Short Communication

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PARTICIPATION OF WOMEN IN DAIRY FARM PRACTICES UNDER SMALLHOLDER PRODUCTION SYSTEM IN PUNJAB, PAKISTAN

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ABSTRACT

Women play a significant role in smallholder production system in Pakistan. They actively participate in various activities relating to crop and livestock production in addition to conducting their routine domestic duties often working non-stop from dawn to dusk. But the extent of their participation varies from region to region. The aim of this field survey was to investigate the involvement of women in dairy farm practices under small holder production system and possible factors affecting their participation in two districts of Punjab. A questionnaire was designed to collect the data from female farmers (*n=194*) from the districts of Bhakkar and Jhelum. Results indicate that the participation of women in dairy farm practices was significantly higher ($P< 0.05$) in Bhakkar than in district Jhelum. The present study suggests that, in order to maximize the smallholder dairy farm productivity, a strong extension program needs to be implemented to enhance the skills and knowledge of women.

Key words: Women, dairy farm practices, smallholder

INTRODUCTION

Livestock is generally considered a key asset for rural population and offers significant opportunities for improving household income. In Asian countries, animals have formed an essential role in the family farming system and rural women have been involved in livestock farming since time immemorial (Akhtar and Khan, 2000). 62% of Pakistan's population located in rural areas are involved with the agricultural related sector (Nosheen, 2008). Pakistani women located in these rural areas play a significant role in agriculture and livestock rearing. Women have been involved in animal production under small holder farming system to enhance the family income as well as to meet household food needs. Nearly half of the rural population consists of women who contribute 60 to 80% of labor required for animal rearing (Younas *et al*., 2007). They are the first to rise and last to go to bed (Siddique *et al*., 2009). Rural women carry out both domestic and livestock related activities. Their routine household activities include cleaning of the home, cooking, stitching, raising children while livestock management practices include cleaning of animals shed, taking care of sick animals, calf rearing, feeding, watering to animals, milking and making dairy products like ghee, yogurt and butter. General observations concerning rural family life and available studies show that male members are mainly responsible for agricultural practices, while besides the household responsibilities, the females are said to actively participate in livestock care and management (Zubair *et al*., 1999). Some of the activities like fodder production, cutting and transportation are mostly performed by male family members (Amin *et al*., 2010), but in many cases the women are also involved with these additional duties.

The participation of women in dairy farm practices varies by region, culture and socio-economic status. Existing information on the participation of women in the various dairy farm practices is very limited. Therefore, this study was carried out to investigate their contribution to smallholder production system in the areas of district Bhakkar and Jhelum. Furthermore, possible factors affecting their participation in dairy farm practices were analysed. It is anticipated that the information generated from this study will be helpful in identifying the extension needs and areas where women can improve dairy production by enhancing their skills and knowledge.

MATERIALS AND METHODS

A dairy extension project (No. LPS/2010/2007, funded by Australian Centre for International Agricultural Research) is working in Pakistan, with the aim of improving dairy production in Pakistan through the promotion of improved farm management and more effective extension services. A questionnaire was designed to collect data from two districts of project areas in Punjab, districts Jhelum (32° 56′ 0″ N, 73° 44′ 0″ E) and Bhakkar (31° 37′ 22.8″ N, 71° 3′ 45.36″). These two districts provide a contrast between an undeveloped arid region poorly served by irrigation (Bhakkar) and a more advanced region where farmers have access to extensive irrigation (Jhelum). Eight villages were selected from

Bhakkar and nine from Jhelum. Female farmers from Bhakkar (*n=92*) and Jhelum (*n=102*) were interviewed.

Statistical Analysis: The relative participation of women in dairy farm practices under small holder production systems in Bhakkar and Jhelum was analyzed using a Chi-square test. (SPSS-13.0). A p-value of 0.05 was regarded as significant.

RESULTS

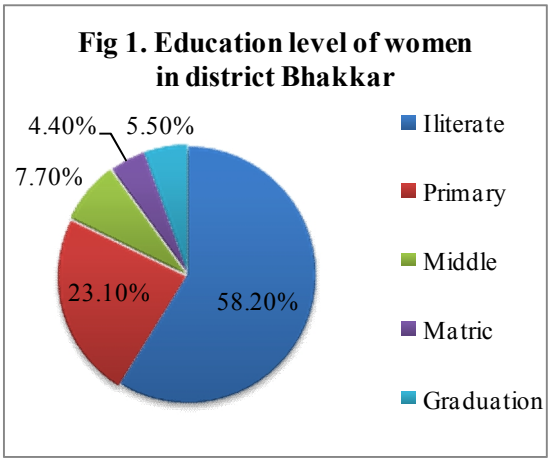
Participation of women in dairy farm practices was significantly higher ($P< 0.05$) in Bhakkar as compared to district Jhelum. A comparison of female participation in various dairy farm practices between the two districts (Table 1).

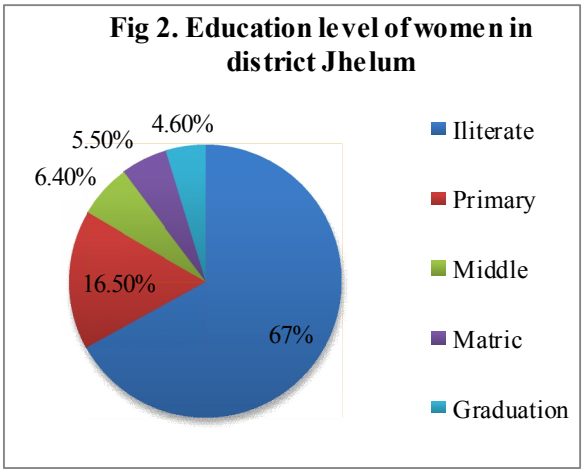
Table 1. Comparison of participation of women in various dairy farm practices between district Bhakkar and Jhelum

Livestock management activities	Districts	
	Bhakkar (%)	Jhelum (%)
Shed cleaning	71 (78.3)	80 (73.1)
Fodder cutting from field	19 (20.7)[a]	17 (15.7)[b]
Feed and watering	58 (64.1)[a]	22 (19.4)[b]
Care of calf	67 (73.9)[a]	32 (28.7)[b]
Milking	71 (78.3)[a]	22 (19.4)[b]
Milk sale	64 (69.6)[a]	61 (56.5)[b]
Care of sick animals	37 (40.2)[a]	10 (9.3)[b]
Value addition of milk	71 (78)	98 (89.9)

[a,b] means with a different superscript within rows are significantly different ($P< 0.05$)

Socio- economic status and cultural norms are affecting women's participation in dairy farm practices in the small-holder production systems of both Bhakkar and Jhelum. In Jhelum 15.6% of women are not participating in dairy farm practices due to traditional cultural barriers and 24 % do not contribute because of their relative affluence. In contrast, in district Bhakkar only 4.4 % are prohibited from participating because of cultural barriers while 9% are not participating because of their relative affluence. The education level for women was observed to be almost the same in both Bhakkar and Jhelum (Fig 1 and Fig 2).





DISCUSSION

The present study reveals that the participation of women in dairy farm practices was significantly higher in Bhakkar than in district Jhelum. Women contribute exclusively in various dairy farm practices such as routine husbandry and nutritional management.

The present study propose that the provision of appropriate extension services to women in these activities can significantly improve the productivity of animals. The working competencies of the rural women can be strengthened and upgraded by providing training on livestock rearing practices (Iftikhar *et al*., 2007). Trained women will help to increase dairy production and enhance household incomes. Furthermore, to enhance the social standards and participation of women in economic activities, there is need to provide them with quality education and knowledge of the latest technical advances in the fields of agriculture and livestock production (Khalida, 2009). Social mobilization and agricultural productivity can be advanced through active involvement of women in the development of land, livestock, education, extension, financial and employment resources (FAO, 2010-11).

Factors that limit participation of women in dairy farm practices are socio- economic status and cultural norms. Ideology, religion, economics and culture are the limiting factors in terms of the provision of gender specific services and opportunities (Moser, 1989). From a cultural perspective of Pakistan the role of women has always been misconceived. Constrains relating to women include cultural values, normative patterns and customs, most of which are without religious and ethical sanction (Khan, 2012). Present study shows that from Jhelum 15.6% women are not taking part in dairy farm practices due to cultural barriers and 24 % due to their high economical status. The women from affluent families do not work themselves but they hire laborers, whereas most of the rural and tribal women from disadvantaged communities do most of the on farm work themselves (Rangnekar *et al.,* 1992). The findings of Rathod *et al.*(2011) are also consistent with the earlier that these women can afford labor which in turn reduces their participation in livestock management activities.

Land holding is an important determinant of their economical status. Although the average land holding in Bhakkar (9 acres) is more than in Jhelum (6.9 acres) the poorer fertility and lack of irrigation water combined with more hot weather are major factors limiting production in Bhakkar compare to Jhelum.

The present study indicates that the education level was almost the same in the two districts. The overall literacy rate (aged 10 years and above) in Pakistan is 57.7 (Pakistan Economic Survey, 2010-11). It is important to know that equal opportunities (schools and colleges) are available for females in both of the districts, which was consistent with the results of our survey.

The present study suggests that, in order to maximize the dairy farm productivity a strong extension program needs to be implemented to transfer adoptable technologies and enhance the knowledge and skills of women in all aspects of livestock management practices including husbandry, nutrition, calf rearing, health and value addition to milk. Additional surveys of this nature will help to identify other regions of Pakistan in which women need to be the focus of specialist workshops. This will then lead to rapid improvements in the prosperity of village communities across the country.

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