

CONSUMPTION PATTERN OF ORGANIC FOOD AMONG WOMEN CONSUMERS OF PATNA SADAR

Dr. Shubham Sinha¹, Dr. Anju Srivastava²

¹Assistant Professor, Department of Clinical Nutrition and Dietetics, Patna Women's College (Autonomous), Patna University, Patna, Bihar, India

Email: shubhamsinha36@gmail.com

²Professor, P.G. Department of Home Science, Patna University, Patna, Bihar, India

ABSTRACT

Presently, organic foods are available in every food group for the consumers which makes organic food a superb start towards a wholesome lifestyle. The word 'organic' describes the way in which agricultural foodstuffs are produced and prepared. Organic food is produced by methods complying with the standards of organic farming. Organic foods are often chosen because people are trying to avoid artificial chemicals and are more conscious regarding their good health. Organic produce is often of superior quality and taste than produce cultivated conventionally because it is grown without the use of synthetic pesticides, herbicides, or fertilizers. Organic food is beneficial for human health as well as for the environment. The study aims at studying the consumption pattern of organic food among women consumers of Patna Sadar. For the purpose of this study, 300 women consumers were selected by purposive sampling technique and data were collected through interview schedule and observation method. The analysis of data was shown through various tables using chi-square method. It was concluded that consumption of organic food was affected by factors which are education, nature of work and family monthly income. The study suggests that consumers should consume more of organic food available in the market either online or in-store as it is beneficial for overall good health.

Key Words: consumption pattern, organic food, women consumers

INTRODUCTION

An organic food is that which is raised, grown, stored and processed without the use of synthetically produced chemicals or fertilizers, herbicides, insecticides or any other pesticides. By organic farming, organic food is produced. Organic farming maintains earth's natural balance and does not harm foliage and fauna (Srilakshmi, B., 2020) [1]. For the convenience of planning balanced diet in order to meet daily Recommended Dietary Allowances (RDA) of each existent, foods have been classified into different food groups, suggested by ICMR known as 'Basic Four': (1) Cereals, Millets and Pulses, (2) Milk and Animal products, (3) Vegetables and Fruits and (4) Oils, Fats and Nuts. According to Balaji, K. C. & Sathyanarayan, K. (2018) [2] it is important to develop the awareness for organic food product and its value and benefits in order to develop health knowledge and food safety among the consumers. Organic products campaigns and mindfulness program on a regular basis will help its consumer to understand significance of organic food products. Elayaraja, M. & Vijai, C. (2020) [3] reported that there is developing significance on health benefits as people are getting apprehensive regarding organic foods. Organic farming developed products should be more available to the consumers. According to Gopalakrishnan, R. (2019) [4] organic food products have various advantages.

Organic foods have more beneficial nutrients similar as antioxidants which is good for human health. Organic food is often fresher and taste better than non-organic food. William, A. (2021) [5] reported that there are various categories of food items available under the umbrella of organic food products. Organic farming and organic food are becoming more trending now a days so as its consumers are also increasing as they are more conscious regarding their health, environment and social welfare.

Organic food product has several implicit benefits for human health. In the period of growing environmental and agricultural pollution presumably one of the wisest ways in the food sector is to switch over to organic foods. Consumption of organic food is directly related with product and availability in the market and vice versa, necessary information provided by the shop / salesperson, consumer's knowledge- so on and so forth. At this juncture it is imperative to know the status of consumption pattern of organic foods among the consumers. Keeping in mind all the importance of organic food, the present study would be an attempt to provide necessary information in this direction.

Objective: To study the consumption pattern of organic food among women consumers of Patna Sadar.

Hypothesis: The households of Patna Sadar would have low consumption of organic food.

METHODOLOGY

Research Method

The locale of the study was Patna Sadar. For the purpose of this study, 300 women consumers from the six circles (New capital circle, Patliputra circle, Kankarbagh circle, Bankipur circle, Patna city circle and Azimabad circle) of Patna Sadar were selected by purposive sampling technique. Data for the study in the present research were collected by interview schedule and observation method.

Statistical analysis

S.P.S.S.- 20 (Statistical Package for Social Sciences) was used for statistical analysis of the present research which is developed by IBM. Under which the analysis of data was shown through various tables using chi-square method.

FINDINGS AND DISCUSSION

The present research was conducted in order to study the consumption pattern of organic food among women consumers of Patna Sadar. The information obtained from this study is as follows:

Table 1 Age Consumption of Organic Food (N=300)

Age		Cereals	Millet	Pulses	Milk and Animal Products	Vegetables and Fruits	Oils	Fats	Nuts	Sugar and Jaggery
25-34	Daily	2.17	0	3.26	0	0	0	0	2.17	2.17
	Weekly	2.17	0	0	0	0	0	0	0	1.08

	Monthly	0	0	0	0	0	0	0	0	0
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	0	0	0	0	0	0	0	0	1.08
	Never	95.65	100	96.73	100	100	100	100	97.82	95.65
35-44	Daily	0	0	2.38	0	0	0	0	0	2.38
	Weekly	5.95	0	1.19	0	0	0	0	2.38	3.57
	Monthly	1.19	1.19	3.57	0	0	0	0	0	2.38
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	1.19	0	0	0	0	0	0	0	0
	Never	91.66	98.80	92.85	100	100	100	100	97.61	91.66
45-54	Daily	4.34	0	0	0	0	0	0	0	0
	Weekly	7.24	0	2.89	0	0	0	0	4.34	0
	Monthly	0	0	0	0	0	0	0	1.44	1.44
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	2.89	0	0	0	0	0	0	0	1.44
	Never	85.50	100	97.10	100	100	100	100	94.20	97.10
55+	Daily	0	0	0	0	0	0	0	1.81	1.81
	Weekly	3.63	0	3.63	0	0	0	0	3.63	1.81
	Monthly	0	0	0	0	0	0	0	0	1.81
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	0	0	0	0	0	0	0	0	0
	Never	96.36	100	96.36	100	100	100	100	94.54	94.54
Chi-square (χ^2) value		15.18 P<.05	2.58 P<.05	15.09 P<.05	---	---	---	---	10.34 P<.05	8.68 P<.05

Table 1 represents the effect of different age groups on the consumption pattern of various categories of organic food among women consumers of Patna Sadar. After statistical analysis, it was found that consumption of organic food was not affected by age as chi square value was found non-significant at 0.05 level of significance. In line with the findings of **Atalay et.al. (2019) [6]** wherein he stated that age do not have an effect on consumption of organic food.

Table 2 Education* Consumption of Organic Food (N=300)

Education		Cereals	Millet s	Pulse s	Milk and Animal Products	Vegetables and Fruits	Oils	Fats	Nuts	Sugar and Jaggery
Matric	Daily	1.88	0	0	0	0	0	0	0	0
	Weekly	3.77	0	0	0	0	0	0	0	0
	Monthly	0	0	1.88	0	0	0	0	0	0
	Yearly	0	0	0	0	0	0	0	0	0

	As per Need	0	0	0	0	0	0	0	0	0
	Never	94.3	100	98.11	100	100	100	100	100	100
Intermediate	Daily	0	0	0	0	0	0	0	0	0
	Weekly	1.88	0	2.27	0	0	0	0	0	0
	Monthly	0	0	0	0	0	0	0	0	0
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	0	0	0	0	0	0	0	0	0
	Never	97.72	100	97.72	100	100	100	100	100	100
Graduation	Daily	0	0	2.91	0	0	0	0	0	0
	Weekly	4.85	0	1.94	0	0	0	0	2.91	1.94
	Monthly	0.97	0	0	0	0	0	0	0.97	2.91
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	0.97	0	0	0	0	0	0	0	1.94
	Never	93.20	100	95.14	100	100	100	100	96.11	93.20
Post Graduation	Daily	4.68	0	3.12	0	0	0	0	4.68	7.81
	Weekly	9.37	0	1.56	0	0	0	0	6.25	3.12
	Monthly	0	1.56	3.12	0	0	0	0	0	1.56
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	3.12	0	0	0	0	0	0	0	0
	Never	82.81	98.43	92.18	100	100	100	100	89.06	87.50
Other	Daily	2.77	0	0	0	0	0	0	0	0
	Weekly	0	0	2.77	0	0	0	0	0	2.77
	Monthly	0	0	0	0	0	0	0	0	0
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	0	0	0	0	0	0	0	0	0
	Never	97.22	100	97.22	100	100	100	100	100	97.22
Chi-square (χ^2) value		18.62	3.70	10.57	---	---	---	---	20.97	29.42
		P<.05	P<.05	P<.05					P<.05	P>.05*

Table 2 reveals the effect of education on the consumption pattern of various categories of organic food among women consumers of Patna Sadar. After statistical analysis, it was found

that consumption of organic sugar and jaggery was, in particular, affected by education as chi square value was found significant* at 0.05 level of significance. In line with the findings of **Kumar et al. (2021) [7]** wherein he stated that rise in education level is an important reason behind increased demand of organic food.

Table 3 Nature of Work* Consumption of Organic Food (N=300)

Nature of Work		Cereals	Millet	Pulses	Milk and Animal Products	Vegetables and Fruits	Oils	Fats	Nuts	Sugar and Jaggery
Government	Daily	5.88	0	0	0	0	0	0	5.88	5.88
	Weekly	17.64	0	5.88	0	0	0	0	11.76	5.88
	Monthly	0	2.94	2.94	0	0	0	0	0	0
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	0	0	0	0	0	0	0	0	0
	Never	76.47	97.05	91.17	100	100	100	100	82.35	88.23
Semi Government	Daily	0	0	0	0	0	0	0	0	0
	Weekly	0	0	0	0	0	0	0	0	0
	Monthly	0	0	5	0	0	0	0	0	0
	Yearly	0	0		0	0	0	0	0	0
	As per Need	5	0	0	0	0	0	0	0	0
	Never	95.0	100	95.0	100	100	100	100	100	100
Private	Daily	0	0	5.12	0	0	0	0	0	1.28
	Weekly	2.56	0	2.56	0	0	0	0	3.84	2.56
	Monthly	1.28	0	0	0	0	0	0	1.28	3.84
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	1.28	0	0	0	0	0	0	0	2.56
	Never	94.87	100	92.30	100	100	100	100	94.87	89.74
Business	Daily	2.27	0	0	0	0	0	0	0	2.27
	Weekly	2.27	0	0	0	0	0	0	0	2.27
	Monthly	0	0	0	0	0	0	0	0	2.27
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	2.27	0	0	0	0	0	0	0	0
	Never	93.18	100	100	100	100	100	100	100	93.18
Other	Daily	1.61	0	0.80	0	0	0	0	0.80	0.80
	Weekly	4.03	0	0.80	0	0	0	0	0	0
	Monthly	0	0	0.80	0	0	0	0	0	0
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	0	0	0	0	0	0	0	0	0
	Never	94.35	100	97.58	100	100	100	100	99.19	99.19
Chi-square (χ^2) value		29.40	7.85	19.45	---	---	---	---	31.43	23.91
		P>.05*	P<.05	P<.05					P>.01**	P<.05

Table 3 represents the effect of nature of work on the consumption pattern of various categories of organic food among women consumers of Patna Sadar. After statistical analysis, it was found that consumption of organic cereals was affected by the nature of work as chi square value was found significant* at 0.05 level of significance and consumption of organic nuts was also affected by the nature of work as chi square value was found highly significant** at 0.01 level of significance. In line with the findings of **Aydogdu, M., H. & Kaya, F. (2020) [8]** wherein he stated that the nature of work is an effective indicator of organic food consumption. Government employees had a more positive approach to organic food compared to public sector employees.

Table 4 Duration of Work* Consumption of Organic Food (N=300)

Nature of Work		Cereals	Millets	Pulses	Milk and Animal Products	Vegetables and Fruits	Oils	Fats	Nuts	Sugar and Jaggery
6 hours	Daily	0.84	0	0	0	0	0	0	1.69	1.69
	Weekly	1.69	0	2.54	0	0	0	0	0	0
	Monthly	0	0	0	0	0	0	0	0	0
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	0	0	0	0	0	0	0	0	0
	Never	97.45	100	97.45	100	100	100	100	98.30	98.30
8 hours	Daily	1.02	1.02	3.06	0	0	0	0	1.02	1.02
	Weekly	8.16	0	1.02	0	0	0	0	6.12	2.04
	Monthly	0	0	2.04	0	0	0	0	0	1.02
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	1.02	0	0	0	0	0	0	0	2.04
	Never	89.79	98.97	93.87	100	100	100	100	92.85	93.87
10 hours	Daily	3.79	0	2.53	0	0	0	0	0	2.53
	Weekly	5.06	0	1.26	0	0	0	0	1.26	3.79
	Monthly	1.26	0	1.26	0	0	0	0	1.26	3.79
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	2.53	0	0	0	0	0	0	0	0
	Never	87.34	100	94.93	100	100	100	100	94.46	89.87
12 hours	Daily	0	0	0	0	0	0	0	0	0
	Weekly	0	0	0	0	0	0	0	0	0
	Monthly	0	0	0	0	0	0	0	0	0
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	0	0	0	0	0	0	0	0	0
	Never	100	100	100	100	100	100	100	100	100

Chi-square (χ^2) value	14.54	2.06	6.93	---	---	---	---	13.68	14.77
	P<.05	P<.05	P<.05					P<.05	P<.05

Table 4 describes the effect of duration of work on the consumption pattern of various categories of organic food among women consumers of Patna Sadar. After statistical analysis, it was found that consumption of organic food was not affected by duration of work as chi square value was found non-significant at 0.05 level of significance. In line with the findings of **Bagher et.al. (2018) [9]** wherein he stated that consumption of organic food is independent of duration of work. Working women consumers who worked for certain hours are not concerned with the consumption of organic food.

Table 5 Family Monthly Income* Consumption of Organic Food (N=300)

Family Monthly Income		Cereals	Millets	Pulses	Milk and Animal Products	Vegetables and Fruits	Oils	Fats	Nuts	Sugar and Jaggery
20K-30K	Daily	1.05	0	0	0	0	0	0	0	0
	Weekly	2.10	0	2.10	0	0	0	0	0	0
	Monthly	0	0	0	0	0	0	0	0	0
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	1.05	0	0	0	0	0	0	0	0
31K-40K	Never	95.78	100	97.89	100	100	100	100	100	100
	Daily	0	0	0	0	0	0	0	0	0
	Weekly	1.69	0	0	0	0	0	0	0	0
	Monthly	0	0	1.69	0	0	0	0	1.69	3.38
	Yearly	0	0	0	0	0	0	0	0	0
41K-50K	As per Need	0	0	0	0	0	0	0	0	1.69
	Never	98.30	100	98.30	100	100	100	100	98.30	94.91
	Daily	2	0	4	0	0	0	0	0	2
	Weekly	4	0	0	0	0	0	0	4	2
	Monthly	0	0	0	0	0	0	0	0	0
51K-60K	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	0	0	0	0	0	0	0	0	0
	Never	94.0	100	96	100	100	100	100	96	96
	Daily	2.22	0	0	0	0	0	0	0	0
	Weekly	6.66	0	2.22	0	0	0	0	2.22	2.22
	Monthly	0	0	2.22	0	0	0	0	0	0
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	2.22	0	0	0	0	0	0	0	2.22
	Never	88.88	100	95.55	100	100	100	100	97.77	95.55

61K-70K	Daily	0	0	6.06	0	0	0	0	0	0
	Weekly	9.09	0	3.03	0	0	0	0	9.09	6.06
	Monthly	3.03	0	0	0	0	0	0	0	6.06
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	3.03	0	0	0	0	0	0	0	0
	Never	84.84	100	90.90	100	100	100	100	90.90	87.87
71K-80K	Daily	7.69	7.69	0	0	0	0	0	7.69	7.69
	Weekly	7.69	0	0	0	0	0	0	7.69	7.69
	Monthly	0	0	7.69	0	0	0	0	0	0
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	0	0	0	0	0	0	0	0	0
	Never	84.61	92.30	92.30	100	100	100	100	84.46	84.61
81K-90K	Daily	25	0	0	0	0	0	0	25	50
	Weekly		0	25	0	0	0	0	0	0
	Monthly	25	0	0	0	0	0	0	0	0
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	0	0	0	0	0	0	0	0	0
	Never	50.0	100	75	100	100	100	100	75	50
Above 91K	Daily	0	0	100	0	0	0	0	100	100
	Weekly	100	0	0	0	0	0	0	0	0
	Monthly	0	0	0	0	0	0	0	0	0
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	0	0	0	0	0	0	0	0	0
	Never	0	100	0	100	100	100	100	0	0
Chi-square (χ^2) value		59.12 P>.01 **	22.15 P>.01 **	92.68 P>.01 **	---	---	---	---	147.74 P>.01 **	146.67 P>.01 **

Table 5 explains the effect of family monthly income on the consumption pattern of various categories of organic food among women consumers of Patna Sadar. Women consumers with higher family monthly income had greater consumption of organic food followed by middle family monthly income and lower family monthly income. The socio-economic status of consumer has a great effect on the consumption of organic food. In contrast with the findings of Chattopadhyay, A. & Khanzode, P. (2019) [10] wherein he stated that in spite of higher family monthly income, people are found to ignore the benefits of organic food and avoid consuming them. Consumption of organic food is independent of the income levels. In this study, after statistical analysis, it was found that consumption of various categories of organic food was highly affected by family monthly income as chi square value was found highly significant** at 0.01 level of significance.

Table 6 Family Type* Consumption of Organic Food (N=300)

Family Type		Cereals	Millets	Pulses	Milk and Animal Products	Vegetables and Fruits	Oils	Fats	Nuts	Sugar and Jaggery
Nuclear	Daily	1.11	0	2.27	0	0	0	0	1.66	1.66
	Weekly	6.11	0	1.66	0	0	0	0	2.77	1.11
	Monthly	0.55	1.11	1.66	0	0	0	0	1.11	0.55
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	1.11	0	0	0	0	0	0	0	0.55
Joint	Never	91.11	99.44	93.88	100	100	100	100	95.0	96.11
	Daily	2.5	0	0	0	0	0	0	0	1.66
	Weekly	2.5	0	1.66	0	0	0	0	1.66	2.5
	Monthly	0	0	0	0	0	0	0	0	2.5
	Yearly	0	0	0	0	0	0	0	0	0
	As per Need	0.83	0	0	0	0	0	0	0	0.83
	Never	94.16	100	98.33	100	100	100	100	98.33	92.50
Chi-square (χ^2) value		3.64	0.66	5.48	---	---	---	---	3.13	3.05
		P<.05	P<.05	P<.05					P<.05	P<.05

Table 6 represents the effect of family type on the consumption pattern of various categories of organic food among women consumers of Patna Sadar. After statistical analysis, it was found that consumption of organic food was not affected by family type as chi square value was found non-significant at 0.05 level of significance. In line with the findings of **Muthukumaran, C. K. (2021) [11]** wherein the consumption of organic food is independent of family type of the consumer.

CONCLUSION

Consumption of organic food among women consumers is not affected by the age, duration of work and family type. While consumption of organic food among women consumers is affected by education, nature of work and family monthly income. Women consumers with higher family monthly income had greater consumption of organic food followed by middle family monthly income and lower family monthly income.

With the growth of the organic market, the number of organic consumers will also increase. In such a situation, other aspects of organic food should also be researched. This study is mainly focused on women consumers while men consumers are also a strong sample for this subject which can be studied.

Suggestions for future research

With the growth of the organic market, the number of organic consumers will also increase. In such a situation, other aspects of organic food should also be researched. This study is mainly focused on women consumers while men consumers are also a strong sample for this subject which can be studied. A comparative study of organically grown food and

conventionally grown food can be very useful in this regard. A comparative study of organic farming versus conventional farming is an important aspect for research studies. Producers and sellers of organic food are also important subjects for research studies. Exploratory research should be done in the field of organic cosmetics, organic clothing and organic drugs.

REFERENCES

1. Srilakshmi, B. (2020). *Food Science* (7th ed.). New Age International Publishers.
2. Balaji, K., C. & Sathyanarayan, K. (2018). *Impact of Sales Promotions and Knowledge of Organic Food Products on Purchase Intention of consumers*. International Journal of Research and Analytical Reviews, 5(4), 579-584. <http://ijrar.com>
3. Elayaraja, M. & Vijai, C. (2020). *Organic farming in India: Benefits and Challenges*. European Journal of Molecular & Clinical Medicine, 7(11), 3021-3029.
4. Gopalakrishnan, R. (2019). *Advantages and Nutritional Value of Organic Food on Human Health*. International Journal of Trend in Scientific Research and Development, 3(4), 242-245. URL: <https://www.ijtsrd.com/papers/ijtsrd23661.pdf>.
5. William, A. (2021). An Economic Study on Organic Food Products and Consumer Attitude with Special Reference to Chennai City Tamil Nadu. *International Journal of Humanities and Social Science Invention*, 10(5), 59-63. DOI: 10.35629/7722-1005035963
6. Atalay, C., Olhan, E. & Ataseven, Y. (2019). *Factors Affecting Organic Food Consumption: A case study of Ankara*. Journal of Environmental Protection and Ecology, 20(1), 196-205. <https://www.researchgate.net/publication/332710001>
7. Kumar, P., Sharma, S. & Garg, N. (2021). *Consumption Pattern and Purchase Intention of Consumers Regarding Organic Food Products: An Empirical Study in Delhi Ncr*. Journal of Contemporary Issues in Business and Government, 27(1), 2672-2685. cibg.org.au
8. Aydogdu, M., H. & Kaya, F. (2020). *Factors affecting consumers' consumption of organic foods: A case study in GAP-Sanhurfa in Turkey*. Journal of Agricultural Science and Technology, 22(2), 347-359.
9. Bagher, A. N., Salati, F. & Ghaffari, M. (2018). *Factors Affecting Intention to Purchase Organic Food Products among Iranian Consumers*. Academy of Marketing Studies Journal, 22(3).
10. Chattopadhyay, A. & Khanzode, P. (2019). *An Empirical Study on Awareness and Consumption pattern of organic food in Bengaluru City, The IT Capital of India: An analysis with respect to different demographic factors and availability of organic food products in Bengaluru*. International Journal of Research Granthaalayah, 7(1), 276-296. DOI: <https://doi.org/10.29121/granthaalayah.v7.i1.2019.1055>.
11. Muthukumaran, C., K. (2021). *Awareness and Consumption of Organic Food in Relation to Demographic Factors in Sivaganga District*. Journal of Tianjin University Science and Technology, 54(4), 371-385. DOI 10.17605/OSF.IO/3S2M4