ISSN Print: 2664-844X
ISSN Online: 2664-8458
NAAS Rating (2025): 4.97
IJAFS 2025; 7(9): 308-311
www.agriculturaljournals.com
Received: 24-05-2025
Accepted: 28-06-2025

NK Yadav
PG Scholar, Agricultural Extension Education, RCSM, College of Agriculture, Kolhapur, MPKV Rahuri, Maharashtra, India

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

HP Sonawane
Professor (CAS) of Agricultural Extension Education, RCSM, College of Agriculture, Kolhapur, MPKV Rahuri, Maharashtra, India

Corresponding Author:
NK Yadav
PG Scholar, Agricultural Extension Education, RCSM, College of Agriculture, Kolhapur, MPKV Rahuri, Maharashtra, India

Relation between the Personal, Socio-Economic and Psychological characteristics of women with their knowledge about fruit and vegetable preservation

NK Yadav, NN Tale and HP Sonawane

DOI: https://www.doi.org/10.33545/2664844X.2025.v7.i9d.759

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 have medium level of knowledge and Education, Annual income, Social participation, Risk orientation, Information seeking behaviour and Achievement motivation have significant correlation with the knowledge. Age, Marital status, Type of family and Occupation have non significant correlation with the knowledge. 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 are central to post-harvest handling and preservation in rural households, making their knowledge of scientific preservation practices critical for reducing losses and improving family nutrition and income. In this context, knowledge is shaped by intertwined personal, socio-economic, and psychological characteristics namely age, education, marital status, family type, occupation, annual income, social participation, risk orientation, information-seeking behaviour, and achievement motivation. Understanding how these characteristics relate to women's knowledge enables targeted training and capacity-building that reinforce both household food security and women's empowerment in agro-processing. Grounded in an ex-post facto study design in Satara district, the present analysis examines these relationships to identify factors that facilitate or constrain the acquisition and application of preservation knowledge. The insights inform extension strategies by highlighting enabling levers such as education, social participation, proactive information seeking, and motivation that correlate with higher knowledge levels in preservation 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 dependent variable studied under knowledge about fruit and vegetable preservation. The data were analyzed using frequency, percentage, mean and range to draw meaningful conclusions.

Results and Discussion

Knowledge of women about fruit and vegetable preservation

Table 1 reveals that about half (53.33 per cent) of the respondents had medium level of knowledge about fruit and vegetable preservation, while 24.17 per cent and 22.50 per cent of the respondents had high and low level of knowledge about fruit and vegetable preservation, respectively the probable reason might be that most of the respondents were secondary educated, so they could understand and acquire skills about fruit and vegetable preservation. This finding is in conformity with the findings of Kumari *et al.* (2010) [4].

Table 1: Distribution of respondents according to their level of knowledge about fruit and vegetable preservation

Sr. No.	Category	Score	No of respondents (N = 120)	
			Frequency	Percentage
1.	Low level of knowledge	Up to 20	27	22.50
2.	Medium level of knowledge	21 - 31	64	53.33
3.	High level of knowledge	Above 32	29	24.17
Total			120	100.00
Range: 11 L: 9 H:42				

Age and knowledge about fruit and vegetable preservation

In the study age of the respondents was found positive and non significantly (r = 0.0574) correlated with the knowledge about fruit and vegetable preservation. Hence, the null hypothesis that there is no relation of the age with the knowledge of the respondents about fruit and vegetable preservation was accepted. It can be concluded that age was not an important variable which had effect on knowledge of the respondents about fruit and vegetable preservation. It is seen that there was no pattern indicating an increase or decrease in knowledge with age. The probable reason might be due to knowledge about fruit and vegetable preservation is influenced more by factors such as education level, exposure to training, interest in food processing and access to information rather than age itself. This finding is in agreement with the finding of Kaur *et al.* (2022) [2].

Education and knowledge about fruit and vegetable preservation

Educational qualification of the respondents had positive and significant (r = 0.1920) relationship with knowledge regarding fruit and vegetable preservation. Hence, the null hypothesis that there is no relation of the education with the knowledge of the respondents about fruit and vegetable preservation was rejected. The result reflects that the education is an important variable which had a direct effect on knowledge. The possible reason for this significant result might be that educated respondents had greater receptive power, were more exposed and had wider horizons. The similar findings are also obtained by Samantaray *et al.* (2020) [9], Sharma *et al.* (2016) [10] and Soni *et al.* (2018) [11].

Marital status and knowledge about fruit and vegetable preservation

There was positive and non significant (r = 0.1261) relationship between marital status of the respondents and knowledge about fruit and vegetable preservation. Hence, the null hypothesis that there is no relation of the marital status with the knowledge of the respondents about fruit and vegetable preservation was accepted. From the data obtained it can be concluded that marital status of respondent women have no relation to their knowledge about fruit and vegetable preservation because access to information and training is more influenced by factors like education, exposure and interest rather than marital status, this might be the probable reason for this kind of result. The similar findings are also obtained by Vaishali (2019) [12].

Type of family and knowledge about fruit and vegetable preservation

The type of family of the respondents had positive and non significant (r = 0.0526) relationship with knowledge about fruit and vegetable preservation. Hence, the null hypothesis that there is no relation of the type of family with the knowledge of the respondents about fruit and vegetable preservation was accepted. It proves that the type of family of the respondents had not played any role in increasing their knowledge regarding fruit and vegetable preservation. The probable reason might be that increasing knowledge is respondent's individual skill with the help of which they improve their knowledge irrespective of their size of family. This finding has been supported of findings Soni *et al.* (2018) [11].

Occupation and knowledge about fruit and vegetable preservation

Occupation of the respondents had positive and non significant (r = 0.0293) relationship with knowledge about fruit and vegetable preservation. Hence, the null hypothesis that there is no relation of the occupation with the knowledge of the respondents about fruit and vegetable preservation was accepted. From the above result it can be inferred that occupation has no relation to knowledge regarding fruit and vegetable preservation because such knowledge is often gained through specific training programs, moreover, women from various occupations may share equal interest to household food practices leading to similar knowledge levels regardless of their profession. This finding is in conformity with the findings of Soni *et al.* (2018) [11].

Annual income and knowledge about fruit and vegetable preservation

Annual income of the respondents family had positive and significant (r = 0.1908) relationship with their level of knowledge regarding fruit and vegetable preservation. Hence, the null hypothesis that there is no relation of the annual income with the knowledge of the respondents about fruit and vegetable preservation was rejected. The result proves that annual income is an important variable which played a crucial role in increasing knowledge among respondents about fruit and vegetable preservation. The probable reason might be that women with better economic condition might have utilized suitable sources of information to increase their level of knowledge. This

finding is in conformity with the findings of Roy *et al.* (2013) [8] and Soni *et al.* (2018) [11].

Social participation and knowledge about fruit and vegetable preservation

It was found that the social participation of the respondents had positive and significant (r = 0.2045) relationship with knowledge. Hence, the null hypothesis that there is no relation of the social participation with the knowledge of the respondents about fruit and vegetable preservation was rejected. Results prove that social participation plays an important role in increasing knowledge of women about fruit and vegetable preservation. This might be due to the fact that participation in social activities provides opportunities to share experiences, learn from experts and access training programs or demonstrations. Through group interactions and community involvement, women gain exposure to new techniques, practical skills and awareness about the importance of food preservation for nutrition and income generation. This finding is in agreement with the findings of Manjarekar *et al.* (2015) [6].

Risk orientation and knowledge about fruit and vegetable preservation

It was found that the risk orientation of the respondents had positive and significant (r = 0.2101) relationship with knowledge regarding fruit and vegetable preservation. Hence, the null hypothesis that there is no relation of the risk orientation with the knowledge of the respondents about fruit and vegetable preservation was rejected. Results prove that risk orientation plays an important role in increasing knowledge of women about fruit and vegetable preservation. This might be due to the fact that women with higher risk taking ability are more likely to explore new techniques and adopt innovative preservation methods. Such women often seek out training and information to reduce post harvest losses and improve food security thereby increasing their knowledge. This finding is in agreement with the findings of Nisha (2017) [7].

Information seeking behavior and knowledge about fruit and vegetable preservation

It was found that the information seeking behavior of the respondents had positive and significant (r = 0.1932) relationship with knowledge regarding fruit and vegetable preservation. Hence, the null hypothesis that there is no relation of the information seeking behavior with the knowledge of the respondents about fruit and vegetable preservation was rejected. Results prove that information seeking behavior play important role in increasing knowledge of women about fruit and vegetable preservation. This might be due to the fact that women who actively seek information are more likely to access training, media, expert advice on the topic. This proactive approach helps them stay updated with modern preservation techniques and enhancing their overall knowledge. This finding is in agreement with the findings of Khatri (2019) [3] and Mane (2015) [5].

Achievement motivation and knowledge about fruit and vegetable preservation

Achievement motivation of the respondents was positive and highly significantly correlated (r = 0.1987) with the knowledge about fruit and vegetable preservation. Hence, the null hypothesis that there is no relationship between achievement motivation and knowledge was rejected. The result obtained reflects that knowledge level increases with increased level of achievement motivation. The probable reason might be that women were interested to learn something new. This factor contributes for increasing their knowledge about fruit and vegetable preservation. The finding gets supported from the finding reported by Jagadeesh (2019) [1].

Table 2: Relationship between the profile of the respondents and their knowledge about fruit and vegetable preservation

Sr. No.	Independent Variables	Correlation Coefficients (r)
1.	Age	0.0574^{NS}
2.	Education	0.1920^{*}
3.	Marital status	0.1261^{NS}
4.	Type of family	0.0526^{NS}
5.	Occupation	0.0293^{NS}
6.	Annual income	0.1908^{*}
7.	Social participation	0.2045*
8.	Risk orientation	0.2101^{*}
9.	Information seeking behaviour	0.1932^{*}
10.	Achievement motivation	0.1987^{*}

* Significant at 0.05 level of probability, ** Significant at 0.01 level of probability
NS Non significant

Conclusion

Education, annual income, social participation, risk orientation, information seeking behaviour, and achievement motivation showed a positive and significant association with knowledge about fruit and vegetable preservation, whereas age, marital status, type of family, and occupation were positive but non-significant, indicating that cognitive-psychosocial and exposure-related factors are more decisive for knowledge than basic demographics or occupation.

References

1. Jagadeesh V. Knowledge and attitude of ragi growers towards Agricultural Technology Management Agency: A study in Kolar and Chikkaballapura districts [PhD thesis]. Bangalore: University of Agricultural Sciences, GKVK; 2019.
2. Kaur S, Rana S. Impact of vocational training on knowledge of rural women regarding preservation of fruits and vegetables. 2022.
3. Khatri K. Knowledge and adoption of selected health and nutritional practices by rural women in Tikamgarh district of MP [PhD thesis]. Jabalpur: Jawaharlal Nehru Krishi Vishwa Vidyalaya; 2019.
4. Kumari M, Shivastava AK, Sinha N. Extent of knowledge of farm women on nutrition. Indian Res J Ext Educ. 2010;10(1):65-8.
5. Mane MM. Knowledge and adoption of food grain storage practices by the rural women [PhD thesis]. Parbhani: Vasantrao Naik Marathwada Krishi Vidyapeeth; 2015.
6. Manjarekar RG, Mandavkar PM, Talathi MS. Knowledge and adoption status of training on value addition. J Krishi Vigyan. 2015;3(2s):62-6.
7. Nisha. Impact assessment of food processing trainings on scheduled caste women [PhD thesis]. Hisar: CCSHAU; 2017.

8. Roy R, Shivamurthy M, Radhakrishna RB. Impact of value addition training on participants of farmers training institutes. World Appl Sci J. 2013;22(10):1401-11.
9. Samantaray SK, Devadarshini C, Patro A, Panda PK, Giri B, Chaudhary AK. A comparative analysis on knowledge and adoption level of farmwomen regarding fruit and vegetable preservation technologies: A micro study by KVK, Ganjam-I. Curr J Appl Sci Technol. 2020;39(17):57-63.
10. Sharma P, Singh GP, Jha SK. Impact of training programme on knowledge and adoption of preservation technologies among farm women: A comparative study. Indian Res J Ext Educ. 2016;13(1):96-100.
11. Soni AN, Verma PD, Soni DN. Adoption of fruits and vegetable preservation technology by tribal farm women of Tapi district. Young. 2018;19:32-40.
12. Vaishali. Study on knowledge about women development programmes among rural women of Varanasi [MSc (Agri.) thesis]. Varanasi: Banaras Hindu University; 2019.