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Women in Animal Husbandry: Examining Socioeconomic, Communication, Psychological Characteristics and Constraints to Decision-Making

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ABSTRACT

This research was conducted in the Department of Technology Transfer, Faculty of Agriculture, MGCGVV, Chitrakoot, Satna, Madhya Pradesh, India during 2022 to investigate the constraints faced by rural farm women while participating in decision-making processes related to animal husbandry activities. A sample of 340 farm women was surveyed in Dewas district of Madhya Pradesh, India in year 2019–20. Socioeconomics distribution reveals that the majority of respondents were in the medium age category (36 to 55 years), comprising 56.47% of the sample. The education status of participants varied, with a large proportion (43.23%) being illiterate. Among the educated individuals, primary education was the most common (36.17%), followed by middle education (12.94%). Regarding annual income, the majority fell into the medium category (56.76%), with low and high-income groups comprising 22.06% and 21.18% respectively. In terms of milch animals, the medium category (5–10 animals) was the most prevalent (45.88%). The study reveals that costly management, lack of technical knowledge, high cost of milch animals, social and cultural norms, and dominancy of other family members are significant barriers to women's participation. The top three constraints identified by the women were costly management (97.35%), lack of technical know-how (96.76%), and high cost of milch animals (87.05%). These constraints highlight the need for providing technical and financial assistance to women engaged in animal husbandry activities. The findings underscore the importance of addressing these constraints through technical and financial assistance, capacity building programs, and improvements in veterinary services. By overcoming these constraints, women's participation in decision-making processes can be enhanced, leading to improved agricultural practices and livelihoods in rural areas.

KEYWORDS: Animal husbandry, decision-making, farm women, participation, socioeconomic analysis

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1. INTRODUCTION

Rural women in India serve as a significant productive resource within the agricultural sector, which is the country's main economic sector (Fanelli, 2022; Naveed and Wang, 2023). Their role within the dominant agricultural industry is crucial, encompassing activities such as production, processing, and marketing (Nayak et al., 2020; Polakova et al., 2023). Whether as family members or as heads of households, women contribute significantly to the agricultural workforce. Women in India undertake multiple and overlapping roles, which can place pressure on their health, food security, productivity, and potential contributions to improved human welfare and economic development (Kaur and Sharma, 2020; Sekaran et al., 2021). Women in India predominantly invest their labor force in various aspects of the production system, including weeding, harvesting, household management, animal husbandry, marketing, and post-harvest handling (Akki et al., 2021; Shekhar and Singh, 2023).

The role of women in agriculture, particularly in animal husbandry, is crucial for the sustainable development of rural communities and the overall food production system (Keeling et al., 2019). In recent years several studies were conducted to assess the role and importance of women in agriculture (Abreha et al., 2020; Sariyev et al., 2020; Das, 2023; Jena and Kumari, 2023). However, despite their significant contributions, women often face numerous challenges and constraints that limit their participation in decision-making processes related to animal husbandry activities (Sachan and Sethi, 2019; Hossain et al., 2021; Ndlovu and Mjimba, 2021). Understanding and addressing these constraints is essential for promoting gender equality, improving agricultural productivity, and achieving sustainable rural development.

The aim of this research paper is to conduct a comprehensive study on the analysis of socioeconomic characteristics of rural women's and to identify the challenges faced by women in animal husbandry, with a specific focus on the constraints that hinder their active participation in decision-making processes. By shedding light on these constraints, the research aims to generate insights that can inform policy interventions, program designs, and capacity-building initiatives to empower women in the agricultural sector. The findings of this research paper provide valuable insights into the constraints faced by farm women in animal husbandry and their implications for sustainable agricultural development. The identified constraints will be ranked based on their frequency and percentage of occurrence, enabling policymakers and stakeholders to prioritize interventions accordingly. Furthermore, the research aims to highlight the need for tailored support mechanisms, such as technical and financial assistance, capacity building, and improved access to veterinary services, to overcome these constraints effectively.

By addressing the identified constraints, it is expected that women's participation in decision-making processes related to animal husbandry will increase, leading to enhanced agricultural productivity, improved livelihoods, and greater gender equality in rural communities. Moreover, addressing these constraints can contribute to achieving the United Nations Sustainable Development Goals, particularly SDG 2 (Zero Hunger) and SDG 5 (Gender Equality). This research paper seeks to contribute to the existing literature on women in agriculture by providing empirical evidence on the constraints faced by women in animal husbandry decision making. The findings of this study have implications for policymakers, practitioners, and researchers in designing and implementing gender-responsive interventions that empower women, promote their meaningful participation, and foster sustainable agricultural development.

2. MATERIALS AND METHODS

Study was conduction in Dewas district of Madhya Pradesh, India in year 2019–20. Dewas district is spread over 7020 Sq. km. of Madhya Pradesh. A sample of 340 farm women was selected to represent various regions and farm sizes, to capture a diverse range of perspectives and experiences. Semi-structured interview questions were used to gather the study's data, which were then categorized, tabulated, and evaluated in order to come to relevant conclusions. The study's goals were taken into consideration while creating the interview schedule. It was pre-tested and translated into Hindi before to its real usage. The data were analyzed using statistical techniques such frequency, percentage, mean score, mean weighted score, and rank. The study employed a sample of 340 rural farm women. Through a structured survey, data was collected on the constraints faced by women while participating in decision-making processes in animal husbandry activities. The data was analyzed to identify the most prevalent and significant constraints, allowing for a comprehensive understanding of the challenges faced by women in this context.

3. RESULTS AND DISCUSSION

3.1. Socio economic attributes of women involved in animal husbandry activities

The distribution of respondents according to their socioeconomic characteristics, such as age, level of education, family size, type, and number of dairy animals overall (Table 1). The respondents were divided into three age groups: young (under 35), medium (between 36 and

Table 1: Socio-economic characteristics of the respondents, (n=340)

Sl. No.	Characteristics	Category	Frequency (%)	Mean±SD
1.	Age	Young (<to 35)	93 (27.35)	1.65±0.904
		Medium (36 to 55)	192 (56.47)	
		Old (>to 55)	55 (16.17)	
2.	Education status	Illiterate	147 (43.23)	2.84±1.36
		Primary education	123 (36.17)	
		Middle education	44 (12.94)	
		Primary	4665 (23.0043)	
		Higher secondary eduction	18 (5.29)	
		UG level	6 (1.76)	
		PG level	2 (0.58)	
3.	Family size	Small (Upto 5 members)	87 (25.58)	9.36±3.88
		Medium (6 to 10 members)	115 (33.82)	
		Large (above 10 members)	138 (40.58)	
4.	Family type	Nuclear	214 (62.94)	1.65±0.48
		Joint	126 (37.06)	
5.	Annual income	Low	75 (22.06)	2.85±1.63
		Medium	193 (56.76)	
		High	72 (21.18)	
6.	Total number of milch animals	Low (>5 animals)	95(27.94)	3.56±1.98
		Medium (5-10 animals)	156(45.88)	
		High (>10 animals)	89(26.17)	

55), and elderly (above 55). The findings indicate that most respondents (56.47%) belonged into the middle age group, followed by the young (27.35%) and the elderly (16.17%). The respondents were categorized according to their level of education in terms of their educational status. The results show that a significant number of the respondents (43.23%) lacked any kind of formal education, while others had finished elementary school (36.17%), middle education (12.94%), upper secondary education (5.29%), or had earned an undergraduate degree (1.76%) or a postgraduate degree (0.58%). Family size was divided into three categories: small (up to five members), medium (six to ten members), and big (more than ten members). The findings show that a sizable portion of respondents (33.82%), followed by those with big families (40.58%) and those with tiny families (25.58%), fell into the medium family size group. The two types of families were classified as nuclear and joint. The majority of respondents (62.94%) belonged to the nuclear family type, whereas the remainder respondents (37.06%) did not. There were three levels of annual income: low, medium, and high. According to the statistics, the majority of respondents (56.76%) had medium yearly incomes, which were followed by low income respondents (22.06%) and high income respondents (21.18%). The respondents' total number of milch animals was divided into three categories: low (5), medium (5–10), and high (>10). According to the findings, a sizable portion of respondents (45.88%) fit into the medium group, which was followed by the low category (27.94%) and the high category (26.17%).

3.2. Communication attributes of farm women

Table 2 presents the communication features of women engaged in farming, encompassing their usage of information sources, exposure to mass media, and level of cosmopoliteness. The survey revealed that a significant proportion of female farmers exhibited limited utilization of information sources, including 54.70% of the participants. This implies that a considerable percentage of women residing in rural areas face restricted availability to varied information sources pertaining to animal husbandry

Table 2: Distribution of the respondents according to their communication attributes; (n=340)

Sl. No.	Characteristics	Category	Frequency	%	Mean	SD
1.	Information source utilization	Low	186	54.70	0.98	0.80
		Medium	123	36.17		
		High	31	9.13		
2.	Mass media exposure	Regularly	68	20.0	0.85	0.75
		Frequently	201	59.11		
		Never	71	20.89		
3.	Cosmopoliteness	Low	191	56.18	16.54	4.61
		Medium	132	38.82		
		High	17	5.00		

techniques. The research investigated the prevalence of mass media consumption among female farmers. The findings of the study reveal that a significant proportion of participants (59.11%) indicated regular exposure to mass media. This implies that a considerable proportion of women residing in rural areas possess consistent availability to various mass media channels, including television, radio, and print media. Cosmopoliteness pertains to the extent of one's exposure and receptiveness to external influences and ideas. The results indicate that a significant proportion of women engaged in farming (56.18%) had a lack of cosmopolitanism, suggesting a restricted exposure to a wide range of ideas and experiences beyond their immediate rural surroundings. This implies that rural women may encounter difficulties in obtaining and assimilating novel knowledge, innovations, and practices into their decision-making about animal husbandry.

3.3. Psychological attributes of farm women

Table 3 presents the categorization of participants based on their psychological qualities, encompassing factors such as economic motivation, scientific orientation, and knowledge pertaining to animal husbandry procedures. A significant proportion of participants (68.82%) demonstrated a moderate degree of economic motivation. This finding indicates that a notable percentage of the participants exhibited a moderate level of motivation driven by economic factors when engaging in animal husbandry techniques. A lower proportion of participants (22.94%) displayed a low degree of economic drive, whereas a minority (8.24%) demonstrated a high level. The calculated mean score of 15.40 suggests that the respondents exhibit a modest level of economic motivation overall. The implications of these findings suggest that economic motives are a substantial determinant in individuals' involvement in animal husbandry, although additional motivations and considerations may also impact their decision-making processes. According to the data presented in the table, it can be observed that 49.12% of the participants exhibited a moderate degree of scientific inclination. This finding indicates that a significant number of the participants had a moderate predisposition towards scientific methodologies and information pertaining to animal husbandry methods. Approximately 30.29% of the participants shown a pronounced inclination towards scientific pursuits, whereas 20.59% displayed a diminished inclination. The average score of 40.34 suggests that the respondents generally possess a modest level of scientific inclination. The acquisition of knowledge pertaining to animal husbandry practices. The findings of the study reveal that a significant proportion of the participants, specifically 45.29%, possessed a moderate level of understanding in the field of animal husbandry methods. Furthermore, a notable percentage of 28.53% exhibited a high degree of knowledge in this domain. A low level of knowledge was observed in around 26.18% of the participants. The average score of 31.23 indicates a moderate level of knowledge on animal husbandry procedures among the participants. This discovery underscores the necessity of ongoing education and enhancement in comprehending several facets of animal management. The augmentation of knowledge levels has the potential to exert a favourable influence on decision-making processes, hence resulting in improved animal welfare, production, and overall outcomes.

Table 3: Distribution of the respondents according to their psychological attributes; (n=340)

Sl. No.	Characteristic	Categories	Frequency	Per cent	Mean	S.D.
1.	Economics motivation	Low	78	22.94	15.40	7.23
		Medium	234	68.82		
		High	28	8.24		
2.	Scientific orientation	Low	70	20.59	40.34	9.34
		Medium	167	49.12		
		High	103	30.29		
3.	Knowledge about animal husbandry practices	Low	89	26.18	31.23	8.33
		Medium	154	45.29		
		High	97	28.53		

3.4. Constraints faced by farm women in animal husbandry activities

The constraints faced by rural farm women while participating in decision-making processes related to animal husbandry activities (Table 4). The study was conducted with a sample of 340 farm women, and the table ranks the constraints based on their frequency and percentage of occurrence.

The top three constraints identified by the women were costly management (97.35%), lack of technical know-how about breeding, feeding, management, and health care of milch animals (96.76%), and high cost of milch animals (87.05%). These constraints highlight the need for providing technical and financial assistance to women engaged in animal husbandry activities.

Social and cultural norms (79.11%) were also identified as a significant constraint. This highlights the need for addressing the cultural barriers that prevent women from participating in decision-making processes related to animal husbandry activities. Dominancy of other family members (67.65%) was also identified as a barrier to women's participation, indicating the need for empowering women to assert their rights and participate in decision-making processes.

Table 4: Constraints faced by farm women while participation in decision making; (n=340)

Sl. No.	Constraints	Frequency	Percent
1.	High cost of milch animal	296	87.05
2.	Costly management	331	97.35
3.	Lack of technical know-how about breeding, feeding, management and health care on milch animals	329	96.76
4.	Busy schedule due to house hold activities	198	58.24
5.	Social/cultural norms	269	79.11
6.	Dominancy of other family members	190	67.65
7.	Less contact with extension workers	155	45.59
8.	Lack of self confidence in decision	298	87.64
9.	Poor educational background	212	62.35
10.	Loan procedure is too much tedious	199	58.53
11.	Artificial insemination centre being far away	140	41.18
12.	Lack of veterinary dispensary facility	167	49.12
13.	Non availability of vaccine in time	98	28.82
14.	Unavailability of adequate water	165	48.53
15.	Small size of land holding	201	59.12
16.	Cattle feed not supplied by dairy co-operative society	130	38.24
17.	Non availability of improved fodder crop seeds	145	42.65
18.	Lack of training in animal husbandry practices	188	55.29

The lack of self-confidence in decision-making (87.64%) and poor educational background (62.35%) were also identified as significant constraints, highlighting the need for capacity building and training programs for rural farm women. Constraints related to access to veterinary facilities, such as lack of veterinary dispensary facilities (49.12%) and non-availability of vaccines in time (28.82%), were also identified as significant constraints, indicating the need for improving the infrastructure and availability of veterinary services in rural areas. The results align with previous studies conducted by Singh et al. (2008), Patil et al. (2009), and Devaki and Senthilkumar (2011). Singh et al. (2008) highlighted that technical limitations were not as significant as infrastructural constraints in dairying. Patil et al. (2009) found a lack of green fodder, especially during the summer, or its expensive availability. Similarly, Devaki and Senthilkumar (2011) noted financial challenges faced by dairy farmers, including delayed milk payments, insufficient funds, and limited access to loans, high feed costs, and breeds with high yields.

4. CONCLUSION

The constraints faced by rural farm women in participating in decision-making processes related to animal husbandry activities were identified. The top three constraints identified were costly management, lack of technical know-how, and high cost of milch animals. The findings underscore the need for addressing these constraints through various interventions, including technical and financial assistance, capacity building and training programs, and improvements in veterinary services and infrastructure.

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