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Constraints to Rural Women's Participation in Extension Activities in Tikrit District, Salah al-Din Governorate

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Abstract: The research aimed to identify the obstacles to rural women's participation in extension activities in Tikrit District, Salah al-Din Governorate, in general, and to determine the correlation between these obstacles and independent variables such as (age, education level, household size, household income, and type of agricultural activity). The study population included all rural women in Tikrit District who held agricultural contracts and worked in them, as recorded by the Tikrit Agricultural Directorate, totaling (451) women. After excluding the exploratory sample of (30) respondents from the total population, the study population became (421). A simple random sample was selected with a percentage of (27%) of the respondents, resulting in a total of (114) respondents who participated in the study. A questionnaire consisting of two sections was developed: the first section covered the independent variables of rural women, while the second section addressed three areas: (obstacles specific to rural women, obstacles related to agricultural extension, and social obstacles). It contained (42) statements, each representing an obstacle faced by rural women in participating in extension activities, distributed across the research areas as follows: (16, 13, and 13 statements, respectively).

The result indicated that the level of obstacles encountered by rural women in the study area was high, leaning towards the average. Additionally, the results demonstrated a significant correlation between rural women's participation in extension activities and most of the factors examined. This underscores the numerous challenges they face across all studied domains and emphasizes the importance of these factors in influencing rural women's involvement in extension activities. The researchers recommend developing solutions to address the obstacles faced by rural women and focusing on the factors with a significant correlation to their participation. This can be achieved through awareness campaigns in rural communities to highlight the role of women in society.

Keywords: *Obstacles, Rural Women, Extension Activities*

INTRODUCTION:

The agricultural sector is a fundamental component of economic and social development in both developing and developed nations. It serves as a primary source of food, employs a significant workforce, supplies raw materials and inputs for various industries, and generates financial resources through product revenues (Lazar, 2015: 2). The agricultural sector serves as the primary catalyst for other economic sectors, necessitating researchers and laborers to implement various modern methodologies and protocols to attain sustainable agricultural development and address the challenges that impede progress. All rural entities and organizations endeavor to enhance their quality (Abdul Halim, 2022: 3).

A substantial transformation of the country's production foundation is implausible if agriculture is disregarded and seen as a secondary industry. The agricultural sector can further development by establishing connections with other sectors and fostering interrelations between agriculture and various service activities. This constitutes a crucial aspect of integrated agricultural growth, reliant on two fundamental components: the physical element and the human element. The material component includes the various technical and scientific aspects derived from research findings across all fields relevant to agricultural production. In contrast, the human element acts as the driving force that employs the material

element in its different forms to promote agricultural development (Al-Ajili, 2013: 1). Agriculture engages over one billion individuals and generates around 70% of global food supply (2021 FAO), serving as the primary driver of economic development and sustenance for populations in numerous low- and middle-income nations (USAID, 2022).

Rural women play a vital role in ensuring food security at both the family and community levels, participating alongside men in activities such as field crop cultivation, animal husbandry, and all farm-related tasks (Augustin, 2012). Their responsibilities are extensive across various domains, as they often manage multi-generational households and seek to generate income from multiple sources. These include daily household chores, crop cultivation, livestock rearing, paid labor in agriculture or other rural industries, and entrepreneurship (FAO, 2011). Despite their crucial contributions to development and improving living standards, rural women's efforts often remain unrecognized due to social barriers and gender biases (Singh & Daipuria, 2015). Many resources and services—such as land, labor, education, extension services, livestock, information, financial services, and technology—exhibit gender gaps, further hindering their full participation and empowerment.

Women are also underrepresented in local organizations and village administrative structures, which restricts their opportunities to influence decision-making processes related to agricultural development. Generally, their primary roles are confined to caring for their children and preparing food for the family (Cohen, 2020). The role of women has undergone major transformations across the world. Throughout history, women have gone through different stages of development that have shaped their place in society. From initial restrictive and oppressive conditions to the current state of empowerment and equality, the issue of women and their role in society has been the subject of many discussions, and issues have been evident in several areas, including women's political and legal rights, education and training, including vocational education as an individual and member of the family and society. The first stage of women's development dates back to ancient times, when they were confined to the domestic sphere and were expected to fulfil traditional roles. During this period, women were seen as housewives, responsible for managing the family and raising children and had limited access to education, political participation and economic opportunities, making them completely dependent on males. The patriarchal society reinforced stereotypical images of family life, restricting women's autonomy and ability to act (Toirovna, 2024: 181-182).

Globally, women encounter enduring structural barriers that inhibit their complete enjoyment of human rights and obstruct their endeavors to enhance their own lives and those of others, including inadequate healthcare and education. Women are often excluded or underrepresented in social organizations, primarily due to restrictions that impede their membership, resulting in ineffective or minimal engagement of rural women in these entities. Kaaria et al. (2016:148) (Rehan, 2018, p. 1). There are economic constraints, including poverty and lack of savings. Women in rural areas are among the most vulnerable to poverty, and this is helped by a number of social and economic reasons, as women work in the family fields without pay, and women's ownership of land or money is often low. Rural women also suffer from the difficulty of lending, the lack of their own income and the lack of savings, despite the fact that they are inside and the roles of women between the home, the field and the care of livestock. (Arab Organisation, 1998:79-83). Other factors identified include women's education, age, health status, and participation in markets (Anderson et al. 2017:169-183).

Recent studies in Indonesia indicate a significant lack of women's contribution in agricultural administrative, mostly in high-value actions, largely affected by societal norms, contextual factors, and gender-based labor division (Mehraban et al., 2022). Therefore, the world, especially in the last two decades of the 20th century, witnessed increasing calls for attention to rural women round the world, especially in developing countries, and their development as a key issue in rural agricultural and human development in all its economic, social, productive, educational and health dimensions, and these calls and efforts varied in their scope internationally:

1- What are the obstacles to rural women's contribution in extension actions in Tikrit district / Salah Al-Din governorate in general?
2- What are the obstacles to rural women's contribution in extension activities in Tikrit district / Salah Al-Din governorate and in each of the research areas (rural women-specific obstacles, social obstacles, agricultural extension-related obstacles)?
3- Is there a substantial association between the barriers to rural women's engagement in allowance actions and each of the independent variables (age, educational attainment, family size, primary family income, and kind of agricultural endeavor)?

Research objectives:

1- Identify the barriers to the engagement of rural women in extension operations within the Tikrit district of Salah al-Din governorate overall.
2- Identify the barriers to rural women's engagement in extension activities within the Tikrit district of Salah Al-Din governorate, categorizing them into rural women-specific obstacles, social impediments, and agricultural extension-related challenges.
3- Assess the link between the impediments to rural women's engagement in extension activities and each independent variable (age, educational attainment, family size, primary household income, kind of agricultural endeavor).

STUDY POPULATION AND SAMPLE

The study population comprised all rural women in the Tikrit District who possessed agricultural contracts and were actively engaged in them, as per the records of the Tikrit Agricultural Directorate, amounting to a total of 451 women. Upon eliminating the exploratory sample of 30 responders from the entire population, the research population was reduced to 421. A simple random proportional sample of 27% was selected, resulting in a total of 113 respondents participating in the study, as indicated in Table1.

Table (1): Study Population and Sample

District Name and Number	*Number of Respondents*	*Sample Size*	*District Name and Number*	*Number of Respondents*	*Sample Size*
1-9 Al-Jazeera	*129*	*35*	*26 Al-Hawi and Tel Souq**	*8*	-
22 Al-Hassa and Al-Kouz	*134*	*36*	*25 Al-Hawi and Al-Sahl**	*9*	-
50 Sidera Al-Bouajil	*45*	*12*	*23 Al-Nahr Al-Hadid*	*14*	*4*
49 Al-Naama	*40*	*11*	*2 Al-Ouja Al-Sharqiya**	*3*	-
*20 Um Al-Ghorban**	*1*	-	*3 Al-Ouja Al-Gharbiya**	*4*	-
*8 Al-Khank**	*1*	-	*1 Awanat*	*16*	*4*
*9 Al-Mahzam**	*4*	-	*47 Al-Naama*	*16*	*4*
21 Diyom Tikrit	*22*	*6*	*Total*	*451*	*113*
13 Al-Milha	*5*	*1*			

* Women in the indicator counties were excluded from the research sample as they were the primary test sample but not excluded from the community.

Preparation of the questionnaire

A questionnaire involving of two sections was developed. The first section included various personal factors of rural women, such as (age, educational level, family size, main income of the family, agricultural activity that you practice). The second section included (42) statements expressing the obstacles to the participation of rural women in Tikrit district (Salah Al-Din governorate) and the alternatives (large, medium, small, none) distributed among the research areas as shown in Table (2).

Table (2): Distribution of the questionnaire paragraphs according to the research areas

No.	Field	No. of Items
1.	Obstacles specific to rural women	16
2.	Obstacles related to agricultural	13
3.	Extension Social constraints	13
4.	Total	42

Measurement of independent factors: These variables were assessed as follows:

1. **Age:** Determined by the respondent's age in years at the time of data collection.
2. **Educational Level:** Measured using the following categories: illiterate, read and write, elementary, middle, intermediate, preparatory, institute, college, and higher degree. Each category was assigned a corresponding value from 1 to 8.
3. **Family Size:** This is measured by the total number of individuals residing in the same household as the respondent.
4. **Main household income:** The two alternatives, agricultural and non-agricultural, were measured and assigned values of 2 and 1, respectively.
5. **Type of agricultural activity:** It was measured through the alternatives: (plant production, animal production, and both) and were given values (1, 2, and 3) respectively.

Measuring the dependent variable:

The obstacles to the participation of rural women in extension activities were measured through (42) paragraphs distributed among the research areas, each of which was given the alternatives (great, medium, few, none) and were given values (3, 2, 1 and 0), respectively. Thus, the values expressing the obstacles to the participation of rural women in extension activities are limited between (0-126) degrees.

Statistical methods:

A variety of statistical approaches were employed, including range, mean, standard deviation, Pearson's correlation, Spearman's rank correlation, and t-test.

RESULTS AND DISCUSSION

Objective 1: To identify the obstacles faced by rural women in contributing in extension actions within the Tikrit district of Salah Al-Din Governorate. The scores indicating the level of barriers ranged from 47 to 116, with a mean of 89.57 and a standard deviation of 15.745. Participants were categorized into three groups based on their scores, and the detailed results are shown in Table 3.

Table (3) The distribution of the contributors based on the magnitude of barriers to participation in extension activities

No	Category	Number	Percentage Average	Impediments
1.	Low (47-69)	13	11,50	62.54
2.	Medium (70-92)	47	41,60	80.98
3.	High (93+)	53	46,90	103.81
4.	TOTAL	113	%100	

Table (3) indicates that 46.90% of respondents belong to the higher group, representing the greatest percentage, followed by the medium category with 41.60%, so the size of the obstacles to participation in extension activities is designated as high and tends to average, that is, the size of the obstacles that avoid rural women from contributing in extension actions in Tikrit district in general is large

and the reason may be that the customs and social traditions of rural families prevent them from mixing with men or the lack of government support for women or the lack of extension activities for small productive projects managed by rural women.

Objective 2: To identify the obstacles to the participation of rural women in extension activities in Tikrit district / Salah al-Din governorate and in each of the research areas represented in:

The first area: Obstacles specific to rural women

Only the two areas (17-44) had values that indicated the severity of the barriers to rural women's involvement in extension activities; these values had a average of (33.62) and a standard deviation of (6.261). The results are shown in Table 4, which shows the participants' classification into three groups.

Table (4) The distribution of the participants based on the severity of challenges faced by rural women

No	Category	Number	Percentage Average	Impediments
1.	Low (17-25)	14	12.39	23.14
2.	Medium (26-34)	47	41.59	30.37
3.	High (35+)	52	46.02	39.38
4.	TOTAL	113	%100	

Based on the data in table 4, it is evident that rural women face a disproportionate number of hurdles, with the biggest percentage falling into the high group (46.02%),so the magnitude of the obstacles experienced by rural women in Tikrit district is characterized as high and tends to average, and the reason may be the conviction to use traditional methods in agricultural operations or taking the advice of older farmers more than the agricultural guide.

Second area: Social barriers:

A mean of 27.30 and a standard deviation of 6.01 were the results that indicated the number of barriers to rural women's involvement in extension operations in this region. The values ranged from 14 to 39. The results are shown in Table 5, which shows the participants' classification into three groups.

Table (5) The distribution of the participants based on social constraints

No	Category	Number	Percentage Average	Impediments
5.	Low (14-22)	29	25.67	19.07
6.	Medium (23-31)	50	44.24	27.62
7.	High (40-32	34	30.09	33.85
8.	TOTAL	113	%100	

Table 5 clearly shows that the medium group accounts for the largest share of social hurdles, at 44.24 percent, followed by the high category, so the size of the obstacles experienced by rural women in Tikrit district (medium tends to rise) and the reason may be the lack of organizations that support rural women or the lack of awareness of the importance of the role of women in rural society or not allowing women to mix with strangers or review the agricultural division and weak community interest in training women compared to men.

Third domain: Obstacles related to agricultural extension

A mean of (28.65) and a standard deviation of (5.38) were the values that conveyed the extent to which rural women in this region faced barriers to engaging in extension activities. The range of these values was (11-44). The results are provided in Table (6), which shows that the respondents were classified into three categories.

Table (6) The distribution of the participants based on agricultural extension

No	Category	Number	Percentage Average	Impediments
9.	Low (11-21)	17	15.05	19.94
10.	Medium (22-32)	65	57.52	28.2
11.	High (33-more)	31	27.43	34.38
12.	TOTAL	113	%100	

As shown in Table (6), the majority of obstacles related to agricultural extension fall within the medium category, accounting for 57.52%, followed by the high category at 27.43%. This indicates that the level of obstacles faced by rural women in the region tends to be moderate to high. The possible reason for this may be the insufficient implementation of extension activities in the villages where women reside or the absence of extension programs aimed at the development of rural women. Additionally, there may be a lack of suitable venues where extension guides can meet with rural women within the villages.

Objective 3: To examine the relationship between the obstacles faced by rural women in extension activities and each of the independent variables:

1.Age: The ages of the respondents ranged from 22 to 85 years and were categorized into three groups, as presented in Table 7.

Table (7) The distribution of the participants based on age group

No	Category	Number	Percentage Average	Impediments	r value
13.	Low (22-42)	41	36,28	80.83	
14.	Medium (43-63)	51	45,13	91.17	
15.	High (64 and more)	21	18,59	102.75	0.47**
16.	TOTAL	113	%100		

** demonstrates that the connection is significant at the 0.01 level.

Table (7) indicates that the largest proportion of respondents belongs to the category of middle-aged women, comprising 45.13%. Conversely, the highest average number of obstacles is observed in the elderly women category, with a value of 102.76. To ascertain the correlation between age and the magnitude of obstacles encountered by rural women, The Pearson correlation coefficient was calculated to be 0.47. The significance of this relationship was tested using the t-test, which indicated significance at the 0.01 level. Therefore, we reject the null hypothesis that there is no significant relationship between rural women's participation in extension activities in the Tikrit district of Salah Al-Din Governorate and their age. This may be attributed to older women encountering more life challenges than their younger counterparts, stemming from varying lifestyles across different eras and their diminished belief in agricultural extension initiatives. This outcome aligns with the conclusions of Rajab (2017:1485-1503).

2.Educational level: The participants were categorized based on their educational attainment, as illustrated in Table 8.

Table (8) The distribution of the participants based on educational level

No.	Categories	Number	Percentage	Average	r.s. value
1.	Illiterate	26	23,01	95.92	
2.	Reads and Writes	24	21,24	90.25	
3.	Primary	13	11,51	85.92	
4.	Intermediate	16	14,16	8631	
5.	Preparatory	12	10,62	76.16	0.11-gm
6.	Institute	9	7,96	95.67	
7.	College	13	11.50	91.384	
8.	Total	113	%100		

Table (8) indicates that the largest proportion of respondents fall into the illiterate category (23.01%), concurrently exhibiting the highest average of difficulties in this category (95.92). Spearman's correlation coefficient was employed to assess the relationship between educational attainment and the level of challenges encountered by rural women, yielding a coefficient of -0.11. This correlation was found to be statistically insignificant. The t-test further confirmed that the relationship is not significant. Therefore, we accept the null hypothesis that there is no significant correlation between rural women's participation in extension activities in the Tikrit district of Salah Al-Din Governorate and their educational level.

3. Family size: The findings indicated that the family size of the respondents varied from 3 to 18 persons, with the respondents categorized into three groups based on this range, as illustrated in Table 9.

Table (9) The distribution of the participants based on family size categories

No	Category	Number	Percentage Average	Impediments	r value
17.	Low (3-7)	56	49,56	8835	*0.20
18.	Medium (8-12)	41	36,28	88.56	
19.	High (13 and more)	16	14,16	96.43	
20.	TOTAL	113	%100		

* demonstrates that the connection is significant at the 0.05 level

Table (9) indicates that the largest proportion of respondents falls within the category of few (49.56%), whereas the highest average obstacles are associated with large families (96.43). To ascertain the correlation between family size and the obstacles encountered by rural women, the Pearson correlation coefficient was calculated to be 0.20. The significance of this relationship was tested using the t-test, which showed significance at the 0.05 level. Therefore, we reject the null hypothesis that there is no significant correlation between rural women's participation in extension activities in Tikrit district, Salah Al-Din Governorate, and family size. The cause may be that large families comprise several women and the wives of brothers, complicating the ability of any one individual to participate in extension activities alone.

4. Main income of the family: The respondents were distributed according to the main income of the family as shown in Table (10).

Table (10) The distribution of the participants based on the main income categories of the family

No	Category	Number	Percentage Average	Impediments	r value
1.	Agricultural	42	37,17	81.43	0.36**
2.	Non-agricultural	71	62,83	94.39	
3.	Total	113	%100		

** demonstrates that the connection is significant at the 0.01 level

Table (10) indicates that the largest proportion of respondents belong to the non-agricultural category (62.83%), which also exhibits the highest average obstacles in the non-agricultural income category (94.394). To ascertain the correlation between the primary income of the family and the magnitude of obstacles encountered by rural women, Spearman's correlation coefficient was employed, yielding a value of (0.36). The significance of this relationship was evaluated using the t-test, which demonstrated significance at the 0.01 level. Therefore, we reject the null hypothesis that there is no significant association between rural women's participation in extension activities in the Tikrit district of Salah Al-Din Governorate and their primary family income. The rationale for this may be that families whose primary income is not derived from agriculture lack interest in regional extension efforts and do not perceive a compelling motive to participate in them.

5. Type of agricultural activity: The respondents were distributed according to the type of agricultural activity as shown in Table (11).

Table (11) The distribution of the participants based on type of agricultural activity

No	Category	Number	Percentage Average	Average constraints	r value
1.	Vegetable production	23	20.35	83.92	0 .22*
2.	Animal production	15	13.28	83.24	
3.	Combined	75	66.37	92.57	
4.	Total	113	%100		

*(r value) demonstrates that the connection is significant at the 0.05 level

Table (11) displays that the largest proportion of respondents, accounting for 66.37%, falls into the category with the highest average obstacles, which is 92.56. Spearman's correlation coefficient was used to examine the relationship between the type of agricultural activity and the level of obstacles faced by rural women, resulting in a correlation coefficient of 0.22. The t-test confirmed that this relationship is significant at the 0.05 level. Therefore, we discard the null hypothesis that there is no significant association between rural women's participation in extension activities in the Tikrit district of Salah Al-Din governorate and the type of agricultural activity. This may be due to the extensive time demands of agricultural work, which limit their availability to participate in extension programs.

CONCLUSIONS:

1. The results indicated that the level of constraints faced by rural women in the study area is high, tending toward moderate. This suggests that rural women encounter numerous challenges across all studied domains.
2. The findings revealed that social constraints ranked first among the studied domains. This indicates the weak social status of rural women and their inability to make independent decisions beyond the prevailing customs and traditions of society.
3. The results demonstrated a significant correlation between rural women's participation and the independent variables (age, landholding size, household income, and type of activity). This suggests the importance of these factors in determining the level of rural women's participation in attending extension activities.

RECOMMENDATIONS:

1. Efforts should be made to find solutions for all the constraints faced by rural women across the studied domains.
2. Civil organizations and governmental institutions should work towards empowering women and enhancing their ability to make independent decisions beyond the societal norms and traditions.
3. Awareness campaigns should be conducted by civil society organizations to emphasize the necessity of granting rural women their rightful social status and encouraging their participation in extension and community activities, enabling them to recognize their true position as influential members within the family and society.

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