionalists (born before 1945) comprise senior Americans who were born prior to the war. They came of age during the Great Depression and the war – experiences that had a lasting impact on their development and worldviews. They are generally seen as civic minded due to their military service and upbringing during conservative times (Polach, 2006).

The Baby Boomers (born between 1946 and 1964) grew up in a time of much prosperity. Baby Boomers were raised in overcrowded public schools in the late 1950s and 1960s, and television provided them graphic depictions of every event ranging from Cambodian death camps to the lunar landing. They questioned all that had previously mattered as they entered college and young adulthood. The formative events for baby boomers included the Vietnam War and Watergate (Brody & Bradley, 2008).

Generation X (born between 1965 and 1980) were raised in technology. Everything from televisions, video games, microwave ovens, and video cassette recorders to personal computers became common-place early in their lifetime (Brody & Bradley, 2008). Generation X, raised in the 1970s and 1980s, saw the national debt soar and their families experience record-breaking divorce rates. Because so many American systems crumbled in their youth, they dislike taking orders and are comfortable challenging authority (Brody & Bradley, 2008).

Generation Y or Millennials (born between 1980 and 2000), is not simply an extension of Generation X. Yet with only a few years in the workplace, it is too early to capture their complete collective persona. In a survey conducted in the late 1990s, Millennials listed a well-paying job, respect from others, good relationships with their parents, home ownership, and the freedom to do what they want, as very important (Polach, 2006).

In addition, work by Willyerd and Meister (2010) showed that by 2020, five generations will be working side-by-side in organizations. In the U.S., recent data shows that older workers are staying in their jobs longer or returning after retiring. As a result, the Bureau of Labor Statistics (Labor, 2011) estimates that 56% of those 65 and older now work full time, as compared to 44% 13 years ago. In addition, the Pew Research Center's Social and Demographic Trends Project reports that half of all working adults in the United States between the ages of 50

and 64 say they will delay retirement, and another 16% report they never expect to stop working (Willyerd & Meister, 2010). Given the rise in worker's ages and the different generations, what are the implications on leadership? While leaders and Human Resource executives are trained to address many forms of diversity, they must now be prepared to manage age diversity as well (Willyerd & Meister, 2010).

In the hectic work environment of the U.S. economy, it is easy to fall into a standard set of management practices, yet the reality of diversity requires a significantly different course of action (Ayman, Korabik & Morris, 2009). Managers must exercise leadership flexibility and sophistication. Their supervisory style must be situation based, being thoughtful with regard to matching individuals to assignments. The team itself, as well as the work of the team, needs attention. Building skills and knowledge, helping others understand what each team member does, and actively reflecting on team accomplishments and challenges ahead is time well spent (Ayman et al., 2009). The key to leveraging age diversity, the author argues, is not simply to understand someone in terms of Boomer or Xer, but to understand the concept of generational evolution. All employees' needs and desires change and evolve as they move through life stages, and a successful manager will understand and respond to the changes. By successfully navigating these changes, managers can build a cohesive and effective organizational culture out of increasing diversity (Ayman et al., 2009).

Leadership and ethnicity. In a diverse workforce, people from different cultural or social groups must constantly interact with each other. In such settings, people's own cultural identities and their assumptions about and perceptions of others from different social groups (e.g., White and African American, Latino and Asian) relate to ingroup–outgroup dynamics, and these assumptions and perceptions may have an impact on the leadership experience (Ayman &

Korabik, 2010). In these types of situations, the composition of dyads or work groups based on their gender or culture matters because it can affect a leader's ability to be successful. For example, in an experiment in which a Japanese leader behaved either as an American leader would or as a Japanese leader would, his American followers did not consider him to be as trustworthy when he was behaving like an American leader compared with when he behaved like a Japanese leader (Thomas & Ravlin, 1995).

Moreover, the increasing diversity in today's workforce means that to be effective, leaders need to develop a multicultural perspective and an understanding of the points of view of those who differ from themselves (Connerley & Pedersen, 2005). Doing so involves two things. First, eliminating ethnocentrism (the belief that one's cultural values are the same as everyone else's) and second, increasing isomorphic attributions or the extent that people from culturally diverse social groups are able to reach a similar assessment of a given situation or action (Triandis, 1995). The elimination of ethnocentrism, by reducing the imposition of one's frame of reference on others, can result in less hostile judgments toward those in outgroups (Duckitt, Callaghan, & Wagner, 2005). In addition, by reducing the ethnocentrism present in leadership research, leadership models can become more inclusive of other cultures and representative of all social groups.

Women leaders in the pharmaceutical industry. In comparison with other industries, the pharmaceutical business has been ahead of the curve in bringing women into management positions. At Eisai, women make up approximately 30% of the leadership team. The pharmaceutical industry is particularly well suited for women because there are many interrelated activities that need to come together; there is a commitment toward longer-term goals, and to the idea that process is as important as outcome. These are all ideals that women

embrace easily (Blackwell, 2002). Over the last 20 years, women have made a significant mark on the pharmaceutical business. In the past, there would be a handful of women at sales meetings. Today, more than 50% of the sales representatives are women.

In looking at the percentage of women who have joined the pharmaceutical industry, Novartis, as an example, has been very encouraging in that there are increases year over year, and the percentage of women is even higher when you look at hiring rates. Female sales representatives, for example, currently represent over half of all representatives and even more of the newly hired employees. The challenge is to ensure that we encourage these women to move into management roles. We already see a larger number of women at middle management levels, as discussed earlier, but there is still opportunity for greater contributions at senior and executive levels (Blackwell, 2002).

Skills that women generally excel at, such as strong teamwork, seamless integration, and effective and frequent communication, are key to leadership success in the pharmaceutical industry. Other skills that women embrace is new ways of looking at and doing things, being open to new ideas -even when they might fail, and learning from failure and going forward (Blackwell, 2002). There are many challenges in this industry and many stakeholders to deal with, so women need to be very open to new ways of thinking.

The pharmaceutical industry undergoes constant and often rapid change. Whenever new ways of doing things come up, that presents big opportunities for women. Women work well with teams and they help the group to realize that success is not necessarily a straight line; that you may need to take different aspects of business development into consideration and then work your way to the needed tactics. Moreover, these tactics may have been different if you had maintained a fixed mindset. According to Blackwell (2002), there is a growing trend across

other U.S. industry segments to develop and conduct women's leadership programs. Business magazines and universities have made the case for having management talent within the company that reflects the purchasing customers - who across all types of industries are predominantly women. Perhaps because physicians are predominantly male, pharmaceutical companies have been slower to adopt women in top management, but now nearly every company in the industry has a diversity initiative underway.

In addition to a rapidly changing environment, corporate consolidation has become commonplace. Consolidation brings different challenges than those that are traditionally faced (Robbins, 2005). Instead of competing with other companies, employees are placed in an environment where they must focus on cooperation and identifying common goals and pathways. Traditional leadership styles may not be effective in this kind of environment, so the prospects for women are good since they possess the skills needed in such situations, and can be agents of change. On the downside, consolidation will delay the appointment of women CEOs, because consolidation typically results in selecting from the two existing CEOs for the top job, and on the pharmaceutical side today, they are almost all men. Women will get their chance if the next generation of CEOs is appointed from among the change agents who proved able and willing to embrace a new vision, mission, culture, organizational structure, and helped drive it forward.

In Blackwell's (2002) article, title *Women in the Healthcare Industry Reaching for the Top*, the author commented on current trends and new opportunities for women in the pharmaceutical industry. First, communication is a strength that women should capitalize on. The corporate world is thirsty for better communication, and women tend to communicate better than men, and have the empathy and charisma to drive people to a common goal. We also need to encourage younger women to be well rounded in their professional careers through exposure to a variety of

experiences. Second, there are a growing number of women moving into management levels of healthcare companies. If you project forward and consider the valuable skills women bring to their organizations, it follows that more women will rise to leadership positions.

Third, there is a continuing trend toward outsourcing and the growth of entrepreneurial businesses. In smaller organizations women can take on ownership and leadership roles. In turn, this will provide increased visibility and influence of women in the pharmaceutical industry overall. Fourth, almost every pharmaceutical company's mission statement says something about improving people's lives, and helping them to feel better and live longer. This is in perfect alignment with a woman's strong motivation to be in the healthcare industry - to improve people's lives. This can give women great credibility with consumers and enable them to do a better job of communicating better health outcomes from the products (Blackwell, 2002). Therefore, the characteristics women bring to an organization are that they are more facilitative, work well as part of a team, and can inspire people toward a common goal. Those values provide strong opportunities for women to advance in industries across the board, not just in healthcare.

Dissertation research. Numerous scholarly studies have examined women and leadership from multiple aspects, such as leadership style differences between men and women, gender stereotyping, gender bias, and other obstacles that women face in reaching the upper echelons of leadership. There have also been several studies looking at emotional intelligence and its impact on leadership across a variety of disciplines. However, only a small number of studies have examined the confluence of emotional intelligence, women, and leadership. This section provides a review of dissertations and theses that have specifically examined the relationships between emotional intelligence, women and leadership in business or organizations. The

relevant results, findings, and key themes from these research studies will be examined as they apply to this study.

Duncan (2007) examined the relationship between women in positions of leadership and gender specific emotional intelligence attributes in 114 female leaders. Her quantitative study focused only on women in executive positions across Fortune 1000 companies primarily based in Texas. These industries included healthcare, education, manufacturing, retail, financial services, government, energy, non-profit organizations, and business services. The researcher sought to explore if the participants, female leaders, self-reported emotional intelligence leadership profiles were more like what would typically be found in male leaders rather than the typical feminine profile. What she found is that women in all age groups, from 29-74 years, self-reported strengths in all of the attributes identified as crucial areas of EQ for leaders.

In addition, Duncan (2007) found that EQ differences do exist between age groups, which are consistent with Bar-On's (1999) model. However, unlike Bar-On's (1999) model which validated that EQ improves with maturity to the age of 50, but may decline thereafter, this study found that EQ continued to improve in those participants over the age of 50, as was verified by the highest EQ scores being achieved by the participants in the oldest age group, 61-74. Additionally, the scores of the youngest age group, 29-40, generally followed Bar-On's (1999) premise of EQ strengths in those areas identified as female gender-specific attributes, empathy and social responsibility, and weaknesses in the male gender-specific attributes of stress tolerance, self-confidence, and adaptability. Interestingly, although representing only 7.3% of the participants, the researcher found that African-American participants had significantly higher EQ scores than participants from the highest ethnic group, Caucasian, and second highest ethnic group, Hispanic/Latina. This was attributed to the fact that African-Americans are used to being

tested daily in terms of credibility, and the more they are tested, the stronger they become (Duncan, 2007).

Lopez-Zafra (2012) examined the relationship between transformational leadership and emotional intelligence from a gendered approach. She studied 431 Spanish undergraduates in three different disciplines. The participants completed a questionnaire including scales for measuring emotional intelligence, transformational leadership, and gender identity. Results showed important differences across the different disciplines and illustrated that emotional intelligence and gender roles predict transformational leadership. These results are in line with current research on the topic of leadership and emotional intelligence.

Specifically, the researcher found that emotional clarity and emotional repair are highly correlated to transformational leadership, and showed that an individual's feminine characteristics, emotional clarity, and emotional repair predict the extent to which they are transformational leaders (Lopez-Zafra, 2012). In line with published research (Eagly et al., 2003), the study revealed that high scores in transformational leadership correlate positively with contingent reward, and that femininity predicted contingent reward. The study showed that individuals who studied a female-congenial or neutral discipline (e.g., psychology and economics) had larger scores in femininity and emotional attention than those who studied a male-congenial discipline (e.g., engineering sciences).

In contrast, students who studied a gender-neutral discipline (e.g., economics) or a masculine-congenial discipline had higher scores in emotional repair than those who studied a feminine-congenial discipline. This result supports the rationale that individuals studying in a discipline associated with a particular gender also score higher in variables that are shown to be related to a particular gender, regardless of their sex. The author concluded that based on the

predictability of emotional intelligence and gender roles on leadership, that all leaders should be trained in emotional intelligence. This training may reduce the prejudice against female leaders or at least erode it by stressing the importance of the relationship between emotional intelligence (which is often high in women) and leadership style (Lopez-Zafra, 2012).

Hopkins (2004) conducted an empirical study to extend research on the emotional intelligence competencies and styles underlying successful leadership by investigating the repertoire of competencies and leadership styles demonstrated by female and male leaders resulting in their success. In a sample of 105 managers in one financial services institution, using self and other ratings of emotional intelligence competencies, leadership styles and success, the results demonstrate a strong pattern of significant differences between male and female leaders. The researcher found that gender has a powerful influence on the images and profiles of successful leadership and there are distinctly divergent paths to success for male and female leaders. There are also constraints on the leadership behaviors and styles for both females and males in leadership positions because of the intersection of their gender roles with their organizational roles.

Hopkins (2004) found that the profile of successful female leaders includes a demonstration of a broad range of emotional intelligence competencies, although there is a negative effect upon their success when they exhibit the gender role expected competencies related to developing others. The successful male leaders also have a wide range of emotional intelligence competencies and are rewarded when they show their gender-expected individual achievement-oriented behaviors. The repertoire of leadership styles leading to success for men and women are also disparate. Men who exercise an affiliative or a democratic leadership style, styles incongruent with their expected gender role, are not successful, whereas female leaders

must demonstrate a combination of gender congruent and incongruent ways of behaving, the pacesetting and coaching leadership styles, in order to be successful. These findings are in line with the role congruity theory and gender bias literature presented in Chapter Two of this study.

According to the U.S. Small Business Administration (Mills, 2013), one of the fastest growing segments of the economy is businesses with fewer than 500 employees. Within that segment, the number of firms owned by women continues to grow. Mills (2013) studied the critical factors of women's success, and in particular, how that success could be impacted by stress. The study explored female small business owners in a variety of industries, investigated whether there was a potential impact of emotional intelligence and coping responses on leadership effectiveness practices, and examined any significant, predictive relationships that existed between these variables. The focus of the study was female, small-business owners in the upstate New York cities of Buffalo, Rochester, and Syracuse. Each firm of the sample population had between two and 50 paid employees.

Correlation and multiple regression analysis demonstrated that although previous studies have shown an interaction at the total-score level for emotional intelligence, coping response, and effective leadership practices, the same result was not duplicated within this study. The study did find; however, that leadership subscale areas (such as challenge the process, enable others to act, and encourage the heart) showed a correlation and predictability from emotional intelligence scores. The model accounted for 16.1% of the variance in the total leadership effectiveness score, but this could have been attributed to the presence of other unmeasured variables or to the homogeneity and size of the sample population of female business leaders (Mills, 2013).

Summary

As shown in the literature review, many factors contribute to the problem of small numbers of women in corporate leadership roles. By studying the effects of gender on types of leadership, leadership style, and emotional intelligence attributes, it presents a foundation to understand certain expectations and attitudes relating to women's career advancement. It is also helpful to understand some of the bias and barriers women encounter, from both men and women, along their journey to top tier leadership positions. Further, it is important to look specifically at how generational differences impact female leaders in the pharmaceutical industry. Finally, it is essential to review scholarly dissertations that explore the confluence of leadership, gender, and emotional intelligence to understand the body of work that exists in this area, and identify key issues and themes that have emerged.

As women aspire to attain and hold organizational leadership positions, understanding emotional intelligence as it relates to leadership and gender differences are important areas of study, as well as understanding the complexities of gender bias. With this understanding, and building on the previous emotional intelligence leadership research of Goleman (2000) and Bar-On (2005), strategies to discover and overcome possible gender bias that may affect women in achieving and successfully holding positions of leadership can be developed.

Chapter 3: Methods

The study was designed to assess emotional intelligence implications on the career advancement of women at a pharmaceutical company based in California. The objective behind the study is to address the problem statement, that women enter professional and managerial ranks in equal or greater numbers than men (Labor, 2011; Catalyst, 2012), yet very few hold senior leadership positions. This problem is further compounded by the fact that women have been shown to be as emotionally intelligent as men (Murray, 1998), but this has not proven to be an asset in their career advancement. In comparison with other industries, there are many women in middle management positions in the pharmaceutical business; but a significant gap still exists between the number of men and women at senior and executive levels (Blackwell, 2002).

Previous research by Goleman (1998, 2000, 2004) and Bar-On (2005) has explored emotional intelligence as it relates to leadership development and success in organizations, and emotional intelligence has gained acceptance and validity in describing leadership styles and capabilities. The purpose of this mixed method research study is to apply Goleman's leadership theory and Bar-On's gender-related emotional intelligence in a way that examines the possible relationship between gender-specific emotional intelligence attributes and women's career advancement in a Fortune 500 pharmaceutical company.

Nature of Study

The nature of the study is to understand and describe the essence of a lived phenomenon and experience. According to Creswell (2007), this lived phenomenon or experience is categorized as a phenomenological approach and is considered qualitative in nature. For these study purposes, the lived phenomenon is the impact that gender-specific emotional intelligence

attributes play in the career advance of women to leadership positions in the pharmaceutical industry. The phenomenon was explored by interviewing several individuals that have shared the experience at the pharmaceutical company. The primary objective for study of these individuals was to identify common themes, significant statements and meanings, apply context, and describe the essence of the shared experiences.

The study also employed a quantitative approach in collecting, analyzing, interpreting, and writing the results of the study. This approach was applied specifically in analyzing the data from each participant's Bar-On EQ-i instrument (Bar-On, 1999) taken prior to the face-to-face interviews. By using both a quantitative and qualitative approach, the researcher examined the emotional intelligence attributes that are common to women who have attained the highest leadership levels, and determined if these attributes are largely female (such as empathy and social awareness) or largely male (such as assertiveness, independence, and confidence) (Murray, 1998).

Restatement of Research Questions

The research questions that were explored in this study are as follows:

1. To what extent, if any, is there a relationship between emotional intelligence attributes and women based on type of position in a Fortune 500 pharmaceutical company?
2. To what extent, if any, is there a relationship between emotional intelligence attributes and women in leadership positions in a Fortune 500 pharmaceutical company?
3. To what extent, if any, is there a relationship between gender-specific emotional intelligence attributes and the career advancement of women in a Fortune 500 pharmaceutical company?

4. To what extent, if any, is there a relationship between emotional intelligence attributes and the career advancement of women in a Fortune 500 pharmaceutical company based on generation (i.e., Veterans, Baby Boomers, Generation X, and Millennials)?

Analysis Unit, Population and Sample

The researcher selected a mixed method design to examine both quantitative and qualitative aspects of the study, and to yield more robust study outcomes. According to Creswell and Plano Clark (2007), there are several typologies for classifying and identifying types of mixed methods strategies. Given the overlap in these mixed method typologies, Creswell (2009) has identified six primary methodologies. In this study, the researcher has chosen the sequential explanatory design. This mixed method design involves the collection and analysis of quantitative data in a first phase of research followed by the collection and analysis of qualitative data in a second phase that builds on the results of the initial quantitative results. Weight typically is given to the quantitative data, and mixing of the data occurs when the initial quantitative results informs the secondary qualitative data collection. Thus, the two forms of data are separate but connected (Creswell, 2009). In this study, both the quantitative and qualitative phases were given equal weighting.

A quantitative design is appropriate in this study because this methodology allows for the measurement, evaluation of specific emotional intelligence attributes, and variables identified as gender-specific and of importance for leaders (Bar-On, 1999). A qualitative component is important to get a better understanding of female employee perceptions at all levels of the company on the importance of emotional intelligence in the workplace, and how emotional intelligence has influenced their role as leaders, either positively or negatively.

The analysis unit, or unit of analysis, refers to the major entity under analysis in a study. In other words, it is the analysis the researcher conducts that determines what the unit is (Creswell, 2007). In this study, the unit is the individual women at the pharmaceutical company and the analysis is their emotional intelligence attributes and how these attributes influences leadership.

To answer the four research questions, the population that was examined are women at four different levels of the company. The researcher used a purposeful sample to select an even distribution of these women. Creswell (2007) defines a purposeful sample as targeting a specific group on purpose, or selecting individuals for study because they can purposefully inform an understanding of the research problem and central phenomenon in the study. The first level of female participants includes women in roles as administrative assistant or executive secretary, the second level are women in roles as managers or specialists, the third level are women who serve as directors, and the fourth level are women in the roles of vice presidents.

The target sample was 12 women with an even distribution of participants in each level, or three women at each of the four levels. The researcher selected participants based on their role in the pharmaceutical company, their years of experience in the pharmaceutical industry, their overall breadth and depth of knowledge, and their perceived receptivity to contributing to a research study as a participant on the topic of emotional intelligence and leadership. In addition, participants at the director and vice president levels were selected based on their years of leadership experience. Permission from the pharmaceutical company was obtained prior to contacting any participants – see Appendix A: Permission from Pharmaceutical Company.

In the first phase, the quantitative phase, the researcher emailed the participants a packet that included background information on the research study, emotional intelligence, and leadership. The background information was intended to give participants overall context of the

study and provide foundational knowledge to help frame their thinking for the interviews. The packet also included IRB consent information, as well as the Bar-On EQ-i instrument (Bar-On, 1999) to self-administer. It was estimated that each participant will need approximately 10 minutes to read the background information and IRB consent information, and 20 minutes to complete the Bar-On EQ-i instrument.

In the second phase, the qualitative phase, the researcher conducted 30-minute face-to-face interviews with each of the female participants. The goal of these interviews was to contextualize the quantitative data from the packet, obtain feedback from each participant on their desires for leadership and career advancement, and to glean further insights into their specific EQ attributes to determine if it has any impact on their ability to be a leader, or be perceived as a leader.

The interview included 15 questions that assessed general attitudes, perceptions, experiences, and demographic information. According to Patten (2001), questions that measure attitude will assess feelings, actions, and potential actions. In this study, questions centered on emotional intelligence, leadership, career advancement, gender bias and barriers, and the participant's personal opinions and experiences. Demographic questions asked include age, time in current position, highest level of formal education attained, and the year of their last promotion.

Data Collection and Sampling Method

In the quantitative phase one, the researcher emailed each participant, as identified through purposeful sampling, a packet that served as an invitation to participate in the study. This sampling included women at four levels of the pharmaceutical company – administrative assistant, manager, director, or vice president. The participants were located across the nation,

with most concentrated at the corporate office in California. The initial packet included a description of the research study, background information on emotional intelligence and leadership, and IRB consent information. Each participant was asked to sign the IRB consent form – see Appendix B: Informed Consent Letter.

The researcher utilized the Bar-On Emotional Quotient Inventory (Bar-On, 1999) to allow each participant to self-administer her EQ-i 2.0 assessment via the Multi-Health System website (www.mhs.com). Once the participants agreed to participate and sign the IRB consent form, the researcher emailed each person a unique logon code in order to complete their EQ assessment – see Appendix C: Participant Logon Email. Multi-Health Systems conducted scoring of the EQ-i questionnaire, and Multi-Health Systems supplied the researcher with a summary report for each participant as well as the data set.

It was estimated that each participant would need approximately 10 minutes to read the background information and IRB consent information, and 20 minutes to complete the Bar-On EQ-i instrument. Each participant was asked to complete the EQ-i assessment at least one day prior to the interview. In order to increase the sample size and encourage participation after the initial packets were emailed, the researcher planned to send a second and third round of emails to participants and follow-up with phone calls and email reminders, as needed. However, this was not necessary.

In the qualitative phase two, the researcher scheduled 30-minute interviews with each participant. Face-to-face interviews were preferred, but telephone interviews were also arranged to accommodate busy schedules and preferences for times outside of business hours, which may be particularly appealing for those at the vice president level. The interviews involved semi-structured and open-ended questions that are few in number and intended to elicit views and

opinions from the participants (Creswell, 2009). See Appendix D for an example of the Participant Interview Questionnaire.

To ensure validity of the interview questions, a panel of experts was utilized. Their task was to provide unbiased information as a means of ascertaining applicability to the study. The interview questions developed for this study were reviewed by a panel of experts consisting of three doctoral student colleagues from Pepperdine University. These doctoral students have experience with both research methods and the subject matter of this study. After a positive response to an initial invitation, the researcher sent each panel member a list of both the research and interview questions to evaluate and add modifications, as necessary. The panel of experts was instructed to read the four primary research questions and all interview questions, including demographic questions, to determine whether these questions accomplish the goal of answering or informing the four primary research questions. The researcher sent the study background, purpose and problem statement to the panel to provide context and additional information. After receiving feedback from all panel members, the interview questions were revised to incorporate their suggestions. See Appendix E to view the Expert Panel Review Form.

Each interview question was designed to specifically address each of the four research questions. The 30-minute interviews were audio taped to ensure that the researcher captured responses accurately. The researcher utilized the Researcher Interview Protocol in Appendix F to help guide and structure the interview. After the interviews, the researcher transcribed and coded the data using NVivo qualitative coding software to capture themes, meaning, and the essence of the participant's phenomenon or lived experience (Creswell, 2007). For both the quantitative and qualitative phases of the study, the total time commitment for each participant was 60 minutes. Upon conclusion of the online assessments and interviews, the researcher

triangulated the data from phase one with data from phase two of the study. Triangulation refers to taking multiple perspectives or points of view to determine a central area of focus, subject or theme (Creswell, 2007). The researcher then analyzed and compared data from these two phases to identify key data points, trends and overall themes from the phenomenological study.

Human Subjects Considerations (IRB)

The Pepperdine University IRB committee approved the research proposal and IRB packet of information prior to dissemination to the study participants – see Appendix G: Pepperdine IRB Approval Letter, and Appendix H: IRB Cover Letter that was mailed to Pepperdine’s IRB committee along with the packet of information. Per Pepperdine University requirements, the researcher completed an online IRB training program prior to the study to understand the requirements and considerations involving human subjects research – see Appendix I: Human Subjects Training Certificate. The IRB forms for participants were part of the initial participant packet and attached to the participant email. Participants received full disclosure of the study prior to agreeing to participate, and was asked to return their forms to the researcher. By doing this, they indicated their understanding of the information and their willingness to participate.

Participants were informed that this is a research study being conducted by a doctoral student, that participation in the study is voluntary, and that all of their responses and study data will be kept in strict confidence. The participants were informed of exactly how much time would be required of them for all elements of the study, and they were informed that their participation in the study was associated with no more than minimal risks or discomfort. It was made clear that they would receive no compensation for participating, and that they have the right to refuse to be in the study, the right to refuse to answer any question, and can drop out of the study at any time, with a warranty of confidentiality of their responses. If the participant

wished to drop out after the interview and coding has taken place, they would need to notify the researcher in writing of their request. The researcher would then identify another participant at the same level, and initiate contact to determine interest in the study.

All participants acknowledged their understanding of the program and provided consent to participate as per the information provided. Summary results of each participant's EQ-i assessment were provided to them, and a summary of the study findings were provided to all participants at the completion of the study, upon their request. To ensure confidentiality and to protect the participants and their rights to privacy, all individual participant EQ-i assessment results and interview information were coded, and only the researcher knows the coding key. In this study, the researcher used no explicit identifiers.

Research participants accessed the Bar-On EQ-i 2.0 assessment online through the Multi-Health Systems, Inc. website at www.mhs.com. The website employs secure firewalls and encryption software to ensure the security and confidentiality of participant users. Each participant was assigned a unique logon identification code that was known only by the researcher and the participant.

All electronic study and participant information was stored on the researcher's home computer, which is password protected, and was also backed up on an external hard drive and kept in a locked file cabinet. All paper study and participant material will be kept in a locked file cabinet at the researcher's residence for a period of five years, then destroyed.

Instrument

The Bar-On Emotional Quotient Inventory (EQ-i), originally published in Canada, is a copyrighted self-report instrument, which has been tested on over 100,000 individuals worldwide. It consists of a 133-item questionnaire scored on a 5-point Likert scale, ranging from

never or rarely refers to me, to almost always or always refers to me (Bar-On , 1999). Empirical justification for the use of this instrument is derived from the extensive validity studies conducted including content, factor, and construct, as well as convergent, divergent, criterion-group, discriminant, and predictive validity. The reliability of the Emotional Quotient Inventory (EQ-i) is approximately 97% (Multi-Health, 2012).

The instrument had been in development for over 16 years prior to its release in 1997 in the educational and business fields to assess emotional intelligence. The Bar-On EQ-i was the first scientific measurement instrument of emotional intelligence and measures five mega-factors (composite scale scores) based on 15 specific factors or attributes (subscale scores) (Bar-On, 1999). In 2012, Multi-Health Systems launched a second-generation assessment based on the Bar-On (1997) model of EI. The EQ-i 2.0 features one overarching EI score, broken down into five composite scores that, in turn, are broken down into a total of 15 subscales. While, in the earlier version, individual items loaded on multiple subscales, in the new EQ-i 2.0, items only load on one subscale.

These emotional intelligence composite scales include:

1. Self-Perception Composite—based on self-regard, self-actualization, and emotional self-awareness
2. Self-Expression Composite—based on emotional expression, assertiveness, and independence
3. Interpersonal Composite—based on interpersonal relationships, empathy, and social responsibility
4. Decision Making Composite—based on problem solving, reality testing, and impulse control

5. Stress Management Composite—based on flexibility, stress tolerance, and optimism

The test was designed for the adult population to measure non-cognitive emotional, personal, and social intelligence and requires approximately 15-30 minutes to complete (Bar-On, 2005). The instrument has a built-in correction factor that automatically adjusts the scale scores based on scores from two of the instrument's validity indices, Positive Impression and Negative Impression, which reduce the potentially distorting effects of self-reporting (Bar-On, 2006). The EQ-i instrument is commercially the most widely used emotional intelligence instrument for business, education, military and government organizations. Because the EQ-i assessment is taken at the convenience of participants through the secure access of the Multi-Health Systems web site (www.mhs.com), past participants have indicated that they had a sense of confidentiality and professionalism when taking the instrument (Bar-On, 2006). Multi-Health Systems summarized the scores and provided a summary report for each participant, as well as the data set, to the researcher. The higher the summary score, the higher the emotional intelligence quotient (Bar-On, 1999). See Appendix J for letter of permission from Multi-Health Systems to utilize the EQ-i 2.0 instrument for this study.

Analytical techniques

Data analysis in mixed methods research relates to the type of research strategy chosen for the procedures (Creswell, 2009). As mentioned earlier, the researcher has chosen the sequential explanatory design, which involves the collection and analysis of quantitative data in a first phase of research followed by the collection and analysis of qualitative data in a second phase that builds on the results of the initial quantitative results.

For the quantitative phase, the researcher used SPSS statistical software for all statistical calculations and utilized both descriptive and inferential statistics. Participant demographic data

and the Bar-On EQ-i 2.0 reports were analyzed using descriptive statistics to calculate means, standard deviations, and ranges for each of the five major emotional intelligence categories – self-perception, self-expression, interpersonal, decision making, and stress management. Descriptive statistics were also used to determine central tendency, variance, and frequency of each EQ-i profile.

To compare differences in each of the four groups of women, inferential statistics is necessary. A one-way analysis of variance (ANOVA) would normally be the most appropriate best-fit model. However, because of the limited sample size, a non-parametric alternative to ANOVA had to be employed as the assumptions associated with ANOVA had been violated due to a small sample size with little variance (Gravetter & Wallnau, 2011). Analysis of variances is useful in comparing three or more means of groups or variables for statistical significance, and assumes a normal distribution. The Kruskal-Wallis test is a non-parametric equivalent of the one-way analysis of variance (ANOVA) and does not assume a normal distribution. It is generally a better test of variance and significance when the sample size is small (Gravetter & Wallnau, 2011). Therefore, the Kruskal-Wallis test was employed, with a significance level of .05, to examine the relationship between all EQ categories and attributes with regard to type of position at the company.

For the qualitative phase, in order to analyze the interview data for the sample of 12 women, the researcher followed a specific, structured method as advanced by Creswell (2007) and Moustakas (1994) for phenomenological studies.

- First, list all significant statements made by interviewees and develop a list of nonrepetitive, nonoverlapping statements.

- Second, take the significant statements and group them into larger units of information called meaning units or themes.
- Third, write a description of what the participants in the study experienced with the phenomenon, called textural description, and include verbatim examples.
- Fourth, write a description of how the experience happened, called structural description, and reflect on the setting and context in which the phenomenon was experienced.
- Fifth, write a composite description of the phenomenon incorporating both the textural and structural descriptions. This will capture the essence of the experience and represent the culminating aspect of the study. It will tell the reader “what” the participants experienced with the phenomenon and “how” they experienced it in context.

In summary, this approach served as a guideline for the researcher to organize and make sense of the data by analyzing significant phrases, developing meanings and clustering them into themes, and presenting an exhaustive description of the phenomenon, which was presented in tables (Creswell, 2007). The researcher audio taped all interviews to capture participant responses accurately. The researcher then transcribed and coded the responses using NVivo qualitative coding software (Conger, 2013) to capture themes, meaning, and the essence of the participant’s phenomenon or lived experience (Creswell, 2007).

Summary

This chapter described the phenomenological and mixed method approach of the research study. Details of the research design and rationale, the general setting, and the population and sample were presented. In addition, the types of participants and data collection procedures were

outlined for both the quantitative phase one and qualitative phase two. Contents of the participant packets were described, which include the BarOn EQ-i instrument, background information on the research study, emotional intelligence, and leadership, and IRB consent information. The primary elements of the IRB requirements regarding study of human subjects were described, including confidentiality of participant information and record keeping processes. EQ-i instrumentation, including validity and reliability, was presented. Finally, the analytical techniques were described to help quantify both phases of the data, develop meanings, key themes, and capture the essence of the phenomenon as lived experiences (Creswell, 2007).

This research design is consistent with the objectives as stated in Chapter 1, and strengthened by the literature review in Chapter 2. The data collected came from two primary sources that include the Bar-On EQ-i assessment (Bar-On, 1999), and interviews of female employees at the pharmaceutical company. The researcher conducted the interviews and has personal knowledge and experience with the Bar-On EQ-i assessment. After collecting the data, the researcher reviewed the results and proceeded with coding, synthesizing, and interpreting the data. Final study results were presented in Chapter 4, and were grouped, characterized, and displayed according to each of the four research questions. Chapter 5 included a discussion of the study findings, overall conclusions, implications for women in leadership, recommendations for organizations, and recommendations for future research on this specific topic or related topics.

Chapter 4: Results

This chapter presents the findings resulting from completion of Bar-On Emotional Quotient Inventories (Bar-On, 1999), and in-depth interviews of 12 women currently employed at a Fortune 500 pharmaceutical company based in California. The sample population included women at four different positions or roles. Participants at the first level were administrative assistants or executive secretaries, the second level were managers or specialists, the third level were directors, and the fourth level were vice presidents. The sample of 12 had an even distribution of participants in each level, or three women at each of the four levels. The problem, purpose and research questions are restated, followed by the results for each research question. The chapter concludes with a summary.

An initial invitation and participant packet was provided to each woman in the study that included a description of the research study, background information on emotional intelligence and leadership, and IRB consent information. Each participant returned the IRB Informed Consent Letter, and once received, the researcher provided each participant with a link to self-administer the EQ-i 2.0 assessment via the Multi-Health System website (www.mhs.com). The participants completed the assessment with an average time of 13 minutes and 56 seconds. The researcher then provided each participant with a summary report of their emotional intelligence scores utilizing the Multi-Health Systems website, and scheduled 30-minute interviews. Each woman that received the initial invitation to participate in the study responded; therefore, it was not necessary to send a second or third round of participant packets in order to increase sample size.

Of the 12 interviews, all were conducted face-to-face, with the exception of one that was conducted via telephone. All interviews were semi-structured with 15 open-ended questions

intended to elicit views and opinions from the participants (Creswell, 2009). Each interview was audio taped to ensure that the researcher captured responses accurately and could give the participants her undivided attention.

As mentioned earlier, the researcher chose the sequential explanatory design that involves the collection and analysis of quantitative data in a first phase of research followed by the collection and analysis of qualitative data in a second phase that builds on the results of the initial quantitative data (Creswell, 2009). For the quantitative phase, the results of the EQ-i 2.0 assessments and participant demographic data were analyzed using SPSS statistical software, with both descriptive and inferential statistics applied to the data. For the qualitative phase, the researcher transcribed and coded the responses to the interview questions using NVivo qualitative coding software (Conger, 2013) to capture themes, meaning, and the essence of the participant's phenomenon or lived experience (Creswell, 2007). Finally, the researcher compared the analysis from the two phases to identify key data points and overall themes from the phenomenological study.

Restatement of the Problem

Women enter professional and managerial ranks in equal or greater numbers than men, yet very few hold senior leadership positions (Labor, 2011; Catalyst 2012), and have been unable to advance in their careers or break through the proverbial glass ceiling. Although women have made some strides in the past decades, men still occupy far more positions that confer decision-making authority and the ability to influence other's pay or promotions (Eagly & Carli, 2003).

In comparison with other industries, the pharmaceutical business has been ahead of the curve in bringing women into middle management positions, and in the vast majority of pharmaceutical companies, more than half of the sales representatives are women. Despite the

larger number of women at middle management levels, there is still opportunity for greater contributions at senior and executive levels (Blackwell, 2002). To further compound this issue, women have also been shown to be as emotionally intelligent as men (Murray, 1998), but this has not proven to be an asset in women's career advancement in the pharmaceutical industry.

Restatement of Purpose

This mixed method study has been grounded in research by Goleman (1998, 2000, 2004) and Bar-On (2005) which explored emotional intelligence as it relates to leadership development and success in organizations. Emotional intelligence (EQ) has gained acceptance and validity in describing leadership styles and capabilities, and women are recognized as being equally as emotionally intelligent as men are.

The purpose of this research study is to apply Goleman's leadership theory and Bar-On's gender-related emotional intelligence in a way that examines the possible relationship between gender-specific emotional intelligence attributes and women's career advancement in a specific industry.

Restatement of Research Questions

The research questions explored in this study are as follows:

1. To what extent, if any, is there a relationship between emotional intelligence attributes and women based on type of position in a Fortune 500 pharmaceutical company?
2. To what extent, if any, is there a relationship between emotional intelligence attributes and women in leadership positions in a Fortune 500 pharmaceutical company?
3. To what extent, if any, is there a relationship between gender-specific emotional intelligence attributes and the career advancement of women in a Fortune 500 pharmaceutical company?

4. To what extent, if any, is there a relationship between emotional intelligence attributes and the career advancement of women in a Fortune 500 pharmaceutical company based on generation (i.e., Veterans, Baby Boomers, Generation X, and Millennials)?

Demographics of Participants

A total of 12 women participated in the quantitative and qualitative phases of the study. The participants varied greatly as to their position and level of leadership, age, time in current position, formal education, and the time of their last promotion. There were also wide ranges observed in both their total EQ scores and in EQ sub-categories or attributes. Table 2 below outlines these demographic characteristics.

Participants were primarily Caucasian ethnicity, representing two-thirds or eight out of 12 women. The remaining four participants consisted of one woman who is a mix of African-American and Middle Eastern descent, one woman of Eastern Indian descent, one Hispanic/Latina woman, and one Pilipino woman. There were no women who identified as Asian or American Indian.

Marital status and number of children also varied among the group. Of the 12 participants, 25% or three out of 12 chose not to marry and 42% or five out of 12 chose not to have children. The participants indicated that these decisions were made due to career sacrifices and other reasons. More on this topic, including the participant's career experiences, thoughts on leadership and EQ, and barriers and obstacles they faced along their journey will be discussed in Chapter 5.

Table 2

Participant Demographics

Position	Participant Number	Age	Time in Position (months)	Formal Education	Last Promotion	Total EQ Score
Vice President	1	48	4	MBA	2008	126
	2	62	12	MA	2004	128

	3	52	36	PHD/PHARMD/MBA	2010	105
Director	4	47	60	BS	2005	117
	5	57	18	MS	2008	117
	6	49	96	PHARMD/MED	2005	113
Manager/ Specialist	7	45	60	PHD	2012	127
	8	34	19	MBA	2011	126
	9	35	42	MD/MHA	N/A	117
Administrative Assistant	10	66	84	AA	2011	133
	11	59	42	AA	2010	117
	12	55	96	BS	1998	92

The mean age of participants is 50.75 years with a standard deviation of 9.87 years. The mean time in their current position is 47.42 months with a standard deviation of 32.16 months. There is much variance here with almost a bimodal distribution on both ends. The range in time is between four months and 96 months or eight years in the same position. The time since last promotion also varies widely for the participants. Some women received a promotion as recent as 2012, and others have not been promoted since 1998. Formal education ranges from two women having Associate in Arts degrees to three women who have a doctorate or multiple doctorate degrees.

The total EQ scores for the women in this study are higher than the general population. According to published data from Multi-Health Systems, the average EQ-i 2.0 assessment score is 100 (Multi-Health, 2012). The mean EQ participant score is 118.17 with a standard deviation of 11.312. Therefore, the distribution is a little negatively skewed with mostly high scores and slightly leptokurtic as 50% of the distribution are bunched up between 117 and 126. Figure 1 below shows the distribution of total EQ scores plotted for skewness and kurtosis, or the trueness of the data to the bell curve.

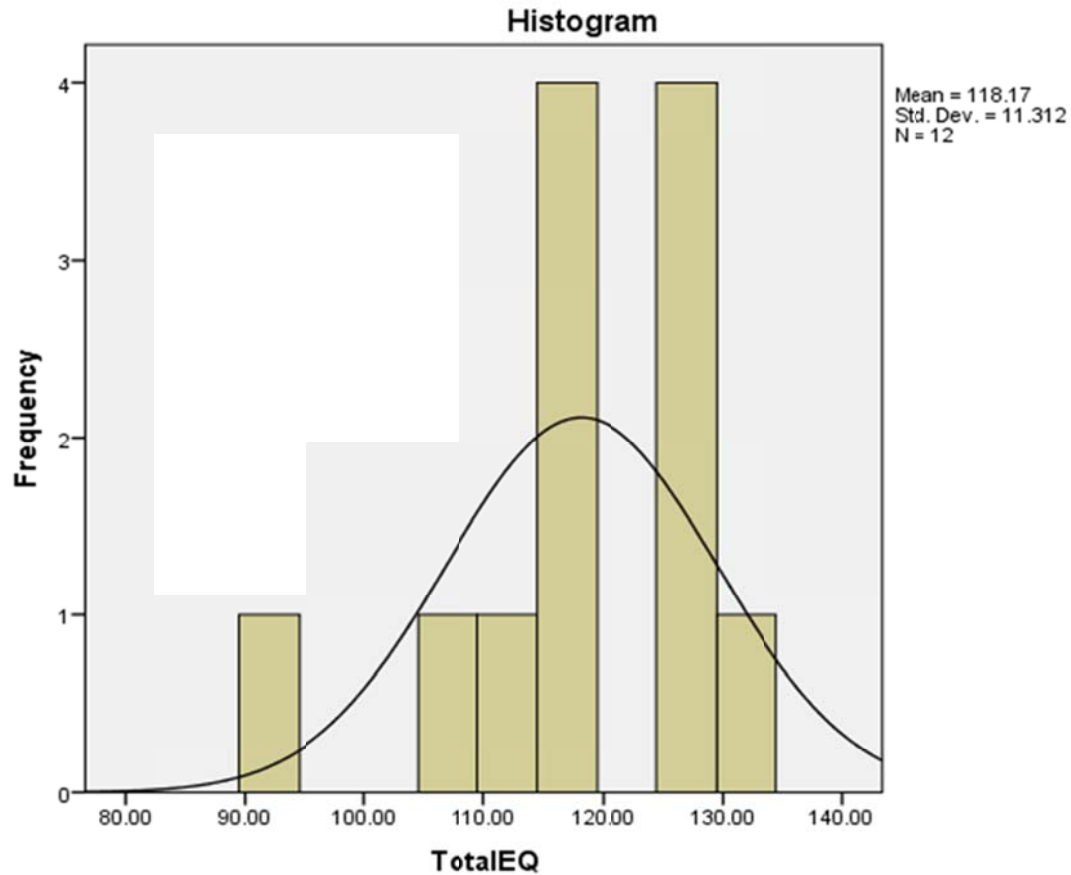


Figure 1. Histogram of participant total EQ scores

Results for Research Question 1

To what extent, if any, is there a relationship between emotional intelligence attributes and women based on type of position in a Fortune 500 pharmaceutical company?

To answer Research Question 1, the EQ-i 2.0 summary report for each participant was analyzed along with interview questions one, two and three. These questions focused on understanding which EQ attributes contributed most to the participant's career advancement, if it would benefit them to leverage, adapt or change certain EQ attributes to advance in their career, and if they've always had these EQ attributes or if they've worked to develop them. While the researcher used the same script of questions with all participants, they were free to answer the

questions candidly. A discussion of participant responses to these questions will be discussed at the end of this section.

To compare differences in EQ scores across the four groups of women, inferential statistics is necessary. A one-way analysis of variance (ANOVA) would normally be the most appropriate best-fit model. However, because of the limited sample size, a non-parametric alternative to ANOVA had to be employed as the assumptions associated with ANOVA had been violated due to a small sample size with little variance (Gravetter & Wallnau, 2011). Analysis of variances is useful in comparing three or more means of groups or variables for statistical significance, and assumes a normal distribution. The Kruskal-Wallis test is a non-parametric equivalent of the one-way analysis of variance (ANOVA) and does not assume a normal distribution. It is generally a better test of variance and significance when the sample size is small (Gravetter & Wallnau, 2011). Therefore, the Kruskal-Wallis test was employed, with a significance level of .05, to examine the relationship between all EQ categories and attributes with regard to type of position at the company.

However, with regard to total EQ scores, the five EQ composite categories, and the 15 EQ sub-categories or attributes, no significant differences in emotional intelligence were found in relationship to type of position in the company. All values were greater than .05; hence, the researcher is unable to reject the null hypothesis that there is a statistical difference between the four groups of women with regard to type of position and emotional intelligence. Therefore, to answer Research Question 1, the data shows that there is not a relationship between emotional intelligence attributes and women based on type of position in a Fortune 500 pharmaceutical company. Table 3 below displays the results and significance of the Kruskal-Wallis test across all EQ categories and attributes with regard to type of position in the company.

Table 3

Kruskal-Wallis Test of EQ Attributes across Categories of Position

	Null Hypothesis	Test	Significance	Decision
1	The distribution of Total EQ is the same across categories of Position.	Independent Samples Kruskal-Wallis Test	.687	Retain the null hypothesis
2	The distribution of Perception is the same across categories of Position.	Independent Samples Kruskal-Wallis Test	.246	Retain the null hypothesis
3	The distribution of P_Regard is the same across categories of Position.	Independent Samples Kruskal-Wallis Test	.287	Retain the null hypothesis
4	The distribution of P_Actualization is the same across categories of Position.	Independent Samples Kruskal-Wallis Test	.234	Retain the null hypothesis
5	The distribution of P_Awareness is the same across categories of Position.	Independent Samples Kruskal-Wallis Test	.439	Retain the null hypothesis
6	The distribution of Expression is the same across categories of Position.	Independent Samples Kruskal-Wallis Test	.477	Retain the null hypothesis
7	The distribution of E_Expression is the same across categories of Position.	Independent Samples Kruskal-Wallis Test	.483	Retain the null hypothesis
8	The distribution of E_Assertiveness is the same across categories of Position.	Independent Samples Kruskal-Wallis Test	.252	Retain the null hypothesis
9	The distribution of E_Independence is the same across categories of Position.	Independent Samples Kruskal-Wallis Test	.642	Retain the null hypothesis
10	The distribution of Interpersonal is the same across categories of Position.	Independent Samples Kruskal-Wallis Test	.098	Retain the null hypothesis
11	The distribution of I_Relationships is the same across categories of Position.	Independent Samples Kruskal-Wallis Test	.082	Retain the null hypothesis
12	The distribution of I_Empathy is the same across categories of Position.	Independent Samples Kruskal-Wallis Test	.439	Retain the null hypothesis
13	The distribution of I_SocResp is the same across categories of Position.	Independent Samples Kruskal-Wallis Test	.394	Retain the null hypothesis
14	The distribution of Decisions is the same across categories of Position.	Independent Samples Kruskal-Wallis Test	.924	Retain the null hypothesis

15	The distribution of D_ProbSolv is the same across categories of Position.	Independent Samples Kruskal-Wallis Test	.512	Retain the null hypothesis
16	The distribution of D_RealityTest is the same across categories of Position.	Independent Samples Kruskal-Wallis Test	.677	Retain the null hypothesis
17	The distribution of D_ImpulseCont is the same across categories of Position.	Independent Samples Kruskal-Wallis Test	.516	Retain the null hypothesis
18	The distribution of StressManagement is the same across categories of Position.	Independent Samples Kruskal-Wallis Test	.847	Retain the null hypothesis
19	The distribution of SM_Flexibility is the same across categories of Position.	Independent Samples Kruskal-Wallis Test	.572	Retain the null hypothesis
20	The distribution of SM_StessTol is the same across categories of Position.	Independent Samples Kruskal-Wallis Test	.562	Retain the null hypothesis
21	The distribution of SM_Optimism is the same across categories of Position.	Independent Samples Kruskal-Wallis Test	.899	Retain the null hypothesis

Asymptotic significances are displayed. The significance level is .05.

The first three questions in the interview centered on specific EQ attributes and their effect on each participants career advancement. These questions also focused on whether the participant was innately born with these qualities or if they've worked to develop them over the span of their careers. In analyzing the 12 participant responses, clear themes have emerged.

Of the EQ attributes included in the EQ-i 2.0 instrument, there are nine that the participants felt have contributed most to their career success, and these attributes cross all five EQ composites or categories. These are assertiveness, self-regard, interpersonal relationships, problem solving, stress tolerance, reality testing, flexibility, independence, and optimism. Of these, the most frequent responses cited by all participants were assertiveness, self-regard, and interpersonal relationships as having the most impact on their career success. Interestingly, some participants noted one EQ attribute that was believed to have a negative effect on their career advancement, which is emotional expression. Half of the participants gave examples of negative responses from their managers when they expressed emotions in the workplace, such as crying or

having emotional reactions to situations. They noted that women are both perceived and expected to be more emotional than men, but when emotions were expressed, it led to negative impressions from their managers.

When asked about which EQ attributes they would leverage or change in order to advance in their career, the most frequent responses were assertiveness, self-regard, interpersonal relationships, problem solving, independence, flexibility, and empathy. These are consistent with the attributes that the women felt contributed most to their advancement, with the exception of empathy. 60% of the women said that increasing empathy would help them advance further in their career, but this was not noted as a contributor to their career success.

In looking at the EQ attributes that they were highest in, based on their EQ-i 2.0 summary report, they were asked which attributes they've always had and which attributes they've worked to develop. The attributes that come naturally, with little to no effort, are self-actualization, self-regard, assertiveness, emotional expression, interpersonal relationships, optimism, independence, empathy, and social responsibility. The participants felt that these were *hard-wired* attributes they were born with and have utilized since childhood. On the other hand, the attributes that the participants have had to work to develop or are still developing, are self-awareness, self-regard, independence, problem solving, stress tolerance, impulse control, social responsibility, and empathy. Another interesting finding is there are four EQ attributes that fell into both the *always had* category and *worked to develop* category, these are self-regard, independence, social responsibility, and empathy. Half of the women felt these were innate traits, while the other half believed that they developed them. According to Goleman (1998), our level of emotional intelligence is not fixed genetically, nor does it develop only in early childhood. Unlike IQ, which changes little after our teen years, emotional intelligence seems to be largely learned, and

continues to develop as we go through life and learn from our experiences, thus our competence in it can keep growing.

Results for Research Question 2

To what extent, if any, is there a relationship between emotional intelligence attributes and women in leadership positions in a Fortune 500 pharmaceutical company?

To answer Research Question 2, the EQ-i 2.0 summary report for each participant was analyzed along with interview questions four, five and six. As mentioned earlier, the inferential statistics test, Kruskal-Wallis, showed no significant differences in emotional intelligence between the four groups of women in relationship to type of position in the company. This finding includes women at leadership positions of vice president and director. Even though not statistically significant, some differences emerged.

The average total EQ score for women at the vice president level was 120, and women at the director level had a score of 116. However, those women at the manager or specialist level had the highest average total EQ scores of 123, which exceed those in formal leadership positions at the company. Goleman (2004) has cited data consistent with this finding, in that successful middle managers have to use a broad range of emotional intelligence competencies in order to get things done in the workplace. They work more as part of teams, need to be collaborative, communicate, and exercise a great deal of influence and persuasion, all without having positional power.

Women at the vice president and director levels had higher Decision Making and Self-Expression composites than the manager or administrative assistant groups. The Decision Making composite includes the attributes of problem solving, reality testing, and impulse control. The Self-Expression composite includes the attributes of emotional expression,

assertiveness, and independence, which is consistent of typical leader traits and generally, considered male-specific EQ attributes (Murray, 1998). As cited earlier, some of the women felt that these traits were innate, but others had to work to develop them and adapt to these traits in order to obtain leadership positions and be perceived as a leader at the organization.

In contrast, women at the vice president and director levels had lower Interpersonal composites than the women did in the other two groups. The interpersonal composite includes the EQ attributes of interpersonal relationships, empathy, and social responsibility.

Interview questions four, five and six pertained to whether women want to be promoted into leadership levels, how being a woman has impacted their career aspirations, and what EQ attributes they feel are most valued in leaders at their organization. The researcher deliberately asked the question about participant desires to be promoted because the assumption should not be made that all women want to advance in their careers or be promoted, and that is exactly what the data illustrated. One-third or four out of 12 women in this study have no desire to advance, and the distribution broke evenly across all four groups of vice president, director, manager, and administrative assistant. The reasons given for this were “this job matches my skill sets” (Participant 4), “I don’t want to lead” (Participant 12), “my work-life balance is more important” (Participant 7), and “I’m as high as I want to go and don’t want the stress and politics at the next level” (Participant 2). These sentiments are echoed in the research conducted by McKinsey & Company in April 2012. They surveyed 60 Fortune 500 companies and found that women often self-select out of leadership roles due to structural obstacles, lifestyle choices, institutional mindsets, or individual mindsets (Barsh & Yee, 2012).

When the participants were asked how being a woman has influenced their career aspirations, the responses varied widely. Among the vice president group, one woman felt that

being a woman has not affected her career choices at all, while two women have sacrificed marriage, children or both for their careers.

Among the director group, one woman felt that being a woman has not impacted her career, one woman sacrificed having a family, and the other felt that stereotypes have held her back. She stated, “Men assume a woman can’t be empathetic and analytical at same time” (Participant 6).

Among the manager and specialist group, two women chose work-life balance over their careers, and one woman felt that females have an advantage in the workplace as they work more efficiently because of work-life balance issues.

Lastly, among the administrative assistants group, all three women cited stereotypes of female roles as primary reasons for their lack of career advancement. One woman has only been in traditionally female roles, another woman passed up promotions because her husband was breadwinner, and another woman cited her upbringing by saying she was taught, “Women were supposed to either get married, be a secretary, nurse, or flight attendant” (Participant 11).

The last question pertaining to leadership was which EQ attributes they feel are most valued in leaders at their organization. The top three attributes cited were assertiveness, problem solving, and interpersonal relationships, in that order. Other attributes valued in leaders at the pharmaceutical company were stress tolerance, reality testing, independence, and self-regard.

Results for Research Question 3

To what extent, if any, is there a relationship between gender-specific emotional intelligence attributes and the career advancement of women in a Fortune 500 pharmaceutical company?

To answer Research Question 3, the EQ summary report for each participant was analyzed along with interview questions seven and eight. It is important to revisit the concept of gender-specific EQ attributes as mentioned earlier. Numerous researchers have found and confirmed women and men to be equally as intelligent emotionally, but they are strong in different areas. For example, women score higher than men in areas of empathy and social responsibility, whereas men outperform women on stress tolerance and self-confidence measures (Murray, 1998).

In addition, Multi-Health Systems, the administrator of the EQ-i 2.0 instrument, examined whether males and females score differently on the EQ-i 2.0. Results of the gender analyses showed that males and females did not differ significantly on the EQ-i 2.0 Total EI score, indicating that overall emotional intelligence as measured by the EQ-i 2.0 is the same for males and females. However, small to medium gender effects were found for some subscales. The largest difference was on Empathy, with women scoring higher than men with a moderate effect size. Smaller differences were found with women scoring higher than men on the Interpersonal Composite, Emotional Expression, and Emotional Self-Awareness. Men scored higher than women with small effect sizes on Stress Tolerance, Problem Solving, and Independence. It is important to note that these effects were small and represent only a few absolute standard score points (Multi-Health, 2012). A summary of each of the four participant groups as it relates to gender-specific EQ attributes are displayed in Table 4 below.

Table 4

Gender-Specific EQ Attributes by Participant Group

Position	Participant Number	Individual Mean Female EQ Scores	Individual Mean Male EQ Scores	Group Mean Female EQ Scores	Group Mean Male EQ Scores
Vice President	1	128	116	109	117
	2	125	118		
	3	75	118		
Director	4	111	119	112	114
	5	113	118		
	6	112	104		
Manager/ Specialist	7	131	108	125	109
	8	125	112		
	9	119	108		
Administrative Assistant	10	123	124	109	107
	11	108	113		
	12	97	83		

The figures in Table 4 were derived by adding up both the female-specific and male-specific EQ attributes that have been established in the literature for each of the 12 participants. The mean and standard deviation per group for each of the female and male-specific attributes were also calculated. Female-specific attributes included in the calculation are Emotional Self-Awareness, Emotional Expression, and the Interpersonal Composite, which includes interpersonal relationships, empathy, and social responsibility. Male-specific attributes included in the calculation are Independence, Problem Solving, and Stress Tolerance.

A clear difference emerged between the groups when looking at gender-specific attributes. The women in the vice president group had group mean EQ scores that were higher in the male-specific attributes than the female-specific attributes, with 117 for male compared to 109 for female. In contrast, women in the manager and specialist group had group mean EQ scores that were markedly higher in female-specific attributes than the male-specific attributes, with 125 for female compared to 109 for male, which suggests they are leveraging female

attributes more, or have chosen not to adapt male attributes to be effective as middle managers. There were no major differences in gender-related EQ attributes between the director and administrative assistant groups.

Interview questions seven and eight focused on understanding gender bias and discrimination, and the gender gap that exists in leadership. Participant responses varied widely on these issues, but there was some overlap. Two of the vice presidents have experienced gender bias and discrimination. One woman who is strong in male-specific EQ attributes stated that people have a difficult time accepting her as a leader because they expect an empathetic woman. Another shared that when she cried to her boss, he viewed her as unstable and unable to handle stress, when that was not true. When this same woman was assertive, she was viewed as too aggressive or a *bitch*, unlike her male counterparts when they assert themselves. All three vice presidents commented that EQ contributes to the leader gap because men hire men similar to themselves, those high in confidence, assertiveness, and independence, not those high in empathy and social responsibility.

Among the director group, two women have experienced gender bias because they are naturally empathetic and happy, but viewed as lacking substance and intelligence because of this. It is also believed that they cannot be analytical and empathetic at the same time as these are viewed as mutually exclusive. The third director shared that she is strong in male attributes and has found that women are threatened by this and take it personally; therefore, she finds it difficult to work with other women. These directors believe that EQ contributes to the leader gap because of interpersonal relationships, where men network more with other men, assertiveness where women are viewed as aggressive, and men are viewed as stronger is self-regard and stress tolerance.

Within the manager and specialist group, one woman is strong in male attributes and has been told to tone down her assertiveness, be a team player, and be more social. Another manager shared that she has been told to be more assertive in the past, but she used other approaches and got the same results. She commented, “Men don’t see that there are other emotional intelligence approaches other than what they are accustomed to. Assertiveness is not the only approach” (Participant 8). These managers also see EQ as contributing to the leadership gap with the self-regard attribute. Men are viewed as having high self-regard, and women are harder on themselves and more cautious in presenting what they do or sharing their accomplishments. There is also a big difference in self-actualization as it is more difficult for females to realize their goals because of the family choices they have to make. Finally, one manager said, “Women view men as leaders regardless of their position. Females are viewed as better in teams due to interpersonal and multi-tasking abilities” (Participant 9).

Among the administrative assistant group, two of the women shared that their opinions and suggestions have been disregarded and not viewed as valuable. They questioned whether this was due to their being a female or because of their role as an administrative assistant. All three women believed that EQ contributes to the leadership gap for a number of reasons. One woman commented, “Women are in a box. Women work harder than men, but people don’t perceive women as leaders” (Participant 12). Another woman commented, “Women are team players and ask questions of the team. Men know the rules and follow them” (Participant 10). Finally, one woman shared “Women are as strong as men in emotional intelligence, but females are viewed as lacking the independence, self-regard, and assertiveness needed to be a leader” (Participant 11). Of note, one woman in each of the four groups shared that they have not experienced any gender bias or discrimination that they recall.

Results for Research Question 4

To what extent, if any, is there a relationship between emotional intelligence attributes and the career advancement of women in a Fortune 500 pharmaceutical company based on generation (i.e., Veterans, Baby Boomers, Generation X, and Millennials)?

To answer Research Question 4, the EQ summary report for each participant was analyzed along with interview question number nine, which focuses on how each woman's EQ attributes have changed as she has aged. As stated earlier, managers today are faced with expanding diversity in their work force, and one of the most overlooked challenges concern the widening age range of their employees who, despite their vast experiential and attitudinal differences, must come together to form a coherent and viable corporate culture.

Polach (2006) identifies four distinct generations that make up the working population. Each generational cohort has unique descriptors that help explain why its members act the way he or she does in today's work force. The Veterans or Traditionalists were born before 1945, the Baby Boomers were born between 1946 and 1964, Generation X were born between 1965 and 1980, and Generation Y or Millennials were born between 1980 and 2000.

In this study, the researcher was hoping to have participants that span across all four generations to address the research question. However, once the descriptive statistics were performed on the participant demographics, the cluster of women fell almost evenly between the Baby Boomer and Generation X generations. There were no women who fell into either the Veteran or Millennial generations. A summary of participant ages, generation, and EQ scores are listed in Table 5 below.

Table 5

Participant Ages, Generation and Total EQ Scores

Position	Participant Number	Participant Age	Baby Boomer	Generation X	Total EQ Score
Vice President	1	48		X	126
	2	62	X		128
	3	52	X		105
Director	4	47		X	117
	5	57	X		117
	6	49	X		113
Manager/ Specialist	7	45		X	127
	8	34		X	126
	9	35		X	117
Administrative Assistant	10	66	X		133
	11	59	X		117
	12	55	X		92

Note. No study participants belong to either the Veterans or Millennials generations.

Participant ages range from 34 to 66, with a mean age of 50.75 years and a standard deviation of 9.87 years. Seven of the women fall within the Baby Boomer generation, and five fall within Generation X generation. Consistent with the literature that EQ increases as we age (Goleman, 1998), the two oldest women, participant number 10 who is 66 years, and participant number 2 who is 62 years, have the highest total EQ scores of 133 and 128, respectively. Although this data is not statistically significant according to the Kruskal-Wallis test, it does show trends that are consistent with higher EQ scores that are seen in older people. However, since the participants with the two highest total EQ scores hold the positions of administrative assistant and vice president, there is no correlation between EQ attributes and career advancement of women at this pharmaceutical company.

Participant responses to interview question number nine, which focus on how each woman's EQ attributes, have changed as she has aged, covered a broad range of topics but showed some consistencies across all groups of women. In general, most of the participants felt that their overall emotional intelligence had improved as they aged. The EQ attribute that the

participants felt has improved the most as they have aged, is stress tolerance. As women and men age, they cope much better to the stresses of work and life compared to their younger counterparts. We are more relaxed, focused, and able to put things in perspective and context (Bradberry & Greaves, 2005). Other attributes that were reported by the participants as improved with age are problem solving, empathy, self-regard, interpersonal relationships, and impulse control.

Summary

Chapter 4 presented the findings resulting from completion of Bar-On Emotional Quotient Inventories (Bar-On, 1999), and in-depth interviews of 12 women currently employed at a Fortune 500 pharmaceutical company based in California. The sample population included women at four different positions or roles. The problem, purpose and research questions were restated, followed by the results for each of the four research questions.

The researcher chose the sequential explanatory design for this study that involves the collection and analysis of quantitative data in a first phase of research followed by the collection and analysis of qualitative data in a second phase that builds on the results of the initial quantitative data (Creswell, 2009). For the quantitative phase, the results of the EQ-i 2.0 assessments and participant demographic data were analyzed using SPSS statistical software, with both descriptive and inferential statistics applied to the data. For the qualitative phase, the researcher transcribed and coded the responses to the interview questions using NVivo qualitative coding software (Conger, 2013) to capture themes, meaning, and the essence of the participant's phenomenon or lived experience (Creswell, 2007). Finally, the researcher compared the analysis from the two phases to identify key data points and overall themes from the phenomenological study.

The total EQ scores for the women in this study were higher than the general population. The average EQ-i 2.0 assessment score is 100 (Multi-Health, 2012), with the mean EQ participant score in this study of 118.17 and a standard deviation of 11.312.

To compare differences in EQ scores across the four groups of women, inferential statistics was applied by using a non-parametric alternative to ANOVA as the assumptions associated with ANOVA had been violated due to a small sample size with little variance (Gravetter & Wallnau, 2011). Therefore, the Kruskal-Wallis test was employed, with a significance level of .05, to examine the relationship between the four groups with regard to type of position at the company. With regard to total EQ scores, the 5 EQ composite categories, and the 15 EQ sub-categories or attributes, no significant differences in emotional intelligence were found in relationship to type of position in the company.

The average total EQ score for women at the vice president level was 120, and women at the director level had a score of 116. However, those women at the manager or specialist level had the highest average total EQ scores of 123, which exceed those in formal leadership positions at the company. Women at the vice president and director levels were shown to have higher Decision Making and Self-Expression composites than the manager or administrative assistant groups but lower Interpersonal composites than other groups.

A clear difference emerged between the groups when looking at gender-specific attributes. The women in the vice president group had group mean EQ scores that were higher in the male-specific attributes than the female-specific attributes, with 117 for male compared to 109 for female, which suggests that women adapt and exhibit male EQ attributes as they rise to ranks of leadership in their careers. In contrast, women in the manager and specialist group had group mean EQ scores that were markedly higher in female-specific attributes than the male-specific

attributes, with 125 for female compared to 109 for male, which suggests they are leveraging female attributes more, or have chosen not to adapt male attributes to be effective as middle managers. There were no major differences in gender-related EQ attributes between the director and administrative assistant groups.

Seven of the women fell within the Baby Boomer generation, and five fell within Generation X. Consistent with the literature that EQ increases as we age (Goleman, 1995, 1998), the two oldest women, participant number 10 who is 66 years, and participant number 2 who is 62 years, have the highest total EQ scores of 133 and 128, respectively. Stress tolerance was the most common attributed cited that has improved with age.

During the interviews, all participants cited assertiveness, self-regard, and interpersonal relationships as having the most impact on their career success. Some participants noted emotional expression as the one EQ attribute that was believed to have a negative effect on their career advancement. Finally, the top attributes cited as most valued in leaders at their organization, were assertiveness, problem solving, and interpersonal relationships, in that order.

Chapter 5: Discussion and Recommendations

The researcher set out to design this study to address two confounding issues. First, that women enter professional and managerial ranks in equal or greater numbers than men, yet very few hold senior leadership positions (Labor, 2011; Catalyst, 2012), and have been unable to advance in their careers or break through the glass ceiling. Although women have made some strides in the past decades, the rate of growth has remained essentially unchanged at less than 1% growth per year. At this rate, it will take forty years for women to reach parity with men in leadership roles (Catalyst, 2012).

Second, research in the past decade lead by Daniel Goleman (1995, 2000, 2004) has identified an individual's emotional intelligence as a key aspect and driver of leadership effectiveness. Emotional intelligence is defined as a form of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them, and to use the information to guide one's thinking and action (Mayer, Salovey & Caruso, 1997). Emotional intelligence assessments have found women and men to be equally as intelligent emotionally, but they are strong in different areas or attributes that are gender specific.

The significance of these two confounding issues relates to the ability of corporations to leverage the enormous pool of talent inherent in their employees. Given that women account for more than 50% of college graduates, more than 50% of professional degrees such as M.D. and J.D., and hold more than 50% of management, professional, and related occupations (Labor, 2011), a natural shift to a more gender-balanced senior management should be a reasonable, expected outcome. This has clearly not happened, as only 3.8% of Fortune 500 CEOs are women (Catalyst, 2012).

When corporations are seeking to develop new leaders, the female population of employees is underrepresented. If companies tap their female employees, it would have a positive impact on diversity both in middle management and the board of directors (Smith, Smith, & Verner, 2006). In addition, stakeholders of a corporation expect that the company will appropriately manage and maximize their resources, including human capital, and this human capital should reflect the diverse base of customers that the company serves. If companies that have more women in their senior ranks have better return of investment, then companies that do not have women in their senior ranks may be missing an opportunity to enhance their effectiveness (Smith, Smith, & Verner, 2006).

This mixed method study was grounded in research by Goleman (1998, 2000, 2004) and Bar-On (2005) which explored emotional intelligence as it relates to leadership development and success in organizations. The purpose of this research study was to apply Goleman's leadership theory and Bar-On's gender-related emotional intelligence in a way that examines the possible relationship between gender-specific emotional intelligence attributes and women's career advancement in a Fortune 500 pharmaceutical company.

Discussion of Findings

Emotional intelligence and leadership are closely related concepts (Goleman, 1998). The findings of this study confirms this statement, but the data also illustrate that the reasons for the leadership gap that exists between men and women is multi-factorial, and goes much deeper than emotional intelligence or leadership alone.

As a researcher, I had to ask the question, "Does having a high EQ always lead to success?" The findings from this study indicate that the answer is no. However, most researchers conclude that intellectual ability or IQ accounts for only 10 to 20% of work and life

success, and most of the rest of the factors involve emotional intelligence. A growing body of research also supports a significant association between diverse measures of EQ and job performance, particularly in positions requiring social and interpersonal competence (Goleman, 1995, 1998). The bottom line is that, with all other things being equal, EQ can drastically improve individual, leadership, and group job performance.

In this chapter, the researcher will discuss the findings and implications of the four research questions, and provide an explanation of the overall themes, including unusual events and theories to help explain the data. The researcher will also discuss and summarize the barriers that women face as they aspire to leadership positions, and summarize the consistencies with other scholarly research on emotional intelligence, women and leadership. Finally, the researcher will discuss the implications for women and leadership, recommendations for organizations, recommendations for future research, and finish with conclusions.

Research Question 1

To what extent, if any, is there a relationship between emotional intelligence attributes and women based on type of position in a Fortune 500 pharmaceutical company?

As shown in Table 3: Kruskal-Wallis test of EQ attributes across categories of position, no significant differences in emotional intelligence were found in relationship to type of position in the company. The test examined total EQ scores, 5 EQ composite categories, and 15 EQ sub-categories or attributes.

This finding is consistent with another study by Duncan (2007) which examined the relationship between women in positions of leadership and gender specific emotional intelligence attributes. The quantitative study focused on 114 women in executive positions across Fortune 1000 companies primarily based in Texas. Findings from analyses of EQ and

other demographic variables, including position, time in position, education, type of organization, and size of organization were not statistically significant.

Of the EQ attributes included in the EQ-i 2.0 instrument, there were nine that the participants felt have contributed most to their career success, and these attributes cross all five EQ composites or categories. These are assertiveness, self-regard, interpersonal relationships, problem solving, stress tolerance, reality testing, flexibility, independence, and optimism. Of these, the most frequent responses cited by all participants were assertiveness, self-regard, and interpersonal relationships as having the most impact on their career success.

Research Question 2

To what extent, if any, is there a relationship between emotional intelligence attributes and women in leadership positions in a Fortune 500 pharmaceutical company?

The lack of significance from the Kruskal-Wallis test also applies to this research question as it includes women at leadership positions of vice president and director. Even though not statistically significant, some clear differences emerged.

The expected outcome was that the participants in both the vice president and director groups would have higher total EQ-i 2.0 scores than participants in either the manager or administrative assistant groups. The data showed; however, that women in the middle manager group had the highest overall EQ-i 2.0 scores of 123. The vice president group had the second highest overall scores of 120, and the director group had the third highest overall scores of 116.

Goleman (2004) has cited data consistent with this finding, in that successful middle managers have to use a broad range of emotional intelligence competencies in order to get things done in the workplace. They work more as part of teams, need to be collaborative,

communicate, and exercise a great deal of influence and persuasion, all without having positional power.

The data also showed that women at the vice president and director levels had higher decision making and self-expression composite scores than the manager or administrative assistant groups. The decision making composite includes the attributes of problem solving, reality testing, and impulse control. The self-expression composite includes the attributes of emotional expression, assertiveness, and independence. These two EQ composite categories are consistent of typical leader traits and considered male-specific EQ attributes (Murray, 1998). In contrast, women at the vice president and director levels had lower interpersonal composite scores than the women in the manager or administrative assistant groups. The interpersonal composite includes the EQ attributes of interpersonal relationships, empathy, and social responsibility. These categories of traits are considered female-specific EQ attributes. It is interesting to note that even though the vice president and director groups, or those in leadership positions, were higher in male-specific EQ attributes, the manager group was actually highest in total EQ scores, and highest in female-specific EQ attributes.

The differences in EQ attributes among leaders in this study are also consistent with Duncan (2007). As discussed earlier, Duncan examined the relationship between 114 women in positions of leadership and gender specific emotional intelligence attributes. Findings showed that executive women in the 41-74 age range were higher in male-specific EQ attributes of stress tolerance and self-confidence, than younger women were. Executive women in the 29-40 age range were higher in female-specific EQ attributes of empathy and social responsibility, than older women were in the study. Finally, Duncan showed that the youngest women had the lowest overall EQ scores compared to the other groups of women.

Research Question 3

To what extent, if any, is there a relationship between gender-specific emotional intelligence attributes and the career advancement of women in a Fortune 500 pharmaceutical company?

The results for Research Question 3 are consistent with the results from Research Question 2. However, the data for this question was analyzed for each individual, cross-tabulated for the group, then given numeric values for each of the 15 EQ attributes. Both the individual and group mean female and male EQ scores were calculated for each participant and a clear difference emerged between the groups when looking at gender-specific attributes.

The women in the vice president group had group mean EQ scores that were higher in the male-specific attributes than the female-specific attributes, with 117 for male compared to 109 for female, which suggests that women adapt and exhibit male EQ attributes as they rise to ranks of leadership in their careers. In contrast, women in the manager and specialist group had group mean EQ scores that were markedly higher in female-specific attributes than the male-specific attributes, with 125 for female compared to 109 for male, which suggests they are leveraging female attributes more, or have chosen not to adapt male attributes to be effective as middle managers. There were no major differences in gender-related EQ attributes between the director and administrative assistant groups.

As with the data for Research Question 2, even though the vice president group was clearly higher in male-specific EQ attributes, the manager group was actually highest in total EQ scores, and markedly higher in female-specific EQ attributes than the vice president group.

Research Question 4

To what extent, if any, is there a relationship between emotional intelligence attributes and the career advancement of women in a Fortune 500 pharmaceutical company based on generation (i.e., Veterans, Baby Boomers, Generation X, and Millennials)?

Participant ages ranged from 34 to 66, with a mean age of 50.75 years and a standard deviation of 9.87 years. Seven of the women fell within the Baby Boomer generation, and five fell within Generation X. No women fell within either of the Veteran or Millennial generations. Consistent with the literature that EQ increases as we age (Goleman, 1998), the two oldest women, participant number 10 who is 66 years, and participant number 2 who is 62 years, have the highest total EQ scores of 133 and 128, respectively.

Although this data is not statistically significant according to the Kruskal-Wallis test, it does show trends that are consistent with higher EQ scores that are seen in older people. However, since the participants with the two highest total EQ scores hold the positions of administrative assistant and vice president, there is no correlation between EQ attributes and career advancement of women at this pharmaceutical company. It was expected in this study that the oldest participants would have higher total EQ scores, but it was not expected that some of the women with the highest scores would be in the lowest positions. Therefore, high total EQ scores are not necessarily correlated with leadership.

Overall Themes

For the quantitative phase, the results of the EQ-i 2.0 assessments and participant demographic data were analyzed using SPSS statistical software, with both descriptive and inferential statistics applied to the data. For the qualitative phase, the researcher transcribed and

coded the responses to the interview questions using NVivo qualitative coding software (Conger, 2013) to capture themes, meaning, and the essence of the participant's phenomenon or lived experience (Creswell, 2007).

Using an interpretive phenomenological analysis, clear themes developed from both an overall and emotional intelligence aspect. In looking across the participant responses to the 15 interview questions, there were initially 10 subthemes. These were work-life balance, family sacrifices, role models, mentors, leadership support, upbringing, gender bias, stereotypes, taking on male attributes, and role congruity theory. After coding the data and grouping together, these topics fell into three overall themes, listed below.

1. Work-life balance and family sacrifices
2. Gender bias, gender stereotyping, upbringing, and role congruity theory
3. Role models, mentors and leadership support

These themes are consistent with barriers that women have faced for decades, and have been studied extensively, including the concepts of gender bias and the impact of socialization or expectations about how women and men are supposed to behave. Numerous research studies point to gender bias as the fundamental issue concerning women's advancement (Eagly & Carli, 2007; Scott & Brown, 2006). To overcome these barriers, organizations must take steps to eliminate biases; otherwise, women leaders will continue to be undermined and misjudged regardless of their abilities. More discussion on barriers to leadership will follow in the next section.

Emotional intelligence themes also emerged and were common across all participants. Five EQ attributes came up repeatedly in the participant responses as having the most impact on their career success, and attributes to improve if desire to advance. These are assertiveness, self-

regard, interpersonal relationships, problem-solving, and stress tolerance. Interestingly, all of these are typically male-specific EQ attributes with the exception of interpersonal relationships, which is considered a female-specific EQ attribute.

In interpreting the data, the participants shared some unexpected and unusual responses. When asked if they desired to be promoted to leadership, four out of 12 said they had no desire to advance. These responses came from women at each level, from administrative assistance to vice president, indicating that they were either “content in their role” (Participant 4), or had “given up on the desire to advance and had accepted their current career level” (Participant 12).

When asked if they had ever experienced gender bias or discrimination because of their specific EQ attributes, four out of 12 of the women said they had not or was not aware it. When asked if being a woman has impacted their career aspirations, two out of 12 women said that it has not. Of note, one of these respondents also said that she “chose not to marry and have a family because of her career” (Participant 1), which is contradictory to believing that being a woman has not had any effect on her career aspiration.

One of the most interesting responses is that two women felt that being a female is an advantage in the workplace. They cited that “women work more efficiently due to family responsibilities that they must juggle” (Participant 8), that women “read people better than men” (Participant 7), that “women have more choice than men” (Participant 2), and that “there’s no pressure to rise to the next level like men often experience” (Participant 2). The remaining responses that came as a surprise included one woman who preferred to work with men, and said, “women who don’t have kids don’t get it because the focus is on themselves and their agenda” (Participant 5). Another woman commented that because she is a minority, she has a “self-imposed ceiling that limits her advancement” (Participant 6).

Barriers to Leadership

McKinsey & Company, a global management consulting firm, publishes an annual report as research partner to The Wall Street Journal's Executive Task Force for Women in the Economy. Since 2007, McKinsey has been researching intensively the advancement of women in the workplace. In the 2012 report (Barsh & Yee, 2012), they identified four barriers that make the problem of few women in leadership difficult to address.

First, there are structural barriers or obstacles. These include lack of access to informal networks (such as the old boys network), lack of female leader role models, and lack of female mentors to support women as they come up through the ranks. Lack of access to informal networks restricts access to essential information, whether it's on the golf course, over dinner or drinks. Lack of role models discourages ambitions. McKinsey's data underscores the fact that it's simply harder for women to get into the right networks of powerful executives and to cultivate sponsor relationships.

Second, there are lifestyle choices. These include work-life balance decisions and family sacrifices that women are often forced to make. About half of the women surveyed said that they are both the primary breadwinners and primary caregivers. Most of the men who are primary breadwinners are not primary caregivers. Accordingly, women may choose to slow their careers or shift roles to increase predictability and lessen travel (Barsh & Yee, 2012). Also, one participant stated in the interview that "Women want different things than men. Women care more about work-life balance and less about moving up the ladder. A man's identity is tied to his career more than a woman's" (Participant 2). This statement speaks to lifestyle choices that face both men and women.

Third, there are institutional and societal mindsets. These include role congruity theory, gender bias, gender stereotyping, and agentic leader behaviors which are aligned with male traits. Gender bias and stereotyping pigeon-holes a woman's talent before she has a chance to perform as a leader. According to role congruity theory, the agentic qualities thought necessary in the leadership role are incompatible with the predominantly communal qualities stereotypically associated with women, thus resulting in prejudice against female leaders (Eagly & Karau, 2002). In addition, women are confronted with cross-pressures: As leaders, they should be masculine and tough, but as women, they should not be *too manly*. These opposing expectations for women often result in the perception that women are less qualified for elite leadership positions than men, and in harsh evaluations of effective female leaders for not being *female enough* (Carroll, 2009). Used to successful executives being and acting like men, leaders expect women to model the same behavior. One CEO told McKinsey, "Women don't knock on my door the way men do or ask for advice. I wish they were more proactive." This exemplifies a typical institutional mindset that is pervasive across corporate America. (Barsh & Yee, 2012).

Fourth, there are individual mindsets. Even among successful women that were interviewed, more than half felt they held themselves back from accelerated growth. Most said they should have cultivated sponsors earlier because a sponsor would have pushed them to take opportunities. Too often, these women said, they did not raise their hands or even consider stretch roles. Barsh and Yee (2012) found that more women than men reported that they would likely move into and would be willing to take support roles.

The leadership gap is a global phenomenon whereby women are disproportionately concentrated in lower-level and lower-authority leadership positions than men (Powell & Graves, 2003). Although these barriers are generally conceived to be against women, they can be

generalized to encompass other nondominant groups such as ethnic and racial minorities. Only after these barriers are removed, will women advance in large number to senior leadership positions (White, 1992).

Implications for Women in Leadership

McKinsey's report (Barsh & Yee, 2012) showed a startling statistic. They interviewed 200 female executives across various industries in positions of directors, vice presidents, and senior vice presidents. These women were successful and adapted to the male environments in which they operated and overcame extraordinary challenges through stamina and sheer grit. When they were asked, "Do you desire to be part of the C-suite?" Fifty-nine percent of the women did not aspire to C-level leadership, such as Chief Executive Officer, Chief Financial Officer, or Chief Operating Officer. The reasons they gave were "When you see it up close, it's not clean at the top. Motives are not always enterprise-related. It's more about personal agendas", and "My ego aspires to make it happen, but my authentic self is not sure if it's worth it. It would require me to do more and more politics, and I don't want to. I don't enjoy that". This could be part of the reason that women hold only 14.3% of executive officer positions of the Fortune 500 companies, and the number of female CEOs at these companies is 3.8% (Catalyst, 2012).

Young women who aspire to be leaders need female mentors. Too often women in executive positions allow themselves to become overly encumbered with duties and tasks, which cause them to avoid the roles and responsibilities of mentoring. Executive women must feel compelled to contribute to the success of other women, or it will not happen. With a critical mass of Baby Boomers approaching their late 60s and continuing to work, an implication from this study is that organizations should consider EQ development as an initiative for executives

and potential leaders regardless of age. In addition, the diversity of ages within a training program could be a building block to implement a mentoring program.

As stated earlier, women want different things than men, and are confronted with barriers or obstacles that men do not have to face. As a result, many women have opted for the private sector, nonprofit companies, or start-up companies. At these companies, a significant number of women are owners, leaders, and make up a large percentage of the workforce. Therefore, some of the barriers women commonly face in large public companies are minimized, such as gender bias, stereotyping, and lack of role models, mentors, and leadership support to help women advance their careers. Indeed, the characteristics women bring to an organization are that they are more facilitative, work well as part of a team, and can inspire people toward a common goal. Those values provide strong opportunities for women to advance in industries across the board, not just the public sector.

Finally, participant responses to interview questions ten and eleven centered on suggestions they would give other women who are seeking leadership positions in terms of emotional intelligence. They were also given the opportunity to add comments the researcher did not ask regarding their journey, leadership, gender, or EQ. The responses were both insightful and encouraging.

Regarding EQ, all suggestions and advice focused on seven EQ attributes.

- Improve self-regard – don't be so hard on yourself and be confident
- Improve assertiveness – don't be afraid to ask for what you want
- Improve problem solving – you will bring more value to your organization
- Improve self-actualization - do what you really want to do

- Improve stress tolerance – talk to others to get different perspectives and think things through
- Control emotional expression - be careful to not overly express emotions
- Don't lose empathy – it's important to people and they appreciate it

Participants also gave general advice on a woman's journey, leadership and gender.

- Be genuine and honest, don't try to be like a man
- Be a woman and don't be afraid to be feminine
- Seek mentors (male and female) and ask for advice often, and look for opportunities to serve as mentor
- Reach out and cultivate a strong network, and put the effort in to maintain it
- Know your brand and be clear about your strengths and what you have to offer
- If you're not confident in something, then go figure it out
- Do things that are valued and talk about them more
- Everything is a learning opportunity so be patient and observe
- Don't get stuck in your generation (i.e. – Baby Boomer or Generation X), branch out, learn new things, and connect with younger generations

These suggestions stem from a cross-functional, multi-generational population of women, and reflect the collective lived experiences of the study group. They serve as powerful advice to help women who are seeking to advance in their careers in terms of leadership, gender, and emotional intelligence.

Recommendations for Organizations

Given all the hard work on gender diversity the past decades, it is fair to ask when results will start to show. Given the different types of barriers that exist – structural obstacles, lifestyle

choices, institutional mindsets, and individual mindsets – it is clear there is still a lot of work to do to close the leadership gap. Based on the literature and findings in this study, the researcher recommends five practices that are consistently tied to success at hiring, retaining, and promoting women.

1. Hands-on leadership starting at the top – CEO and senior leaders at an organization need to be personally invested and actively role model the desired mindsets and behaviors to build a more open and accepting culture. When a CEO is the chief advocate and storyteller, more people believe that gender diversity matters. A committed CEO makes the goal clear and specific and tells everyone about it. A CEO who is not committed may fold *women* into *diversity* and *diversity* into *talent* which diffuses focus (Barsh & Yee, 2012).
2. Diversity leadership with clout – Successful organizations appoint well-respected managers to shine the spotlight on diversity issues and help drive continual vigilance. Diversity leaders can guide the organization in the process, for example, making explicit the hidden mindsets that emerge in talent-management discussions. The only way you change unacceptable behavior is to call it out and make sure there are consequences to make the individual stop acting that way (Barsh & Yee, 2012). The focus of gender diversity programs should be on quality, not quantity, and these programs can help eliminate gender bias and stereotypes of women as leaders.
3. Pervasive mentoring programs – Mentors create opportunities for high-potential women (and men) and most mentees gain new opportunities, active support, and advocacy from such relationships. Great mentors believe in the talented women they help, open the door to growth opportunities, counsel them through valleys and peaks, and advocate for their

advancement. To enhance the chances of a successful mentoring program, the CEO and diversity leader should be personally accountable for the program. As noted earlier, successful female leaders need to make a conscious effort to be mentors for other women, and not be laden with daily duties and tasks.

4. Robust talent management program – Most organizations recognize talent management as an essential pillar of company performance, but those that excel at promoting women take it a step further. They adapt existing recruiting, promotion, and succession-planning processes to call out performance with regard to gender diversity. Detailed data should be shared broadly so that everyone has the facts, and discussions scheduled regularly. The executive responsible for a division reports on progress and setbacks, and engages with senior leadership on problem solving. In consequence, the leaders get to know the women in their organization and strategize with them about potential career moves. They become sponsors as appropriate and are accountable for what happens next (Barsh & Yee, 2012).
5. Emotional Intelligence education – Based on the findings of this study, and the abundant literature published on EQ and leadership, the researcher recommends EQ assessment across a broad population of employees, including men and women spanning across different generations. In addition to the EQ assessment which will provide a foundational platform, EQ training, EQ coaching, and EQ development programs need to be developed and incorporated. This study provided much data and discussion on gender-specific EQ attributes; however, there are EQ attributes and leader qualities that are considered gender-neutral (Bar-On & Handley, 1999). These include flexible, optimistic, intelligent, strong, strategic, experienced, educated, capable, honest, ethical, sincere, and

results-oriented. These are highly desirable traits for any leader, regardless of gender, and a comprehensive EQ training program can help the organization nurture these talents.

Recommendations for Future Research

The findings of this study were limited to the experiences of 12 female employees, across four different levels, at a Fortune 500 pharmaceutical company based in California.

Recommendations for future research include the following:

1. Rather than limiting a study to females, explore a study that includes both male and female employees across different types of positions. This could provide comparisons between men and women's EQ profiles as it pertains to leadership, and help pinpoint unique EQ attributes that are gender-specific.
2. Study only executive leaders at the C-suite or vice president level, rather than including directors, managers and administrative assistants. This could provide focus on leader attributes only and give insights on those who are responsible for demonstrating leadership on a daily basis.
3. Study female employees at multiple pharmaceutical companies, or across multiple industries. This could help identify differences in organizational culture and understand the dynamics that may affect a woman's career advancement.
4. Study women in different geographical locations. In this study, most women worked and lived in California where the company is headquartered. This could help identify regional differences and influences that may affect women.
5. Conduct a purely quantitative study where a large sample size of women are given an EQ assessment, and queried on their thoughts and experiences on leadership, their careers

paths, gender barriers, and possible reasons why so few women have reached the upper echelons of leadership in corporate America.

6. Study the relationship between formal education, total EQ scores, and specific-EQ attributes. In this study, formal education ranged from two women having Associate in Arts degrees to three women having a doctorate or multiple doctorate degrees. This could provide insights into how a woman's EQ changes as she becomes more educated, and presumably improves in self-regard, self-actualization, emotional self-awareness, assertiveness, independence, and problem-solving.
7. Study how an individual's EQ profile has changed because of technology. This could include smart phones, texting, Facebook, Twitter, and other types of social media. For example, since we have less face-to-face conversation and there is less emphasis on process, has problem solving and interpersonal skills declined? It would be particularly interesting to look at people of different generations, as there is a big gap between Veterans and Millennials concerning technology prowess.
8. Study the relationship between EQ and role congruity theory. Examine whether total EQ increases or decreases in women who have been personally impacted by role congruity expectations in their career, and if they've adapted or changed their EQ attributes to fit into a socially accepted role.
9. Study the theory and design of women's leadership programs. Expand on work by Deborah Kolb and colleagues (Kolb, Ely, & Ibarra, 2011) to build women's leadership programs that illustrate how standard leadership topics, such as negotiating and leading change, can be reinterpreted through the lens of gender bias to facilitate women leaders' identity work and movement into senior leadership roles.

Conclusions

The findings of this study are similar to other studies looking at the relationships between women, leadership and emotional intelligence. Duncan (2007) found that EQ differences do exist between age groups, which are consistent with Bar-On's (1999) model. However, unlike Bar-On's (1999) model which validated that EQ improves with maturity to the age of 50, but may decline thereafter, this study found that EQ continued to improve in those participants over the age of 50, as was verified by the highest EQ scores being achieved by the participants in the oldest age group, 61-74. Additionally, the scores of the youngest age group, 29-40, generally followed Bar-On's (1999) premise of EQ strengths in those areas identified as female gender-specific attributes, empathy and social responsibility, and weaknesses in the male gender-specific attributes of stress tolerance, self-confidence, and adaptability.

Lopez-Zafra (2012) concluded that based on the predictability of emotional intelligence and gender roles on leadership, that all leaders should be trained in emotional intelligence. This training may reduce the prejudice against female leaders or at least erode it by stressing the importance of the relationship between emotional intelligence (which is often high in women) and leadership style.

Decisions on whether to promote a woman or man into leadership positions should be based on performance. As mentioned earlier, there are EQ attributes and leader qualities that are gender-neutral that if an individual possessed, could benefit any organization. If an individual has the right expertise, competencies, and skill sets for the job, they should be given the opportunity. It is also important to note that just because some EQ attributes are considered gender-specific, it does not mean that all men or women have these attributes, and an individual can be strong, confident and comfortable exhibiting opposite gender attributes in the workplace.

To succeed in achieving organizational goals, which are often measured almost exclusively by financial performance, a female leader may feel forced to be less empathetic or compassionate. It is important that these women become aware of this tendency. However, reality is that performance may require some tough decisions and self-compromises throughout a woman's career (Catalyst, 2005).

Given that women account for more than 50% of college graduates, more than 50% of professional degrees such as M.D. and J.D., and more than 50.0% of management, professional, and related occupations (Labor, 2011), a natural shift to a more gender-balanced senior management should be a reasonable, expected outcome. All boards should be asking themselves why so few women are slated for senior management roles. Boards should also insist that opportunities for line versus staff positions, mentoring, and inclusion in informal networks is made available to women, and that success in this area will be considered part of the criteria on which senior leadership will be evaluated (Levenson, 2006). If the claim is that women are not ready, then existing senior leadership should be held accountable for making sure that women get ready to move up, as women face significant barriers that men rarely face. It is the responsibility of existing senior leadership to remove these barriers, and it is the responsibility of the board to ensure that senior leadership acts.

Research by McKinsey & Company have concluded that the business benefits are clear: a wider, deeper swath of diverse talent to solve problems, spark innovation, and, in many cases, mirror a company's own customer base is the most successful model for any business (Barsh & Yee, 2012).

Researcher Reflections

The current study of women in the pharmaceutical industry and emotional intelligence attributes has provided several points of interest and implications for further investigation. In this section, the researcher, who for over 20 years has worked in the pharmaceutical industry with various leadership roles, will provide her insights from the study as a scholar-practitioner.

As mentioned at the beginning of Chapter 5, the researcher set out to design this study to address two confounding issues, which was accomplished. First, that more women are in the workforce, middle management, and getting educated, but there is still a significant leadership gap. Second, that emotional intelligence is a key aspect and driver of leadership effectiveness, and women and men are equally emotionally intelligent. However, the barriers discussed in this study would need to be addressed in order for women to advance in their career. Emotional intelligence alone cannot drive it.

As noted earlier, five overall emotional intelligence themes came up repeatedly in the participant responses as having the most impact on their career success, and the ones to focus on in order to advance. These are assertiveness, self-regard, interpersonal relationships, problem-solving, and stress tolerance. All of these are typically male-specific EQ attributes with the exception of interpersonal relationships, which is considered a female-specific EQ attribute. If this study was replicated across industries, I believe these findings would be the same. Both men and women in corporate America associate leadership traits with behaviors believed to be more common or appropriate in men, such as decisive, assertive and independent. By contrast, women are thought to be communal – friendly, unselfish and care-taking. These beliefs powerfully and unwittingly communicate that women are ill-suited for leadership roles and sets women up for inherent conflicts as they advance in their careers.

Women generally have higher interpersonal relationship scores than men, and this attribute was noted by the participants as an area to improve in order to advance. It is interesting to note that women in the middle manager levels had the highest interpersonal relationship scores, and women at the vice president levels were low in this EQ attribute. This suggests that even though it is considered a valuable attribute to help women succeed, it is not valued in leaders as much as the other EQ attributes.

The primary barriers discussed in this study – structural barriers, institutional mindsets, individual mindsets, and lifestyle choices - are pervasive, complex and elusive. These barriers include cultural and societal beliefs and pressures, organizational structures that reflect men's lives and situations, and women's own beliefs and perceptions. Such biases accumulate and can interfere with a women's ability to see herself and be seen by others as a leader. Given these obstacles, it is not surprising that women have not achieved parity with men at the upper echelons of leadership in past decades. Women's underrepresentation in leadership positions validates entrenched systems and beliefs that prompt men's bid for leadership, which in turn maintains the status quo.

Nonetheless, this researcher is optimistic that women now account for over 50% of the U.S. workforce, over 50% of professional degrees, and over 50% of middle managers. In addition, women continue to make small, but positive strides in the number of women executives and CEOs at Fortune 500 companies. Further, women are making significant strides in leadership in the private sector, nonprofit companies, and start-up companies. As demonstrated in this study and consistent with the literature, the researcher is also encouraged that emotional intelligence improves with age, which will serve women well as they progress in their careers.

Studies, such as this, can help to raise awareness on the need to address the leadership gap and gender equality challenges faced by women on a daily basis. The researcher's intent was that by having the participants identify their most significant challenges, experiences, and obstacles encountered along their journey, that other women aspiring to be leaders can learn from these lived experiences and be better prepared should they encounter these obstacles as they ascend the corporate ladder.

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APPENDIX A: Permission From Pharmaceutical Company

[REDACTED]

February 24, 2013

Shawn Andrews
Sr. Training Manager, Global Medical Affairs
Doctoral Candidate, Organizational Leadership, Pepperdine University

Dear Shawn:

On behalf of [REDACTED], I am writing this letter to confirm our consent to interview a small number of female employees for your doctoral dissertation titled "Emotional Intelligence Implications on the Career Advancement of Women in a Fortune 500 Pharmaceutical Company".

Based on the information you have provided, the purpose of this research study is to understand the lived experiences of a group of women in various roles at [REDACTED], as it pertains to leadership, emotional intelligence, and career advancement.

You have guaranteed that neither the names of the female participants nor [REDACTED] will be identifiable in your study, and that all data collected will be confidential. You have also assured that all data will be kept in a secure location and destroyed five years after study completion. Any involvement with your study is voluntary and we cannot assure you of employee availability or willingness to participate.

Should you require any further assistance, please do not hesitate to contact me.

Sincerely,



Jill McGrath
Senior Director
[REDACTED] Human Resources

APPENDIX B: Informed Consent Letter

Dear prospective study participant:

I am a doctoral student in the Education – Organizational Leadership program at Pepperdine University conducting research in partial fulfillment of the requirements for my dissertation. The topic of my dissertation is *Emotional Intelligence Implications on the Career Advancement of Women in a Fortune 500 Pharmaceutical Company*. The purpose of this study is to examine the possible relationship between gender-specific emotional intelligence (EQ) attributes and women's career advancement in this specific industry, and examine how these emotional intelligence attributes impact leadership.

Women now represent more than 50% of college graduates, hold more than 50% of professional degrees such as M.D. and J.D., and account for more than 50% of management, professional, and related occupations, yet very few women hold senior leadership positions and only 3.8% of Fortune 500 CEOs are women. This percentage has remained flat for the past decade. In addition, emotional intelligence has proven to be a key aspect and driver of leadership effectiveness. Emotional intelligence is defined as the ability to perceive emotions, to access and generate emotions to assist thought, to understand emotions and emotional knowledge, and to regulate emotions reflectively to promote emotional and intellectual growth. Further, Emotional intelligence assessments have found women and men to be equally as intelligent emotionally, but they are strong in different areas.

You are being asked to voluntarily participate in this study because of your experience in your position, and all of your responses and study data will be kept in strict confidence. This study will help to develop an understanding of the lived experiences of women over the course of their career in the pharmaceutical industry. Your participation will involve the completion of a complimentary online emotional intelligence assessment and a face-to-face or telephone interview, for a total time commitment of 60 minutes. The online assessment will take you approximately 30 minutes to complete, and the interview will be approximately 30 minutes. To comply with the university's policy for protecting human subjects, please know that there are no known associated risks with this study.

If you decide to take part, I will provide you with a logon code that you will use to take the Bar-On EQ-i emotional intelligence assessment through the Multi-Health Systems internet site. The website uses multiple firewalls and data entered is encrypted to ensure security and your confidentiality. The assessment is not timed, and no discomforts or inconveniences are expected. Once you complete the assessment, we will provide you with a summary report of your emotional intelligence assessment. After completion of the research study, you will also receive a summary of the study findings, if you so choose.

After you complete the online emotional intelligence assessment, I will schedule the interview at a time convenient for you and the interview questions will be provided to you in advance. There

will be no compensation offered for your participation in this study and no adverse effects will come to you as a result of non-participation. You have the right to refuse to answer any research questions, and can drop out of the study at any time.

All information you provide will remain confidential. The 30-minute interview will be audio taped to ensure that I capture your responses accurately and can give you my full attention. Your interview survey will be assigned a code number that will help me keep data collection sheets organized. I will be the only person who will have access to both the data sheets and the participant code list. I will keep the collected information in a locked file cabinet at my residence for a period of five years. After the survey information is no longer required for research purposes, the information will be destroyed.

Please do not hesitate to ask questions prior to, during, or after the online assessment or interview. I may be reached by telephone or email at the numbers listed below. You may also contact the Pepperdine University committee that reviews research on human participants, the Institutional Review Board, to answer any questions about your rights as a research participant at 310-568-5753.

Please sign, date, and return this consent form with full knowledge of the nature and purpose of this study. Your signature indicates that you fully understand and agree to the terms of participation. You will be given a copy of this form to keep.

Please know that you have my deepest gratitude for your time and participation in this study. Since females continue to be under-represented in top leadership positions, it is important to understand emotional intelligence gender profiles to assist women in developing their emotional intelligence strengths or deficiencies to achieve desired leadership positions.

Thank you in advance for your cooperation and support.

Sincerely,

Shawn D. Andrews, MBA
Doctoral Candidate
Pepperdine University
Work Phone: 714-246-4302; Email: Andrews_shawn@allergan.com

Signature of Participant

Date/Time

APPENDIX C: Participant Logon Email

Dear Study Participant:

Thank you for agreeing to participate in the dissertation research study titled *Emotional Intelligence Implications on the Career Advancement of Women in a Fortune 500 Pharmaceutical Company*. The purpose of this study is to examine the possible relationship between gender-specific emotional intelligence attributes and women's career advancement in this pharmaceutical company, and examine how these emotional intelligence attributes impact leadership.

Thank you for signing the Informed Consent Letter. Your signature indicates that you fully understand and agree to the terms of participation and that you have full knowledge of the nature and purpose of this study.

To get started in the study, I am providing you a logon code/link that you will use to take the Bar-On EQ-i emotional intelligence assessment through the Multi-Health Systems internet site (www.mhsassessments.com). The website uses multiple firewalls and data entered is encrypted to ensure security and your confidentiality. The assessment is not timed, and no discomforts or inconveniences are expected. The assessment contains 133 questions and should take you approximately 30 minutes to complete it.

Once you complete the assessment, Multi-Health Systems will collate the data and we will provide you with a summary report of your individual emotional intelligence assessment.

Logon code/Link:

XXXXXX

Thank you in advance for your time in completing the online EQ-i assessment.

Sincerely,

Shawn D. Andrews
Doctoral Candidate
Pepperdine University

APPENDIX D: Participant Interview Questionnaire

RESEARCH QUESTIONS	INTERVIEW QUESTIONS
Demographic Questions Objective: To analyze trends and compare with the literature	Demographic Q1: How long have you been in your current position?
Demographic Questions	Demographic Q2: What is your age?
Demographic Questions	Demographic Q3: What is your highest level of formal education?
Demographic Questions	Demographic Q4: What is your marital status? Is spouse or significant other employed full-time?
Demographic Questions	Demographic Q5: Do you have children? What are the number and ages of your children?
1. To what extent, if any, is there a relationship between emotional intelligence attributes and women based on type of position in a Fortune 500 pharmaceutical company?	Demographic Q1: How long have you been in your current position?
Research Question 1 (see above)	Q1: In what ways have you leveraged, adapted or changed your EQ style to advance in your career or perform in your current role?
2. To what extent, if any, is there a relationship between emotional intelligence attributes and women in leadership positions in a Fortune 500 pharmaceutical company?	Q2: Do you desire to be promoted to leadership/higher levels of leadership? If so, to what level?
Research Question 2 (see above)	Q3: Have you been given leadership or developmental opportunities for leadership positions at your current organization?
Research Question 2 (see above)	Q4: Have your career aspirations for leadership changed during your career because of your gender?

Research Question 2 (see above)	Q5: In your opinion, what EQ attributes are most valued in leaders at your organization?
3. To what extent, if any, is there a relationship between gender-specific emotional intelligence attributes and the career advancement of women in a Fortune 500 pharmaceutical company?	Q6: Have you ever had an experience with gender bias or experienced discrimination because of your gender? If so, please explain.
Research Question 3 (see above)	Q7: Do you feel that you have advanced as far as you can in your career based on your gender? If so, please explain.
Research Question 3 (see above)	Q8: In your opinion, what are possible reasons why so few women have obtained senior leadership levels?
4. To what extent, if any, is there a relationship between emotional intelligence attributes and the career advancement of women in a Fortune 500 pharmaceutical company based on generation (i.e., Veterans, Baby Boomers, Generation X, and Millennials)?	Demographic Q2: What is your age?
Research Question 4 (see above)	Q9: In what ways has your EQ attributes changed as you have aged?
Closing Questions	Q10: What suggestions would you give/have you given other women who are seeking management/senior leadership levels in terms of experience, education, expectations, or emotional intelligence?
Closing Questions	Q11: Is there anything else you would like to add that I may not have asked regarding your journey, leadership, gender, or emotional intelligence?

APPENDIX E: Expert Panel Review Form

Dear expert panel:

Please read the 4 primary Research Questions below. Then, please review the 5 Demographic Questions and 11 Interview Questions to determine whether these questions accomplish the goal of answering or informing the 4 primary Research Questions.

If you feel a question should be added, deleted or modified, please add your comment in the “modify as follows” line below the given question.

RESEARCH QUESTIONS	INTERVIEW QUESTIONS
<p>Demographic Questions</p> <p>Objective: To analyze trends and compare with the literature</p>	Demographic Q1: How long have you been in your current position?
<i>Modify as follows:</i>	
<p>Demographic Questions</p>	Demographic Q2: What is your age?
<i>Modify as follows:</i>	
<p>Demographic Questions</p>	Demographic Q3: What is your highest level of formal education?
<i>Modify as follows:</i>	
<p>Demographic Questions</p>	Demographic Q4: What is your marital status? Is spouse or significant other employed full-time?
<i>Modify as follows:</i>	
<p>Demographic Questions</p>	Demographic Q5: Do you have children? What are the number and ages of your children?
<i>Modify as follows:</i>	
<p>1. To what extent, if any, is there a relationship between emotional intelligence attributes and women based on type of position in a Fortune 500 pharmaceutical company?</p>	Demographic Q1: How long have you been in your current position?

<i>Modify as follows:</i>	
Research Question 1 (see above)	Q1: In what ways have you leveraged, adapted or changed your EQ style to advance in your career or perform in your current role?
<i>Modify as follows:</i>	
2. To what extent, if any, is there a relationship between emotional intelligence attributes and women in leadership positions in a Fortune 500 pharmaceutical company?	Q2: Do you desire to be promoted to leadership/higher levels of leadership? If so, to what level?
<i>Modify as follows:</i>	
Research Question 2 (see above)	Q3: Have you been given leadership or developmental opportunities for leadership positions at your current organization?
<i>Modify as follows:</i>	
Research Question 2 (see above)	Q4: Have your career aspirations for leadership changed during your career because of your gender?
<i>Modify as follows:</i>	
Research Question 2 (see above)	Q5: In your opinion, what EQ attributes are most valued in leaders at your organization?
<i>Modify as follows:</i>	
3. To what extent, if any, is there a relationship between gender-specific emotional intelligence attributes and the career advancement of women in a Fortune 500 pharmaceutical company?	Q6: Have you ever had an experience with gender bias or experienced discrimination because of your gender? If so, please explain.

<i>Modify as follows:</i>	
Research Question 3 (see above)	Q7: Do you feel that you have advanced as far as you can in your career based on your gender? If so, please explain.
<i>Modify as follows:</i>	
Research Question 3 (see above)	Q8: In your opinion, what are possible reasons why so few women have obtained senior leadership levels?
<i>Modify as follows:</i>	
4. To what extent, if any, is there a relationship between emotional intelligence attributes and the career advancement of women in a Fortune 500 pharmaceutical company based on generation (i.e., Veterans, Baby Boomers, Generation X, and Millennials)?	Demographic Q2: What is your age?
<i>Modify as follows:</i>	
Research Question 4 (see above)	Q9: In what ways has your EQ attributes changed as you have aged?
<i>Modify as follows:</i>	
Closing Questions	Q10: What suggestions would you give/have you given other women who are seeking management/senior leadership levels in terms of experience, education, expectations, or emotional intelligence?
<i>Modify as follows:</i>	
Closing Questions	Q11: Is there anything else you would like to add that I may not have asked regarding your journey, leadership, gender, or emotional intelligence?

<i>Modify as follows:</i>	

The following space is for you to make any additional comments you think are appropriate for the study:

Thank you for contributing your time and expertise to this study. Your contribution is greatly appreciated.

APPENDIX F: Resercher Interview Protocol

The purpose of this study is to examine the possible relationship and implications of emotional intelligence on the career advancement of women in a Fortune 500 pharmaceutical company. The study will also characterize differences between gender-specific emotional intelligence attributes, type of position in the company, and age of the participants, to assess the effects on leadership.

Date: _____

Time of interview: _____

Place of interview: _____

Interviewee: _____

Position of interviewee: _____

I. Introduction (briefly describe the project)

- a. Thank participant
- b. Explain interview process, audio taping, and confidentiality
- c. Inquire if participant has any questions

II. Demographic Information

1. How long have you been in your current position? _____
2. What is your age? _____
3. What is your highest level of formal education? _____
4. What is your marital status? Is spouse or significant other employed full-time? _____
5. Do you have children? What are the number and ages of your children?

III. Research Question #1: To what extent, if any, is there a relationship between emotional intelligence attributes and women based on type of position in a Fortune 500 pharmaceutical company?

Q1. In what ways have you leveraged, adapted or changed your EQ style to advance in your career or perform in your current role?_____

IV. Research Question #2: To what extent, if any, is there a relationship between emotional intelligence attributes and women in leadership positions in a Fortune 500 pharmaceutical company?

Q2. Do you desire to be promoted to leadership/higher levels of leadership? If so, to what level?_____

Q3. Have you been given leadership or developmental opportunities for leadership positions at your organization?_____

Q4. Have your career aspirations for leadership changed during your career because of your gender? _____

Q5. In your opinion, what EQ attributes are most valued in leaders at your organization? _____

V. Research Question #3: To what extent, if any, is there a relationship between gender-specific emotional intelligence attributes and the career advancement of women in a Fortune 500 pharmaceutical company?

Q6. Have you ever had an experience with gender bias or experienced discrimination because of your gender? If so, please explain. _____

Q7. Do you feel that you have advanced as far as you can go in your career based on your gender? If so, please explain. _____

Q8. In your opinion, what are possible reasons why so few women have obtained senior leadership levels?_____

VI. Research Question #4: To what extent, if any, is there a relationship between emotional intelligence attributes and the career advancement of women in a Fortune 500 pharmaceutical company based on generation (i.e., Veterans, Baby Boomers, Generation X, and Millennials)?

Q9. In what ways have your EQ attributes changed as you've aged?_____

VII. Closing Questions

Q10. What suggestions would you give/have you given other women who are seeking management/senior leadership levels in terms of experience, education, expectations, or emotional intelligence?_____

Q11. Is there anything else you would like to add that I may not have asked regarding your journey, leadership, gender, or emotional intelligence? _____

VIII. Closing

- a. Assure participant of confidentiality and record keeping procedures, if requested
- b. Discuss next steps – summary of study findings will be provided to participants at the completion of the study, if requested
- c. Thank participant

APPENDIX G: IRB Approval Letter

PEPPERDINE UNIVERSITY

Graduate & Professional Schools Institutional Review Board

March 21, 2013

Shawn D. Andrews

Protocol #: E0313D06

Project Title: Emotional Intelligence Implications on the Career Advancement of Women in a Fortune 500 Pharmaceutical Company

Dear ^{ms.} Mr. Andrews,

Thank you for submitting your application, *Emotional Intelligence Implications on the Career Advancement of Women in a Fortune 500 Pharmaceutical Company*, for exempt review to Pepperdine University's Graduate and Professional Schools Institutional Review Board (GPS IRB). The IRB appreciates the work you and your faculty advisor, Dr. Kent Rhodes, have done on the proposal. The IRB has reviewed your submitted IRB application and all ancillary materials. Upon review, the IRB has determined that the above entitled project meets the requirements for exemption under the federal regulations (45 CFR 46 - <http://www.nihtraining.com/ohsrsite/guidelines/45cfr46.htm>) that govern the protections of human subjects. Specifically, section 45 CFR 46.101(b)(2) states

(b) Unless otherwise required by Department or Agency heads, research activities in which the only involvement of human subjects will be in one or more of the following categories are exempt from this policy:

Category (2) of 45 CFR 46.101, research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: a) Information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and b) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Your research must be conducted according to the proposal that was submitted to the IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit a **Request for Modification Form** to the GPS IRB. Because your study falls under exemption, there is no requirement for continuing IRB review of your project. Please be aware that changes to your protocol may prevent the research from qualifying for exemption from 45 CFR 46.101 and require submission of a new IRB application or other materials to the GPS IRB.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite our best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the GPS IRB as soon as possible. We will ask for a complete explanation of the event and your response. Other actions also may be required depending on the nature of the event. Details regarding the timeframe in which adverse events must be reported to the GPS IRB and the appropriate form to be used to report this information can be found in the *Pepperdine University Protection of Human Participants in Research: Policies and Procedures Manual* (see link to 'policy material' at <http://www.pepperdine.edu/irb/graduate/>).

Please refer to the protocol number denoted above in all further communication or correspondence related to this approval. Should you have additional questions, please contact me. On behalf of the GPS IRB, I wish you success in this scholarly pursuit.

Sincerely,



Doug Leigh, Ph.D.
Chair, Graduate and Professional Schools IRB
Pepperdine University
Graduate School of Education & Psychology
6100 Center Dr. 5th Floor
Los Angeles, CA 90045
Doug_Leigh@pepperdine.edu
W: 310-568-2389
F: 310-568-5755

cc: Dr. Lee Kats, Vice Provost for Research and Strategic Initiatives
Ms. Alexandra Roosa, Director Research and Sponsored Programs
Dr. Kent Rhodes, Graduate School of Education and Psychology

APPENDIX H: IRB Cover Letter

February 27, 2013

Graduate and Professional School Institutional Review Board
Pepperdine University
Graduate School of Education and Psychology
6100 Center Drive
Los Angeles, CA 90045

Dear Pepperdine Institutional Review Board:

On February 22, 2013, I passed my preliminary oral examination, and am, therefore, ready to proceed with the Institutional Review Board (IRB) application process. Please find enclosed my IRB application for a claim of Exemption. I am submitting one electronic copy of these materials as well as hard copies of the following:

- 2 copies of this cover letter
- 2 copies of the Application for a Claim of Exemption and the full set of relevant appendices
- 2 copies of the Faculty Supervisor Review form
- 2 copies of Informed Consent Letter
- 2 copies of permission letter from developer (MHS) for use of online EQ-i instrument
- 2 copies of permission letter from pharmaceutical company
- 2 copies of Participant EQ-i instrument logon email
- 2 copies of Participant Interview Questionnaire
- 2 copies of Researcher Interview Protocol
- 2 copies of Expert Panel Review Form
- 2 copies of Certificate of Completion of human subjects training by the student
- 1 copy of the dissertation proposal

I want to ensure the Board that I have read and will act in accordance with the ethical principles for human research protections for conducting research with human participants.

As indicated in the list above, I have enclosed copies of the emails that were obtained from the developer of the instrument that grant permission for use of items from the surveys they developed. Upon IRB approval of my application for a claim of Exemption, I will purchase an appropriate number of instruments for each participant. I have not violated any copyright laws in the process of this research study.

Thank you for your time and consideration of these applications.

Sincerely,

Shawn D. Andrews
Doctoral Candidate, EDOL program – Irvine campus

APPENDIX I: Human Subjects Training Certificate

CITI Collaborative Institutional Training Initiative

**Graduate Students conducting no more than minimal risk research Curriculum
Completion Report
Printed on 12/7/2011**

Learner: Shawn Andrews (username: shawnandrews)

Institution: Pepperdine University

Contact Information

Department: Education

Email: shawn.andrews@pepperdine.edu

Students - Class projects: This course is appropriate for students doing class projects that qualify as "No More Than Minimal Risk" human subjects research.

Stage 1. Basic Course Passed on 12/07/11 (Ref # 7123703)

Required Modules	Date Completed	Score
Belmont Report and CITI Course Introduction	12/07/11	3/3 (100%)
Students in Research	12/07/11	10/10 (100%)

For this Completion Report to be valid, the learner listed above must be affiliated with a CITI participating institution. Falsified information and unauthorized use of the CITI course site is unethical, and may be considered scientific misconduct by your institution.

Paul Braunschweiger Ph.D.
Professor, University of Miami
Director Office of Research Education
CITI Course Coordinator

[Return](#)

APPENDIX J: Permission For Use of EQ-i 2.0 Instrument

Publishers and Distributors of Professional Assessment Materials

www.mhs.com

February 25, 2013

To Whom It May Concern,

This letter is to confirm that Shawn D. Andrews has been granted permission by Multi-Health Systems Inc, (MHS) to use the EQ-I 2.0™ for her dissertation at Pepperdine University.

Kent Rhodes, Ed.D. has agreed to supervise Shawn Andrews' use of this assessment and has met our Qualifications, which are in accordance with the ethical and professional standards of the American Psychological Association and the Standards for Education and Psychological Testing, to administer this instrument.

Thank you,

A handwritten signature in black ink, appearing to read "Shawna Ortiz", is written over a horizontal line.

Shawna Ortiz,
Multi Health Systems, Inc.

MHS

In Canada: 3770 Victoria Park Ave., Toronto, ON M2H 3M6; (800) 268-6011 or 416-492-2627

In US: P.O. Box 950, North Tonawanda, NY 14120-0950; (800) 456-3003

International +1-416-492-2627

Fax +1-416-492-3343; Toll Free in Canada and the U.S. (888) 540-4484

VISIT OUR WEBSITE AT <http://www.mhs.com>