



The Effects of Work Stress on Women's Satisfaction in Agricultural Activities in District Dir Upper, Khyber Pakhtunkhwa, Pakistan

Zainab Bibi^a, Hammad Zada^{b*}, Afshan Ali Khan^c, Jawad Ullah^d, Sapna Bibi^e

^aMPhil Scholar, Department of Rural Sociology, Agriculture University Peshawar, Pakistan. ^bPh D. Scholar, Department of Rural Sociology, Agriculture University Peshawar, KP, Pakistan. ^{cde}BS Sociology, Department of Sociology, Abdul Wali Khan University Mardan, Timergara Campus.

*Email: Hammadzada941@gmail.com

Abstract: The primary economic activity in Pakistan's rural areas is agriculture. For those families, this financial support is essential. In addition to taking care of the home and household, women in rural areas work in agriculture. Women's economic contributions to agriculture are overlooked in this context, and as a result, they continue to work as unpaid employees. The related research work entitled "Investigating the Effects of Work Stress on Women's Satisfaction in Agricultural Activities in District Dir Upper, Khyber Pakhtunkhwa, Pakistan" was conducted in Upper Dir District. By applying the Sekaran criteria, a purposeful sample size of 181 farming women was obtained. The dependent variable (women's happiness with farming activities) and the independent variable (work stress) together up a conceptual framework. Data analysis, both univariate and bivariate, was carried out using SPSS (statistical packages for social science). By this, a cross-tabulation (CHI-SQUARE) test was performed to determine whether the dependent and independent variables were related. The satisfaction women farmers experience with their activities was found to have a highly significant correlation ($P=0.000$) with the following independent variables: farm women perform multiple tasks that impact their physical health; as a result of performing multiple tasks, farm women suffer from malnourishment; unhealthy food has a worse effect on women's health; farm women have less access to health care centers, which increases health issues; challenges related to weather and market values increase mental health issues; and farm women's anxiety is increased by performing various tasks. To facilitate recuperation and relieve mental stress and health difficulties, the government must support regulations that encourage women to engage in financially lucrative agricultural endeavors. Additionally, leisure time, rest periods, and activities involving relaxation should be provided.

Keywords: Farming women, Women stratification, Farming activities, Work stress

1. Introduction

There are two genders in society: male and female. Their roles in the social order are not equal everywhere in the world, and both genders must take part in production. The strength required to perform tasks in a developing nation is a masculine quality that is not typically associated with men. In actuality, women perform the majority of load-bearing tasks like carrying water (Begum, 2002). There is no denying the role that women play in agriculture. Women actively participate in every aspect of agriculture, from planting to harvesting, and this involvement is

correlated with the type of crop grown, age, and socioeconomic class. In the countryside, women put in 12 to 15 hours a day at work. To be honest, they seem to be too busy going about their pre-, mid-, and post-harvest tasks on the farm. In the cultivation of tomatoes, potatoes, wheat, maize, and other vegetables, their active contribution is greater. Women work in this farming industry because these crops require a lot of hard labor (FAO, 2015).

It is currently the case that women are moving up from just supporting roles to more important ones in agricultural activity. Crop planting, hay bailing, ground plowing, cattle management, and many other tasks that were traditionally performed by men are now managed by women in farm companies (Hoppe & Korb, 2013). Farming has had an impact on women's well-being in general since it has created a knowledge deficit in the field. Male suicide and depression symptoms have increased, but it's unclear to what extent female farmers are affected by the same issues (Behere & Bhise, 2009; Burgard & Lin, 2013). For the benefit of this workforce-related group, it is critical to identify the factors (such as job satisfaction) that influence the psychological health of women farmers.

Family ties are strengthened by family-work practices and agricultural simulation (Löfgren & Olsson, 2019; Sprung & Jex, 2017). Working together as a family on a farm brings happiness to both the family and its members. A female farmer feels satisfied when her family and coworkers assist her in her work (Sprung & Jex, 2017). Women are expected to perform a multitude of tasks, including household chores and farming. These multitasking behaviors reduce life satisfaction and result in physical and psychological labor loads (Glynn, K. et al., 2014). Part-time farmers enjoy a good personal quality of life because they can "escape" from many of the challenges that come with farming in the present day, such as health problems, loneliness, and lack of physical working conditions. Hence it isn't due to good personal quality of life and working away from the farm but the multifarious drawbacks of agri-business (Rye, 2001). Disability to cope with exceeding physical and psychological stress in setting a farm is also a reason for that (Berko-witz, 1984).

There is evidence that women who were engaged in farming in the past have become more involved in non-agricultural jobs in Western Europe (Bryden et al., 1992), the United States (Rosenfeld, 1985), and Australia (Alston, 1998). Concerns have been raised about the reasons behind the women's decision to leave farm work and pursue other careers (Fassinger and Schwartzweller, 1984; Gasson 1984; Overbeek et al. 1998) as well as the effects of their decision to leave agriculture on the farming family and the farm (Godwin et al., 1991; Jervell 1999). The issue of agribusiness women quitting farming professions due to a lack of life happiness has received very little attention. Furthermore, rural women experience personal dissatisfaction due to the low regard that their hard work receives from families and communities (Alston 1995, Brandth and Haugen 1997).

Farmers who encounter multifaceted challenges related to family and farm management should be acknowledged as experts in economic evaluation. Investigation is necessary to address the less discussed provocations of traumatic events or unfavorable life appraisal. According to certain research, mental and economic factors are linked to life satisfaction that is close to the ground level (O'Neill et al., 2006). People who experience an extended, overwhelming, and nerve-wracking environment may acquire signs of depression disorder and other psychic disorders (Peterson et al., 1993). (Alloy et al., 1984). In this new arena, farming women are assigned primary tasks. The introduction of a new farming method in rural areas combined with vocational training activities not only strengthens their exceptional abilities but also gives them the ability to establish a market system in rural households and build relationships with customers. As a result, they are better equipped to handle delicate issues like environmental protection and nutritional care (Bock, 1994; O'Hara, 1994).

1.2 Justification of the Study

Women of countryside consist half in global population and they have proven themselves to be a greatest asset in agricultural labor force. In farming, taking care of livestock, poultry business and in natural assets supervision their

involvement and support is great. In informal countryside economy women probably equalize men and they dedicate to economy in agribusiness and non-agribusiness. Rural women roles are numerous along with farm working as bearing and rising off-springs, cooking, cleaning, fetching water and collecting firewood. As women perform domestic activities voluntarily also their labor and efforts in form is unpaid and unrecognized. The research illustrates how numerous reasons like workload, poor health and assignation in leisure events influence women satisfaction in agri-business doings and what probable suggestions to assist women in civil rights and other procedures are obligatory for their welfare.

1.3 Objectives of the Study

1. To determine the level of work stress experienced by farmers.
2. To find out how happy the ladies are with their farming operations.
3. To determine whether women's farming activities and work stress are related.
4. To make policy suggestions based on study results.

2. Literature Review

2.1 Life Satisfaction

Countryside women confront a variety of challenges, including unfavorable working circumstances, inadequate social security, long work hours, and low pay due to their perceived lack of talent and productivity. They are not widely acknowledged and are akin to providing unpaid help to siblings, as per the ILO (2018). A worker's financial situation demonstrates how satisfied they are with their life. According to Medgyesi and Zolyomi (2016), economic contentment is the best indicator of life satisfaction in terms of job-related factors among the working population. This implies that life pleasure and economic fulfillment are directly correlated. Like other occupations, farming mostly depends on the results of financial gain, as does farmers' quality of life (Howley et al., 2017; Herrera et al., 2018). A farm worker's life and level of job satisfaction are influenced by the financial results of the ranch house (Coughenour and Swanson's study, 1992). The appropriateness of revenue, payable dues, and revenue are all factors that have a significant impact on agricultural workers' life satisfaction when it comes to various income resources (Howley et al, 2017). Previous studies have shown that a specific economic stress has a significant impact on farmers' lives and is a major factor in their level of life satisfaction (Darling et al., 2012; Marum et al., 2014; Veldorale-Griffin et al., 2013). This suggests that a farmer's degree of life satisfaction is negatively correlated with their financial stress level.

Compared to men, rural women are less likely to work for informal income in non-agro and agro-business. Women who are in financial need put in more effort than males do, and they are typically paid daily for labor that is exhausting, sporadic, and part-time. Although both sexes are essential to the agro-business sector, women play a larger and more supportive role in rural farming in the countryside (Begum & Yasmeen, 2011). In rural areas, women typically play the roles of wage earner, agriculturalist, and businesswoman. They are an integral part of the agricultural labor force and make significant contributions. A woman's socioeconomic freedom may have a significant impact on the growth and yield of the agribusiness industry. Pakistani rural women carry out all pre- and post-harvest tasks, such as planting, moving, clearing, watering, and threshing or sorting, drying, and storing. In addition to their household duties such as cleaning, collecting water, catering, and housekeeping, they also engage in all agro-business activities in Pakistan (USAID, 1999).

It is evident that women have a significant role in food production in Latin America, particularly in garden and livestock farming. Despite the fact that rural women are important to any agro-business activity (Chase, 1988), there are many issues that they face during the farming process, the main ones being insufficient market availability (94%), difficulty participating (91%), low income (100%), and lack of farming extension services (82%). (FAO, 1997). Even after the rights and teachings of Islam were clarified, as well as by formal law, rural women continue to live in a backward society where they are denied their basic human rights. Their primary responsibilities are to perform home tasks, care for animals, and farm without hesitation. They are kept far from being competent or educated. In Pakistan's countryside, just 33% of women are literate, and they have limited employment options. Their limited skills and capacities translate into lower salaries in the work market. In Pakistan's rural communities, it is customary to kill a female in the name of honor. There is little assistance provided by vocational schools (Baig, et al, 2017). In nations where rural areas are developing, women play a significant role in economic growth and home duties as well as agribusiness activities. Women are subject to limitations on agro-business output even in rural areas. Women are subject to far more constraints than men when it comes to agricultural operations worldwide (Hassan, 1987; Olawoye, 1993; World Bank, 1995).

2.2 Work Stress

Physical and psychological strain may provide a greater risk to women, as evidenced by the numerous theoretical and practical considerations that have been made. Because agricultural women play numerous tasks that contribute to stress, they can be identified from non-farm wives by incorporating the household and occupational domains (Hall, 1972). A few investigators have examined unusual stress associated with agri-business families in North America. According to examiners, women from agricultural families perform a lot of work in agriculture in addition to traditional household duties (Hedlund and Berkowitz 1978). Over a 15-year period, 20 New York-based agricultural families participated in periodic meetings that provided insight into the women's primary experiences with stress (Capener and Berkowitz, 1976; Hedlund and Berkowitz, 1979).

From pre-harvest to post-harvest tasks such as soil preparation or groundwork, planting crops, and caring for crops until they are harvested, women in the rural agriculture sector work fervently (Habib, 1996; ESCAP, 1996; Ahmed & Hussain, 2004). Around the world, women actively participate in the food procession and preparation procedures and are in charge of their families. Women are responsible for providing their families with basic fuel, food, and water in many societies. They thus play a crucial part in protecting the atmosphere and combating dangerous environmental conditions. Pre- and post-harvest tasks include planting, moving, watering, applying fertilizers and pesticides, handling food, advertising, and caring for animals. After harvest, crops are cut, gathered, dried, and threshed (Karl, 2009).

Studies show that time spent on household tasks is greater than that spent on activities conducted outside the home. Thus, a woman involved in agribusiness works more than the average housewife since she must handle household duties in addition to farm-related labor (Blekesaune and Haugen 1999). For this reason, compared to their male colleagues, agricultural women have reportedly been found to experience much more complex stress. Due to their increased responsibilities outside domestic chores, farm women experience higher levels of anxiety, stress, and misconception (Walker and Walker, 1987). They struggle greatly and don't have any free time while juggling extra farm work on top of their domestic duties (Oldrup, 1999). Studies on gender indicate that although women do home and agricultural tasks, their well-being is inadequate.

In Pakistan, women actively participate in agriculture, dairy, poultry, and cattle care, which are considered everyday ordinary tasks that are not monetarily valuable (Riaz, 1990). Although rural women dedicate more time and energy to raising animals than do males, they are not as well-known or respected on a national or international level (Afridi, G.S., et al., 2009). The Pukhtoon civilization's male-dominant system grants men high status in the home and in society. In that kind of culture, parents invest more in their sons' education and all other areas because

they believe it will ensure their social and financial security in the future (Pande and Astone, 2001). They don't treat women the same way since, according to Haq (2000), they shouldn't receive any benefits from their educational investments after marriage. Stereotyping of this kind hurts both the idea of educating women and civil rights.

If they work or run a business to support all of their siblings, women make significant financial contributions to their families. However, as a woman who farms, I find that because of things like limited access to financing, seeds, technology, and other resources, women's contributions are underappreciated when compared to men's. Regretfully, statistics show that just 20% of women worldwide own property. Laws and customs prevent them from having an equal share with males, even when it comes to inheriting family land (UN Women, 2016). Food scarcity, food insecurity, and price increases have exacerbated the situation and access to food, severely harming the world's impoverished and landless communities. Inappropriate trade and agribusiness practices have played a major role in the present food crisis. When it comes to cultivating and preserving domestic food, women are crucial. Farming women in Pakistan demonstrated and made demands in public to gain access to and ownership of land (Karl, 2009). In Pakistan, women actively take part in the production of food, cooking it for their family, and selling it as a commodity in order to earn money. They are viewed as secondary because they have limited access to training, education, and the ability to advise families on important decisions. They are also still undernourished (Arif and Khalid, 2007).

Additionally, rural women are expected to perform basic household chores and babysit, which is why the family reacts negatively to women's entrepreneurial endeavors. Studies have demonstrated that conflicts between worries about the family and work-related matters seriously impair women's entrepreneurship skills (Fis et al., 2019; Fidan and Yesil, 2018). In Pakistan, men hold a distinguished position in society, serving as the head of the household and its primary provider. Women are respected and in charge of internal family affairs, such as caring for and nurturing the children, inside the confines of the home (Khokhar, 2013).

3. Material and Methods

District Dir Upper was the research area. Wari Tehsil, Sharingal Tehsil, and Dir Tehsil are the three tehsils. Purposively, Tehsil Sharingal was chosen. Six union councils—Barikot, Doog Dara, Gulai, Kalkot, Patrak, and Sharingal—are included in Tehsil Sharingal. The data was gathered from rural farm women in the two Kalkot UC villages, Joonkey and Kalkot. These ladies were specifically chosen since there were a lot of women working in agriculture. There are 340 households spread over these two settlements. Sekaran (2003) states that a household of 340 requires a sample size of 181. The research was quantitative in nature and the primary data were collected from farming women through interview schedule techniques, due to persistence nature of illiteracy. After the data was gathered, it was statistically analyzed using descriptive and inferential statistics in SPSS to ascertain the results. The univariate analysis yielded frequency and percentages, which were then utilized in conjunction with the chi-square statistic to ascertain the correlation between the independent variable (work stress) and the dependent variable (women's satisfaction with farming activities).

4. Results and Discussion

Table 1: Respondents Perception Regarding Work Stress

S.no	Statements	Yes	No
1	Long working hours increase work stress among agricultural women	176(97.2%)	5(2.8%)
2	Heavy work burden on farms causes stress among farming women	95 (52.5%)	86 (47.5%)

3	Low access to modern technology increases work stress	173 (95.6%)	8 (4.4%)
4	Low price crops and less access to information cause work stress	175(96.7%)	6(3.3%)
5	Less agricultural skills create problems for farm women	116 (64.1%)	65 (35.9%)
6	Less control over resources increases work stress among farm women.	181(100%)	0
7	Load of domestic work and agricultural work increase work stress	173(95.6%)	8(4.4%)
8	Less support from family increases stress among farm women.	162(89.5%)	19(10.5%)
9	New mechanical inputs disturb inversely the living situation of farm women.	156(86.2%)	19(10.5%)

The aforementioned table reveals that while a tiny percentage of respondents, 5 (2.8), disagreed with the assertion that lengthy working hours cause work stress among agricultural women, the bulk of respondents, 176 (97.2%), agreed with it. It has been shown that compared to their male colleagues, agricultural women experience significantly more complex stress. Walker and Walker (1987) found that because farm women have taken on more responsibilities in addition to domestic chores, they exhibit higher levels of anxiety, stress, and misconception. Furthermore, 86 (47.5%) respondents disagreed with the statement that women experience stress due to a severe workload on farms, whereas 95 (52.5%) respondents agreed. 8 (4.4%) respondents disagreed with the statement that having limited access to current technology increases work stress, whereas the majority of respondents, 173 (95.6%), agreed with it. Karl (2009) asserts that bad trade policies and the accessibility of contemporary technology have caused issues for women. Moreover, 175 respondents (96.7%) agreed with the assertion that low-cost crops and limited information availability lead to work stress (3.3%) This statement was disputed by six responders. Doss (1999) asserts that because women have limited access to information sources, they typically plant low-priced crops. Comparably, 65 out of 116 respondents (35.9%) disagreed with the assertion that women face difficulties due to a lack of agricultural skills, while 64 out of 116 respondents (64.1%) agreed with it. The International Labor Organization (2018) states that low output and limited agricultural skills are just two of the several issues that rural women deal with. Additionally, 181 respondents, or 100%, agreed that having less control over resources leads to higher levels of stress at work. In a similar vein, 8 (4.4%) respondents disagreed with the assertion that farm women experience more work stress due to the workload of household and agricultural tasks, while 173 (95.6%) respondents agreed.

Additionally, 162 (89.5%) respondents agreed with the statement that farm women experience higher levels of stress when they receive less assistance from their families, whereas 19 (10.5%) respondents disagreed. Yelinmez (2018) asserts that gender roles created a second primary responsibility for women in the workforce. Because of their low self-confidence and lack of managerial experience, women operate profitable enterprises. Furthermore, 156 respondents (86.2%) agreed with the assertion that new mechanical inputs negatively impact farm women's living conditions, whereas 19 respondents (10.5%) disagreed and 6 respondents (3.3%) were unaware of the statement. Bacon (2010) provided support for the claim that women's living and working conditions are disrupted by changes in the material conditions of production, such as new mechanical input and crop patterns, due to associations.

Table 2: Association between Women Satisfaction from Farming Activities and Work Stress

S. no	Work stress	Women's satisfaction with farming activities			Total	Chi-square P=value
		Yes	No	Don't know		
1.	Long working hours increase work stress among agricultural women					

	Yes	54(29.8%)	20(11.0%)	102(56.4%)	176(97.2%)	$X^2=32.086$
	No	0(0.0%)	5(2.8%)	0(0.0%)	5(2.8%)	P= (0.000)
2.	Heavy work burden on farms causes stress among women					
	Yes	54(29.8%)	20(11.0%)	21(11.6%)	95(52.5%)	$X^2=113.319$
	No	0(0.0%)	86 (47.5%)	0(0.0%)	86 (47.5%)	P= (0.000)
3.	Low access to modern technology increases work stress					
	Yes	54(29.8%)	17(9.4%)	102(56.4%)	173(95.6%)	$X^2= 52.228$
	No	0(0.0%)	8(4.4%)	0(0.0%)	8(4.4%)	P= (0.000)
4.	Low price crops and less access to information cause work stress					
	Yes	54(29.8%)	19(10.5%)	102(54.4%)	175(96.7%)	$X^2= 38.724$
	No	0(0.0%)	6(3.3%)	0(0.0%)	6(3,3%)	P= (0.000)
5	Less agricultural skills create problems for farm women					
	Yes	54(29.8%)	20 (11.0%)	42(23.2%)	116(64.1%)	$X^2=70.143$
	No	0 (0.0%)	65 (35.9%)	0 (0.0%)	65 (35.9%)	P=0.000
6	Less control over resources increases work stress					
	Yes	54(29.8%)	25(13.8%)	102(56.4%)	181(100%)	$X^2=32.086$
	No	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)	P= 0.000
7	load of domestic work and agricultural work increase work stress					
	Yes	54 (29.8)	17(9.4%)	102(56.4%)	173(95.6%)	$X^2=52.228$
	No	0	8(4.4%)	0	8(4.4%)	P =0.000
8	Less support from family increases stress among farm women					
	Yes	54 (29.8%)	6(3.3%)	102(56.4%)	162(89.5%)	$X^2= 132.465$
	No	0	19(10.5%)	0	19(10.5)	P=0.000
9	New mechanical input disturbs inversely the living situation of farm women					
	Yes	54(29.8%)	0	102(56.4%)	156(86.2%)	$X^2=181.000$
	No	0	19(10.5%)	0	19(10.5%)	P = 0.000

4.1 Association Between Women's Satisfaction from Farming Activities and Work Stress

The relationship between women's job stress and their level of satisfaction from farming activities is depicted in the above table. The study revealed a statistically significant ($P=0.000$) correlation between farm women's job stress levels and their level of satisfaction from their farming activities, as well as long working hours. (Kanter, 1977) provided support for this claim by stating that farm women often work long hours and perform a variety of jobs. Farming has been characterized as a "greedy occupation" that demands more from farm family members than their full-time commitment. Additionally, it was discovered that there is a strong correlation ($P=0.000$) between women's stress levels and how satisfied they are with farming activities. They assert—backed by Kohl & Bennett, 1982 and Scholl, 1982—that it is unclear how agricultural job hours and stress in farm women are related. An excessive workload in an unappreciated farm function that may not be a part of her identity might certainly lead to stress reactions. Furthermore, a highly significant ($P=0.000$) correlation was discovered between women's increased work stress and their pleasure with farming operations, despite having limited access to current technology. Karl (2009) provided support for the findings, stating that inadequate trade policy, a lack of contemporary technology, and lower agricultural skill levels have caused these issues. Females have a significant role in farming and

preserving food for their families.

Furthermore, low-price crops were found to have a highly significant ($P=0.000$) association with women's happiness from farming activities, and work stress is caused by a lack of information availability. According to (Doss, 1999), it is difficult to conclude that farm women plant low-priced products on the whole because they lack access to markets, are low-income, lack property rights, and have limited access to information sources. Similarly, women's pleasure with farming activities was found to be positively correlated ($P=0.000$) with fewer agricultural skills, which presents challenges for farm women. According to a report by the International Labor Organization (2018), rural women confront several challenges, including a concentration in low-skilled, low-output, low unpaid employment, long hours in challenging environments, and little support from their families and society. Women are more likely to labor unpaid in the home and on farms, meaning that their labor is generally underappreciated and devalued.

Additionally, a highly significant ($P=0.000$) correlation was discovered between women's increasing work stress and their happiness with farming activities, despite having less control over resources. According to Warren-Smith & Jackson (2004) and Bacon (2010), the prevalent views held by males regarding the needs, duties, rights, and access to resources of rural women have resulted in a decrease in domestic work, limited opportunities for women in agriculture, and minimal control over resources. Furthermore, the burden of household chores and agricultural work enhanced job stress, and a highly significant ($P=0.000$) association was established between women's contentment with farming activities and these factors. Women's contentment with farming activities was shown to be very significant ($P=0.000$) about less family support and higher levels of stress among farm women. Gender-based classifications, according to Yelinmez (2018), constitute a second primary goal for women in professional jobs (p. 2). Because of their low levels of education, lack of managerial experience, lack of business knowledge, and lack of community support, women are unable to run a profitable company. Likewise, a highly significant ($P=0.000$) correlation was discovered between the degree to which women were satisfied with farming operations and the new mechanical inputs that were upsetting their living conditions.

5. Conclusion

The study's findings indicated that rural women farmers expressed a great deal of discontent with their farming endeavors, their families, and the community at large. Their lack of recognition for their work caused them great stress, in addition to the negative effects of malnutrition and a lack of family and community support. Their input or contribution to farming operations was ignored, and they received compensation that was either inadequate or well below what their skills warranted. Similar to this, these farm women's physical and mental health suffered as a result of their excessive workload, which included caring for their families, farming, work-related stress, and juggling a lot of responsibilities. Because of the patriarchal system, they were not permitted to control how much money they made or even participate in decision-making, and they were not permitted to access the market. They were reliant on the guys in their home for assistance and decision-making. They suffer greatly because, in addition to having little or no access to wholesome food, they also have restricted or nonexistent access to healthcare facilities.

5.3 Recommendations

- Investing more in adult education programs, education, and skill development training in the study area with the inclusion of older women for valuable information in farming to support women's role in agricultural production is one way to help reduce the problems faced by women involved in farming activities.
- Tackling the patriarchal structure by enlisting the support of the region's powerful leaders to provide women equal status in the home as well as in agriculture.
- Encourage women to engage in agriculture as a source of income by partnering with the public and private sectors. In agriculture, women and men work side by side on crops and livestock. Given the traditionally conservative nature of the area, it may be appropriate to choose female extension workers who can interact with the farming women.

- To aid in the recovery of farming women from health issues and psychological strains, the community and family should plan leisure time, rest periods, and calming exercises.

References

- Afridi, G.S., M. Ishaq and S. Ahmad, 2009. Estimation of costs and returns and factor productivity in livestock enterprise in Northern Areas, Pakistan. *J. Life Soc. Sci.*, 7(1): 43-51. 21.
- Ahmad, N. and A. Hussain, 2004. Women's Role in Forestry: Pakistan Agriculture, pp: 79–81. Agriculture Foundation of Pakistan, Islamabad
- Arif, M., and N. Khalid. 2007. Agriculture and food security in Pakistan. South Asia Partnership Pakistan
- Baba, I. B; Zain, R.MD; Idris, H.U and Sanni, A.N, 2015. The Role of Women in Household Decision Making and their contribution to Agriculture and Rural Development in Nigeria. *IOSR Journal of Humanities and Social Science (IOSR-JHSS) Volume 20, Issue 5, Ver. 1 (May. 2015), PP 30-39.*
<http://www.iosrjournals.org/iosr-jhss/papers/Vol20-issue5/Version-1/E020513039.pdf>
- Baig, A. Irfan., Batool, Zarmina., Asghar, Ali., Baig, A. Sajjad., Hashim, Muhammad., & Zia. (2017). Impact of Women Empowerment on Rural Development in Southern Punjab, Pakistan, *Quality and Quantity Springer*; DOI 10.1007/s11135-017-0572-x
- Begum, A.G. Dijkstra. 2002. Measuring socio-economic gender inequality in: Towards an alternative to the UNDP gender-related development index. Working Paper Series. Instt. of Social Studies, The Hague, 251: 30. Westview Press, Boulder, pp. 87-116.
- Begum, R., and G. Yasmeen. 2011. Contribution of Pakistani women in agriculture: productivity and constraints. *Sarhad J. Agric.*, 27(4), 637-643.
- Behere, P., & Bhise, M. (2009). Farmers' suicide: Across culture. *Indian Journal of Psychiatry*, 51(4), 242–243.
- Berkowitz, A. D. (1984). Coping with stress on the farm. Paper presented at the Annual Finger Lakes Grape Growers Convention, Keuka Park, NY.
- Blekesaune, A. and M.S. Haugen (1999) Landbrukskvinnens bidrag til husholdets levekår – arbeid og inntekt i et komparativt perspektiv (Farm women's contributions to the living conditions in the farm household). *Landbruksøkonomisk forum* 16 (2) pp. 27-37
- Bryden, J.M. et al. (1992) Farm household adjustment in Western Europe 1987-1991: Final report on the research program on farm structures and pluriactivity (Aberdeen: Arkleton Trust)
- Burgard, S., & Lin, K. (2013). Bad jobs, bad health? How work and working conditions contribute to health disparities. *The American Behavioral Scientist*, 57, 1105–1127.
- Capener, H. C. and Berkowitz, A. D. 1976 "The farm family: a unique organization.
- Chase, V., 1988. The Economic and Social Context of Caribbean Women in Agriculture. Food and Agriculture Organization of the United Nations, Regional Office for Latin America and the Caribbean, Santiago, Chile

Bibi: The Effects of Work Stress on Women's Satisfaction in Agricultural Activities in District Dir Upper, Khyber Pakhtunkhwa, Pakistan

Cherayi, S. Jose, J.P., 2016. Empowerment and social inclusion of Muslim women: towards a new conceptual model. *J. Rural Stud.* 45, 243–251. <https://doi.org/10.1016/j.jrurstud.2016.04.003>.

Coughenour, C.M., Swanson, L., 1992. Determinants of farmers' satisfactions with farming and with life: a replication and extension. *South. Rural Sociol.* 9 (1), 45–70.

Darling, C.A., Coccia, C., Senatore, N., 2012. Women in midlife: stress, health, and life satisfaction. *Stress Health* 28 (1), 31–40.

Drafor Amenyah, I and Pupilampu, K.P, 2013. Women in Agriculture: An Assessment of the Current State of Affairs in Africa.

ESCAP, 1996. Rural Poverty Alleviation and Sustainable Development in Asia and the Pacific. United Nations, New York

FAO, 1997. Higher Agricultural Education and Opportunities in Rural Development for Women-An Overview and Summary of Five Case Studies. Information Division, Food and Agriculture Organization of the United Nations, Rome, Italy

FAO. (2015). Women in agriculture in Pakistan. Retrieved from www.fao.org/3/a-i4330e.pdf

Fidan, F. and Yesil, Y. (2018), *Kadın Girişimciligi Engeller ve Fırsatlar*, Detay Publishing, Ankara

Fis, M.A., Ozturkcan, S. and Gur, F. (2019), "Being a women entrepreneur in Turkey: life role expectations and entrepreneurial self-efficacy", *SAGE Open*, Vol.9 No.2, pp.1-19.

Flintan, F. Sitting at the table: Securing benefits for pastoral women from land tenure reform in Ethiopia. *J. East. Afr. Stud.* 2010, 4, 153–178

Glynn, K.; Maclean, H.; Forte, T.; Cohen, M. The Association between role overload and women's mental health. *J. Women's Health* 2009, 18, 217–223.

Golla, A.M.; Malhotra, A.; Nanda, P.; Mehra, R.; Kes, A.; Jacobs, K.; Namy, S. Understanding and Measuring Women's Economic Empowerment; ICRW: Washington, DC, USA, 2011.

Habib, N., 1996. A Study on the Role of Women in Agriculture and the Impact of Pesticide on Them, pp: 4–5. Pesticides Action Network Asia and the Pacific (PANAP), KHOJ Research and Publication Center, Lahore, Pakistan

Hall, D. T. 1972 "A model of coping with role conflict: the role behavior of college-educated women." *Administrative Science Quarterly* 17:471-486

Haq, M. (2000). Human Development in South Asia. The Gender Question. Oxford University Press. Karachi Pakistan. p. 105.

Hassan, N.A., 1987. Strengthening the Agricultural Extension System. Experts' terminal report, project of Syrian Arab Republic, Food and Agriculture Organization of the United Nations, www.pakistaneconomist.com.

Bibi: The Effects of Work Stress on Women's Satisfaction in Agricultural Activities in District Dir Upper, Khyber Pakhtunkhwa, Pakistan

Hedlund, D. and Berkowitz, A. D. 1978 "Farm family research in perspective: 1965-1977." Rural Sociology Bulletin 79; Ag. Economics Research 78:18, Department of Agricultural Economics, Cornell University 1979 "The incidence of social psychological stress in farm families." International Journal of Sociology of the Family 2:233-245.

Hoppe, R., & Korb, P. (2013). Characteristics of women farm operators and their farms (EIB-111). U.S. Department of Agriculture, Economic Research Service.

Howley, P., Dillon, E., Heanue, K., Meredith, D., 2017. Worth the risk? The behavioral path to well-being. J. Agric. Econ. 68 (2), 534–552.

Karl Marilee, 2009. Inseparable: The Crucial Role of Women in Food Security Revisited. http://www.isiswomen.org/downloads/wia/wia-2009-1/1wia09_00aFeatures_Karl.pdf

Löfgren, J., & Olsson, S. (2019). Why do next generation farmers decide to invest in farm businesses? A means-end chain analysis of young Swedish farmers' underlying values to invest in farm businesses [Unpublished master's thesis]. Swedish University of Agricultural Sciences.

Naseef, Fatima Umar: 1999: Women in Islam, A Discourse of Rights and Obligations: Sterling Publishers, New Delhi, India

Nosheen, F., Ali, T., Ahmad, H., & Nawaz, H. (2008). Exploring the gender involvement in agricultural decision making: A case study of district Chakwal. Pakistan Journal of Agricultural Sciences, 45(3), 101-106.

Ogunlela, Y. I., & Mukhtar, A. A. (2009). Gender issues in agriculture and rural development in Nigeria: The role of women. Humanity & Social Sciences Journal, 4(1), 19-30

Olaweye, J.E., 1993. Gender Priorities and Issues in Agricultural Extension Delivery. Paper presented at the National Conference of the Society for Agricultural Extension of Nigeria, 24 to 26 February

Pande, R. and Astone, M. N. (2001). Explaining son preference in rural India: The independent role of structural vs. individual factors. Annual meeting of the Population Association of America. Washington, D.C

Rye, J.F. (2000) Økonomiens betydning i landbruksbefolkningens hverdag (The importance of economy in the everyday life of farm households) Landbruksøkonomisk forum 17 (3) pp. 37-45 Rye, J. F. (2001) Why are part-time farmers so happy? CRR-Paper 2/01 (Trondheim: Centre for Rural Research)

Sprung, J., & Jex, S. (2017). All in the family: Work-family enrichment and crossover among farm couples. Journal of Occupational Health Psychology, 22(2), 218–224.

UN women 2018, UN women annual report 2017-2018 UN women.

UN Women, 2016. Women and Sustainable Development Goals. <https://sustainabledevelopment.un.org/content/documents/2322UN%20Women%20Analysis%20on%20Women%20and%20SDGs.pdf>

USAID, 1999. Sowing the Seeds of Opportunity: Women in Agribusiness, U.S. Agency for International Development, Information Bulletin No. 7

Bibi: The Effects of Work Stress on Women's Satisfaction in Agricultural Activities in District Dir Upper, Khyber Pakhtunkhwa, Pakistan

Veldorale-Griffin, A., Coccia, C.C., Darling, C.A., Rehm, M., Sathe, S., 2013. The role of parental indulgence and economic stress in life satisfaction: differential perceptions of parents and adolescents.

Walker, L.S., and J.L. Walker (1987)

World Bank, 1995. Gender Issue in Participation: Social Development Note no. 12. Environmentally and socially sustainable development network of World Bank, Washington, D.C.