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Women empowerment among academic and administrative staff in Saudi universities: A cross-sectional study

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Abstract

Women in Saudi Arabia constitute nearly 50% of the population, but their participation in economic and social activities are far below the kingdom's potential. According to the 2030 vision, women empowerment is an essential requirement for community transformation and development. The study aims to explore women empowerment among academic and administrative staff in Saudi Universities. A cross-sectional research design was conducted at 15 Saudi governmental universities. A multistage cluster sampling technique was followed to select 5587 participants. The data collection starts from April to September 2020. The current study results illustrate statistically significant differences between academic and administrative staff in the total women empowerment score and all of its dimensions ($p<0.05$). The majority of academic staff (84.4%) have high personal empowerment compared to 73.7% of the administrative staff. The study concluded that women empowerment is higher among academics compared to administrative staff in Saudi Universities. *(Afr J Reprod Health 2021; 25[1s]: 60-68).*

Keywords: Academics, Administrative, Saudi Universities, women's empowerment

Résumé

Les femmes en Arabie saoudite constituent près de 50% de la population, mais leur participation aux activités économiques et sociales est bien en deçà du potentiel du royaume. Selon la vision 2030, l'autonomisation des femmes est une condition essentielle pour la transformation et le développement de la communauté. L'étude vise à explorer l'autonomisation des femmes parmi le personnel académique et administratif des universités saoudiennes. Une conception de recherche transversale a été menée dans 15 universités gouvernementales saoudiennes. Une technique d'échantillonnage en grappes à plusieurs degrés a été suivie pour sélectionner 5587 participants. La collecte des données commence d'avril à septembre 2020. Les résultats de l'étude actuelle illustrent des différences statistiquement significatives entre le personnel académique et administratif dans le score total d'autonomisation des femmes et toutes ses dimensions ($p <0,05$). La majorité du personnel académique (84,4%) a une forte autonomisation personnelle contre 73,7% du personnel administratif. L'étude a conclu que l'autonomisation des femmes est plus élevée chez les universitaires que chez le personnel administratif des universités saoudiennes. *(Afr J Reprod Health 2021; 25[1s]: 60-68).*

Mots-clés: Universités universitaires, administratives, universités saoudiennes, autonomisation des femmes

Introduction

Over the past two decades, there has been intense debate about women's empowerment in the different communities' transformations. For example, all countries within the United Nations have specified women's empowerment as central to a peaceful and sustainable world[1]. Empowering women is the process in which women obtain unlimited access to different resources, which enhances the women's agency or the capability to define life options in an evolving economic, social, political, and developmental context[2]. The women's capabilities involve the capacity to control resources, express one's strategic options, and make changes in attitudes in light of evolving constrictions, reflecting women's awareness of the ability to achieve goals[3,4]. While there are many terms related to women's capabilities, including women's status, gender equality, women's

independence, and agency. These terms are essential to define women's empowerment. The capabilities are multidimensional, including behavioral and attitudinal measures such as support for gender equality standards or greater participation in family decision-making[2,4,5].

Women in Saudi Arabia constitute nearly 50% of the population, but their participation in economic and social activities is far below the kingdom's potential. It is generally believed that women's role is essential in preserving the family structure and society. Women's participation would increase local economic activity, enable competition, and enrich cultural and civil development. Therefore, it should consider the entrenched and complex nature of gender inequality in Saudi society, as well as all factors that affect women's empowerment[6].

Based on the 2030 vision, Saudi women represent half of the university graduates; they are mother, sister, and wife of the other half of the community; therefore, they are crucial power in Saudi society. A highly educated woman's role extends beyond her small family; she is considered a role model for next-generation young girls. According to the 2030 vision, women empowerment is a key requirement for community transformation and development. Many challenges face Saudi women at social, economic, political, and cultural levels; for example, lack of awareness about women's rights, unequal access to education, training, and information. Also, there is a lack of knowledge about women empowerment level and weakness areas due to a lack of qualitative and quantitative data. Saudi women's empowerment, especially the highly educated, is considered a must to proceed with all citizens' full contribution towards the kingdom's brighter future[7].

In Saudi Arabia, female participation in the workforce has long been low due to cultural and societal reasons. From the 1960s onwards, Saudi politics and reforms have come a long way for empowering Saudi women in many sectors. Recently, the King Abdullah scholarship program has accelerated this effort in the education sector, which has resulted in more Saudi women obtaining higher education, constructing more universities, and offering educational scholarships abroad. These modifications are in line with the spirit of the Vision 2030 initiative to empower women[8].

Many factors affect women's empowerment, such as the residence, the woman's educational level, and her husband, the family head gender. Moreover, participants' age, religion, number of family members, media access, current marital status, socioeconomic status, and affiliation with any organization[9].

Although much literature has studied the general concepts of women empowerment in different fields, there is limited research exploring women empowerment among the Saudi population, especially for universities' academic and administrative staff. Both academic and administrative staff empowerment is important, but academic staff are more educated and have continuous, direct contact with female students. Academic staff are role models for the next generations, so they will transmit their empowerment to the next generation if they are highly empowered. Comparing the level of women empowerment among academic and administrative staff at Saudi universities may pave the way for goal-directed women empowerment programs in higher educational institutes. Therefore, the current study's main objective is to explore the Women empowerment among academic and administrative staff in Saudi Universities.

Methods

A cross-sectional research design was conducted at 15 Saudi governmental universities. A multistage cluster sampling technique was followed to select about 50% of the Saudi governmental universities (15 University). KSA was divided into five sectors; from each one, a cluster sampling technique was followed to select about three universities. A cluster sample was followed to select colleges from each university; then, a convenience sample was followed to select the participants.

The total sample size will be calculated according to the following formula:

$$n = \frac{(df)(t^2)PxQ}{d^2} = \frac{(15)(1.96)^2 0.5x0.5}{(0.05)^2} = 5762$$

Where; n = sample size, df= design effect of cluster sampling, t= the parameter related to the precision of getting the maximum sample, size (1.96 for an

error risk of 5%) were the normal curve cuts off an area at the tails (100 equals the desired confidence level of 95%), p= expected prevalence of having high women empowerment (estimated proportion of an attribute that is present in the population), q= 1-p the expected proportion of women who have moderate or low women empowerment, d= maximum tolerable error (the desired level of precision)

Inclusion criteria

Saudi female faculties and administrative staff in governmental Saudi Universities and accepted to participate in the study.

Data collection instrument

The data collection instrument is composed of two parts. *The first* part was devolved by the researchers to collect participants' basic data: age, marital status, educational level, residence, years of experience, career, mother's education, and nationality. *The second part,* women empowerment scale for Saudi women in higher education institutes[10]. develop the scale to measure women empowerment in higher educational institutes. It comprises three main dimensions for women empowerment, personal social/relational, and environmental/workplace empowerment. The scale is revealed to be valid with high reliability (r=0.955)[10].

Total scoring: The tool is composing of 43 items rated on a five-point Likert scale. The overall score ranged between 43 and 215. The participant is considered high, moderate, or low empowerment if her score ranged from 43 to 100, 101 to 157, and 158 to215, respectively.

Subscale scoring: personal empowerment is composed of 17 items rated on a five-point Likert scale. The overall score ranged between 17 and 85. The participant is considered high, moderate, or low personal empowerment if her score ranged from 17 to 39, 40 to 62, and 63 to 85, respectively. Social/ relational empowerment is composed of ten items rated on a five-point Likert scale. The overall score ranged between10 and 50. The participant is considered high, moderate, or low social/relational empowerment if her score ranged from 10 to 23, 24 to 36, and 37 to 50, respectively.

Environmental/workplace empowerment incorporates 16 items rated on a five-point Likert scale. The overall score ranged between 16 and 80. The participant is considered high, moderate, or low environmental/workplace empowerment if her score ranged from 16 to 37, 38 to 58, and 59 to 80, respectively.

Data collection procedure and analysis

The study is a part of a project entitled "Based on vision 2030: Evaluation of women empowerment at Saudi universities and designing needs-based training packages". The data collection starts from April to September 2020. Upon receipt of the required approvals, the principal investigators and co-investigators delegated data collectors in each university to help in data collection. The data collectors' responsibility was to disseminate, collect the questionnaires, and ascertain the collected data's completeness. Based on the previous sample size calculation, 5762 questionnaires were collected; 175 were excluded from statistical analysis due to incomplete or incongruent data.

Data analysis

After completing data collection, it was entered into SPSS version 23 to make the required analysis by the analysis team. Data analysis was conducted on 5587 responses, excluding 175 missing cases. Descriptive statistics as a number, percentage, mean (SD) were used to describe the participants' basic data. Total women empowerment and its main dimensions were categorized as low, moderate, or high according to the pre-mentioned scoring system. Cross tabulation was done to describe the women empowerment main dimensions in academic and administrative staff. At the same time, Chi-square and Fisher exact tests were used to examine the differences between the two groups. For further description of women empowerment sub-dimensions, an independent sample t-test was used to examine the mean differences between the two groups. Lastly, the Pearson correlation coefficient was used to evaluate the correlation between the overall women empowerment scores and its main dimensions.

Results

The total study population is 5587 academic and administrative staff from Saudi governmental universities. The mean age of the study participant is 36.40 (8.19) years. Also, 65% are married, and most (80.5%) are city inhabitants. Bachelor's degree holders represent 42.1% of the study participants, and only 21.1% are Ph.D. holders. Meanwhile, 63.3% of the study participants are administrative staff compared to 36.7% are academic staff. In addition, 52.2% of the study participants have less than ten years of experience. Nearly an equal proportion of the participants' mothers are illiterate (28%), read and write (25.5%), middle education (20.7%), and high education (25.8). Finally, 87.3% of the participants' mothers ' are Saudi citizens.

Table 2 illustrates statistically significant differences between academic and administrative staff in the total women empowerment score and all empowerment dimensions ($p<0.05$).

Table 1: The participants' basic data (N= 5587)

Variable	Number	Percentage
Age		
- 20-<30 years	1437	25.7
- 30-<40 years	2796	50.0
- 40-<50 years	1084	19.4
- 50 -60 years	270	4.8
Mean (SD)	36.40 (8.19)	
Marital status		
- Single	1478	26.5
- Married	3630	65.0
- Widow	119	2.1
- Divorced	360	6.4
Residence		
- City	4497	80.5
- Governorate	900	16.1
- Village	190	3.4
Educational level		
- Bachelor	2354	42.1
- Master	1655	29.6
- PhD	1178	21.1
- Post-doctoral	400	7.2
Occupation		
- Academic staff	3535	63.3
- Administrative staff	2052	36.7
Mothers' education		
- Illiterate	1565	28.0
- Read and write	1426	25.5
- Middle education	1156	20.7
- High education	1440	25.8

The majority of academic staff (84.4%) have high personal empowerment compared to three-quarters (73.7%) of the administrative staff. Regarding social/relational empowerment, 79.9% of the academic staff have high empowerment compared to 72.9% of the administrative staff. Meanwhile, 61.8% of the academic staff have high environmental/ workplace empowerment compared to 57.3% of the administrative staff. Finally, 69.4% of the academic staff have a high total empowerment score compared to 62.6% of the administrative staff.

Table 3 clarifies the mean differences of empowerment sub-dimensions among academic and administrative staff. Concerning the personal empowerment, the academic staff have significantly higher self-esteem and self-efficacy scores than administrative staff ($t= 13.874$, $p = 0.000$) and ($t= 9.624$, $p = 0.000$) respectively. Regarding social/relational empowerment sub-dimension, the academic staff have significantly higher access to services, access to education, decisions making in daily life, and economic empowerment than administrative staff ($t= 1.875$, $p=0.061$), ($t= 11.609$, $p= 0.000$), ($t= 8.239$, $p=0.000$), and ($t= 3.281$, $p=0.001$), respectively. Meanwhile, concerning environmental/workplace empowerment sub-dimension, there were no significant differences between academic and administrative staff as regard access to knowledge and psychological empowerment at workplace ($t = 0.916$, $p=0.360$) and ($t= 0.711$, $p= 0.477$), respectively.

Table 4 shows that environmental/workplace empowerment is strongly correlated ($r=0.835$, $p<0.05$) to the total women empowerment score followed by Social/relational empowerment ($r=0.761$, $p<0.05$) and personal empowerment ($r=0.660$, $p<0.05$).

Discussion

Women empowerment in high educational institutes is the ability of the academic and administrative staff to take self-directed decisions in their workplace without formal agreement from the superior. The nature of higher educational institutes in Saudi Arabia require segregation of male and female section. This segregation requires women leaders to be highly empowered because

Table 2: Distribution of the academic and administrative staff according to the women empowerment dimensions (N= 5587)

Women empowerment main dimensions		Academic staff		Administrative		Significant test	P value
		N (3535)	%	N (2052)	%		
Personal empowerment	Low	0	0.0	0	0.0	X^2= 95.67	0.000*
	Moderate	550	15.6	540	26.3		
	High	2985	84.4	1512	73.7		
Social/relational empowerment	Low	10	0.3	30	1.5	FET=52.56	0.000*
	Moderate	700	19.8	527	25.7		
	High	2825	79.9	1495	72.9		
Environmental/work place empowerment	Low	90	2.5	80	3.9	FET=15.63	0.001*
	Moderate	1259	35.6	796	38.8		
	High	2186	61.8	1176	57.3		
Total women empowerment scale	Low	0	0.0	0	0.0	X^2= 27.34	0.000*
	Moderate	1080	30.6	767	37.4		
	High	2455	69.4	1285	62.6		

X^2= Chi-square FET= Fisher exact test * significant at 0.05

Table 3: Mean differences of women empowerment sub-dimensions among academic and administrative staff (N= 5587)

Variable	Academic Staff mean (SD)	Administrative Staff mean (SD)	t	p
Personal empowerment dimension	70.90 (7.62)	67.63 (7.97)	15.186	0.000**
- Self esteem	26.97 **(**4.64**)**	25.19 **(**4.53**)**	13.874	0.000**
- Self-efficacy	43.92 **(**5.31**)**	42.43 **(**6.04**)**	9.624	0.000**
Social/relational empowerment dimension	40.66 (5.22)	39.79 (6.48)	5.492	0.000**
- Freedom of Mobility	8.20 (1.96)	7.83 (2.09)	6.747	0.000**
- Access to services	8.15 (1.54)	8.07 (1.58)	1.875	0.061
- Access to education	8.18 (1.89)	7.53 (2.18)	11.609	0.000**
- Decisions making in daily life	8.68 (1.53)	8.32 (1.68)	8.239	0.000**
- Economic empowerment	8.26 (1.54)	8.11 (1.71)	3.281	0.001**
- Gender-based violence	7.35 (1.47)	7.45 (1.75)	2.207	0.027*
Environmental / workplace empowerment dimension	60.72 (11.34)	60.83 (11.77)	0.331	0.741
- Access to knowledge	7.54 (2.08)	7.59 (2.01)	0.916	0.360
- Access to resources and support	7.12 (2.11)	7.59 (1.96)	8.239	0.000**
- Organizational commitment	11.14 (3.19)	11.37 (2.75)	2.672	0.008*
- Access to opportunities and promotion	7.48 (2.17)	7.25 (2.14)	3.920	0.000**
- Psychological empowerment at workplace	12.50 (2.14)	12.46 (2.19)	0.711	0.477
- Participation in political life	6.74 (1.92)	7.02 (2.00)	5.194	0.000**
Total empowerment	165.55 (17.02)	161.24 (19.93)	8.568	0.000**

t = independent samples t test * significant at 0.05 ** significant at 0.001

Table 4: Correlation coefficient between overall women empowerment scores and its main dimensions (N= 5587)

Women empowerment main dimensions	Overall empowerment	
	r	*p*
Personal empowerment	0.660	0.000*
Social/ relational empowerment	0.761	0.000*
Environmental/ workplace empowerment	0.835	0.000*

r=Correlation coefficient test ** significant at 0.001

they are completely responsible for the female section's academic, administrative, and research process[11]. Saudi women leaders should be provided with more authority to be the female sections' upper management level. The Saudi government realized the importance of women empowerment in the community transformation process; therefore, they focused on it as one pillar in the 2030 vision.

The present study results revealed statistically significant differences between academic and administrative staff in the overall women empowerment score and all empowerment dimensions ($p<0.05$). This can be interpreted as academic staff usually had advanced education, access to resources and support, and higher self-directed decision-making. The current results are in the same line with five other researchers. First, Habib *et al*. investigated the relationship between educational level, employment, and women empowerment in Quetta city, Pakistan. Their results revealed that education and employment have a significant positive relationship with women empowerment in decision making, control over the resources, and voice, making them financially independent and economically strong[11]. Second, Brajesh and Sharma evaluated the determinates of women empowerment in selected countries in South Asia. They emphasized that education has a significant and positive role in empowerment. Brajesh and Sharma's results support the hypothesis that highly educated women have more self-control, financial independence, and higher decision-making ability in personal and professional life[12]. Therefore, in the current study, academic staff are significantly higher than administrative staff in all women empowerment dimensions.

Third, Amen and Shaikh explored the relationship between organizational support and employee empowerment among teaching and administrative staff at higher educational institutes. Their results indicated that highly educated academic staff have a higher level of empowerment and organizational commitment than lower educated instructors. They also reported that there is a significant difference in empowerment scores between academic and administrative staff. They further elaborated a significant relationship between the job nature and the organizational empowerment level ($p < 0.05$). Whereas professors had the highest level of organizational empowerment with a mean score of 3.48 compared to 2.65 among superintendent staff[12]. Fourth, Yusuf investigated the effect of women empowerment in enhancing families' socioeconomic status in West Siau District. Their results indicated that education is an imperative approach to empower women. Women who are educated are much more aware of their rights and search for jobs that increase their empowerment[14]. Fifth, Woldemicael conducted a study about the relation between women's self-control and their reproductive choices in Eritrea. She reported that the overall women empowerment is significantly increased among highly educated and economically independent women[15]. In Saudi Arabia, academic staff are allowed and supported to continue their education abroad. Therefore, they communicate with different cultures, are self-dependent, and good decision-makers. Consequently, they are expected to be more empowered than administrative staff who are bachelor's degrees and not permitted to live alone and be self-reliant.

Concerning personal empowerment, the present study results revealed that academic staff had significantly higher self-esteem and self-efficacy scores than administrative staff. The current study results may be attributed to the multiple chances and opportunities allowed to Saudi academic females in continuing education and research. In addition, the limited numbers of female PhD holders are appointed to senior management positions, which enhances self-efficacy and self-esteem.

The current finding is relatively similar to Giorgidze study in Portugal, titled the impact of employee empowerment on their satisfaction in the light of total quality management. She observed that academic staff is more satisfied with the salary and other benefits than administrative staff. She further elaborated that being successful and professional in the field is higher among academic staff than administrative staff, which results in job satisfaction and more opportunity for professional development[16]. Generally, teaching staff perceived themselves as more empowered, in a more advantaged position than administrative staff. This leads to different levels of job satisfaction, self-esteem, self-efficacy, and total women empowerment among academics compared to administrative staff.

The present study finding agrees with Eckert *et al*. who compared self-esteem among academic and non-academic nurses in Germany. They found that Rosenberg's self-esteem scale score was significantly higher among academic nurses

than clinical nurses working at the hospitals. They further added that working as academic staff increase the self-acceptance level[17]. In addition, Bray in the UK investigated the factors that influence college students' self-esteem. The study showed that higher education is unquestionably associated with greater empowerment and academic success leads to greater self-esteem among learners[18].

Regarding the social/relational empowerment dimension, the academic staff had significantly higher access to services, access to education, decision making in daily life, and economic empowerment than administrative staff. The present finding is relatively concordant with Folayan *et al*. investigated the complex interaction between women's self-directed decision making, economic empowerment, and experience of gender-based violence as precipitating factors for childhood problems. They observed that economically independent women greatly participated in house-hold decision-making and could make informed decisions about health and other life issues[19]. Women empowerment is also associated with health information and access to facilities, mobility, and a good social network[20,21,22]. Saudi Arabia is an Islamic country with strict costumes and traditions concerning women's empowerment. The Islamic rules supported by the Holy Quran greatly support the women economic independence as women have the right to make own her decision regarding saving without approval from her guardian. In addition, women have an equal position like men in the family; they have equal rights and responsibilities. On the contrary, Saudi tradition put many restraints on women's independence and decision-making, which are unrelated to Islamic rules. Academic staff as highly educated, and economically independent women are expected to know their rights and responsibilities in the light of Islamic rules. The previous explanation might justify the current study results.

Regarding environmental/workplace empowerment, organizational commitment, participation in political life, access to opportunities and promotion, resources, and support are significantly higher among academics compared to administrative staff. The present finding is consistent with the previously mentioned study done by Amen and Shaikh. Their results had revealed a statistically significant difference among the teaching and administrative staff in favor of the former on their ratings of organizational support score and the ratings of employee commitment. They further elaborated that there was a significant difference between employees in different positions and organizational commitment ratings ($p < 0.05$) where academic staff in the higher administrative positions have higher empowerment scores compared to lower management levels[12].

Moreover, Abdullah evaluated women empowerment among employees in Saudi Arabia. They found that participation in political life positively impacted teaching staff empowerment in most of the identified models[23]. Furthermore, the teaching staff empowerment had a significant impact on managerial, social, and economic empowerment, with a greater significance than political empowerment. Women empowerment is an essential pillar in Saudi community development. 2030 vision stated that women represent a significant power that can push the Saudi community toward a bright future. The beginning should start from highly educated women in the higher educational institutes, as they are the key influencer in the next generation. Empowering academic and administrative staff is essential; the academic staff assume many significant roles in education, research, community services, and development activities.

Strengths and Limitations of the Study

The present study is the first that examined women empowerment among academic and administrative staff in Saudi universities. The present study findings can be used to build women empowerment programs in Saudi Arabia and help to achieve the 2030 vision. The study involves a large representative sample of Saudi academic and administrative female staff from various universities in all Saudi Arabia regions. In addition, this study used a well-validated instrument. However, there are some limitations. Most of the study participants were urban areas residents and highly educated. Therefore, the results of the

present study cannot be generalized to rural and lower educated women.

Ethical Approval

The research ethics committee at Najran University reviewed and approved the research proposal before its submission to the ministry of education. Another approval was taken from each university through formal lines of authorities. Informed consent was written on the first page of the questionnaire, and each participant was asked to sign it before data collection. All data was handled confidentially and utilized to draw the research results only.

Conclusion

The current study results illustrate statistically significant differences between academic and administrative staff in the total women empowerment score and all of its dimensions. The academic staff had significantly higher self-esteem and self-efficacy scores than administrative staff under the dimension of personal empowerment. Regarding social/relational empowerment, the academic staff had significantly higher access to services, access to education, decision-making in daily life, and economic empowerment than administrative staff. In addition, there are statistically significant differences between academic and administrative staff in all environmental/workplace empowerment dimensions except for access to knowledge and psychological empowerment at the workplace. Environmental/workplace empowerment is strongly correlated to the total women empowerment score, followed by social/relational and personal empowerment.

Implication of the Study

This research is a part of the ministry of education projects to develop women's potentials and help achieving the 2030 vision. There is no doubt that Saudi Arabia and Arab countries suffer from deficits and lack of data regarding women empowerment. This deficit in statistics and indicators affects the implementation of the goals of the sustainable development agenda. Therefore, this study contributes to both body of knowledge and practice by providing essential data regarding women empowerment in higher educational institutes.

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Consent for Publication

The authors have read and approve the publication of the manuscript in its current form. This manuscript has not been submitted for publication elsewhere and has not been previously published.

Competing Interests

The authors declare they have no conflict of interest.

Contribution of Authors

Al-Qahtani conceived the initial idea and wrote the initial stage of the manuscript. *Elgzar* reviewed literature, contributed intellectually, and discussed the findings. *Ibrahim* participated in data collection and contributed in the scientific background. *El-Houfy* collected data, make statistical analysis, and wrote the initial draft. *El Sayed* participated in data collection and contributed in the scientific background. All authors agree on the current version of the manuscript.

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