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Symbolic adoption of selected drudgery reduction technologies related to agriculture and animal husbandry by the farm women

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Abstract

The present study was conducted in Gonda district of Uttar Pradesh state. Since the present study was an action research which required support of organization and functionaries working in the field of agriculture, it was conducted at Krishi Vigyan Kendra, Gonda. Gonda districts consists of 16 panchayat samities, out of which two panchayat samties i.e. Paraspur and Jhanjhari were purposively selected. 8 technologies *viz.* wheel hoe, manual rice transplanter, manual seed drill, knapsack sprayer, serrated sickle, manual bund former, maize sheller and ground nut decorticator, were selected for agriculture and 3 technology *viz.* Rake, Shovel and moving stool were selected for animal husbandry for technological empowerment of farm women through training and intervention. Personal interview technique was used for collecting data. The objective of the present paper was to assess Symbolic adoption of selected drudgery reduction technologies related to agriculture and animal husbandry by the farm women after giving training and intervention of all the above technologies. The result of the symbolic adoption of agriculture technology and animal husbandry reveals that majority of the respondents (85-90%) were satisfied with the use of agriculture technologies i.e. wheel hoe, rice transplanter, manual seed drill, knapsack sparer, manual bund former, serrated sickle, maize sheller and ground nut decorticator. Most of the respondents (91-95%) were satisfied with selected animal husbandry technologies and wanted to use them.

Keywords: Farm women, drudgery, technology, symbolic adoption

Introduction

A huge proportion of rural women involve in agricultural and allied fields like the crop production, irrigation, manuring, post harvest operations, agro/social forestry, livestock activities, fisheries, etc. The extent of women's involvement and type of activities performed by them in agriculture and allied fields varies greatly from state to state even within a state. Drudgery is generally conceived as physical and mental strain, agony, monotony and hardship experienced by human being, while all these result in decline in living and working conditions affecting men and women alike. According to 2011 Census [3], women make up about 33 per cent of the cultivators and about 47 per cent of the agricultural laborers, which is more if compared to male workers i.e. cultivators 24.90 per cent and agriculture labourers 29.96 per cent. Drudgery is a term used to represent the dissatisfaction experiences that constrain work performance. Almost all women suffer physical drudgery in various operations like hard physical work in care and management, harvesting, threshing/ processing, marketing and bartering of produce, harvesting by bending, weeding with conventional implements by hand in hot sun, rain and cold for long hours, dehusking/ shelling, pounding, grinding of cereals and pulses by hand, collecting and carrying fuel over long distance, fetching of water from cooking and drinking from distant places. Women are lagging behind in the use of improved technology and equipments at farm. It was pointed out in a study that various agricultural projects were formulated keeping in mind men with the assumption that they would automatically give advantage to women though men have different physiological and ergonomical characteristics than women. The tools or equipment which are designed considering men's physiological, anthropometric and ergonomical parameters, increase work load and occupational disorders in spite of decreasing, if not fit for the women. ccording to Armstrong (1983) [1], inappropriate design and excessive use of hand tools were found associated with increased incidence of both acute and sub-acute cumulative trauma of hand, wrist and fore arm. Designing and standardizing appropriate tailor made tools and equipment for women can reduce or entirely prevent physical fatigue, which is linked with farm work. The men on the farms were trained and educated to use the technological innovation. Women in agriculture have vast potential, intelligence and ability which if tapped properly may enable them to join the main stream of agriculture

development. Although there are growing number of available technologies which can enhance women's productivity and income in farm and animal husbandry sector, but these technologies have not reached the women. They should be provided equal access to technical information and training to upgrade their knowledge and skill.

Keeping in view the problems of past and continued involvement of women in agriculture it is required that some efforts should be directed towards reduction of drudgery, improved productivity and enhanced income. The use of improved tools by farm women would reduce drudgery, improve efficiency, lower occupational hazards and contribute to rural development. Continuous effort are needed at various levels to provide functional education to rural women through skill based trainings to enable them to take benefits out of these scientific developments. However, education for women may not be of traditional kind. What they need is exposure to the new development and up gradation of their basic knowledge related to their local occupation. It is required to mobilize the women and to make them understand the need to acquire the capability to manage their own activity on their own strength. Although several training programmes were organized by the government to strengthen the technological know-how and skill among farm women but lack of follow up of these training programmes failed to leave the positive impact on them. So an effective training programme should not end just by delivering but its follow up in terms of interventions is equally important to bring behavioral change in the farm women. Enhancing their capabilities to use improved techniques will not only help in increasing the production, but also in reducing their strain and time spend on farming activities. Therefore the objective of the present paper was to assess Symbolic Adoption of selected drudgery reduction technologies related to agriculture by the farm women after giving training and intervention of all the above technologies.

Objective

To Study Symbolic adoption of selected drudgery reduction technologies related to agriculture and animal husbandry by the farm women after intervention.

Methodology

The study was conducted in two purposively selected Panchayat Samities of Gonda district of Uttar Pradesh, namely Paraspur and Jhanjhari. For technological empowerment of farm women in selected drudgery reducing technologies 3 technologies related to animal husbandry were selected. Five training programme each of 4 days duration were organized for a group of 20 farm women. Thus 100 farm women were covered for technological empowerment of farm women through training. The training were organized at Krishi Vigyan Kendra, Gonda as per plan for technological empowerment of farm women through different training methods like interactive lectured, interactive demonstration and practice session supplemented with leaflets, folders and a film. Post test was conducted to find out gain in knowledge of farm women in selected drudgery reducing technologies related to agriculture and animal husbandry. After one month of training intervention was organized. During the intervention period all the technologies were given to the women to use for at least 8-10 days. Symbolic adoption of selected drudgery reduction technologies related to agriculture and animal husbandry by the farm women was assessed after giving training and intervention of all the above technologies.

Results and Discussion

Symbolic adoption of selected agriculture and animal husbandry technologies by the farm women

This section dealt with the decision of the respondents to adopt selected drudgery reducing technologies related to agriculture and animal husbandry after attending the training programme. Information regarding satisfaction with new technology, desire to use and purchase the technology, plan to purchase the technology and benefits perceived in its uses was gathered.

Perusal of Table 1 regarding Symbolic adoption after training and intervention of all the selected technology data in table reveals that majority of the respondents (85-90%) were satisfied with the use of agriculture technologies i.e. wheel hoe, rice transplanter, manual seed drill, knapsack sparer, manual bund former, serrated sickle, maize sheller and ground nut decorticator. Majority of them (80-90%) wanted to use these technologies at their farm and also expressed their desire to purchase the technology. Further data regarding plan to purchase the technology reveal that nearly one fourth of the respondents (20-24%) planned to purchase wheel hoe and knapsack sprayer with in three months followed by 05-16 per cent respondents planning to purchase manual rice transplanter, manual seed drill, manual bund former, serrated sickle and ground nut decorticator with in three months. Rest of the respondents expressed their desire to purchase the technology within six months or in a year. Regarding benefits perceived in use of selected agriculture technologies reveal that most of the respondents (85-100%) perceived the benefits of the technologies and mentioned that the technology were easy to use, energy saving, time saving, reduce body ache specially backache and feasible in cost. The findings are in line with Das, *et. al*. (2022) [4] about effectiveness of training in adoption or gain in knowledge that with a higher achievement motivation, the trained youths are more directed towards attaining personal goals and hence, seem to focus on the utility of training instead of certificates or other inputs.

Table 1: Symbolic adoption of selected drudgery reduction technologies related to agriculture by the respondent n=100

S. No.	Items	Wheel hoe %	Manual rice transplanter %	Manual seed drill %	Manual bund former %	Knapsack sprayer %	Serrated sickle %	Maize sheller %	Ground nut decorticator %
1.	Satisfied with new technology	88	86	85	89	86	88	90	87
2.	Wanted to use the technology at farm	88	86	85	89	86	88	90	87
3.	Wanted to Purchase the technology	83	81	80	85	80	88	88	87
4.	Plan to purchase the technology								
	a. With in 3 months	24	05	16	10	20	08	10	15
	b. With in 6 months	33	26	35	30	20	40	35	25
	c. With in year	26	50	29	45	40	40	43	47
5.	Benefits perceived in its uses								
	a. Easy to use	100	95	97	100	96	100	100	100
	b. Energy saving	98	95	97	100	96	100	100	100
	c. Time saving	99	97	97	100	96	100	100	100
	d. Reduce body ache specially backache	97	97	95	100	96	100	100	100
	e. Feasible cost wise	90	85	88	93	87	90	90	91

Perusal of the Table 2 regarding animal husbandry technologies indicates that most of the respondents (91-95%) were satisfied with the technologies and wanted to purchase and use. Data regarding plans to purchase the technologies reveal that nearly one third respondents (30-35%) planned to purchase the technology like rake, shovel and moving stool with in three months and 30- 45 per cent were planning to purchase within six months while rest of the respondents (18-30%) planned to purchase within a year. Further data regarding benefits perceived in its uses, indicate that almost all the respondents (95-100%) perceived the benefits like easy to use, energy saving, time saving, reduce body ache specially backache and feasible cost wise. Similar findings were reported by Singh, S. (2016) [6]. that majority of the (85%) were satisfied with drudgery reduction technology and want to purchase the technology in future.

Table 2: Symbolic adoption of selected drudgery reduction technologies related to animal husbandry by the respondents n=100

S. No.	Items	Rake (f/%)	Shovel (f/%)	Moving stool (f/%)
1.	Satisfaction with existing equipment	94	95	92
2.	Want to use the equipment at farm	94	95	92
3.	Want to Purchase the equipment	93	90	91
4.	Plan to purchase the equipment			
	a. Within 3 months	30	30	35
	b. Within 6 months	45	30	30
	c. Within year	18	30	26
5.	Benefits perceived in its uses			
	a. Easy to use			
	b. Energy saving	100	100	95
	c. Time saving	100	98	95
	d. Reduce body ache specially backache	100	99	97
		100	97	97
	e. Feasible cost wise	96	95	97

Conclusion

This can be concluded from the above study that a large number of women are working in agriculture and performing strenuous tasks. Majority of the agricultural and allied activities were perceived as difficult to perform by the farm women. Drudgery reducing tools and equipment are proved to be a boon for farm women. These tools and equipment reduced drudgery of farm women as well as increased their efficiency and work output. Majority of the respondents (80-90%) were satisfied with the use of selected agriculture technology, wanted to purchase and use these technologies at their farm and home. Nearly one fourth of the respondents (20-24%) planned to purchase the technology like wheel hoe and knapsack sprayer within three month. Most of the respondents (91-95%) were satisfied with selected animal husbandry technologies and wanted to use them. Nearly one third (30-35%) planned to purchase these technologies within three month. Therefore it is needed to make special effort to organize more training programme, demonstration, filed exposure were organized on regular bases for more exposure of women farmer and the adoption of technology. Similar suggestion was fined in Bose, *et. al.* 2023 [2]. that suggestions for better adoption of recommended guava production practices are field demonstration, training of new technology on regular interval, extension activities should be more in reach of the guava growers, proper market channel for better return and new storages must be established.

Recommendation and policy implication

1. There is a need to organize skill based training and intervention programme by the Agriculture Department, Krishi Vigyan Kendra and other training institution so that farm women are able to use the technologies for drudgery reduction.
2. For exposure of farm women to new technologies, regular visit of farm women should be organized to Krishi Vigyan Kendra, Agriculture Technology Information Centre etc. Continuous motivation, encouragement, training and guidance are needed for wider adoption of the technologies.
3. Effort should be directed to ensure adequate availability

of the drudgery reducing technologies to the farm women. It is necessary that technologies are available in near- by village market and Krishi Vigyan Kendras etc.

4. Necessary steps by the government should be taken up to make credit and subsidy arrangement so that drudgery reduction technologies become easily accessible to farm women.
5. Technology resource center can be established where women can learn to use and borrow the technologies to be used at their farms.

Conflict of Interest: No conflict of Interest among researcher

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