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The Leadership Authenticity of Women in the Academic Setting

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Abstract

Purpose: Leadership characteristics and career development of women in a health sciences university in Saudi Arabia was investigated. This was also extended to leadership authenticity of women graduated from a master's in medical education (MME) program.
Method: In this cross-sectional study, a self-administrated authentic leadership questionnaire (ALQ) was utilized where the data were collected at three campuses of a health sciences university.
Results: The study sample consisted of 71 MME graduates and 75 academic leaders. Women represented 42.25% of the MME graduates, with an average age of 41.04 (±5.49) years. Among MME graduates, there were 17 (56.67%) women holding the positions of deans, associate deans, or assistant deans compared with 14 men (34.16%) with a p value of 0.59. There were fourteen (46.67%) women holding Doctor of Philosophy compared with 19 men (46.34%) either holding a clinical fellowship of a master's degree. There were no significant differences between the scores of women and men in the four ALQ domains. Among academic leaders. twenty (26.67%) women were academic leaders with an average age of 47.31 (±9.63) years; compared with 55 men ($p = 0.53$). Twelve (60.00%) women leaders were from professions other than medicine with a p value of 0.07. Seventeen (85.00%) women were appointed at a middle management position; compared with 43 (78.18%) men with a p value of 0.16. Women showed tendency for higher scores in all ALQ domains; however, it did not reach statistical significance.
Discussion: Women received opportunities to be enrolled in the MME program and the authenticity of their academic leadership skills did not significantly differ from men. Women accounted for a quarter of academic leaders, with more appointments in middle management positions and a tendency toward a better authenticity of leadership skills.
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Keywords: Authenticity; Leadership; Academic leadership; Women; Career development

1. Introduction

The effect of gender on leadership ability and career development is an interesting area of leadership studies as women remain underrepresented as leaders in multiple settings.[1–5] Although the earnings of women have increased more than those of men in the United States of America (USA) over the past two decades,

Abbreviations: ALQ, authentic leadership questionnaire; KSAU-HS, King Saud bin Abdulaziz University for Health Sciences; MME, Master's in Medical Education; PhD, Doctor of Philosophy; USA, United States of America.

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women working full time still earn less than their male colleagues.[6] The illegalization of inequality between women and men has improved the opportunities of women in many fields; including education and training. However, gender equality in academia is hindered by the complexity of the work environment. Women with academic careers experience disconnect between the attainment of doctoral degrees and career development.[7] The career progress of women academic leaders is slower than that of their male colleagues.[8] This global issue may reflect the restriction of women's access to career development.[9,10]

Data regarding women academic leadership in Saudi Arabia are scant and conflicting. Although a study by Al-Tamimi reported that women have equal opportunities to study, they do not progress well in academia for reasons such as family responsibilities and social restraints.[11] To promote academic leadership, King Saud bin Abdulaziz University for Health Sciences (KSAU-HS), Riyadh, Saudi Arabia, established a master's in medical education (MME) with the aim of preparing professionals to become educators and academic leaders.[12] Graduates of this program assume leadership positions at a variety of levels in different universities.

Leadership assessment is essential and can be performed by peers, researchers, or self-assessment. Assessment by peers and followers can be misleading and affected by local societal attitudes toward acceptance of criticism. However, self-assessment is subject to the influence of self-serving bias.[13] Moreover, the selection of the appropriate self-assessment instrument is challenging. In this study, we employed the authentic leadership questionnaire (ALQ) which is a validated, short, easy, and reliable instrument designed to assess authenticity of leadership.[14,15]

Because data are scarce on women academic leadership in Saudi Arabia, we investigated the leadership characteristics and career development of Saudi-Arabian women in a health sciences university setting. We also examined the leadership authenticity and career development of women graduated from the MME program.

2. Methods

This cross-sectional study was conducted over a two-month period between December 1, 2013 and January 18, 2014 at the three campuses (Riyadh, Jeddah, and Al-Ahsa, Saudi Arabia) of the KSAU-HS, a specialized academic institute in health sciences. This study received institutional review board approval from the King Abdullah International Medical Research Center, Riyadh, Saudi Arabia (RC13/228). The instrument used in this study was the ALQ that was found to be reliable, valid, friendly, and short.[14] The ALQ is self-administrated that consists of 16 items that span over the following four domains: self-awareness (4 items), internalized moral perspective (5 items), balanced processing (3 items), and relational transparency (4 items). A license for ALQ was purchased to conduct this study. The ALQ is distributed to the participants. Those who failed to completely fill in the ALQ or data collection sheet or did not return the ALQ were excluded. Strict measures were applied to ensure confidentiality during data collection. The first portion of data collection sheets was utilized as consent for this study. The data collection sheet was constructed to include the demographic data of participants, academic status, hierarchy level, qualifications of health professionals, and qualification in medical education.

Academic leaders in the university three campuses were identified and approached to participate in this study. The academic leaders who participated in this study were stratified into two categories: deans, associate deans, and assistant deans; and chairpersons/directors. The university runs two years master's in medical education program (MME).[12] The MME graduates were identified and invited to participate in the study. The master program constitutes of ten main modules, one of them is focusing on academic leadership.

Statistical Analysis: The scores for each domain were obtained by summing up individual scores to obtain the overall result for the domain. Descriptive statistics were presented as numbers and percentages for categorical variables and means and standard deviation for continuous variables. The chi-squared test was used for categorical variables, whereas the Student's *t*-test was used for continuous variables. Moreover, a paired *t*-test was used to compare the ALQ domain scores and other variables. The data were entered into a secure Excel® spreadsheet (Microsoft Corp., Redmond, WA, USA). The coded data were then migrated to SPSS (version 21; IBM Corp., Armonk, NY, USA), which was used for data management and analysis. A p value of <0.05 was considered to indicate statistical significance.

3. Results

The demographic characteristics of eligible 71 (80.68%) MME graduates and 75 (89.28%) eligible

academic leaders are shown in Table 1. Table 2 shows that 30 women accounts for 42.25% of the MME graduates are academic leaders with an average age of 41.04 (±5.49) years. There are 17 (56.67%) women in the positions of dean, associate dean, or assistant dean; compared with 14 (34.16%) men with a p value of 0.059. More women than men (73.33% versus 53.66%) hold higher professional qualifications such as Doctor of Philosophy (PhD) or a clinical fellowship ($p < 0.001$). However, Table 2 shows that more women (46.67%) had a PhD, whereas more men (46.34%) had a clinical fellowship. The ALQ scores of women and men are as follow: self-awareness, 3.23 ± 0.51 versus 3.40 ± 0.42 ($p = 0.122$); internalized moral perspective, 3.32 ± 0.51 versus 3.26 ± 0.44 ($p = 0.659$); balanced processing, 3.27 ± 0.42 versus 3.36 ± 0.36 ($p = 0.352$); and relational transparency, 3.06 ± 0.54 versus 3.11 ± 0.48 ($p = 0.675$). Comparisons between the scores of men and women reveals no statistical significance.

Table 1
Demographic characteristics of the study groups.

Characteristics	MME Graduates	Academic Leaders
Number of invited participants	88	84
Number of participants returned questionnaires	75 (85.22%)	79 (94.05%)
Number of eligible participants	71 (80.68%)	75 (89.29%)
Age – Years		
Mean ± SD	40.89 ± 5.13	48.43 ± 8.83
Range	30–53	35–69
Median	42	46
Gender – No. (%)		
Female	30 (42.33%)	20 (26.67%)
Male	41 (57.75%)	55 (73.33%)
Nationality – No. (%)		
Saudi-Arabian	65 (91.55%)	59 (78.67%)
Non-Saudi-Arabian	6 (8.45%)	16 (21.33%)
Profession – No. (%)		
Medicine	34 (47.89%)	43 (57.33%)
Dentistry	12 (16.90%)	4 (5.33%)
Applied Medical Sciences	12 (16.90%)	2 (2.67%)
Nursing	7 (9.86%)	9 (12.00%)
Pharmacy	4 (5.63%)	3 (4.00%)
Others	2 (2.81%)	14 (18.67%)
Hierarchy Level – No. (%)		
Vice Presidents and Deans *(MME graduates: all Deans)*	7 (9.86%)	15 (20.00%)
Associate and Assistant Deans	24 (33.80%)	28 (37.33%)
Chairpersons and Directors	36 (50.70%)	32 (42.67%)
Others	4 (5.63%)	0 (0.00%)
Academic Status – No. (%)		
Professor	3 (4.22%)	14 (18.67%)
Associate Professor	11 (15.49%)	18 (24.00%)
Assistant Professor	33 (46.48%)	38 (50.67%)
Lecturer	21 (29.58%)	5 (6.67%)
No Academic Post	3 (4.22%)	0 (0.00%)
Highest Professional Qualification – No. (%)		
Clinical Fellowship	27 (38.03%)	41 (54.67%)
PhD	17 (23.94%)	29 (38.67%)
Master	27 (38.03%)	5 (6.67%)

MME, master's in medical education; SD, standard deviation; PhD, Doctor of Philosophy.

Table 3 shows that twenty (26.67%) women are in academic leadership positions with an average age of 47.31 (±9.63) years. Table 3 further shows that there was a tendency for female academic leaders to be from "professions other than medicine" when compared with men (60.00% versus 36.37%); however, this difference has marginal statistical significance with a p value of 0.07. Although more men are professors, the distribution of academic status based on gender does not reach statistical significance ($p = 0.27$). Most men leaders (67.27%) hold a clinical fellowship degree, where most women (65%) are PhD holders ($p < 0.001$). A similar finding is apparent for hierarchical level, which exhibits no significant difference ($p = 0.16$) despite that more women are appointed at the middle management level. More women are qualified in medical education; however, this does not reach statistical significance (0.092). The ALQ scores of women and men are as follows: self-awareness, 3.57 ± 0.32 versus 3.4 ± 0.46 ($p = 0.129$); internalized moral perspective, 3.56 ± 0.31 versus 3.43 ± 0.34 ($p = 0.142$); balanced processing, 3.46 ± 0.37 versus 3.43 ± 0.35 ($p = 0.532$); and relational transparency, 3.4 ± 0.51 versus 3.21 ± 0.47 ($p = 0.288$). Although women score higher in all items, none of these scores reaches statistical significance in comparison with the scores of male academic leaders.

4. Discussion

In this study, we explored the academic leadership authenticity of women MME graduates and those engaged in academic leadership. It is unique because it was conducted in the setting of a specialized university in health sciences at three regions in Saudi Arabia; therefore, we believe that our findings could be considered to be representative of Saudi-Arabian female academic leaders. Moreover, to our knowledge, this is the first paper to report authentic leadership characteristics among women in a Saudi-Arabian academic setting.[16] Our study revealed that women received opportunities to pursue career enhancement by enrolling in an MME program, and that the authenticity of their academic leadership skills did not significantly differ from that of their peer male

Table 2
Stratification of master's in medical education Graduates Based on Gender.

Characteristics	Women	Men	Total	p value
Number (%)	30 (42.25%)	41 (57.74%)	71 (100.00%)	
Age – Years (Average (±SD))	41.04 (±5.49)	40.8 (±5.31)	40.9 (±5.16)	0.82
Profession – No. (%)				
Medicine	14 (46.67%)	20 (48.78%)	34 (47.89%)	0.86
Other Professions	16 (53.33%)	21 (51.22%)	37 (52.11%)	
Hierarchy – No. (%)				
Deans, Assistant and Associate Deans	17 (56.67%)	14 (34.15%)	31 (43.66%)	0.059
Chairpersons and Directors	13 (43.33%)	27 (65.85%)	40 (56.33%)	
Highest Professional Qualification – No. (%)				
Fellowship	8 (26.67%)	19 (46.34%)	27 (38.03%)	< 0.001
PhD	14 (46.67%)	3 (7.32%)	17 (23.94%)	
Master	8 (26.67%)	19 (46.34%)	27 (38.03%)	

SD, standard deviation.

colleagues. However, although a higher percentage of women were qualified in medical education, they represented approximately one-quarter of academic leaders. Women were mainly appointed at middle management positions (associate and assistant deans) rather than in higher management positions (deans, vice presidents, and presidents). Interestingly, those women had a tendency for better ALQ scores than their male colleagues.

This study also revealed that there were opportunities for women to develop their careers in getting an MME degree; however, this was not reflected in the progress of their careers as leaders or academicians. A local study assessed the achievements of Saudi-Arabian women, revealed that they were specialized in various fields and treated equally regarding the progress of their academic career.[11] Another study concluded that female doctors in Saudi Arabia could achieve professional success and satisfaction despite cultural and social constraints.[17] In the Western world, women remain underrepresented; for example, women accounted for 27% and 24% of investigators at the National Science Foundation and National Institutes of Health in the USA, respectively.[1] Conflict between women's professional and personal lives is persistently deemed to affect their retention in the academic

Table 3
Stratification of academic leaders based on gender.

Characteristics	Women	Men	Total	p value
Number	20 (26.67%)	55 (73.33%)	75 (100.00%)	
Age – Years - Average (±SD)	47.31 (±9.63)	48.83 (±8.59)	33 (44.00%)	0.53
Profession – No. (%)				
Medicine	8 (40.00%)	35 (63.63%)	43 (57.33%)	0.07
Other Professions	12 (60.00%)	20 (36.37%)	32 (42.67%)	
Academic Status – No. (%)				
Professor	2 (10.00%)	12 (21.82%)	14 (18.67%)	0.27
Associate Professor	5 (25.00%)	13 (23.63%)	18 (24.00%)	
Assistant Professor	10 (50.00%)	28 (50.91%)	38 (50.67%)	
Lecturer	3 (15.00%)	2 (3.63%)	5 (6.67%)	
Hierarchy – No. (%)				
Vice Presidents and Deans	3 (15.00%)	12 (21.82%)	15 (20.00%)	0.16
Assistant and Associate Deans	11 (55.00%)	17 (30.91%)	28 (37.33%)	
Chairpersons and Directors	6 (30.00%)	26 (47.27%)	32 (42.67%)	
Highest Professional Qualification – No. (%)				
Fellowship	4 (20.00%)	37 (67.27%)	41 (54.67%)	< 0.001
PhD	13 (65.00%)	16 (29.09%)	29 (38.67%)	
Master	3 (15.00%)	2 (3.64%)	5 (6.67%)	
Qualification in Medical Education – No. (%)				
Yes	10 (50.00%)	16 (29.09%)	26 (34.67%)	0.09
No	10 (50.00%)	39 (70.91%)	49 (65.33%)	

SD, standard deviation.

workplace.[18] However, whether this conflict hinders the career progression of Saudi-Arabian women is a subject for further study.

The low proportion of women in academic leadership roles may be explained by the conservative local culture, in which men are dominant. Moreover, women in leadership roles tended to be in middle management rather than at a high hierarchical level. One exception was the College of Nursing, which has a female dean.

There is a global skepticism that women can attain higher positions. A report conducted in Australia revealed that the proportion of women in academic leadership positions is as low as 26–33%.[8] Scott and colleagues conducted an academic leadership survey in Australia, and determined that women represented 33% of vice chancellors, 29% of deputy vice chancellors, and 26% of professors.[8] Another study undertaken in Australia by Chesterman and colleagues found that discrimination against the promotion of women to senior positions was due to concerns about their capability to accommodate both a demanding job and their social and family needs.[4,5] There were also conflicting data concerning women academicians' promotion and retention. These factors may have had an impact on women's progress in academic leadership and their access to career development opportunities.

The obstacles to women's careers in Western countries was retrospectively studied by Marchant and colleagues.[4,5] When they examined leadership tenure in academic positions for men and women at 24 academic medical centers in the USA, they found that women had fewer opportunities to complete tenure in academic organizations. This was attributed to higher expectations from women, persistent prejudice against women having a successful career, or subconscious beliefs that leaders should be male. One of the first initiatives related to women in education was the American Association of University Women (aauw.org), which was founded in 1881 by Prof. Marion Talbot and Prof. Ellen Richards. This association was established to address the neglected needs of women in academia at that time.[1] A century later, the USA Congress observed a growing presence of women and minorities in the workplace, and two major laws for pay and discrimination against women were announced: the Equal Pay Act of 1963, and the Equal Rights Amendment of 1972. Subsequently, the Gender Equity Task Force of the American Medical Women's Association stated that gender equity must be practiced in every aspect of any institution.[5,10] In Saudi Arabia, recent laws under Saudi Vision 2030 have been passed to ensure that women are represented in many sectors, including the health and education sectors.

This study has some limitations that merit discussion. Because of its utilization of self-assessment tools, our study is subject to self-serving bias. Self-assessors normally underestimate external factors and overestimate internal factors. Another limitation is the ratio between male and female leaders, which favored male leaders. This was a factor beyond our control that may have affected the reliability of our findings when comparing our data by gender. However, despite these limitations, our findings provide insight into the authenticity of female leadership in an academic context in Saudi Arabia and an opportunity for future research in this field.

In conclusion, women received opportunities to learn and advance their career by enrolling in an MME program, and the authenticity of their academic leadership skills were not significantly different from those men enrolled in the same program. However, as academic leaders, women had fewer chances compared with their male colleagues to advance in leadership positions, despite having a tendency toward more authentic leadership skills.

Competing interests

The authors declare no conflicts of interest.

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Ethical approval

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Authors' contributions

M.S. Al-Moamary: primary author, study design, analysis, and manuscript writing.

H.M. Al-Kadri: study design, data collection, and manuscript writing.

S.M. Al-Moamary: data collection, data analysis, and manuscript writing.

H.M. Tamim: study design, data analysis, and manuscript writing.

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