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Personal, socio-economic and psychological characteristics of women in relation to fruit and vegetable preservation

¹NK Yadav, ²NN Tale and ³BT Kolgane

¹PG Scholar, Agricultural Extension Education, RSCM, College of Agriculture, Kolhapur, MPKV, Rahuri, Maharashtra, India

²Assistant Professor of Agricultural Extension Education, College of Agriculture, Karad, MPKV, Rahuri, Maharashtra, India

³Associate Professor of Agricultural Extension Education, RSCM, College of Agriculture, Kolhapur, MPKV, Rahuri, Maharashtra, India

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Corresponding Author: NK Yadav

Abstract

The study was conducted in Satara district of Maharashtra during 2023–24 to investigate the knowledge and attitude of women towards fruit and vegetable preservation. Ex-post facto research design was followed, and data were collected from 120 respondents across 12 villages selected randomly from Satara and Jaoli tehsils. Data were gathered through personal interviews using a structured schedule and analyzed with frequency, percentage, mean, and range. Results revealed that the majority of respondents were middle-aged, with secondary education, married, belonging to nuclear families, engaged in household work plus farming, with low to medium annual income. Most respondents had medium levels of social participation, information-seeking behaviour, and achievement motivation, along with high risk orientation. The findings suggest the importance of training and capacity building to enhance scientific knowledge and innovative practices in fruit and vegetable preservation among rural women.

Keywords: Fruit and vegetable preservation, women, socio-economic characteristics

Introduction

Women play a pivotal role in socio-economic development, contributing significantly in agriculture, household management, and food processing. In India, women constitute nearly half of the agricultural workforce, especially in post-harvest activities like processing and preservation. Despite their critical role, a large portion of fruits and vegetables is lost due to poor handling and lack of preservation knowledge. According to, Agricultural Statistics at a Glance and Ministry of Food Processing Industries, 2022, fruits and vegetables account for 70.49 and 113.48 lakh hectares with productions of 1072.42 and 2048.35 lakh metric tonnes, facing post-harvest losses of 6.70–15.90% and 4.60–12.40%, respectively in India. In Maharashtra, fruits and vegetables cover 8.31 and 11.72 lakh hectares with productions of 124.67 and 167.90 lakh metric tonnes, incurring losses of 6.02–15.05% and 4.87–11.61%, respectively. Only 2.2% of fruits and vegetables are processed compared to much higher levels in developed nations.

Women's involvement in fruit and vegetable preservation is crucial not only for reducing wastage but also for enhancing family nutrition, income generation, and empowerment. Training in preservation techniques helps women improve their knowledge, skills, and capacity to adopt modern methods while maintaining traditional practices.

Methodology

The present study was carried out in Satara district of Maharashtra state during 2023–24. Out of eleven tehsils, Satara and Jaoli were selected on the basis of higher area under fruit and vegetable cultivation. From these tehsils, 12 villages (6 from each) were chosen randomly. A total of 120 respondent women were selected by simple random sampling, with 10 respondents from each village. The study was based on Ex-post facto research design since the variables had already occurred. Data were collected personally with the help of a structured and pre-tested interview schedule prepared in English and translated into Marathi for local use. The independent variables studied under this objective included age, education, marital status, type of family, occupation, annual income, social participation, risk orientation, information seeking behaviour and achievement motivation. The data were analyzed using frequency, percentage, mean and range to draw meaningful conclusions.

Results and Discussion

Age

Table 1 reveals that a majority (61.67%) of the respondents belonged to the middle age group (36–55 years), followed by 20.83% in the young age group (up to 35 years) and 17.50% in the old age group (56 years and above). This

shows that most women were in their economically active and experienced stage of life. Similar findings were reported by Neha Singh (2019)^[7].

Education

Table 1 presents the educational status of respondents. About 44.17% had secondary education, 34.17% had primary schooling, 10.83% studied up to higher secondary, and only 7.50% attained graduation or above. A very small proportion (3.33%) were illiterate. These results suggest a reasonably good literacy level among the respondents, largely due to the availability of village schools. Malabasari (2015)^[6] and Neha Singh (2019)^[7] also reported similar observations.

Marital Status

Table 1 shows that an overwhelming majority (94.17%) of the women were married, while 2.50% were unmarried and 3.33% widows. This implies that married women, being more responsible for household management, were actively

involved in preservation activities. Comparable findings were reported by Malabasari (2015)^[6].

Type of Family

Table 1 highlights the family type of respondents. A large proportion (80.00%) belonged to nuclear families, while only 20.00% lived in joint families. This trend can be attributed to migration of younger generations to urban areas for employment and education. Similar findings were reported by Bora (2015)^[3].

Occupation

Table 1 depicts the occupational pattern of respondents. A majority (79.17%) were engaged in household work combined with farming, while 19.17% were involved in household work with employment, and only 1.66% were confined to household work alone. This clearly reflects the dominance of agriculture as a livelihood activity. These findings are in agreement with Singh and Singh (2018).

Table 1: Personal, socio-economic and psychological characteristics of women (N=120)

Sr. No.	Variable	Category	Frequency	%
1	Age	Young (≤ 35 yrs)	25	20.83
		Middle (36–55 yrs)	74	61.67
		Old (56+ yrs)	21	17.50
2	Education	Illiterate (No Schooling)	04	3.33
		Primary (1st–7th)	41	34.17
		Secondary (8th–10th)	53	44.17
		Higher Secondary (11 th –12 th)	13	10.83
		Graduation	06	05.00
		Post-graduation	03	02.50
3	Marital Status	Married	113	94.17
		Unmarried	03	02.50
		Widow	04	03.33
4	Type of family	Joint	24	20.00
		Nuclear	96	80.00
5	Occupation	Household work	02	01.66
		Household + Farming	95	79.17
		Household + Employed	23	19.17
6	Annual Income	Low ($\leq 1,30,000$ Rs)	64	53.33
		Medium (1,30,001–2,25,000 Rs)	36	30.00
		High ($\geq 2,25,001$ Rs)	20	16.67
7	Social Participation	Low	23	19.17
		Medium	68	56.67
		High	29	24.16
8	Risk Orientation	Low	15	12.50
		Medium	44	36.67
		High	61	50.83
9	Information Seeking Behaviour	Low	37	30.83
		Medium	61	50.84
		High	22	18.33
10	Achievement Motivation	Low	16	13.33
		Medium	71	59.17
		High	33	27.50

Annual Income

Table 1 demonstrates the annual income of the respondents' families. More than half (53.33%) fell under the low-income category (up to ₹1,30,000), 30.00% were in the medium-income group, and only 16.67% in the high-income group. This highlights the economic constraints of rural families, largely due to dependence on seasonal farming. Tiwari *et al.*

(2022)^[9] also reported similar results.

Social Participation

Table 1 reflects the social participation of respondents. A majority (56.67%) exhibited medium participation in social organizations, while 24.16% and 19.17% had high and low participation, respectively. Moderate participation may be

due to limited education, household responsibilities, and restricted mobility. These results are supported by Chauhan (2018)^[4] and Imam (2019)^[5].

Risk Orientation

Table 1 portrays the risk orientation of respondents. About half (50.83%) showed a high degree of risk orientation, 36.67% medium, and 12.50% low. This suggests that many women were open to trying new preservation practices, especially those with higher education and belonging to the middle age group. Similar findings were noted by Nisha (2017)^[8].

Information Seeking Behaviour

Table 1 illustrates the information seeking behaviour of respondents. Around 50.84% had medium information seeking behaviour, 30.83% low, and 18.33% high. Limited access to resources, digital tools, and social mobility appear to influence this trend. Comparable results were reported by Tiwari *et al.* (2022)^[9].

Achievement Motivation

Table 1 emphasizes the achievement motivation of respondents. A majority (59.17%) had medium motivation, followed by 27.50% high and 13.33% low. This moderate level may be attributed to inadequate facilities, lack of encouragement, and limited support systems in rural settings. These findings are in line with Bora (2015)^[3].

Conclusion

The study on personal, socio-economic and psychological characteristics of respondent women revealed that the majority were in the middle age group, had attained secondary level of education, and were predominantly married, living in nuclear families. Farming along with household work was found to be their principal occupation, and most families belonged to the low to medium income category. In terms of social participation, the respondents were moderately active. With regard to psychological traits, the women exhibited high risk orientation, medium level of information seeking behaviour, and medium achievement motivation.

Overall, the findings suggest that rural women possess a fair degree of literacy and a positive inclination towards adopting improved practices. However, their economic limitations, restricted social involvement, and only moderate levels of achievement motivation highlight the need for capacity building programmes, training support, and institutional encouragement to enable them to adopt and sustain fruit and vegetable preservation practices effectively.

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