

Tanzeela Amanat¹, Naima Nawaz², Ashfaq Ahamd Maann³, Dr. Khalid Mahmood Ch.⁴, Ijaz Ashraf⁵, Saira Akhtar⁵, Gulfam Hasan<sup>7</sup>

- 1. Department of Rural Sociology, University of Agriculture, Faisalabad
- 2. Department of Rural Sociology, University of Agriculture, Faisalabad
- 3. Department of Rural Sociology, University of Agriculture, Faisalabad
- 4. Institute of Agri. Extension & Rural Development, University of Agriculture, Faisalabad
- 5. Institute of Agri. Extension & Rural Development, University of Agriculture, Faisalabad
- 6. Department of Rural Sociology, University of Agriculture, Faisalabad
- 7. Institute of Agri. Extension & Rural Development, University of Agriculture, Faisalabad

Correspondence Address:

Institute of Agri. Extension & Rural Development, University of Agriculture, Faisalabad khalidchuaf@yahoo.com

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#### INTRODUCTION

Livestock is an important sub sector of Pakistan's agriculture having a share of 11.9% in GDP and playing an important role in uplifting the socioeconomic conditions of the rural community.<sup>1</sup> The growing population is exerting pressure on all the resources and in future, it is expected that the livestock demand will also increase for fulfilling the demands of masses.<sup>2</sup> Women play an active role in managing and care taking of livestock by participating in different activities like milking dairy animals, cutting fodder, looking after the health of the herd, marketing of livestock, processing animal products and cleaning sheds.<sup>3</sup> All the above activities are incomplete without the participation of women. However, the work done by

**ABSTRACT...** Livestock production is of paramount importance in minimizing the vulnerability of poor and marginalized people in remote rural areas. Women play an active role in managing and care taking of the herd by participating in different activities of livestock management. The growing population is exerting pressure on all the resources and in future, it is expected that the livestock demand will also increase for fulfilling the demands of masses. Due to women's crucial role in livestock management activities, they are more susceptible to zoonotic diseases. The zoonotic diseases are becoming a threat by becoming responsible for the death of 2.2 million people every year and majority of the victims belong to developing countries. Objectives: To find out health related issues while participating in livestock management activities. Study Design: Survey. Period: 2011-2012. Methods: The present study was conducted in rural areas of district Toba Tek Singh. One Union Council (UC) and three villages from the selected UC were selected by using simple random sampling technique. The sample size of the study was 120 respondents of rural females having forty respondents from each village. Results: The study revealed that majority of the respondents was involved in grazing and fodder cutting activities and they are satisfied with their role. It was also noted that the highly educated respondents were more secure from diseases than that of less educated and illiterate respondents. Conclusion: It is the sole responsibility of the government and public sector department to run campaign regarding livestock diseases to whom human are susceptible so that the risks regarding this situation may be minimized.

Key words: Livestock management, Women, Zoonotic diseases, Health risks

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> males in livestock production is appreciated more as compared to female who spend their most of time (5-6 hours daily) in managing the livestock.<sup>4</sup> Livestock carries a number of zoonotic diseases (more than fifteen types) in the form of parasites, germs and viruses which alternatively affect the health of people associated with its management. These diseases are spread either through direct contact with the animals or air.<sup>5</sup> Animals including wildlife are responsible for 75% of emerging human infectious diseases.<sup>6</sup> As women are more involved in livestock management activities so, they have an increased prevalence of many zoonotic diseases.<sup>7</sup> The mortality and morbidity of some zoonotic diseases is difficult to assess and diagnose. The poor communities lacking

adequate medical or veterinary care are more susceptible to the effects of these diseases in the form of asthma, heart diseases, diarrhea, anemia and rabies.8 The situation creates a dual burden on farm families as they have to ensure the health safety of both the animal and the affected person in limited resources. Livestock is a source of income for not only men but also to 50% of women of their family in the agriculture sector. Thus, livestock production is of paramount importance in minimizing the vulnerability of poor and marginalized people in remote rural areas.9 Despite the fact that different public and private sector organizations are providing health facilities to rural women in remote areas of Pakistan, still, the health of rural women is very poor due to unavailability of health facilities.<sup>10</sup> Therefore, the present study was conducted to assess the women's participation in livestock management and its harmful effects on their health.

### **METHODOLOGY**

The present study was conducted in rural areas of district Toba Tek Singh.

Union Council (UC) was selected by using simple random sampling technique. The sample size of the study was 120 respondents of rural females. Three Villages from the selected UC were selected randomly. Forty respondents from each village were selected at random. A comprehensive interview schedule was devised in the light of research objectives. After data collection the data were analyzed using Statistical Package for Social Sciences (SPSS).

#### **RESULTS AND DISCUSSION**

The data in Table-I show that less than one-third (30.8%) of the respondents' monthly income which they gain from livestock was up to Rs. 6000. The monthly income of slightly more than One-fourth (26.7%) of the respondents was Rs. 5000-6000 while a good number (42.5%) of the respondents was of the view that the monthly income for which they have livestock source was above Rs. 6000. Most of the rural families are fully dependent on the monthly income coming from the livestock as they have no other sources of income generation.

They utilize this source either by selling animals or by products obtained from these animals like milk, ghee, butter etc. The results are less or more similar to those of<sup>11</sup> who reported that livestock is a major source of income of the respondents.

Monthly	Frequency	Percentage	
Up to 5000	37	30.8	
5000-6000	32	26.7	
Above 6000	51	42.5	
Total	Total 120 100.0		
Table-I. Distribution of the respondents according to their monthly income from livestock			

The data in Table-II indicate about engagement of women in different livestock management activities such as milk processing (91.6%), cleaning of animal sheds (70.3%), bathing of animals (76.6%), making and storage of dung cakes (65.8%), fodder cutting/chopping (56.6%), watering (82.5%), feeding (47.5%) and manure collection(57.5%). The results of the study are less or more similar to those of<sup>12</sup> who reported that a good majority (90, 87.5 and 77.5%) of the respondents was involved in making & storage of dung cakes, collection of manure and watering of animals respectively.

Dortioination	To a great extent		
Participation	Frequency	Percentage	
Milk processing	110	91.6	
Cleaning of animal sheds	85	70.3	
Bathing of animals	92	76.6	
Making & storage of dung cakes	79	65.8	
Fodder cutting/chopping	68	56.6	
Watering	99	82.5	
Feeding	57	47.5	
Manure collection	69	57.5	
Table-II. Distribution of the respondents according to their participation in livestock management related			

activities

The data presented in Table-III reveal that a large majority (85.8%) of the respondents indicated that they feel headache during or after participating in livestock management activities. Majority (66.6%) of the respondents reported that they suffer from allergy problems followed

by fever (59.1%), depression (57.5%) and cough (53.3%) after performing livestock management practices. Respiratory disease, asthma, diarrhea, reproductive health, low blood pressure, and high blood pressure were reported by 45.8, 42.5, 29.1, 24.2, 20.0 and 12.5% of the respondents respectively. The results of the study are less or more similar to those of<sup>13</sup> who were off the view that the people felt high blood pressure when involved in livestock management activities while they felt well when were far away from livestock.

Type of disease	Frequency	Percentage
Allergy	80	66.6
Diarrhea	35	29.1
Asthama	51	42.5
Reproductive health	29	24.2
Depression	69	57.5
Respiratory disease	55	45.8
Fever	71	59.1
Headache	103	85.8
Cough	64	53.3
High blood pressure	15	12.5
Low blood pressure	24	20.0
Allergy and blood pressure	12	10.0

Table-III. Distribution of the respondents according to the types of diseases they suffer from.

Table-IV presents the association between education of the respondents and their suffering from diseases during livestock management. Chi-square value shows a significant association between education of the respondents and their suffering from diseases during livestock management. Gamma value shows a negative relationship between the variables. It means that high educated respondents were suffering less diseases while majority of the illiterate and primary passed respondents were suffering diseases in case of livestock management. The results are in line with those of14 which clearly indicate that educated people are less susceptible to diseases than those of uneducated ones. The reason behind the situation is the best use of information they acquire from different sources.

Education of the	Do you suffer any disease due to working in livestock management		Total
respondents	Yes	No	
Illiterate	29	9	38
	76.3%	23.7%	100.0%
Primary	30	6	36
	83.3%	16.7%	100.0%
Middle	13	9	22
	59.1%	40.9%	100.0%
Matric	8	16	24
	33.3%	66.7%	100.0%
Total	80	40	120
	66.7%	33.3%	100.0%

Table-IV. Association between education of the respondents and suffering of disease due to their participation in livestock management activities

Chi-square = 16.86 d.f. = 4 Significance = .04\* Gamma = -.393 \* = Significant

The data presented in Table-V indicate the association between monthly income from livestock and suffering of respondents from any disease due to work in livestock management practices. Chi-square and Gamma value shows a non-significant association between the variables which means income from livestock had no impact on their health status. The results of the above table are contradictory to those of<sup>15</sup> who reported that low income is responsible for poor health of the people.

Income from livestock	Do you suffer any disease due to working in livestock management		Total
(HS.)	Yes	No	
Lin to 5000	22	15	37
Up to 5000	59.5%	40.5%	100.0%
5000-6000	25	7	32
	78.1%	21.9%	100.0%
Above 6000	33	18	51
	64.7%	35.3%	100.0%
Total	80	40	120
	66.7%	33.3%	100.0%

Table-V. Association between monthly income of the respondents from livestock and their suffering of disease due to work in livestock management

#### CONCLUSIONS

The study results indicated the majority of the respondents were satisfied with their role in livestock management activities. A large majority (91.6 and 82.5%) of the respondents was involved in milk processing and watering activities respectively. Education importance was reflected from the study when it was noted that educated respondents were more healthy and secure from diseases as compared to the illiterate. After conducting the study it was suggested that the government and public sector organizations have to play an instrumental role in running such campaigns in which the main focus should be health risks during livestock management. These health risks can be reduced by taking a number of precautions like practicing good personal hygiene, vaccinating livestock, using personal protective equipment e.g. overalls, gloves, boots, goggles, isolating and treating sick animals etc. Copyright© 20 June, 2015.

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# "If you can dream it, you can do it."

Walt Disney



Sr. #	Author-s Full Name	Contribution to the paper	Author=s Signature
1	Tanzeela Amanat	Data collection	Janjeela
2	Naima Nawaz	Data interpretation and writeup	Nam
3	Ashfaq Ahamd Maann	Writeup and editing	the .
4	Dr. Khalid Mahmood Ch.	Development of research involvement	1 mpm
5	Ijaz Ashraf	Data analysis	Jul Jucach
6	Saira Akhtar	Data analysis	Gullam
7	Gulfam Hasan	Data collection	

## AUTHORSHIP AND CONTRIBUTION DECLARATION