

Policies to enhance the role of rural women in food  
knowledge and challenges of economic development in  
Jordan

سياسات تعزيز دور المرأة الريفية في المعرفة الغذائية وتحديات  
التنمية الاقتصادية في الأردن



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### الملخص

This study aims to analyze the personal, social, and professional factors influencing rural women's knowledge, attitudes, and nutritional constraints in the Al-Giza and Al-Muwaqqar regions, as a representative sample of rural women in Jordan. This will contribute to formulating policies that support their role and mitigate the economic challenges they face.

Results indicate that participants in Al-Muwaqqar and Al-Giza are characterized by middle age and secondary education, with limited university education, income disparities, and family structure. Differences in ambition are evident among women, with women in Al-Muwaqqar being characterized by perseverance and responsibility, while women in Al-Giza tend to focus on feeling happy after achieving goals. Women in Al-Muwaqqar excel in their knowledge of healthy nutrition principles, while Al-Giza needs to enhance nutritional awareness. Awareness of food quality and safety practices varies between the two villages. Differences also emerge in daily nutritional practices and consumption patterns, with higher adherence to some healthy habits in Al-Muwaqqar compared to less healthy habits in Al-Giza, calling for targeted nutritional education programs. The results indicate that education enhances rural women's knowledge and attitudes toward healthy nutrition, while age and ambition have negative effects.

Nutritional barriers are related to factors beyond personal and social characteristics. Recommends strengthening nutrition awareness programs, encouraging daily healthy eating practices, and addressing unhealthy behaviors. It is also advisable to support rural women in self-production and healthy nutrition, and to design specialized nutrition education programs to promote healthy consumption patterns. It also calls for developing policies and plans to support income and education, taking into account the influence of age and aspirations on women's responses, and addressing nutritional barriers related to socioeconomic factors.

### ABSTRACT

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# Some Proposed Policies To Improve Food Knowledge Of Rural Women To Aid In Facing Challenges Of Economic Development In Jordan: Giza And Muwaqqar Towns Case Study

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## Abstract

This study aims to propose targeted policies to enhance rural women's nutritional knowledge, thus enabling them to meet the challenges of economic development in Jordan. This is achieved by analyzing the personal, social, and professional factors influencing rural women's knowledge, attitudes, and nutritional constraints in the governorates of Giza and Muwaqqar towns. This will contribute to formulating some policies that support their role and mitigate the economic challenges facing rural women.

First, the results indicate that participants are characterized by average age and secondary education, limited university education, income disparities, and family structure. Differences in ambition are evident among women, with women in Muwaqqar being more determined, while women in Giza tend to be more goal-oriented. Women in Muwaqqar excel in their knowledge of healthy nutrition principles, while Giza needs to enhance their nutritional awareness.

Furthermore, awareness of food quality and safety practices differs between the two cities, particularly in daily nutritional performance and dietary patterns. Adherence to healthy habits was higher in Muwaqqar than in Giza, highlighting the need for nutritional education programs. The results indicate that education enhances rural women's knowledge and behaviors toward healthy nutrition, while age and ambition have negative effects. Nutritional barriers are related to factors beyond social characteristics.

Moreover, the demographic, educational, and economic disparities among rural women in Muwaqqar and Giza reflect a combination of challenges and opportunities that impact their empowerment and role in economic development. This highlights the need for integrated policies that promote ongoing nutrition education, support healthy eating habits and home-based production, and design training programs that take age- and social-related factors into account.

Some of these policies address income support and education, unhealthy behaviors, and social barriers, contributing to enhancing rural women's nutritional and economic empowerment. Therefore, the research findings recommend strengthening nutrition awareness programs, addressing unhealthy behaviors, supporting rural women in home-based production, designing

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nutrition education programs, and addressing nutritional barriers related to socioeconomic factors.

**Keywords:** Nutrition Awareness, Women Empowerment, Rural Development, Dietary Practices, Health Education

## **Introduction**

Rural women in Jordan resemble an energetic part of society, yet they face important challenges that delay their full contribution to economic growth. Among these challenges are the effect of customs and traditions, in addition to home loads that limit their chances. Moreover, their low social status and lack of economic resources, training, and optional support harmfully influence their knowledge and practices in vital zones such as farming, food processing, and animal husbandry.

In this context, despite existing challenges, rural women continue to perform key domestic roles and participate in labor activities in rural areas, highlighting their importance in supporting local communities. To enhance their empowerment and role in achieving sustainable growth, it is necessary to develop training and social programs specifically targeted at this group (Thorne, 2020; Alzubaidi, 2021).

Furthermore, rural women in Jordan are the main partners in the family food economy, relying on information and nutritional customs formed by ecological and sociological financial circumstances (Abuhammour, 2024; Ghanayem et al., 2025).

Similarly, Jordan recognizes the position of this part through special revelations and economic support as part of the 2030 Sustainable Development Goals, with a specific emphasis on endorsing gender equality (Alzubaidi, 2021).

However, in spite of the growing number of women reclaiming agricultural land, their efforts leave little due to their weak financial contribution. This situation negatively influences rural women's nutritional and health safety, which calls for the adoption of enabling some policies to enhance rural women's participation in sustainable economic and social development programs. Moreover, information on illiteracy, low possession, and economic individuality displays that rural women's contribution in farming actions is incomplete, likened to other jobs, reflecting important economic and social challenges (Rana, 2024).

Consequently, despite rural women's essential part in nutrition groundwork and household food, their lack of consciousness of the fundamentals of good food poses a major challenge to attaining nutrition safety (Jamal, et al., 2021). To overcome this challenge, food teaching programs directed by women must be supported, while safeguarding their privileges to land ownership and access to productive incomes (Cook, 2020).

In addition, food security in Jordan is related to the growth of the farming area, which is an important support for attaining sustainable growth. It is also essential to report the financial and community sizes in light of worldwide challenges such as increasing food prices and environmental variation (Qtaishat, et al., 2023).

Moreover, suitable food is based on the diversity and equilibrium of nutrients, taking into consideration damaging mechanisms and cumulative welfares. A person's wants vary, according to age, sex, and fitness rank, to stop sickness (Mohammad Rababa & Ayat Alshaman, 2021).

At the same time, agricultural extension plays a vital role in raising rural women's awareness of appropriate food and promoting healthy nutrition, through extension programs and awareness-raising movements to improve nutritional safety and sustainable growth (Al-Zubaidi, 2021).

Nonetheless, these programs face environmental and societal challenges, involving water disasters and weather changes, as well as people-related issues such as corruption and the increased need for preparation that takes into account environmental issues to meet healthy needs and reduce malnutrition (Jamal et al., 2021; Rifai et al., 2024).

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Accordingly, studies led in Jordan prove that supportive minor growers need a set of combined interventions. From a financial viewpoint, research highlights the need to offer medium-term farming lends and allocate them justly to improve efficiency and develop water resources (Tarawneh and Al-Najjar, 2023). It highlights the importance of consolidation farming extension through real teamwork between administrative and non-governmental organizations (Tarawneh et al., 2022). Moreover, research specifies that socioeconomic issues such as home nutrition safety, revenue, and expenditure have an important influence on the sustainability of agricultural performance (Abo Znemah et al., 2023). From an ecological viewpoint, there is an emphasis on accepting maintainable performances such as water effectiveness and weather alteration version (Al-Mithqal et al., 2024). For the long-term growth of the part, studies highlight the importance of designing instructive plans that take into account the educational upbringings of youth to endorse agricultural free enterprise (Abu Harb et al., 2024). Finally, beleaguered health interventions are needed to upsurge nutritious awareness and bodily activity to reduce food uncertainty and unhealthy performances (Ayasrah et al., 2025).

### **Statement of Problem**

The study's problem is the poor nutritional knowledge of rural women in Jordan, which leads to unhealthy eating behaviors. This is in addition to the social and economic barriers that limit their ability to implement sound nutritional practices and effectively participate in economic development programs. This challenge is most evident in the cities of Giza and Muwaqqar, where women's levels of education, income, and aspirations vary, leading to clear gaps in nutritional awareness and adherence to healthy behaviors.

### **Significance**

The importance of the study stems from its focus on analyzing the factors influencing rural women's nutritional knowledge, attitudes, and behaviors, with the aim of formulating targeted policies, training, and educational programs that enhance their nutritional and economic empowerment. This contributes to supporting sustainable development, improving food security, and enhancing the role of rural women in the household economy and local community, in line with the Sustainable Development Goals and women's empowerment plans in Jordan.

### **Objectives**

This study aims to propose some policies to improve the food knowledge of rural women to aid in facing challenges of economic development in Jordan

### **Method of Research**

#### **Study Site and Target Population**

Two towns (Al-Giza and Al-Muwaqqar) were selected, representing the central and southern towns of the capital, Amman. The study population included rural women from these two towns and was deliberately selected to ensure adequate representation of the study population. The sample size was 70 rural women from each town.

#### **Data Collection**

To collect ground data, the study depends on two key approaches. A survey was designed in strong and modest language to confirm it was simply understood by all members in the target towns. In addition, individual meetings were led with members to gather additional data and deeper details, which allowed for complete and combined information.

#### **Study Axes**

This study Instrument consists of many main axes designed to provide a comprehensive database on the conditions of rural women and achieve the research objectives of assessing their reality and proposing appropriate interventions. The first axis includes collecting basic demographic data such as the age and educational level of both the woman and the head of the household. The second axis focuses on the economic and social status and responsibilities of the various participants. The third axis measures women's level of knowledge of healthy food

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basics, processing practices, nutritional value, and safety. The fourth axis measures the degree of adherence to healthy and productive practices and monitors changes or continuity in nutritional behaviors. The fifth axis categorizes the problems facing rural women, whether related to nutrition, production, national, or societal issues. The sixth axis addresses economic development issues in Jordan in terms of their connection to empowering rural women and improving their productive and livelihood opportunities. This diversity of axes contributes to building a comprehensive picture that enabled the researcher to link demographic, social, and economic variables, knowledge levels, nutritional practices, and economic development. This supports accurate interpretation of results and the development of practical intervention proposals.

### **Study Instrument**

The study relied on a primary instrument, a questionnaire designed in clear and simple language, ensuring it was easily understood by the targeted rural women in the cities of Al-Giza and Al-Muwaqqar. The questionnaire was divided into six main areas covering demographic, economic, and social aspects, levels of nutritional knowledge, health and productivity practices, and monitoring the nutritional, productivity, and societal problems facing the participants. The instrument was supported by individual interview sessions to collect in-depth qualitative data that strengthened the quantitative findings derived from the questionnaire.

### **Instrument Reliability**

The study targeted rural women in the cities of Al-Giza and Al-Muwaqqar, south of Amman. The sample size was 70 women from each city. To ensure the reliability and validity of the research instrument, Cronbach's alpha test was used, and the overall reliability value was 0.83, a high value that confirms the strength and validity of the instrument to accurately measure the variables under study and achieve its research objectives.

### **Independent Variables**

Independent variables included the age of the respondents (rural women), the educational level of both the respondent and the head of the household, which was coded from 1 to 4 according to the degree of educational attainment, and marital status, which was coded from 1 to 4, including married, separated, widowed, and divorced. Independent variables also included the household's monthly income, which ranged from 150 dinars or less to 450 dinars or more, as well as the level of ambition among rural women, which was measured through eleven statements using a three-point scale ranging from always, sometimes, and rarely.

In this regard, Independent variables are selected to represent the demographic and socioeconomic characteristics of rural women, and these characteristics are assumed to influence dependent variables such as nutritional knowledge and health practices. This design allows for examining the statistical relationships between participants' characteristics and their dietary behaviors, and identifying the factors most influential in achieving the study objectives.

### **Dependent Variables**

The dependent variables were the level of knowledge regarding the principles of healthy nutrition, which involved indicators such as self-production, healthy nutrition, preservation and storage, food quality and safety, and daily practices related to food consumption. This was measured using a binary method reflecting the presence or absence of knowledge. Dependent variables also involved attitudes toward applying the principles and values of healthy nutrition in daily life, using the same indicators and measurement technique, in addition to issues related to healthy eating, which involved ten statements prepared with a three-point ruler.

However, the relationship between the variables and economic development was ignored because the study focused solely on cognitive and social aspects without including a causal analysis, and because there was insufficient data available to test this relationship.

## Statistical Analyses

The study relied on a set of graphic and methodological statistical approaches, including frequency tables, ratios, averages, and standard errors, in addition to multiple linear regression analysis of the statistical distribution of data (SPSS, 2025). The study data were analyzed using descriptive and inferential statistical approaches to define the sample features and detect variances between the towns of Al-Muwaqqar and Al-Giza. The study instrument was constructed on a five-point Likert scale (McLeod, 2019) to quantify attitudes, information planes, and food performance (A quantitative or descriptive indicator that links knowledge to actual practice), with values ranging from (1) "very low" to (5) "very high." Frequency distributions and ratios were estimated to show demographic and socioeconomic features, in addition to averages and standard deviations, to define the level of each study area. To notice statistically significant variances between the two towns, the independent samples t-test was used to compare averages for measurable variables, and the Chi-Square test was employed to analyze variances in qualitative variables. A statistical significance level ( $\alpha = 0.05$ ) was supposed to magistrate the importance of the outcomes.

Consequently, the effect of economic development on improving rural women's nutritional knowledge is determined using a multiple linear regression model, with the economic development index as the independent variable and nutritional knowledge level as the dependent variable. The model included demographic and socioeconomic variables (age, education, income, marital status, and aspirations).

## Results

### Demographic, Social, and Economic Characteristics of Rural Women

Table 1 presents differences in the demographic, social, and economic characteristics of the respondents in the towns of Al-Muwaqqar and Al-Giza. The majority of participants are concentrated in the middle age group, with a smaller representation of younger age groups. The educational level among the respondents is characterized by a higher prevalence of secondary education, while university education remains limited. The educational level of the head of the household also reflects the limited educational attainment of rural households. The percentage of married women is higher in both towns, especially in Al-Giza, while monthly income shows variations between the two towns, with a discrepancy in the level of household income. The household structure indicates a preference for medium-sized families within the studied rural community.

**Table (1):** Demographic, Social and Economic Distribution of Rural Women

Category	Classification	Al-Muwaqqar Town (Nu.)	Al-Muwaqqar Town (%)	Al-Giza Town (Nu.)	Al-Giza Town (%)
Age of rural women	Under 17 years old	5	7.1	4	5.7
	17–27 years old	22	31.4	5	7.1
	28–38 years old	32	45.7	42	60.0
	39–49 years old	8	11.4	14	20.0
	Over 50 years old	3	4.3	5	7.1
Rural women's educational level	illiterate	12	17.1	10	14.3
	primary	15	21.4	13	18.6
	preparatory	6	8.6	9	12.9
	secondary	30	42.9	36	51.4
	university	7	10.0	2	2.9
Educational level of the head of the household	illiterate	23	32.9	19	27.1
	primary	8	11.4	16	22.9
	preparatory	14	20.0	21	30.0
	secondary	22	31.4	14	20.0
	university	3	4.3	–	–
Rural women's marital	Single	15	21.4	16	22.9
	Divorced	12	17.1	2	2.9
	Widowed	5	7.1	3	4.3

Category	Classification	Al-Muwaqqar Town (Nu.)	Al-Muwaqqar Town (%)	Al-Giza Town (Nu.)	Al-Giza Town (%)
status	Separated	7	10.0	2	2.9
	Married	31	44.4	47	67.0
Family monthly income	Less than 150 dinars	17	24.3	4	5.7
	150-300 dinars	13	18.6	12	17.1
	301-450 dinars	12	17.1	22	31.4
	More than 450 dinars	28	40.0	32	45.7
Number of family members	Less than 3 people	22	31.4	18	25.8
	7-9 people	42	60.0	43	61.4
	3-6 people	4	5.7	9	12.8
	More than 10 people	2	2.9	–	–

### Ambition among Rural Women

Table 2 shows the differences in the levels of ambition among rural women between the towns of Al-Muwaqqar and Al-Giza. Women in Al-Muwaqqar are characterized by greater persistence in striving and assuming responsibilities, while women in Al-Giza demonstrate greater diversity in their responses, with a focus on happiness after achieving goals. These differences reflect the influence of social and cultural factors on ambition, necessitating tailored support for each community.

Moreover, Aspiration among rural women is a key and crucial variable, contributing to the adoption of sound nutritional practices and acting as a mediating factor that explains the influence of economic and educational factors on nutritional knowledge. Including it among the key variables allows for a more accurate interpretation of individual differences and their link to economic development, enhancing understanding of the behavioral mechanisms that support improved nutritional performance.

**Table (2):** Distribution of Rural Women in % by Levels of Ambition

Phrases	Al-Muwaqqar Towns (%)	Mean	Al-Giza Towns (%)	Mean
Overall life satisfaction	57.4	31.3	11.3	2.6
Pursuing dreams despite failure in some situations	64.6	24.2	11.2	2.5
Doing things while helping others	31.0	26.0	43.0	1.9
Taking responsibility when doing something	66.6	31.0	2.4	2.7
Consistent ambition for as long as you live	71.6	14.7	13.7	2.6
Feeling guilty when you fall short in some tasks	54.0	33.0	13.0	2.4
Thinking intensely about planning for your family's future	63.0	24.0	13.0	2.5
Loving stability in life	47.3	21.4	31.4	2.2
Feeling happy after achieving goals	31.0	36.0	33.0	2.0
Feeling angry when wasting time without doing meaningful work	19.0	50.0	31.0	2.1
The ability to accomplish multiple goals and tasks simultaneously	63.0	27.0	10.0	2.6

### Knowledge of Healthy Nutrition Principles among Rural Women

Table 3 shows differences in the level of information on healthy food principles between the two towns. Women in the first town confirmed advanced levels of information in the areas of food homework, fit food, and protection and storage approaches than women in the second town. These variances designate the essential to improve food consciousness, particularly in areas with incomplete information, to contribute to refining food performances and backup sustainable rural growth.

**Table (3):** Distribution of Rural Women in % According to Self-Production, Healthy Nutrition, and Preservation and Storage

Domain	Item	Al-Muwaqqar		Mean	Al-Giza		Mean
		Knows (%)	Does not Know (%)		Knows (%)	Does not Know (%)	
Self-Production	Preparing meals and taking care of family nutrition	74.3	25.7	1.74	45.7	54.3	2.47
	Producing, preserving, and storing food at home or in the refrigerator	62.9	37.1	1.62	45.1	54.9	2.20
	Rationalizing consumption and increasing family income	67.1	32.9	1.67	60.0	40.0	2.24
	Organizing and distributing work hours among family members	68.6	31.4	1.69	42.9	57.1	1.97
	Raising birds and chickens at home to rationalize consumption	72.8	27.2	1.72	51.4	48.6	1.64
	Producing dairy products such as cheese and yogurt at home	70.0	30.0	1.70	52.9	47.1	1.69
	Making jams, pickles, and sauces at home	60.0	40.0	1.60	38.6	61.4	1.67
	Preparing healthy, wholesome, and inexpensive meals	65.7	34.3	1.23	37.1	62.9	1.47
Average				<b>1.62</b>			<b>1.92</b>
Healthy Nutrition	One of the primary functions of food is to satisfy hunger	74.3	25.7	1.74	44.2	55.8	1.44
	Leafy vegetables are a rich source of vitamin K	57.1	42.9	1.57	41.4	58.6	1.41
	Bread, cereals, and grain products are good sources of iron	60.0	40.0	1.56	34.3	65.7	1.34
	Meats of all kinds are a good source of phosphorus	80.0	20.0	1.80	60.0	40.0	1.60
	Breast milk is low in iron	47.1	52.9	1.47	58.6	41.4	1.59
Average				<b>1.63</b>			<b>1.48</b>
Preservation and Storage	Storing meat and vegetables without separating them in the freezer	55.7	44.3	1.56	55.7	44.3	1.56
	Putting leftover food in aluminum containers for storage	72.9	27.1	1.73	37.1	62.9	1.37
	Using black bags for storage	31.4	68.6	1.31	54.3	45.7	1.54
	Storing grains in humid areas	68.6	31.4	1.69	62.9	37.1	1.63
	Neglecting to clean the storage area before adding new stock	78.6	21.4	1.79	60.0	40.0	1.60
	Putting food in the refrigerator for a long period of time	60.0	40.0	1.60	57.1	42.9	1.57
	Washing eggs before placing them in the refrigerator	64.3	35.7	1.64	74.3	25.7	1.74
	Washing and cleaning fruits and vegetables before placing them in the refrigerator	71.4	28.6	1.71	75.7	24.3	1.76
Average				<b>1.63</b>			<b>1.60</b>
	Overall Average						<b>1.69</b>

### Rural Women's Knowledge of Food Quality and Safety Principles

Table 4 shows the variety of rural members' information on nutrition value, with differences in consciousness between the two towns studied. Consciousness was high for some cleanliness performs, such as covering root vegetables while preparing food and avoiding the use of dark

luggage, while consciousness was low for other matters, such as treating meat or fish. These findings reproduce the essential to improving food consciousness and nutrition protection.

**Table (4):** Distribution of Rural Women in % According to Knowledge Principles of Food Quality and Safety

Knowledge	Al-Muwaqqar		Mean	Al-Giza		Mean
	Knows (%)	Does not Know (%)		Knows (%)	Does not Know (%)	
If fish is slightly soft, there is no harm in buying it if it is cooked immediately.	40.0	60.0	1.40	47.1	52.9	1.47
Puffiness in canned food indicates that it is unfit for consumption.	34.3	65.7	1.34	51.4	48.6	1.51
When buying chicken, I prefer to choose one with a full breast structure.	47.1	52.9	1.47	52.8	47.2	1.53
When buying meat, knowing the butcher is more important than knowing where it was slaughtered.	27.1	72.9	1.27	48.5	51.5	1.49
When buying meat, I make sure not to put it in black bags, as they are unhygienic.	55.7	44.3	1.56	35.7	64.3	1.36
I cover vegetables during cooking to preserve their nutritional value.	65.7	34.3	1.66	57.1	42.9	1.57
Buying dirty eggs is acceptable as long as they are washed.	60.0	40.0	1.56	61.4	38.6	1.61
General average			<b>1.50</b>			<b>1.54</b>

#### Rural Women's Knowledge of Daily Eating Practices

Table 5 illustrates the variation in rural respondents' knowledge of daily practices related to eating certain foods. It shows a high awareness of some common eating habits, such as preparing beef with eggs and using Roman cheese or canned juices, while some unhealthy eating practices persist, such as eating too much luncheon meat or encouraging children to eat chips. This indicates the need to enhance nutritional education and guide habits toward healthier and more sustainable patterns.

Moreover, some items in Table 5 may not represent common dietary behaviors among all participants in Al-Giza and Al-Muwaqqar. However, these items remain useful for understanding variation in dietary practices, providing a broader perspective on rural women's dietary knowledge and practices.

In addition, rural women face significant challenges in benefiting from economic development, as available data limits the ability to analyze the causal relationship between economic development and their nutritional knowledge. These demonstrate that demographic and socioeconomic factors such as age, education, income, marital status, and aspirations determine rural women's ability to improve their nutritional knowledge and benefit from productive and livelihood opportunities.

**Table (5):** Distribution of Rural Women in % According to their Knowledge of The Basics of Daily Practices Related to Eating Foods

Knowledge	Al-Muwaqqar		Mean	Al-Giza		Mean
	Knows (%)	Does not Know (%)		Knows (%)	Does not Know (%)	
Makes sure to buy Feta cheese for breakfast and dinner.	31.4	68.6	1.31	52.9	47.1	1.53
considering luncheon meat sandwiches a staple morning meal for children.	74.3	25.7	1.74	58.6	41.4	1.59
Making sure to have bottled juices at home for use at any time.	55.7	44.3	1.56	64.3	35.7	1.64
Buying a lot of Romano cheese to use in	58.5	41.5	1.59	68.6	31.4	1.69

Knowledge	Al-Muwaqqar		Mean	Al-Giza		Mean
	Knows (%)	Does not Know (%)		Knows (%)	Does not Know (%)	
sandwiches.						
Offering children "beef and egg" as a quick and nutritious option.	65.7	34.3	1.66	67.1	32.9	1.67
Using chicken broth in most family meals.	47.1	52.9	1.47	47.1	52.9	1.47
Adding chicken seasoning to the marinade when preparing chicken.	40.0	60.0	1.40	54.3	45.7	1.54
Encouraging children to buy chips frequently to curb their urge to eat.	38.6	61.4	1.39	48.6	51.4	1.49
General Average			<b>1.51</b>			<b>1.58</b>

### Rural Women's Attitudes toward Implementing Knowledge of Healthy Eating

Table 6 highlights the attitudes of rural women in the two towns toward the principles of self-production, healthy nutrition, and preservation and storage, noting differences in the extent of adherence to these practices. The second town shows a higher level of regularity in most areas, particularly in rationalizing consumption and organizing work hours, while some indicators in the first town indicate less regular practices, reflecting the need to enhance awareness and support for improving food and self-production practices in both communities.

**Table (6):** Distribution of Rural Women in % According to the Principles of Self-Production, Healthy Nutrition, and Preservation and Storage

Tendencies	Al-Muwaqqar			Mean	Al-Giza			Mean	
	Always	Sometimes	Rarely		Always	Sometimes	Rarely		
Rural women's orientation toward self-production	Preparing meals and ensuring family nutrition	42.9	31.4	25.7	2.17	44.3	34.3	21.4	2.23
	Producing, preserving, and storing food at home or in the refrigerator	58.6	30.0	11.4	2.47	74.3	17.1	8.6	2.20
	Rationalizing consumption and increasing family income	37.1	45.7	17.2	2.20	62.9	32.8	4.3	3.11
	Organizing and distributing work hours among family members	38.6	47.1	14.3	2.24	67.1	32.9	–	2.77
	Raising birds and chickens at home to rationalize consumption	31.4	34.3	34.3	1.97	68.6	31.4	–	2.91
	Producing dairy products such as cheese and yogurt at home	41.4	37.1	21.5	2.20	72.9	27.1	–	2.90
	Making jams, pickles, and sauces at home	54.3	18.6	17.0	2.13	70.0	17.1	12.9	2.57

Tendencies		Al-Muwaqqar			Mean	Al-Giza			Mean
		Always	Sometimes	Rarely		Always	Sometimes	Rarely	
	preparing healthy, wholesome, and inexpensive meals	58.6	28.6	12.8	2.46	42.9	38.6	18.5	2.22
	<b>Average</b>	–	–	–	<b>2.23</b>	–	–	–	<b>2.61</b>
Rural women's orientation toward the foundations of healthy nutrition	One of the primary functions of food is to satisfy hunger.	32.9	51.4	15.7	1.84	51.4	17.1	31.5	2.20
	Leafy vegetables are a rich source of vitamin K.	38.6	41.4	20.0	2.86	28.6	14.2	57.2	1.71
	Bread, cereals, and their products are good sources of iron.	64.3	18.5	17.2	2.47	18.5	11.4	70.1	1.46
	Meat is a food source of phosphorus.	60.0	20.0	20.0	2.40	30.0	24.3	45.7	1.84
	Breast milk is low in iron.	68.6	21.4	10.0	2.59	18.5	8.9	72.6	1.49
	<b>Average</b>	–	–	–	<b>2.34</b>	–	–	–	<b>1.74</b>
Rural women's approach to preservation and storage	Putting meat and vegetables in the freezer without separating them	55.7	27.1	17.2	2.39	60.0	27.1	12.9	2.47
	Putting leftover food in aluminum containers for storage in the refrigerator	57.1	24.2	18.7	2.39	48.6	21.4	30.0	2.19
	Using black bags for storage	72.9	4.2	22.9	2.50	45.7	30.0	24.3	2.21
	Storing grains in humid places	62.9	30.0	7.1	2.56	31.4	34.3	34.3	1.97
	Neglecting to clean the storage area before adding new stock	67.1	27.1	5.8	2.61	21.4	38.6	40.0	1.81
	Putting food in the refrigerator for extended periods	72.9	18.5	8.6	2.64	17.1	45.7	37.2	1.79

Tendencies		Al-Muwaqqar			Mean	Al-Giza			Mean
		Always	Sometimes	Rarely		Always	Sometimes	Rarely	
	Washing eggs before placing them in the refrigerator	45.7	30.0	24.3	2.21	57.1	21.4	21.5	2.36
	Washing and cleaning fruits and vegetables before placing them in the refrigerator	70.0	18.5	11.5	2.59	60.0	12.8	27.2	2.33
	Average	–	–	–	<b>2.49</b>	–	–	–	<b>2.14</b>
General Average		–	–	–	<b>2.38</b>	–	–	–	<b>2.23</b>

### Rural Women's Varying Commitment to Food Quality and Safety Principles

Table 7 displays rural women's outlooks toward nutrition value and protection in the two towns (Al-Muwaqqar and Al-Giza). Al-Giza town shows an advanced guarantee to numerous performs, such as providing care to protruding in tinned nutrition and selecting chicken with a full breast. In contrast, Al-Muwaqqar town tends to receive the buying of dirty eggs and depends on washing them, showing a difference in consciousness and application between the two towns. This difference highlights the necessity to support consciousness plans to confirm the actual application of nutrition security performs in rural societies.

**Table (7):** Distribution of Rural Women in % According to Implementation of Food Quality and Safety Principles

Responses	Al-Muwaqqar			Mean	Al-Giza			Mean
	Always	Sometimes	Rarely		Always	Sometimes	Rarely	
If the fish is a little soft, there is no harm in buying it if you cook it right away.	58.6	30.0	11.4	2.47	62.9	30.0	7.1	2.56
Puffiness in canned food indicates that it is unusable.	37.1	45.7	17.2	2.20	67.1	27.1	5.8	2.61
When buying chicken, I prefer a full breast structure.	38.6	47.1	14.3	2.84	72.9	18.6	8.5	2.64
When buying meat, I care more about knowing the butcher than the place of slaughter.	31.4	34.3	34.3	1.97	45.7	30.0	24.3	2.21
Stress that orders should not be placed in black bags, as this is unsanitary.	41.4	37.1	21.5	2.08	37.1	45.7	17.2	2.20
Cover vegetables when cooking them to preserve their nutritional value.	45.7	30.0	24.3	2.21	38.6	47.1	14.3	2.24
Buying dirty eggs is fine, as long as they are washed.	70.0	18.6	11.4	2.59	31.4	34.3	34.3	1.97
General average				<b>2.34</b>				<b>2.35</b>

### Variation in Rural Women's Daily Eating Practices

Table 8 demonstrates nutritional variances between the towns of Al-Muwaqqar and Al-Giza. Al-Muwaqqar has a tendency to have more steady nutritional patterns, with the consumption of Feta and Romano cheese, and beef with eggs, while Al-Giza encourages children to purchase

potato chips and use chicken excitement, sparking the effect of national and communal issues and the need for devoted food education plans.

**Table (8):** Distribution of Rural Women in % According to Daily Eating Practices

Responses	Al-Muwaqqar			Mean	Al-Giza			Mean
	Always	Sometimes	Rarely		Always	Sometimes	Rarely	
I buy feta cheese for breakfast and dinner.	52.9	30.0	17.1	2.36	30.0	35.7	34.3	1.96
Lunch sandwiches are a staple every morning for my children.	48.6	27.1	24.3	2.39	37.1	41.4	21.5	2.16
Bottled juices are always available at home.	35.7	18.6	45.7	1.90	42.9	28.6	28.5	2.14
I buy a lot of Romano cheese for sandwiches.	57.1	30.0	12.9	2.44	48.6	30.0	21.4	2.27
I make beef and eggs for my children as a quick and nutritious meal.	61.4	31.4	7.2	2.54	38.6	47.1	14.3	2.24
I use chicken broth in most of the meals I prepare for my family.	25.7	47.1	27.2	1.99	34.3	40.0	25.7	2.09
I add chicken spices to the marinade when preparing chicken.	48.6	34.3	17.1	2.31	44.3	47.1	8.6	2.36
I encourage my children to buy chips regularly to avoid annoying them.	37.2	40.0	22.8	2.14	55.7	27.1	17.2	2.39
Overall average				<b>2.23</b>				<b>2.13</b>

### Obstacles to Implementing Proper Nutrition in Rural Towns

Table 9 displays that the towns of Al-Muwaqqar and Al-Giza face numerous challenges that delay the application of the fit food. Among these challenges are the large size of the household, the multitude of day-to-day tasks, the increase in product values, and the occurrence of illiteracy among rural women. The severity of these problems differs between the two towns due to their differing economic and social circumstances. Therefore, it is important to develop plans to support income generation, provide educational opportunities, and organize awareness programs that help women enhance food security in the community.

**Table (9):** Distribution of Rural Women in % According to Some of Obstacles Facing The Implementation of Proper Nutrition Principles

Obstacles	Al-Muwaqqar			Mean	Al-Giza			Mean
	Always	Sometimes	Rarely		Always	Sometimes	Rarely	
Increasing family size and daily responsibilities	45.7	27.1	27.2	2.19	34.3	21.4	44.3	1.90
Insufficient rural household income	47.1	48.6	4.3	2.43	25.7	17.2	57.1	1.69
Lack of attention to the role of women in general by responsible authorities	34.3	45.7	20.0	2.14	51.4	20.0	28.6	2.23
Lack of programs explaining proper nutrition	37.1	31.4	28.5	2.03	32.9	38.6	28.5	2.04
Lack of discussions and lectures for rural women explaining the	30.0	31.4	38.6	1.91	31.4	50.0	18.6	2.13

Obstacles	Al-Muwaqqar			Mean	Al-Giza			Mean
	Always	Sometimes	Rarely		Always	Sometimes	Rarely	
basics of nutrition								
Adapting to daily life without thinking	37.1	17.1	45.8	1.91	27.1	34.3	38.6	1.89
The exorbitant rise in commodity prices	31.4	57.1	11.5	2.20	30.0	35.7	34.3	1.96
Absence and high cost of raw materials needed in manufacturing	27.1	60.0	12.9	2.14	41.4	44.3	14.3	2.14
Insufficient job opportunities for rural residents	24.3	45.7	30.0	1.94	54.3	17.1	28.6	2.26
Impact of illiteracy of rural women on understanding the basics	47.1	31.4	21.5	2.26	65.7	18.6	18.7	2.53
General average				<b>2.16</b>				<b>2.09</b>

### The Impact of Personal and Social Characteristics on Rural Women's Knowledge of Healthy Nutrition

Table 10 shows that education is the most influential factor in enhancing rural women's knowledge about healthy nutrition, while age hinders this knowledge. The educational status of the head of the household also positively affects knowledge and attitudes. Rural women's ambition, however, has a strong negative impact on their attitudes toward healthy nutrition. Furthermore, personal and social variables do not appear to have a significant impact on the barriers faced by rural women, suggesting that these barriers may be related to factors beyond personal and social characteristics.

**Table (10):** The Impact of Personal and Social Characteristics of Rural Women on Knowledge and Attitudes, and the Barriers to the Foundations of Healthy Nutrition

Characteristics of Rural Women	Effect on Knowledge ( $\beta$ )	Significance	Order of Knowledge	Effect on Attitudes ( $\beta$ )	Significance	Order of Attitudes	Effect on Obstacles ( $\beta$ )	Significance
Educational Status	0.349	**	1	0.111	NS	—	-0.031	NS
Age	-0.346	**	2	0.080	NS	—	0.143	NS
Educational Status of Head of Household	0.154	*	3	-0.201	*	2	-0.223	NS
Marital Status	-0.022	NS	—	0.146	*	3	0.021	NS
Monthly Income	NS	—	—	NS	—	—	NS	—
Number of Family Members	NS	—	—	NS	—	—	NS	—
Ambition	0.067	NS	—	-0.269	**	1	-0.077	NS

( $\beta$ ) = Standardized partial regression coefficient; \*\* Significant at 0.01 level; \* Significant at 0.05 level; "not significant" indicates no significant significance. The order indicates the strength of influence within each dimension (knowledge, attitudes, and obstacles).

Although the variation between the samples remains minimal, it is important in highlighting the demographic and social differences between the two towns, which may influence policy direction to suit the specific characteristics of each community.

### Discussion

Table 1 shows clear differences in the demographic, social, and economic characteristics of rural women in the towns of Al-Muwaqqar and Al-Giza. The majority are concentrated in the

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middle age group of 28–38 years, representing 45.7% in Al-Muwaqqar and 60% in Al-Giza. Secondary education is common, with 42.9% and 51.4% having completed secondary education, respectively and limited university education (10% in Al-Muwaqqar and 2.8% in Al-Giza). There are also disparities in the educational level of household heads, with illiteracy rates reaching 32.9% in Al-Muwaqqar and 27.1% in Al-Giza. Marital status is predominantly married, with 44.4% and 67%, respectively. Monthly income varies between the two towns, with medium-sized households (3–6 members) accounting for 60% and 61.4% of the total. Consequently, these characteristics reflect challenges and opportunities that influence rural women's empowerment and the development of their communities, particularly in the areas of education, income, and social role, which corresponds the findings of Gupta et al., (2024).

Building on this, table 2 demonstrates strong variances in the stages of decision-making between women in the towns of Al-Muwaqqar and Al-Giza. Women in Al-Muwaqqar are considered tenacious, get-up-and-go, and have a greater sense to accept responsibility and follow imaginings in spite of disappointment, with 71.6% reporting insistent get-up-and-go and 66.6% reporting winning accountability, compared to much lower rates in Al-Giza (13.7% and 2.4%, respectively). In contrast, women in Al-Giza demonstrate a greater emphasis on pleasure after attaining goals (33%) and a desire for constancy in lifetime (31.4%), sparkly the effect of changed communal and social issues on the idea of drive and conduct in each community. Therefore, these differences indicate the need to provide tailored support that takes into account local specificities to enhance the empowerment of rural women. This was agreeable with the findings of Lwamba et al., (2022).

In addition, table 3 displays a strong difference in the level of information of fit food values between women in the two towns, Al-Muwaqqar and Al-Giza. Women in Al-Muwaqqar were more aware of food homework, normal feeding, and home-made food products, as well as ideas of healthy food values, such as the meaning of meat and vegetables, compared to women in Al-Giza. Though information levels concerning protection and storage values were alike between the two towns, the general average information was in favor of Al-Giza (1.63 versus 1.69). As a result, these outcomes return the significance of supporting food awareness programs in areas with less information to recover nutritious performance and care for rural sustainability (Mangwane et al., 2023).

Similarly, table 4 specifies an inconsistency in rural ladies' level of information on food security and values principles between the towns of Al-Muwaqqar and Al-Giza. Al-Muwaqqar showed a relatively high level of knowledge of some practices, such as covering vegetables while cooking (65.7%) and avoiding the use of black plastic bags (55.7%), while awareness of these practices was lower in Al-Giza, particularly regarding the use of black bags (35.7%). However, clear gaps in knowledge related to meat and fish processing were found in both towns, including weak awareness of the importance of knowing the source of meat from the butcher before purchasing (27.1% in Al-Muwaqqar). The two towns also showed similar averages in overall knowledge (1.50 versus 1.54), thus, these findings reflect the need to implement specialized educational programs aimed at promoting food safety and hygiene practices, which would contribute to improving public health in rural environments (Sobhan et al., 2022).

Moreover, table 5 shows the disparity in rural women's knowledge of daily nutritional practices between the two towns (Al-Muwaqqar and Al-Giza). There is a good awareness of some customs, such as preparing beef and eggs (65.7% and 67.1%) and using Romano cheese (58.5% and 68.6%), in addition to the prevalence of bottled juices in homes. In contrast, some unhealthy practices persist, such as relying on lunch sandwiches as a staple meal for children (74.3% in Al-Muwaqqar and 58.6% in Al-Giza) and encouraging children to constantly eat potato chips. This reflects the need to enhance nutritional education to guide habits toward a healthier and more sustainable lifestyle (Kyomuhendo & Adeola, 2021).

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Moreover, table 6 indicates a marked contrast in rural women's attitudes toward applying knowledge related to healthy food, self-production, preservation, and storage between the towns of Al-Muwaqqar and Al-Giza. Al-Giza recorded higher levels of regularity in most self-production items, particularly in rationalizing consumption (mean 3.11 versus 2.20 in Al-Muwaqqar), organizing work hours (2.77 versus 2.24), and raising poultry (2.91 versus 1.97). In contrast, Al-Muwaqqar outperformed only in the item of preparing healthy and inexpensive meals. Regarding the foundations of healthy nutrition, the results showed a relative weakness in Al-Giza compared to Al-Muwaqqar in knowledge of some nutritional facts, such as the role of bread and grains as a source of iron or the iron content of breast milk, reflecting a knowledge gap despite the regularity of other practices. Regarding preservation and storage principles, the overall average was close between the two towns (2.23 in Al-Giza and 2.38 in Al-Muwaqqar), with Al-Giza outperforming in adherence to proper practices such as washing eggs and cleaning fruits and vegetables. Al-Muwaqqar, however, was characterized by the prevalence of some unhealthy practices, such as the excessive use of black bags or storing food for long periods in the refrigerator. Overall, Al-Giza appears more committed to productive and organizational activities, while Al-Muwaqqar maintains some unhealthy habits despite having a better level of knowledge of nutrition principles (Seguin et al., 2013; Dabhade, 2025).

In addition, table 7 illustrates differences in rural women's commitment to nutrition and food security principles across the two towns (Muwaqqar and Giza). The second town shows a higher commitment to several health practices, particularly their attention to canned foods, which are highlighted as a sign of unacceptability (mean 2.61 vs. 2.20 in Al-Muwaqqar), and their preference for buying chicken with a full breast (2.64 vs. 2.84). Furthermore, there is a moderate level of health concern regarding the source of meat when purchasing (2.21 vs. 1.97). In contrast, Al-Muwaqqar tends to accept buying dirty eggs and rely on washing them before eating (2.59 vs. 1.97 in Giza), indicating differences in awareness and implementation between the two towns. Mean commitment is also similar for some other items, such as avoiding dark bags and covering vegetables during cooking. This difference suggests that the gap in nutritional performance may be attributed to differences in awareness of multiple health practices and community issues, calling for increased awareness programs to emphasize improved food value and safety standards in rural communities (Milovanova et al., 2024).

Subsequently, table 8 displays important differences in day-to-day nutritional performance between the two towns (Al-Muwaqqar and Al-Giza). Al-Muwaqqar is disposed to have more systematic eating behaviors for some foods, such as Feta cheese (mean 2.36 vs. 1.96 in Al-Giza), Romano cheese (2.44 vs. 2.27), and making beef with eggs (2.54 vs. 2.24), showing a tendency toward exact nutritional selections. In contrast, Al-Giza shows higher rates for some other nutritional ways, such as encouraging children to purchase potato chips (2.39 vs. 2.14 in Al-Muwaqqar) and using chicken interest (2.36 vs. 2.31). Average use of chicken soup and canned soup is similar between the two towns, with small variances in usage rates, with Al-Giza preferring. This variety in food eating shapes designates the clear effect of social and social issues in shaping day-to-day ways, which calls for a plan of best food consciousness programmes that take into account the specificities of each rural social and goal to encourage healthy performances and decrease bad eating behaviors (Brouwer, et al. 2021; Milovanova et al., 2024).

Furthermore, table 9 displays that Al-Muwaqqar and Al-Giza face numerous problems that boundary the application of fit food in rural societies. These problems hold big household sizes and high day-to-day loads, with Al-Muwaqqar footage having a higher average than Al-Giza (2.19 versus 1.90), in addition to inferior revenue levels (2.43 versus 1.69) and higher goods values (2.20 versus 1.96). Illiteracy among some rural females also signifies a problem with attention to the principles of fit food, with the illiteracy rate being higher in Al-Giza (2.53) than in Al-Muwaqqar (2.26). In addition, shareholders have incomplete attention in the role of

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women (2.23 versus 2.14) and a lack of targeted consciousness programs. This difference in the sternness of problems between the two towns reproduces their diverse financial and social conditions, calling for some policies to increase income, expand educational chances, and increase consciousness to enable rural women and improve nutrition safety (Sarker et al., 2024). In addition, table (10) shows that the educational status of rural women represents the most influential factor in enhancing rural women's knowledge about healthy nutrition ( $\beta=0.349$ ,  $p<0.01$ ), followed by the educational status of the head of the household ( $p<0.05$ ,  $\beta=0.154$ ), while age shows a significant negative effect on this knowledge ( $\beta=-0.346$ ,  $p<0.01$ ). Regarding trends, rural women's ambition leads to the strongly negative effects ( $\beta=-0.269$ ,  $p<0.01$ ), followed by the negative effect of the head of the household's educational status ( $\beta=-0.201$ ,  $p<0.05$ ), while the marital status of the respondents records a moderate positive effect ( $\beta=0.146$ ,  $p<0.05$ ). As for obstacles, none of the personal or social characteristics shows statistical significance, indicating that these obstacles may be related to factors outside the framework of the personal and social variables studied. These results confirm the importance of raising educational levels as a basic approach to improving rural women's knowledge of healthy nutrition, along with the need to address other factors influencing their attitudes to ensure the adoption of sound and sustainable nutritional practices (Priya & Singh, 2022; Mgomozulu et al., 2023).

Moreover, the results highlight that rural women face challenges within the national economic environment, most notably high unemployment and poverty rates, and disparities in development opportunities between urban and rural areas. These factors limit the ability of economic programs to effectively reach rural women and improve their productive and living conditions.

Consequently, in the context of policies to improve nutritional knowledge, it is clear that rural women are affected by the reality of economic development, as weak funding and a lack of specialized training programs hinder the sustainable impact of these policies. Therefore, it is recommended to integrate nutritional knowledge-raising programs for rural women into national economic development plans, with targeted interventions designed to address their local needs and demographic and social characteristics to ensure their effective empowerment and enhance their productive and livelihood role.

### **Conclusions**

The results indicate clear differences in demographics, education, economics, and attitudes between women in the two towns studied (Al-Muwaqqar and Al-Giza). Al-Muwaqqar demonstrated a higher level of sustained ambition and responsibility, while Al-Giza women focused on settling after achieving goals. Disparities also emerged in nutritional and health knowledge, with Al-Muwaqqar outperforming Al-Giza in basic nutrition knowledge, while the latter demonstrated a greater commitment to productive and organizational practices, as well as food quality and safety practices. Yet, some unhealthy behaviors continued in both towns. The instructive rank of women and the head of family were found to be the greatest important issues absolutely influencing food information, while age and ambition had negative effects on attitudes. Nutritional barriers were not meaningfully related to individual or community features. This highlights the essential role of complex interventions that focus on raising levels of information, establishing nutritional awareness plans, and designing some policies that take into account the societal specificities of each rural community to ensure enhanced food safety and empower rural women.

Building on this, the findings indicate that economic development challenges in Jordan, such as regional disparities in opportunity, directly impact the ability of development programs to reach rural women and improve their productive and living conditions. Furthermore, policies to improve rural women's nutritional knowledge cannot be separated from these economic challenges; weak funding and a lack of training programs limit their sustainable impact.

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Therefore, it is clear that integrating nutritional knowledge-raising policies into comprehensive economic development plans, along with designing interventions that take local and demographic characteristics into account, is an essential step toward enhancing rural women's empowerment and achieving a development impact.

Taken together, the findings suggest that improving nutritional knowledge and empowering rural women cannot be achieved through uniform policies, but rather require targeted interventions and policies that take into account the educational and social characteristics of each local community to ensure the effectiveness and sustainability of programs and enhance food safety.

## References

- Abo Znemah, S., Tarawneh R., Shnaigat S., Al-Najjar K. (2023). Estimating Some Indicators of Food Security for Rural Households. *Asian Journal of Agriculture and Food Sciences*. Vol. 11, Issue 1. <https://doi.org/10.24203/ajafs.v11i2.7171>
- Abu harb, S., Tarawneh R.A., Abu Hantash K.L.A., Altarawneh M., and Al-Najjar K. (2024). Empowering Rural Youth through Sustainable Innovation, Entrepreneurship, and Peer Learning In Agriculture. Vol: 61, Issue 11. *Hunan Daxue Xuebao/Journal of Hunan University Natural Sciences*. <https://doi.org/10.5281/zenodo.14058869>
- Abuhammour, R. A. (2024). Identifying socio-cognitive beliefs of eating in moderation in adults in the UK and Jordan (Doctoral dissertation, Brunel University London). <http://bura.brunel.ac.uk/handle/2438/31052>
- Al-Mithqal, H.A.H.H., Khashroum A.O., Al-Najjar K. (2024). Using Fishpond Water To Enhance Soil Fertility And Reduce Climate Change Impacts. Vol: 67, Issue 10, *Xi'an Shiyou Daxue Xuebao (Ziran Kexue Ban)/Journal of Xi'an Shiyou University, Natural Sciences Edition*. <https://doi.org/10.5281/zenodo.13969898>
- Alzubaidi, Fatema ali Kareem. (2021). Role of women in sustainable development in Jordan: The post development agenda. *J. Legal Ethical & Regul. Isses*, 24, 1. <https://heinonline.org/HOL/LandingPage?handle=hein.journals/jnlolletl24&div=369&id=&page=>
- Ayasrah, A.I.I., Shnaigat S.F., Obeidat H.M., Al-Najjar K.A. (2025). Demographic, Health, And Socioeconomic Determinants of Food Insecurity and its Association with Osteoporosis. *Journal of Tianjin University Science and Technology*. Vol: 58 Issue: 03. <https://doi.org/10.5281/zenodo.15123550>
- Brouwer, I.D., van Liere, M.J., de Brauw, A. et al. (2021). Reverse thinking: taking a healthy diet perspective towards food systems transformations. *Food Sec.* 13, 1497–1523. <https://doi.org/10.1007/s12571-021-01204-5>
- Cook, B. (2020). The Problem with Empowerment: Social Reproduction and Women's Food Projects in Jordan. *Annals of the American Association of Geographers*, 111(1), 52–67. <https://doi.org/10.1080/24694452.2020.1747971>
- Dabhade, V. A. (2025). The Importance of a Balanced Diet for Working Women: Enhancing Health, Productivity, And Well-Being. *Journal of East-West Thought (JET) ISSN (O): 2168-2259 UGC CARE I*, 15(1), 491-494. DOI: <https://doi.org/10.7492/7sn2fr55>
- Ghanayem, A. A., Mohd Nor, R., & A Al-Assaf, A. (2025). Formulating Strategies for Improving Food Security among Smallholder Farmers in The Middle Jordan Valley (Ghawr). *Research on World Agricultural Economy*, 6(3), 706–725. <https://doi.org/10.36956/rwae.v6i3.1950>
- Gupta, S., Wei, M., Tzempelikos, N., & Shin, M. M. (2024). Women empowerment: challenges and opportunities for sustainable development goals. *Qualitative Market Research: An International Journal*, 27(4), 608-630. <https://doi.org/10.1108/QMR-11-2023-0160>

- 
- Jamal, N., Ayoub, J., Barham, R., Sarhan, W., Abughoush, M., & Olaimat, A. (2021). Review of the Nutrition Situation in Jordan: Trends and Way Forward. *Nutrients*, 14(1), 135. <https://doi.org/10.3390/nu14010135>
- Kyomuhendo, C., & Adeola, R. (2021). Green and grey: Nutritional lifestyle and healthful ageing in rural and urban areas of three sub-Saharan African countries. *Business Strategy & Development*, 4(1), 22-33. <https://doi.org/10.1002/bsd2.153>
- Lwamba, E., Shisler, S., Ridlehoover, W., Kupfer, M., Tshabalala, N., Nduku, P., Langer, L., Grant, S., Sonnenfeld, A., Anda, D., Evers, J., & Snilstveit, B. (2022). Strengthening women's empowerment and gender equality in fragile contexts towards peaceful and inclusive societies: A systematic review and meta-analysis. *Campbell Systematic Reviews*, 18(1), e1214. <https://doi.org/10.1002/cl2.1214>
- Mangwane, Q. E., Egal, A., & Oosthuizen, D. (2023). Impact of a Nutrition Knowledge Intervention on Knowledge and Food Behaviour of Women within a Rural Community. *Nutrients*, 16(23), 4107. <https://doi.org/10.3390/nu16234107>
- McLeod, S. A. (2019). Likert scale. *Simply Psychology*. Retrieved from <https://www.simplypsychology.org/likert-scale.html>
- Mgomezulu, W. R., Edriss, A., Machira, K., & Pangapanga-Phiri, I. (2023). Towards sustainability in the adoption of sustainable agricultural practices: Implications on household poverty, food and nutrition security. *Innovation and Green Development*, 2(3), 100054. <https://doi.org/10.1016/j.igd.2023.100054>
- Milovanova, N., Chukwugozie, D. C., David, K., Okonji, B. A., Njoagwuani, E. I., Onwukaeme, I. M., Nnaji, N. D., Onyeaka, H., & Tamasiga, P. (2024). Understanding food safety challenges through a gender and social lens in low- and middle-income countries. *JSFA Reports*, 4(7), 280-285. <https://doi.org/10.1002/jsf2.211>
- Mohammad Rababa, P., & Ayat Alshaman, M. (2021). Health Promoting Behaviors, Health Needs and Associated Factors among Older Adults in Jordan: A Cross-Sectional Study. *International Journal of Community Based Nursing and Midwifery*, 9(2), 106. <https://doi.org/10.30476/ijcbnm.2020.87493.1443>
- Priya, & Singh, S. P. (2022). Factors Influencing the Adoption of Sustainable Agricultural Practices: A Systematic Literature Review and Lesson Learned for India. *Forum for Social Economics*, 53(1), 1–17. <https://doi.org/10.1080/07360932.2022.2057566>
- Qtaishat, T., El-Habbab, M.S., Bumblauskas, D.P. et al. (2023). The impact of drought on food security and sustainability in Jordan. *GeoJournal* 88, 1389–1400 <https://doi.org/10.1007/s10708-022-10702-8>
- Rana, Al Junidi. (2024). Economic Sustainability and Women's Economic Participation in Jordan: A Critical Analysis *Journal of Management Research* XVI(1), 68-72 <https://cimr.in/faculty-research.html#research-Journals>
- Refai, D., Elkafrawi, N., & Gittins, P. (2024). Creating a sustainable ripple in rural entrepreneurship—the case of Deserdtulip in resource-constrained rural Jordan. *International Journal of Entrepreneurial Behavior & Research*, 30(1), 180-199. <https://doi.org/10.1108/IJEBR-02-2023-0168>
- Sarker, T., Roy, R., Yeasmin, S., & Asaduzzaman, M. (2024). Enhancing women's empowerment as an effective strategy to improve food security in rural Bangladesh: A pathway to achieving SDG-2. *Frontiers in Sustainable Food Systems*, 8, 1436949. <https://doi.org/10.3389/fsufs.2024.1436949>
- Seguin, R., Connor, L., Nelson, M., LaCroix, A., & Eldridge, G. (2013). Understanding Barriers and Facilitators to Healthy Eating and Active Living in Rural Communities. *Journal of Nutrition and Metabolism*, 2014(1), 146502. <https://doi.org/10.1155/2014/146502>

- Sobhan, S., Müller-Hauser, A.A., Huda, T.M.N. et al. (2022). Design, delivery, and determinants of uptake: findings from a food hygiene behavior change intervention in rural Bangladesh. *BMC Public Health* 22, 887. <https://doi.org/10.1186/s12889-022-13124-w>
- SPSS (2025). IBM Statistics for Windows, Version 21.0. Armonk, NY: IBM Corp. IBM Corp. <https://www.ibm.com/support/pages/downloading-ibm-spss-statistics-25>
- Tarawneh, R.A., Tarawneh, M.S., and Al-Najjar K. (2022). Agricultural Policies among Advisory and Cooperative Indicators in Jordan. *International Journal of Research - GRANTHAALAYAH*, 10 (2), 10–17. <https://doi.org/10.29121/granthaalayah.v10.i2.2022.4489>
- Tarawneh, R.A. and Al-Najjar K. (2023). Assessing the Impacts of Agricultural Loans on Agricultural Sustainability in Jordan. *IOSR Journal of Economics and Finance (IOSR-JEF)*. Vol. 14, Issue 6 Ser. PP 49-56. <https://doi.org/10.9790/5933-1406014956>
- Thorne, A. (2020). The potential for skills development programmes to empower poverty-affected and refugee women in rural Jordan. *Journal of Vocational Education & Training*, 73(4), 526–542. <https://doi.org/10.1080/13636820.2020.1744691>

## بعض السياسات المقترحة لتحسين المعرفة الغذائية للمرأة الريفية لمواجهة تحديات التنمية الاقتصادية في الأردن: دراسة حالة مدينتي الجيزة والموقر

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## الملخص

تهدف هذه الدراسة إلى اقتراح سياسات هادفة لتعزيز المعرفة الغذائية للمرأة الريفية، وتمكينها من مواجهة تحديات التنمية الاقتصادية في الأردن. ويتحقق ذلك من خلال تحليل العوامل الشخصية والاجتماعية والمهنية المؤثرة على معارف المرأة الريفية ومواقفها ومعوقات المعرفة الغذائية في مدينتي الجيزة والموقر. وسيسهم ذلك في صياغة سياسات تدعم دورها وتخفف من التحديات الاقتصادية التي تواجهها.

أولاً، تشير النتائج إلى أن المشاركات يتصفن بمتوسط أعمار وتحصيل تعليمي ثانوي، ومحدودية تعليمهن الجامعي، وتفاوت دخلهن، وبنية أسرهن. وتتضح الفروق في الطموح بين النساء، حيث تتميز نساء مدينة الموقر بعزيمة أكبر، بينما تميل نساء الجيزة إلى السعي لتحقيق أهدافهن. وتتفوق نساء مدينة الموقر في معرفتهن بمبادئ التغذية الصحية، بينما تحتاج نساء مدينة الجيزة إلى تعزيز وعيهن الغذائي.

علاوة على ذلك، يختلف الوعي بجودة الغذاء وممارسات السلامة بين نساء المدينتين، لا سيما في الأداء الغذائي اليومي والأنماط الغذائية. وكان الالتزام بالعادات الصحية أعلى في مدينة الموقر منه في مدينة الجيزة، مما يُبرز الحاجة إلى برامج

التثقيف الغذائي. كما تشير النتائج إلى أن التعليم يُعزز معرفة المرأة الريفية وسلوكياتها تجاه التغذية الصحية، بينما يُؤثر العمر والطموح سلباً. وترتبط العوائق الغذائية بعوامل تتجاوز الخصائص الاجتماعية.

علاوة على ذلك، تعكس التفاوتات الديموغرافية والتعليمية والاقتصادية بين النساء الريفيات في مدينتي الموقر والجيزة مزيجا من التحديات والفرص التي تؤثر على تمكينهن ودورهن في التنمية الاقتصادية. وهذا يُبرز الحاجة إلى سياسات متكاملة تُعزز التثقيف الغذائي المستمر، وتدعم عادات الأكل الصحية والإنتاج الغذائي المنزلي، وتُصمم برامج تدريبية تراعي العوامل العمرية والاجتماعية.

تُعالج بعض هذه السياسات دعم الدخل والتعليم، والسلوكيات غير الصحية، والعوائق الاجتماعية، مما يُساهم في تعزيز التمكين الغذائي والاقتصادي للمرأة الريفية. لذلك، تُوصي نتائج البحث بتعزيز برامج التوعية الغذائية، ومعالجة السلوكيات غير الصحية، ودعم المرأة الريفية في الإنتاج المنزلي، وتصميم برامج التثقيف الغذائي، ومعالجة العوائق الغذائية المتعلقة بالعوامل الاجتماعية والاقتصادية.

**الكلمات المفتاحية:** التوعية الغذائية، تمكين المرأة، التنمية الريفية، الممارسات الغذائية، التثقيف الصحي