

## Multicultural Education

Research Article

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## LEADERSHIP SELF-EFFICACY OF MEDICAL STUDENTS IN SULTAN QABOOS UNIVERSITY

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### ABSTRACT

Leadership for any medical profession is important for ongoing success and developing a succession of leaders for a profession. Knowing that individuals with higher levels of LSE take on leadership roles more frequently than those with lower levels of LSE, and developing LSE in COMHS students will help to produce more leaders for the profession. The purpose of this study was to examine what potential differences exist between male and female SQU students in their LSE. In this quantitative study, a survey was utilized to capture data from 254 current COMHS students. A t-test was used to evaluate the differences in leaderships self-efficacy and gender. Data analysis revealed that female COMHS students had lower LSE levels when compared to male COMHS students, despite having similar educational leadership experiences. The results of this study suggest that female COMHS students would benefit from educational leadership experiences to help increase LSE and their potential of assuming leadership positions in the future. The results also suggest the importance of including educational leadership experiences within SQU education.

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## 1. INTRODUCTION

Despite the dramatic infrastructural development observed in Oman since 1970, the most persistent barrier in developing the logistics sector is the pervasive lack of a suitably trained workforce (Ministry of Transport and Communications, 2015). Higher education has to be ready to establish quality programmes in order to cover the needs of the logistics sector. Gaps can be found in the number of HEI graduates and their low skills and thus risk of technological obsolescence (Allen, & De Grip, 2012). Without a capable workforce, Oman cannot sustainably create and maintain itself as an ambitious logistics hub, which has acted as a constraint on economic development (Ministry of Transport and Communications, 2015). One of these vital skills needed in developing students in higher education institutions is leadership self-efficacy; which refers to one's internal confidence in their skills, knowledge, and abilities to successfully navigate the challenges of leadership (Hannah, Avolio, Luthans, & Harms, 2008).

Leadership is required in healthcare to offer high-quality treatment, and medical practitioners are best qualified to be leaders. Historically, the majority of medical professionals and leaders were men (Surawicz,

2016). Leadership skills and abilities may be taught, but individuals must acquire leadership self-efficacy via different leadership experiences in order to take on the position of leader (McCormick, Tanguma, López-Forment, 2002).

This study investigated variations in leadership self-efficacy among College of Medicine and Health Science (COMHS) students and determine whether there are any disparities in these areas between male and female students. Even while women and men have comparable levels of leadership skills and abilities, women tend to have less trust in their leadership skills and abilities, or leadership self-efficacy (Surawicz, 2016; Dugan, Fath, Howes, Lavelle, Polanin, 2013; Dugan, Komives, 2007). Understanding that leadership experiences help to increase an individual's leadership self-efficacy (LSE) and that individuals with higher levels of LSE take on more leadership roles than those with lower levels of LSE, leading to the development of LSE in COMHS students.

Bandura's (1977) work on self-efficacy has been the topic of several leadership studies throughout the years, he proposed the notion that skills alone do not contribute to a person's performance, but that confidence in their skills or abilities makes a difference in their success or failure, or even whether they will undertake a task. Bandura's Social Cognitive Theory is based on the notion of self-efficacy, which asserts that people are formed by their environment but also have the potential to influence their environment (Bandura, 1997; Shirey, 2020). Bandura's theory is based on the idea that human behavior is influenced by three determinants: personal, behavioral, and social/environmental (Shunk, 2012). Social cognitive theory contributes to a better understanding of how individuals learn from numerous sources around them and how these sources impact self-efficacy growth (Shirey, 2020).

Individuals who have a strong conviction in their LSE approach challenging activities as something to be conquered rather than avoided; tough tasks are viewed as a challenge rather than a danger. Individuals with high LSE are task-focused, think strategically, establish objectives, and do not give up in the face of potential failures or setbacks. Individuals with poor LSE in their talents, on the other hand, prefer to avoid tough work, are less committed to goals, and have lower expectations, also, are frequently tormented by self-doubt and focus on hurdles to achievement and the repercussions of failure, causing them to lose trust in themselves (Paglis, 2010; Hannah, Avolio, Luthans, Harms, 2008; McCormick, 2001; Bandura, 1997).

LSE is a subset of self-efficacy that relates to a person's confidence in their knowledge, skills, and ability to manage the obstacles of leadership (Dugan, Komives, 2010; Paglis, 2010; Hannah, Avolio, Luthans, Harms, 2008; McCormick, Tanguma, López-Forment, 2002). LSE refers to a person's degree of confidence in their knowledge, skills, and abilities to effectively traverse leadership difficulties, in particular, was discovered to detect and predict leadership characteristics, as well as to assist separate those persons who are effective leaders from those who are not (McCormick, Tanguma, López-Forment, 2002; Paglis, 2010; Hannah, Avolio, Luthans, Harms, 2008).

The study findings investigated undergraduate students' leadership role experiences and perceived LSE revealed that LSE was connected to the frequency with which a person aspired to adopt a leadership role. Also, there was an association between past leadership experiences and stronger LSE, and persons with high LSE. In addition to that, a conclusion from their study was that female students reported lower levels of LSE when compared to male students (McCormick, Tanguma, López-Forment, 2002).

There are several relationships associated with LSE, including leader effectiveness, role performance, creativity, ethical leadership, transformational leadership, and follower performance (Leupold, Lopina, Skloot, 2020). Leaders who are confident in their talents will feel prepared to guide and inspire their followers through difficult situations, which can lead to enhanced leadership ability (Correia-Harker, Dugan, 2020; Dugan, 2011; Paglis, 2010; Hannah, Avolio, Luthans, Harms, 2008; McCormick, Tanguma, López-Forment, 2002; Chan, Drasgow, 2001; Chemers, Watson, May, 2000;). Off-campus work, community service, mentorship connections, study groups, and involvement in support activities were all linked to greater levels of LSE (Dugan, Fath, Howes, Lavelle, Polanin, 2013).

Women who have poor LSE are less likely to believe in their skills to do hard activities, have lower aspirations, and are less committed to achieving their objectives (Paglis, 2010; Hannah, Avolio, Luthans, Harms, 2008; McCormick, 2001; Bandura, 1997). Female college students exhibit lower LSE in leading than male students, which will be an obstacle for women to aspire to and take on medical leadership positions (Dugan, Komives, 2007; Hoyt, C.L.; Blascovich, 2007; Hoyt, 2005; McCormick, Tanguma, López-Forment, 2002). Researchers Isaac, Kaatz, Lee, & Carnes study's findings revealed that women who participated in their educational leadership course for pursuing careers in medical, science, and engineering had substantial gains in their LSE ratings (Isaac, Kaatz, Lee, 2012).

While numerous research studies on business leaders have focused on LSE, there have been no studies on COMHS at SQU and healthcare professionals and their link with LSE. Radwan (2010) study revealed that male students of faculty of applied science in Abri- Oman were less self-competency than females. Therefore, this research backs up the significance of LSE among students in COMHS at SQU as future healthcare workers. More is required to this area because there is no research found at SQU according to the researchers' efforts. The term "Leadership self-efficacy" referred to within this study and defined as "the level of confidence a person has in the knowledge, skills, and abilities to successfully navigate the challenges of leadership" (McCormick, Tanguma, López-Forment, 2002; Paglis, 2010; Hannah, Avolio, Luthans, Harms, 2008).

The College of Medicine at SQU was founded in 1986 and became the College of Medicine & Health Sciences in 2002. They aim for the highest standards of achievement in the quality of their medical and health education, community services and research. They also aspire to become a role model for other medical and health science colleges and health care institutions in Oman. The COMHS has grown and diversified, with well-established Undergraduate and Postgraduate Programmes. The current MD curriculum, developed in 2008, is based on graduate outcomes, case-based learning and integration. In 2013, the MD programme was fully accredited for a ten-year period by Association for Medical Education in Eastern Mediterranean Region in cooperation with and in accordance with the standards of the World Federation for Medical Education. The accreditation decision was made on the basis that the M.D. Programme complies with the WFME's "Basic and Quality Development Standards" (Sultan Qaboos Univeristy, 2022a).

The mission of the COMHS at SQU is to provide Oman with competent doctors and health scientists who are able to pursue further specializations, to create a scholarly environment that supports innovation and excellence in teaching, research and postgraduate training, and to deliver high quality patient care and community health services through our hospital. The vision is aspiring to international prominence in medical education, advancement in biomedical sciences and health research. Core values for excellence; transparency; accountability; creativity & innovation; respect to all; quality; service; integrity; flexibility; team work and collaboration; and public trust & confidence (Sultan Qaboos Univeristy, 2022b).

## 2. STATEMENT OF THE PROBLEM AND RESEARCH QUESTIONS

The current status of healthcare faces several problems, and overcoming these issues necessitates great leadership (Barilla, Shah, Rawson, 2019; Neeley, Clyne, Resnick-Ault, 2017; Sonnino, 2016). The continually growing cost of healthcare as a result of new and improved technology, emerging medications, and rising salary of healthcare practitioners as a result of higher schooling fees has left many healthcare organizations financially strained (Barilla, Shah, Rawson, 2019).

The increased stress of caring for illness patients has left healthcare providers exhausted and ready to quit, and with a shortage of healthcare providers expected in the coming years, this will have a significant impact on the ability to provide adequate healthcare for a growing and aging population<sup>26</sup>. Because of these recent and ongoing substantial issues, there is an urgent and critical need for additional leadership in all fields of medicine and healthcare (Lucas, Goldman, Scott, Dandar, 2018; Neeley, Clyne, Resnick-Ault, 2017; Blumenthal, Bernard, Bohnen, Bohmer, 2012; Warren, Carnall, 2009).

According to research, effective healthcare leadership results in higher-quality treatment, lower costs, and better outcomes for patients and healthcare delivery organizations (Neeley, Clyne, Resnick-Ault, 2017; Stoller, 2013; Blumenthal, Bernard, Bohnen, Bohmer, 2012; Warren, Carnall, 2009;). Strong medical leadership promotes patient care by fostering cooperation, closely monitoring care procedures, encouraging safe clinical practices, and facilitating innovation and skill development, despite the obvious benefits of effective healthcare leadership, there is still a challenge to build good leaders in medicine (Blumenthal, Bernard, Bohnen, Bohmer, 2012).

Because of their unique interaction with patients, medical students as healthcare practitioners should be at the forefront of medical leadership (Trastek, Hamilton, Niles, 2014; McAlearney, 2006). Colleges of medicine as one of healthcare providers who serve as leaders in medicine relate best to other healthcare providers, and when they perform administrative roles, they can assist healthcare systems in overcoming some of their most persistent challenges.

Leadership training and development is crucial and should be purposeful in any profession or company (Cziraki, Read, Laschinger, Wong, 2018; McAlearney, 2006). As a result, there is still a dearth of medical leadership (Lucas, Goldman, Scott, Dandar, 2018; Neeley, Clyne, Resnick-Ault, 2017; Blumenthal, Bernard,

Bohnen, Bohmer, 2012; Warren, Carnall, 2009). One factor for the shortage of medical leaders is a lack of leadership development (Neeley, Clyne, Resnick-Ault, 2017; Blumenthal, Bernard, Bohnen, Bohmer, 2012; Warren, Carnall, 2009). Many academics feel that all medical students as practitioners in future should be trained with leadership knowledge and abilities from the beginning of their medical education (Hartzell, Yu, Cohee, Nelson, Wilson, 2017; Blumenthal, Bernard, Bohnen, Bohmer, 2012).

According to research, leadership knowledge and skills can be taught, and the degree of leadership knowledge, skill, and ability is the same in men and women (Scott, Miles, 2013; Dugan, Komives, 2007; Lord, Hall, 2005), in addition to that leadership experiences, according to research, strengthen a person's conviction in their capacity to LSE2. LSE is described as a person's degree of confidence in their knowledge, skills, and capacities to effectively manage the obstacles of leadership (Paglis, 2010; Hannah, Avolio, Luthans, Harms, 2008; McCormick, Tanguma, López-Forment, 2002). Understanding LSE in COMHS students will assist guide SQU education programs in COMHS on the necessity of boosting LSE in their students in order to generate more SQU leaders.

The goal of this quantitative survey study was to see if there were any variations in leadership self-efficacy between male and female of COMHS. Leadership studies in undergraduate students discovered that leadership experiences boosted a student's self-efficacy as a leader (Leupold, Lopina, Skloot, 2020; Rosch, Collins, 2020; Soria, Kaste, Diekemper, Blamo, Belrose, Brazelton, 2020; Haddad, Pierszalowski, Velez, 2017; Dugan, Komives, 2010; Dugan, Komives, 2007). Understanding whether there is a difference in this area of interest between male and female medical students may assist COMHS programs educate and develop more leaders for the SQU profession. Students with higher levels of LSE take on more leadership responsibilities, according to research conducted with undergraduate students (Surawic, 2016; Crolla, O'Sullivan, Bogg, 2011; Dugan, Komives, 2007; McCormick, Tanguma, López-Forment, 2002).

The following research questions were addressed in this study:

1. How do medical students at SQU perceive their leadership self-efficacy?
2. Are there significant differences in the LSE between male and female COMHS students?

### 3. METHODS

#### *Research design*

This study used a quantitative, survey design. It utilized a survey with questions adapted from a validated and reliable scale developed by Paglis and Green (2002) and modified by Murphy, et al (2020) that measures leadership self-efficacy. Regarding the cut points, it should be noted that the researcher used the response scale of each item that ranged from 1 to 5 to determine these cut points according to the following manner: 1.00-2.33 = low, from 2.34 to 3.67 = moderate, and 3.68-5.00 = high levels.

#### *Instrumentation*

The survey instrument used in this study was a modified twelve-item (Paglis, and Green, 2002) LSE scale. It has three dimensions with four items in each dimension. the dimensions are: Direction setting: refers to the setting of a direction for where the workgroup should be heading. Gaining commitment: refers to gaining followers' commitment to making changes when needed, and overcoming obstacles: refer to the ability to overcome challenges that stand in the way of meeting change objectives. Within this scale, the participant was asked to rank on a Likert-type scale of 1-5 their response. These responses range from "strongly disagree" to "strongly agree."

The instrument face validity was given to six education specialists in educational administration, and evaluation. They were requested to examine whether the assertions in the instrument are clear and suitably related to the dimensions. The items of the instrument revised in response to the opinions of the experts. For each subscale, the reliability of the modified Paglis and Green scale (2002) was assessed, the results for these dimensions: Cronbach's alpha was 0.89 for setting direction, 0.91 for gaining commitment, and 0.85 for overcoming obstacles (Murphy, Campbell, Boland, Sick, 2020).

## *Population and Sample*

The current research is interested only in COMHS students' in SQU. The participants for this study were medical students enrolled in COMHS at SQU. This college utilizes 1113 medical students; male=453, female=660 (Planning and Statistical Department, 2020). Random sample approach was adopted. The actual response rate for medical students (254) was collected, representing almost 23% of the population. Regarding gender, there were (Female= 141; male = 113).

## 4. RESULTS

*How do medical students at SQU perceive their degree of leadership self-efficacy LSE?*

Means and standard deviations for each dimension were used, the mean of the "setting direction" dimension is higher than all other means (M=4.06, SD=.684), followed by "gaining commitment" (M=3.92, SD=.653), and followed by "overcoming obstacles" (M=3.89, SD=.671).

*Are there significant differences in the LSE between male and female COMHS students?*

This research question examines the differences, if any, in the LSE between male and female COMHS students at SQU. An independent t-test was used to analyze the mean differences between men and women in LSE. Male students had significantly higher LSE (M = 9.72, SD = 0.723) compared to female students (M = 8.13, SD = 0.631),  $t(252) = 2.327, p = .035$ .

## 5. DISCUSSION AND IMPLICATIONS

This study addresses a gap in the literature on student LSE within the COMHS as a profession. Leadership is critical for the profession's future, and as such, we must begin educating all students for the possibility of a leadership role within their career. All persons be assisted who believe that they can be leaders by providing leadership education to all students, establishing curriculum that incorporates both educational and experiential leadership development opportunities, and serving as leadership mentors.

The finding in the research question that female students had lower LSE than male students was not surprising. Previous research findings revealed that females had lower LSE than males (McCormick, Tanguma, López-Forment, 2002; Dugan, Komives, 2007). However, this conclusion differed from the findings of Murphy et al. (2020), who discovered no change in the assessed LSE across genders.

The analysis of the study revealed that gender and leadership experiences are predictors of LSE in students. This conclusion leads us to believe that female students with less leadership experience will have lower LSE. Given that individuals with higher levels of LSE will take on more leadership roles than those with lower levels of LSE, and that it is critical to prepare more leaders for healthcare, providing leadership experiences during education will help to increase LSE in all students, particularly female students.

In order to develop more leaders, the profession must identify strategies to boost students' LSE. When a person develops leadership self-efficacy, it boosts both his or her leadership potential and motivation. Individuals who seek out and participate in more leadership roles, as well as those who thrive in leadership, have higher levels of all three leadership constructs: leadership ability, leadership motivation, and LSE (Chan, Drasgow, 2001; Correia-Harker, Dugan, 2020; Dugan, 2011). According to the results of this poll, establishing these leadership components in students, who are the future leaders of healthcare, is one approach for the profession to grow and raise up leaders. Creating a pipeline of future leaders begins with establishing the value of leadership in each student during the educational process.

Previous studies have shown that students who participated in educational leadership trainings had considerably greater levels of leadership efficacy than their counterparts (Soria, Kaste, Diekemper, Blamo, Belrose, Brazelton, 2020). Furthermore, pupils who have received leadership training and educational opportunities show greater levels of predicted leadership efficacy (Haddad, Pierszalowski, Velez, 2017). Thus, including educational leadership courses in program curricula would aid in the development of LSE in students. Students gain from encouraging the development of LSE. Individuals with high LSE approach complicated activities differently than those with low LSE because they are task-focused, plan strategically, create objectives, and do not give up in the face of failures or setbacks (Bandura, 1977; Paglis, 2010; Hannah, Avolio, Luthans, Harms, 2008).

Furthermore, studies have demonstrated that LSE is a predictor of students' clinical success (Opacic, 2003). Students that have high LSE have more confidence while working with patients and are more decisive in their decision-making and treatment planning abilities. Individuals with great LSE have characteristics of effective medical practitioners, which is why COMHS educators should focus on building self-efficacy in their students through encouragement, coaching, and constructive criticism, as well as modeling success (Shirey, 2020).

There were certain limitations to consider while analyzing the findings of this study. Voluntary involvement in survey designs may result in a sample that may not fairly represent the general population. Students with a high interest in leadership may have been more eager and interested in completing the survey than students who did not have a strong interest in.

As recommendations for future research; while this study did assess LSE in already enrolled students, it did not assess if the existing educational process inside programs serves to raise students' LSE during the duration of the program. More study employing a longitudinal approach to assess the effects of the existing educational process on individual students' LSE would be good.

This study may have a positive impact by increasing the efficiency of the graduate medical students by designing a needs-based curriculum and making them more accepted by professional organization due to their high quality and self-efficacy of their leadership.

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