

Administrative Constraints and Obstacles Faced by Agricultural Employees During the Performance of Their Duties in Agricultural Extension

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Abstract

This study aimed to identify the work stresses facing agricultural extension workers in Nineveh Governorate, to determine the correlational relationship between work stress and selected independent variables (age, gender, Academic achievement, years of service, and professional ambition), and to identify the most important proposals that contribute to reducing these stresses. The study population comprised workers at the Nineveh Agriculture Directorate and its branches, as well as the Agricultural Extension and Training Center, totaling 418 respondents. A simple random sample of 201 respondents was selected, from which 30 were excluded for reliability testing purposes, yielding a final sample of 197 respondents. The results revealed that the level of extension work stress was moderate with a tendency toward high, with the moderate category accounting for 55.34% of respondents and the high category for 35.02%. The findings also indicated significant correlations between work stress and each of the variables of age, education level, years of service, and professional ambition, while no significant correlation was found with gender. The most important proposals for alleviating work stress were: granting employees their allowances and promotions on time, reducing official working hours, and increasing material and moral support for workers. The proposal to provide a suitable work environment ranked last in terms of relative importance. The study findings underscore the importance of attending to agricultural extension workers by improving administrative, financial, and organizational aspects, given their direct impact on raising the efficiency of extension performance and achieving sustainable agricultural development goals.

Keywords: Administrative Constraints, Obstacles, Extension Organizations, Rural Development.

1. INTRODUCTION

Agricultural development relies on two fundamental components: material resources and human resources. Material resources encompass all tools, equipment, and supplies used in production processes, while human resources are represented by those working in the agricultural sector. Achieving agricultural development requires harmony and

integration between human and material resources (Al-Jawhari, 2021). Among the most pressing challenges facing the agricultural sector are the shortage of qualified human resources and limited financial resources, which necessitate a focus on individual performance, productivity, and the study of factors affecting both (Al-Jaf et al., 2014).

Exposure to high levels of work stress is considered one of the most significant such problems, given its negative psychological and physical effects on individuals, and consequently on organizations and society at large (Aqili, 2008). Stress is defined as a dynamic condition in which an individual is unable to fulfill their desires and demands; while this tension and anxiety is generally viewed negatively, it may also yield positive outcomes (Robbins&Judge, 2013).

Work stress can thus be understood as a state of psychological and physical imbalance resulting from an individual's inability to achieve desired goals. Individuals differ markedly in their responses to stress: some are spurred to perseverance and seriousness, while others experience frustration, despair, elevated blood pressure, sweating, and rapid heartbeat. Al-Maghrabi (1995) distinguished between positive stress responses — which stimulate adrenaline production and improve performance — and negative ones, which produce psycho-physiological phenomena such as stomach acidity, headaches, irritability, withdrawal, and defensive behaviors.

Saleh (2019) noted that positive stresses are those that motivate individuals toward production, task accomplishment, and sound decision-making, fostering satisfaction, confidence, and optimism. Musallat (1996) similarly described moderate positive stress as conducive to success and elevated performance. In contrast, negative stresses are destructive, leading to loss of motivation, maladjustment, depression, anxiety, and work monotony (Al-Dosari, 2005).

The success of extension organizations depends largely on the efficiency of their workers, particularly agricultural extension agents, who are key actors in rural community development. Their role

encompasses changing people's knowledge, attitudes, and behaviors, and inspiring a desire for improved livelihoods through the advancement of agricultural skills (Mohammed&Adnan, 1998).

Extension agents, as front-line workers entrusted with implementing programs and achieving organizational goals, are exposed to various forms of occupational stress that negatively affect both their personal and professional performance. This exposure may produce internal psychological and health consequences that impair job performance and sustained engagement (Jaloob & Ashwaq, 2011). Jaloob et al. (2011) confirmed that agricultural extension agents suffer from occupational stress — a set of negative side effects of extension work manifesting as difficulties and challenges that affect the agent's professional life — and that this stress significantly reduces performance levels.

Given that agricultural extension is an educational and human-oriented process, extension agents are arguably more vulnerable to work-related stress than their counterparts in other agricultural specializations. In light of the absence of prior studies on work stress among agricultural extension workers in the study area, this research was initiated to address this gap.

2. OBJECTIVES

1. To identify the work stresses facing agricultural extension workers in Nineveh Governorate in general.
2. To determine the correlational relationship between the extension work stress of agricultural employees and the following independent variables: age, gender, education level, years of

service, and professional ambition.

3. To identify the most important proposals that would reduce extension work stress among agricultural extension workers.

3. Hypotheses

- 1- There is no significant correlation between the work stress experienced by agricultural extension workers and their age.
- 2- There is no significant correlation between the work stress experienced by agricultural extension workers and their gender.
- 3- There is no significant correlation between the work stress experienced by agricultural extension workers and their Academic achievement.
- 4- There is no significant correlation between the work stress experienced by agricultural extension workers and their length of service.
- 5- There is no significant correlation between the work stress experienced by agricultural extension workers and their career ambition.

4. Operational Definitions

Stress: A measurable and observable physiological and psychological response that occurs when an individual perceives that the demands of a situation exceed their resources and coping abilities, thereby threatening their well-being.

Work Stress: A set of demands and stressors within the work environment that produce measurable negative psychological, physiological, emotional, and behavioral responses in employees when these demands are inconsistent with

their abilities, expectations, or needs. Operationally, work stress is represented by the score obtained by an employee on the Work Stress Scale adopted in this study, which measures the level of stress resulting from job demands and organizational conditions, such as supervision, job performance, centralization, and achievement motivation. A higher score indicates a higher level of work stress among employees, whereas a lower score reflects a lower level of work stress.

Agricultural Extension Workers: Employees working in the Nineveh Directorate of Agriculture and its agricultural divisions, as well as the Agricultural Extension and Training Center and extension farms, who possess an educational qualification of secondary school level or higher in an agricultural specialization.

5. MATERIALS AND METHODS

This study was conducted specifically in Nineveh Governorate, targeting workers at the Nineveh Agriculture Directorate and its 30 agricultural branches ($n = 341$), as well as the Agricultural Extension and Training Center in Nineveh and its affiliated demonstration farms ($n = 77$), for a total study population of 418 respondents. A pilot sample of 30 respondents, randomly selected and subsequently excluded from the final sample, was used for reliability testing.

A simple random sample was drawn using Steven's formula, yielding a sample size of 197 respondents (48%), distributed across the Directorate, its branches, and the Extension Center (Steven, 2012).

A structured questionnaire was developed as the primary data collection instrument, comprising three parts. Part One covered personal and professional characteristics: age, gender, education level, years of

service, and professional ambition. Part Two contained a four-point Likert scale measuring the dependent variable — work stress among agricultural extension

workers in Nineveh — composed of 80 items distributed across five domains as follows:

Table 1. Number of Items per Domain and Their Relative Importance

Relative Importance (%)	No. of Items	Domain	No.
25%	20	Administrative Stresses	1
20%	16	Economic Stresses	2
20%	16	Psychological Stresses	3
15%	12	Technical Stresses	4
20%	16	Social Stresses	5
100%	80		Total

Response alternatives were: Exists to a great extent (4), Exists to a moderate extent (3), Exists to a little extent (2), Does not exist (1). Part Three included an open-ended question asking respondents to propose measures for reducing extension work stress; responses were compiled, ranked in descending order by percentage weight.

Face validity was established by presenting the scale to a panel of faculty members from the Department

of Agricultural Extension and Technology Transfer at the College of Agriculture and Forestry, and from the Department of Educational and Psychological Sciences at the College of Education, University of Mosul. Reliability was assessed using Cronbach's alpha coefficient via SPSS on the pilot sample of 30 respondents (tested 1–10 November 2025), yielding an overall reliability value of 0.96, as detailed in Table 2.

Table 2. Reliability Coefficients by Domain

Reliability Value	No. of Items	Domain	No.
0.81	20	Administrative Stresses	1
0.93	16	Economic Stresses	2
0.82	16	Psychological Stresses	3
0.81	12	Technical Stresses	4
0.86	16	Social Stresses	5
0.96	100		Total

6. RESULTS AND DISCUSSION

6.1 Objective One: Overall Level of Extension Work Stress

The study revealed that overall work stress scores ranged from a maximum

of 291 to a minimum of 112, with an arithmetic mean of 215.84 and a standard deviation of 33.672, on a theoretical scale ranging from 80 to 320. Scores were divided into three categories as shown in Table 3.

Table 3. Distribution of Respondents According to Work Stress Level

Mean	Percentage (%)	Frequency	Category (Score Range)	No.
135.23	9.64	19	Low (112–171)	1
201.65	55.34	109	Moderate (172–231)	2
265.89	35.02	69	High (232–291)	3
—	100%	197		Total

The study found that the highest proportion of respondents fell in the moderate category (172–231), accounting for 55.34%, followed by the high category (232–291) at 35.02%, while the low category (112–171) comprised 9.64%. Work stress was therefore characterized as moderate with a tendency toward high. This may be attributed to several factors, most notably: the multiplicity of tasks and responsibilities assigned to the extension agent, which extend beyond providing advisory recommendations to include organizing seminars, conducting field visits, and monitoring agricultural problems; limited material and logistical resources such as insufficient transportation and lack of modern technologies; and administrative and organizational aspects including

excessive routine instructions, reports, and administrative oversight that consume time and effort at the expense of fieldwork.

6.2 Objective Two: Correlations Between Work Stress and Independent Variables

6.2.1 Age

Respondents' ages ranged from 27 to 59 years, with an arithmetic mean of 42.09 and a standard deviation of 7.17. The variable was divided into three categories using the range law. The majority of respondents fell in the middle age category (38–48 years) at 51.78%, followed by the younger category (27–37 years) at 27.92%, and the older category (49–59 years) at 20.30%, as shown in Table 4.

Table 4. Distribution of Respondents by Age and Correlation with Work Stress

Sig.	R	Percentage (%)	Frequency	Category
0.034	0.175	27.92	55	Young (27–37 years)
—	—	51.78	102	Middle (38–48 years)
—	—	20.30	40	Older (49–59 years)
—	—	100%	197	Total

Pearson's correlation coefficient yielded a Sig. value of 0.034, which is less than the significance level of 0.05; therefore, the null hypothesis is rejected and the alternative hypothesis — positing a significant correlation at the 0.05 level — is accepted. This may be explained by the fact that age is a significant determinant of how workers perceive and manage stress. Older extension agents tend to have accumulated professional experience that helps them adapt to work demands, whereas younger workers may be more vulnerable to stress due to limited field experience and the

challenge of adapting to the administrative and technical demands of extension work. Advancing age may also confer greater occupational and social stability, which positively influences the ability to cope with professional stresses.

6.2.2 Gender

Respondents were categorized by gender: 78.68% were male and 21.32% were female, with an arithmetic mean of 1.3046 and a standard deviation of 0.461. More than three-quarters of respondents were male, as shown in Table 5.

Table 5. Distribution of Respondents by Gender and Correlation with Work Stress

Sig.	Rs	Percentage (%)	Frequency	Category
0.344	0.068	78.68	155	Male
—	—	21.32	42	Female
—	—	100%	197	Total

Spearman's correlation coefficient yielded a Sig. value of 0.344, which exceeds the significance level of 0.05; therefore, the null hypothesis is accepted and no significant correlation was found. This result is likely

attributable to the similarity of job tasks and responsibilities between male and female extension workers, as both groups perform comparable duties within the same organizational

conditions, resulting in similar levels of work stress irrespective of gender.

6.2.3 Academic achievement

Respondents were distributed across five educational categories: the majority held a Bachelor's degree

(51.78%), followed by Master's degree holders (35.03%), Diploma and Doctorate holders (6.09% each), and a minimal proportion with secondary school education (1.01%), as shown in Table 6.

Table 6. Distribution of Respondents by Education Level and Correlation with Work Stress

Sig.	Rs	Percentage (%)	Frequency	Category
0.004	0.216	1.01	2	Secondary School
—	—	6.09	12	Diploma
—	—	51.78	102	Bachelor's
—	—	35.03	69	Master's
—	—	6.09	12	Doctorate
—	—	100%	197	Total

Spearman's correlation coefficient yielded a Sig. value of 0.004, which is less than the significance level of 0.05; therefore, the null hypothesis is rejected and a significant correlation is confirmed. This may be attributed to the fact that higher educational attainment enhances workers' awareness of job demands, responsibilities, and challenges, increasing their sensitivity to work stress relative to those with lower educational levels. Furthermore, highly educated workers tend to hold greater professional aspirations and a desire for high performance; when adequate

resources or incentives are unavailable, they experience a higher degree of occupational stress.

6.2.4 Years of Service

Years of service among the sample ranged from 1 to 35 years, with an arithmetic mean of 13.82 and a standard deviation of 5.055. The majority of respondents fell in the middle service category (12–22 years) at 78.17%, followed by the low category (1–11 years) at 16.76%, and the high category (23–33 years) at 5.07%, as shown in Table 7.

Table 7. Distribution of Respondents by Years of Service and Correlation with Work Stress

Sig.	Pearson r	Percentage (%)	Frequency	Category
0.036	0.189	16.76	33	Low (1–11 years)
—	—	78.17	154	Middle (12–22

Sig.	Pearson r	Percentage (%)	Frequency	Category
				years)
—	—	5.07	10	High (23–33 years)
—	—	100%	197	Total

Pearson's correlation coefficient yielded a Sig. value of 0.036, which is less than the significance level of 0.05, confirming a significant correlation. This may be explained by the accumulation of experience and responsibilities over time: longer-serving workers tend to be assigned greater duties, thereby increasing their exposure to extension work stress. Additionally, they accumulate more exposure to administrative, technical, and organizational challenges over the

years, which may intensify their sense of professional pressure.

6.2.5 Professional Ambition

Professional ambition scores ranged from 12 to 24, with an arithmetic mean of 19.13 and a standard deviation of 2.63. The majority of respondents fell in the high ambition category (20–24) at 49.24%, followed by the moderate category (16–19) at 38.58%, and the low category (12–15) at 12.18%, as shown in Table 8.

Table 8. Distribution of Respondents by Professional Ambition and Correlation with Work Stress

Sig.	Pearson r	Percentage (%)	Frequency	Category
0.000	0.372	12.18	24	Low (12–15)
—	—	38.58	76	Moderate (16–19)
—	—	49.24	97	High (20–23)
—	—	100%	197	Total

Pearson's correlation coefficient yielded a Sig. value of 0.000, which is less than the significance level of 0.05, confirming a significant correlation. Highly ambitious workers continuously strive to achieve and improve performance, making them more sensitive to workplace obstacles and resource deficiencies, and therefore experiencing higher levels of work stress. Professional ambition also drives workers to assume additional responsibilities and exert greater effort

toward their goals, increasing the professional burden and stress associated with extension work.

6.3 Objective Three: Proposals to Reduce Extension Work Stress

The study found that the proposal to grant employees their allowances and promotions on time ranked first among respondents, at 24.87%. This is likely because material and moral incentives play a critical role in boosting morale and job satisfaction. Timely fulfillment

of allowances and promotions reinforces employees' sense of appreciation and organizational justice, enhances work motivation, and reduces

psychological and professional stress. Table 9 presents all proposals ranked by percentage.

Table 9. Proposals to Reduce Extension Work Stress as Perceived by Respondents

Percentage (%)	Frequency	Proposal	No.
24.87	49	Grant employees their allowances and promotions on time	1
16.24	32	Reduce official working hours	2
14.72	29	Increase material and moral support and encouragement for extension agents	3
12.69	25	Provide transportation to extension activity venues	4
11.68	23	Provide training courses to develop the skills of extension workers in various fields	5
10.15	20	Provide modern audio-visual aids to agricultural extension agents	6
9.13	18	Build good relationships with supervisors and colleagues	7
7.10	14	Ensure impartiality and objectivity when assigning agents to missions outside the governorate	8
6.59	13	Reduce bureaucracy and formality between agricultural departments	9
5.58	11	Grant extension agents greater autonomy in their work	10
5.07	10	Provide professional and engineering allowances for agricultural sector workers	11
3.55	7	Reduce centralization in extension work	12
3.04	6	Avoid assigning agents tasks outside their specialization	13
2.53	5	Avoid burdening extension agents with multiple overlapping assignments	14

Percentage (%)	Frequency	Proposal	No.
1.52	3	Provide a suitable work environment	15

The proposal to provide a suitable work environment ranked last at 1.52%, which may indicate that the current work environment is relatively acceptable to respondents and does not represent a fundamental problem compared to other factors such as financial incentives and career advancement. Workers may have grown accustomed to prevailing conditions — whether in offices or in the field — and therefore focus less on the physical work environment relative to administrative and financial dimensions that more directly affect their daily needs.

7. CONCLUSIONS

- The level of extension work stress among agricultural extension workers in Nineveh Governorate was moderate with a tendency toward high, indicating the presence of occupational burdens and organizational problems affecting workers' performance.
- The multiplicity of tasks and responsibilities assigned to extension agents, alongside limited material and logistical resources, are among the primary contributors to high extension work stress.
- A significant correlation was found between age and extension work stress, as different age groups vary in their experience and capacity to adapt to work demands and pressures.
- No significant correlation was found between gender and extension work stress, reflecting the similarity of tasks, responsibilities, and organizational conditions for male and female extension workers.
- A significant correlation was found between education level and extension work stress, as higher educational attainment increases workers' awareness of job demands and amplifies their professional aspirations.
- A significant correlation was found between years of service and extension work stress, resulting from the accumulation of responsibilities and ongoing exposure to professional and administrative challenges.
- A significant correlation was found between professional ambition and extension work stress, as highly ambitious workers are more sensitive to work obstacles and more willing to assume additional responsibilities.
- The proposal to grant allowances and promotions on time ranked first among measures to reduce work stress, reflecting the central importance of material and moral incentives in achieving job satisfaction.
- The proposal to provide a suitable work environment ranked last, suggesting that respondents perceive

administrative and financial challenges as more impactful

than the physical conditions of the work environment.

8. RECOMMENDATIONS

- Reduce extension work stress by minimizing unnecessary administrative burdens and tasks assigned to agricultural extension agents.
- Provide material and moral support to extension workers, and ensure timely granting of allowances and job promotions to enhance job satisfaction and work motivation.
- Supply the necessary logistical resources for extension work, particularly transportation, modern technologies, and audio-visual aids that facilitate the implementation of extension activities.
- Establish continuous training courses and development programs for agricultural extension workers to build their professional, technical, and administrative skills, equipping them to manage work stress effectively.
- Reduce administrative bureaucracy and centralization in extension work, and grant extension agents greater autonomy in performing their tasks and making appropriate decisions.
- Respect workers' scientific specializations and avoid assigning them tasks outside their area of expertise, thereby raising performance efficiency and reducing professional stress.
- Strengthen human relations and positive communication between workers and supervisors within agricultural institutions, given their role in improving the organizational climate and reducing tension and stress.
- Invest in highly ambitious workers by providing promotion opportunities and professional development, and leverage their capabilities to advance extension work.
- Conduct future studies addressing extension work stress and its relationship to other variables such as job satisfaction, achievement motivation, job performance, and occupational burnout among agricultural extension workers.

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