

## Factors Influencing Attitudes of Female Students towards Gardening: A Case Study

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### ABSTRACT

The study aimed at assessing attitudes of female undergraduate students toward participating in gardening activities and determining factors influencing participation using a descriptive-analytic research by a surveying approach. The statistical population consisted of 433 female students enrolled in various disciplines at the three branches of the College of Science and Humanities at the Shaqra University, Saudi Arabia during the academic year 2016/2017. Out of the total population, some 90 students were selected randomly. A well-designed and pre-tested questionnaire was administrated as a research tool. Results of the study revealed that 42.2% of the target females were with positive attitude towards gardening and were agreed to get involved in the gardening activities, 30% students remained neutral whereas some 27.8% students showed a negative attitude towards agricultural work. The findings showed that there was a significant difference between agreed and disagreed female students regarding their participation in the gardening activities in terms of owning or renting a flower gift store ( $t = 3.8, p > 0.01$ ). Correlation analysis showed the significant relationships between participation in gardening activities, and type of residence ( $r = 0.86$ ), ownership of residence ( $r = 0.82$ ), father's occupation ( $r = 0.71$ ) and place of residence ( $r = 0.53$ ). It was concluded that the female students living in the owned houses and villas in rural areas and their father's job were related to agriculture had more favourable attitudes toward their participation in the gardening activities. Based on the results of the study, it is recommended that curriculums must include field tours to equip the female students with skills needed in their practical lives and that stimulate their interest towards different agricultural issues.

## 1. Introduction

Agriculture is known as one of the most important sectors for the existence of the human beings in almost every single country. Women are engaged in agriculture directly or indirectly and account for more than half of the workforce (FAO, 2011). The gender division of labor is different in society and culture, and within each culture, external situations do affect the activities (Nigist, 2004). Universities as scientific centres like many other economic, political and social organizations have entered the eras where the perceptions of the students definitely differ today with the dwellers of the past (Rajabi and Ashrafi, 2002).

Normally in Muslim countries, women account for about 28% of overall labors force that is the lower most on the globe. In the different countries, the share of women in labor force differs significantly such as 23% in Afghanistan, 40% in Bangladesh, 26% in Egypt whereas less than 19% in Jordan, UAE and Saudi Arabia. Also in the majority of the Sub-Saharan countries, the rate of the female labor force is more especially in agriculture (UN, 2010).

Saudi Arabia comprises the lowest female employment rates in the entire region of the Middle East. It is frequently supposed that courtesy of the scheduled significance of ethics such as family modesty and honor, the woman's participation as a paid labor is a social disgrace and paid employment is especially the duty of men. Though it greatly varies, particularly in the big cities in the Kingdom, it is quite an issue, and the statistics indicates that variation is taking in a slow speed (Rajhkhan, 2014). Women form an essential part of gardening households and are involved in most of the gardening activities in many developing countries. They bear a maximum of duties for household food security and contribute to household well-being through their income generating undertakings (Park, 2016). Women in rural areas are involved in wide-ranging activities of economic importance comprising construction of houses, agriculture and food storage and marketing (Tegegne, 2012).

Participation of women in different economic activities brings the monetary benefits and profits at both micro and macro levels. At the macro level, a positive correlation can be witnessed between the female labor force participation rates and the economic growth whereas at the micro level, the labor force involvement of women is useful for the well-being of the family like: income, health and children's education. Relative studies probing the

effect of female education on Gross Domestic Product (GDP) and poverty reduction prove encouraging impacts (World Bank, 2004). Education and skills have a vital importance for both men and women and enhance their opportunity for paid employment in the formal sector (ILO, 2008).

The Middle East and North African (MENA) region has the lowest female labor force participation as compared to the global rates. Growths in the women educational levels have not led to a relative rise in the female labor force participation rate (World Bank, 2004). Two-thirds of the female labor force in the developing countries is involved in agricultural doings (Gracia, 2004). In Saudi Arabia, there is a need to revisit the society and culture to enhance the educational opportunities for men and women in the rapidly changing global economy. The involvement of female in the labor market is very low. Through the government of Saudi Arabia has created job opportunities for the women and also brought changes in the laws to grant them rights yet such initiatives are slow to make the tangible difference (Al-Ahmadi, 2011).

The scientists have mentioned that the socio-economic variables are the key factors influencing the attitudes of female students towards gardening activities. They include age, religion, marital status, educational level, gardening background, place of residence, family support, and income levels (Ayodapo, 2013; Abdullah and Sulaiman, 2013). In the Kingdom of Saudi Arabia, foreign workers primarily constitute the major segment of human resources engaged in the agricultural sector. To advance the national economy based on agricultural production, involving Saudi youth through employment has to be taken seriously. Females make half of the population in the Kingdom and its future depends upon their limitless energy and aspirations. However to be the successful agricultural entrepreneurs, females must have the positive attitudes toward agriculture and both the government and society must encourage them to gain the opportunity to participate in agriculture-based businesses.

This study is designed to identify the current level of female students' attitude toward gardening activities and determine the demographic characteristics effect on their attitudes. To achieve the objective of this study, the formulated hypotheses are stated in a null form:

**H01:** There is no significant difference between positive and negative attitudes of female students toward their participation in gardening activities.

**H02:** There is no significant relationship among the demographic characteristics of the female students and their attitudes toward gardening activities.

## 2. Materials and Methods

A descriptive-analytic research by using a surveying approach was designed to measure the attitude of female students of higher education towards the gardening activities. College of Science and Humanities at Shaqra University was selected for study due to the largest numbers of female students being enrolled during the academic year 2016/2017. Statistical population of the study consisted of 433 female undergraduates, studying in three branches of college of Science and Humanities (Thadq, Kowairia, and Harimlae) at the University. A total of 90 female students were selected (30 female students from each branch) on a random basis.

A survey questionnaire was developed matching with the research objectives and used for data collection. The study was conducted between October 2016 and December 2016. Data were collected from the targeted students by conducting personal interviews. The instrument was structured in two parts. The first part was related to personal characteristics whereas the second part included six statements to measure attitudes of female students towards their participation in gardening activities based against a Likert three-point scale. The instrument was tested in a pilot study for its reliability using ten randomly selected female students. Their responses to research questions helped to identify items that were confusing and ambiguous. The unclear items/statements were modified accordingly. Reliability of the research tool was tested by calculating the Cronbach's Alpha test ( $\alpha = 0.84$ ). The final instrument was cross-checked for face validity by three academic staff members of the Department of Agricultural Extension and Rural Society at the King Saud University, Saudi Arabia.

Data processing and outputs analyzing were done by SPSS software ver. 24. Data analysis was done by two parts of descriptive and analytic methodologies. In descriptive section statistics such as means, percentage, and standard deviation were used. In the analytic part, the T-test, Spearman, and Pearson correlation coefficients were employed to determine the relationship between variables where necessary.

## 3. Results and Discussion

### 3.1. Personal profile of the respondents

The descriptive analysis of demographic characteristics of respondents is presented in Table 1. The respondents' age ranged from 17 to 30 years with a mean of 20.5 years. This result indicates that a higher proportion of sampled female students at the Shaqra University are in their active and productive years. Less than two-third (66.2%) enrolled in the third and fourth years at their colleges, 25.6% were studying kindergarten as a major discipline. The results also revealed that the fathers of 40% and mothers of 33.3% respondents had

attained their secondary school education. About two-third of the respondents (66.1%) lived in villas, and about 67.8% lived in their own property, and 73.3% of them lived in rural areas. More than one-half (62.2%) of female students had large families with the 7-10 members. Regarding father's occupation, the respondents showed that only 24.4% had been working in the different agricultural activities (sheep and goat production, crops, floriculture, and green houses).

**Table 1-** Demographic characteristics of female students

<i>Variables</i>	<i>F</i> <i>(n=90)</i>	<i>%</i>	<i>Variables</i>	<i>F</i> <i>(n=90)</i>	<i>%</i>
<b>Age</b>			<b>Mother's education</b>		
17-20	29	32.2	Illiterate	19	21.1
21-25	56	62.2	Elementary school	22	24.4
26-30	5	5.6	Secondary school	30	33.3
<b>Educational Level</b>			University	17	18.9
First year	11	12.2	Postgraduate	2	2.2
Second year	23	25.6	<b>Type of residence</b>		
Third year	39	43.3	Villa	55	66.1
Fourth year	17	18.9	Apartment	11	12.2
<b>Major study Area</b>			Other	24	26.7
English	7	7.8	<b>Ownership of residence</b>		
Chemistry	19	21.1	Rent	29	32.2
Physics	11	12.2	Own	61	67.8
Kindergarten	23	25.6	<b>Place of residence</b>		
ICT and Computer Sciences	18	20	Rural	24	26.7
Architecture	12	13.3	Urban	66	73.3
<b>Father's education</b>			<b>Number of family members</b>		
Illiterate	3	3.3	3-6	14	15.6
Elementary school	19	21.1	7-10	56	62.2
Secondary school	36	40	> 10	20	22.2
University	21	23.3	<b>Father's occupation</b>		
Post graduate	11	12.2	Agriculture	22	24.4
			other	68	75.6

Source: Field data

### 3.2. Assessing the attitude of female students towards their participation in gardening activities

The attitude of the target students towards participation in the different agricultural activities was assessed by percentages, means, and standard deviation as shown in Table 2. Half of the respondents agreed that they could get involved in renting or owning a store for selling flowers. This result could be interpreted that the local circumstances may encourage the female to work florists due to several reasons (easy to learn, prestige, quiet work, enhance social relations, relevance with customs and traditions prevailed in KSA, the interest of design and forming, etc.). As well as, flowers confirm the popular conception that it is able to activate romance and act as positive meanings ascribed as gifts (love, sympathy). The findings also showed that less than one-half (42.2%) expressed a positive attitude toward establishing a small farm beside their house if available. Moreover, about 37.8% of sampled female students were agreed to grow fruit trees in their gardens. The students who agreed or disagreed regarding their participation in gardening activities showed a significant difference regarding owning or renting a flower gift store ( $t= 3.8, p>0.01$ ). However, no significant differences regarding the responses of the female students having positive or negative attitudes on rest of statements were observed.

**Table 2-** Attitudes of female students toward their participation in gardening activities

<i>Statements</i>	<i>Agree</i>		<i>No idea</i>		<i>Disagree</i>		<i>Mean</i>	<i>SD</i>	<i>t value</i> <sup>a</sup>
	<i>F.</i>	<i>%</i>	<i>F.</i>	<i>%</i>	<i>F.</i>	<i>%</i>			
I wish to grow vegetables in the house garden	26	28.9	34	37.8	30	33.3	1.95	0.79	-0.53
I want to own or rent a flower gift store	45	50	28	31.1	17	18.9	2.3	0.77	3.8**
I wish to establish a nursery of ornamental plants	27	30	37	41.1	26	28.9	2.01	0.77	0.13
I want to grow indoor plants in my house	26	28.9	42	46.7	22	24.4	2.04	0.73	0.57
I want to establish small farm beside my house if available	38	42.2	27	30	25	27.8	2.14	0.82	1.65
I wish to grow fruits trees in my house	34	37.8	33	36.7	23	25.6	2.12	0.79	1.46

Source: Field data

<sup>a</sup> Differences between female students having a positive or negative attitudes, Significance: \*\* $p < 0.01$

Based on findings of Table 3, about 30% female students were still with the neutral attitudes toward majority of the gardening activities. Additionally, more than one-quarter (27.8%) had no interest in getting involved in any agricultural work. It is interesting to mention that about 42.2% of the female students had interest to be involved in the agricultural activities. Similar results have been reported in the studies conducted by Movahedi and Chizari, 2006; Bakhshijahromi and Zamani, 2007, and Movahedi, 2011.

**Table 3-** Classification of female students according to their type of attitudes

<i>Types of attitude</i>	<i>F. (n=90)</i>	<i>%</i>
Positive attitude	38	42.2
Neutral attitude	27	30
Negative attitude	25	27.8

Source: Field data

### 3.3. Factors influencing attitude toward gardening activities

Factors influencing the attitudes of respondents toward gardening activities have been enlisted in the Table - 4. A significant correlation between the type of residence (villa/other), type of residence (own/rent), living place (rural/urban), father's job, and the attitudes of the female students toward agricultural activities was noticed. But no significant correlations among the factors like age, educational level, father's education, mother's education, the number of family members, and the attitudes of the respondent female students toward gardening were registered. These results are in agreement with the findings reported by Karim-Sesay (2004) in the USA and Movahedi et al. (2007) and Movahedi (2011) in Iran. This simply implies that the larger the house size of the respondents, the more positive their attitude to gardening activities. This may be due to the fact that the large-scale of villas facilitate carrying out different agricultural practices. Moreover, female who lived in rural areas are positive to participate in gardening. This could be due to that rural residence create interest in agriculture and observing different kinds of gardening activities. The findings also showed that female attitude is most likely to be positive if they house owned by their families. Ownership of residence places gives an opportunity and freedom to cultivate and plants husbandry. Moreover, if the father's occupation related to agriculture, the female are more positive about gardening. This may be interpreted that the father's occupation may stimulate attention for a female to ask information or helping in doing some practices .

**Table 4-** Assessing correlations between socioeconomic variables and females' attitude toward participation in gardening activities

<i>Independent variable</i>	<i>Correlation coefficient (r)</i>	<i>P value</i>
Age <sup>a</sup>	0.09	0.61
Educational level <sup>a</sup>	0.08	0.67
Father's education <sup>a</sup>	0.04	0.86
Mother's education <sup>a</sup>	0.03	0.88
Type of residence <sup>b</sup>	0.86**	0.009
Place of residence <sup>b</sup>	0.53**	0.01
Ownership of residence <sup>b</sup>	0.82**	0.005
Number of family members <sup>a</sup>	0.05	0.72
Father's occupation <sup>b</sup>	0.71**	0.002

Source: Field data

<sup>a</sup> Pearson coefficient was estimated, <sup>b</sup> Spearman coefficient was estimated, Significance: \*\* $p < 0.01$

## 4. Conclusions and recommendations

Participation of rural women helps improving social, economic, and cultural activities and is viewed essential for realizing rural development. Findings of the present study revealed that female students exercised different types of attitudes toward their participation in the gardening activities. Among the agricultural activities, female students had the most favorable attitude and the highest preference for selling the flowers. Based on the findings of the study, it is recommended that agriculture as a subject should not be compulsory for the female students at the undergraduate levels to inculcate the importance of the agriculture profession. It would be preferable to design the curriculum that places greater emphasis on the field trips/tours to stimulate the interest among the female students towards different gardening activities and cultivate the respect in their minds for those serving the society keeping the environment clean and pollution free. The emphasis on developing the skills needed for

the practical lives in the curricula will be helpful meeting the actual, real and future employment needs of female graduates.

The attitudes of the sampled female students varied due to the personal factors like: type of residence, ownership of residence, father's occupation, and place of residence. The study leads to conclude that the female students living in the villas and owning the property in rural areas and their father's job were related to agriculture were with the more favorable attitude toward their participation in the gardening activities.

Present study opens up new avenues for further studies to investigate the available opportunities for the female graduates in the area of agriculture at both the governmental and private sectors. In addition, by conducting the longitudinal studies, different factors inhibiting the female agricultural graduates be the agricultural entrepreneurs can be explored.

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