



ISSN (E): 2277-7695

ISSN (P): 2349-8242

NAAS Rating: 5.23

TPI 2023; 12(5): 901-904

© 2023 TPI

www.thepharmajournal.com

Received: 01-02-2023

Accepted: 05-03-2023

KB Didore

P.G. Student, Section of Animal Husbandry & Dairy Science, College of Agriculture, Nagpur, Maharashtra, India

DT Undratwad

Assistant Professor, Section of Animal Husbandry & Dairy Science, College of Agriculture, Sonapur, Gadchiroli, Maharashtra, India

VG Atkare

Professor, Section of Animal Husbandry & Dairy Science, College of Agriculture, Nagpur, Maharashtra, India

MK Rathod

Professor of Agricultural Extension Education, College of Agriculture, Nagpur, Maharashtra, India

Bhavana R Wankhade

Assistant Professor, Section of Animal Husbandry & Dairy Science, College of Agriculture, Nagpur, Maharashtra, India

Corresponding Author:

KB Didore

P.G. Student, Section of Animal Husbandry & Dairy Science, College of Agriculture, Nagpur, Maharashtra, India

Consumption pattern of milk and milk products in Jalna Tahsil of Jalna district

KB Didore, DT Undratwad, VG Atkare, MK Rathod and Bhavana R Wankhade

Abstract

The present study entitled “Consumption pattern of milk and milk products in Jalna”. Primary data of the present investigation were collected from 200 household by personally interviewing survey the head of each household from Jalna city in Maharashtra state. Milk consumption in middle age was found to be highest (25.37%) and children age groups (16.63%). Large portion of consumers (53%) had annual income between Rs. 2,00,000-3,00,000 and lower in category (20%) above Rs. 3,00,000. It was further observed that 89 percent of consumer had nuclear family and 11 percent of joint family. Most of the consumers had liking for cow milk (54.21%) with (57.26%) prefer to consume milk in morning hours. Per capita milk consumption in study area was 135 gm/day found to be less than recommended standard 300 gm/day. In relationship with other highest number of consumers (43%) were servicemen followed by business group (32.50%). Mostly milk consumers purchase milk through home delivery (31%) and lowest in Government milk scheme (6%). Consumers preference for milk products vary for different age groups. The study concluded that the income and family size are most important factors while studying on consumption pattern of milk and milk products and both have wide impact but there is need to be undertaken deep studies with other socio- economic factors like age, education, occupation etc.

Keywords: Milk, consumption pattern, milk products, consumption, dairy

Introduction

India has rank first in milk production contributing 23 percent of global milk production. Milk production in the country has grown at a compound annual growth rate of about 6.2 percent to reach 209.96 million tonnes in 2020-21 from 146.31 million tonnes in 2014-15. Agriculture sector contribute to about 20.2 percent of India GDP (Aug, 2020). The dairy and animal husbandry sector contributes around 4.2 percent of India's GDP. Milk production In India is 198.44 million tonnes with per capita availability of milk is 427 gm / day. Recommended per capita milk 300 gm/day (ICMR).

Maharashtra State has second rank of milk production after UP. In the year 2020- 21 the milk production of Maharashtra state is 12.024 million tonnes. Dairy industry gives an opportunity to about eighty million families in direct and indirect employment activities across India. (Senthikumar *et al.* 2020) [1]. Milk is said to cure sulphur poisoning, low fever, dysuria, night discharge, hyper acidity, biliary troubles, measles and small pox fever, chest and heart ailments, anaemia, T.B., dysentery, hiccups and retention of urine. Application of cow colostrum boiled with sugar, ghee and powder gives relief from pain and sets the fractured bone. Milk is also a good source of vitamins and trace elements like Copper, Iron, Cobalt, Zink, Lithium, Barium, etc. Ghee is highly nutritious food which mainly supplies energy with liberal supply of Vit. A and moderate supply of Vit. D and Vit. E. From medicinal point of view ghee is believed to be a coolant, capable of increasing mental power and curative of ulcers and eye disease. In short milk is complete food to human beings for all ages.

Material and Methods

The study was carried out during the year 2021-22 in Jalna city of Maharashtra state. Area of Jalna city was divided into wards, out of which 20 colonies were randomly selected for the study. From each colony, 10 households were selected. Thus in all 200 households were selected from city. The personal interview technique was used as a tool through which first handed information was collected in order to get accurate response and information from the consumer pertaining to their socio-economic condition, consumption pattern of milk and milk products.

Before collection of data, interview schedule was pre-tested by the interviewer. The collected data were compiled, tabulated and analyzed to interpret the results. The descriptive statistics like frequency and percentage used for the investigation.

Consumers were classified according to age, education, occupation, Family size and income. The data analyzed statistically by using simple basic statistics of Snedecor and Cochran (1967)^[13].

Results and Discussion

Basic characteristics of consumers

Table 1: Socio-economic profile of milk and milk product consumers (n =200 except for Age n=950)

Sr. No.	Characteristics	category	Frequency	Percentage
1	Age	Children (Up to 13 yrs)	158	16.63
		Teenagers (13 to 19 yrs)	123	12.95
		Adolescent (19 to 25 yrs)	133	14.00
		Adult (25 to 35 yrs)	166	17.47
		Middle age (35 to 50 yrs)	241	25.37
		Old (Above 50 yrs)	129	13.58
2	Education	Illiterate	6	3
		Primary (1st - 4th std.)	8	4
		Middle School (5th - 7th std.)	14	7
		High school (8th - 10th std.)	22	11
		Higher secondary (11th - 12th std.)	44	22
		Graduation (Above 12th std.)	106	53
3	Annual income	Low (Up to Rs. 2,00,000)	54	27
		Medium (Rs. 2,00,000 - 3,00,000)	106	53
		High (Above Rs. 3,00,000)	40	20
4	Family Type	Nuclear family	178	89
		Joint family	22	11
5	Family Size	Family member (1 to 3)	43	21.50
		Family member (4 to 6)	136	68.00
		Family member (7 to 9)	19	09.50
		Family member (Above 9)	02	1.00
6	Occupation	Labourer	25	12.5
		Business	65	32.5
		Service	86	43.0
		Farmer	17	8.5
		Unemployed	4	2.0
		Other	3	1.5
7	Sources of milk	Government milk scheme	12	06
		Cooperative dairy society	36	18
		Private local vendor	33	16.5
		Sale shop	57	28.5
		Home delivery	62	31

The results of the present investigation are explained below

Age group of milk consumers revealed that majority of consumers were in category of middle age (25.37%) followed by adult (17.47%). More no. of consumers belong to adult and middle age i.e., around of 25-50 years (38.95%). About 43.58 percent of the consumers belong to children, teenager and adolescent i.e., below 25 years. The remaining consumers belong to old age group (13.58%). More or less Similar observations were noticed by Kamble (2010)^[8].

Educational status reveals that majority of consumers (53%) had attained graduate level education. While nearly (22%) consumers had attained higher secondary education. Group of illiterate consumers was negligible (3%). Similarly group of consumers attaining primary education only was also very small (4%). Distribution of head of family as per their educational status is delineated given table 1. Similar observations were noted by Singh and Kalra (2004)^[12] and Ashwini (2021)^[3].

The economic status indicated by annual income depicts that the 27 percent of the consumers had annual income upto Rs. 2,00,000. Whereas, 53 percent of them had income between Rs. 2,00,000 to 3,00,000 and 20 percent had income above Rs. 3,00,000. In other words, it could be stated that nearly half of the families (53%) under study had their medium annual income between Rs. 2,00,000 to 3,00,000 per annum. Similar observations were recorded by Palanasamy (2017)^[9].

The majority 89 percent of consumers had nuclear family while only 11 percent of consumers had joint family. Migration of adults, particularly males from rural areas or other places to city for jobs, employment or business might have resulted in formation of nuclear families in more number. These observations are in conformity with those reported by Ahuja and Sharma (2014)^[4].

It was also observed that the 21.50 percent households had up to three members in the family. There was maximum 68 percent of households had four to six members in their family and 9.50 percent households were belong to category of seven to nine members in the family. Whereas, only 1.00 percent households had more than nine members in their family. These observations are similar to that reported by Palanisamy (2017)^[9] and Anole (2021)^[2].

The occupation of the consumers revealed that highest number of consumers (43%) were servicemen followed by businessmen (32.5%), 8.5 percent consumers were farmers and about 12.5 percent were labourers while very few consumers from unemployed group (2%). These observations are in confirmation with the line of observations made by Gopi *et al.* (2017)^[6].

It was revealed that majority of the families prefer to get milk by Home delivery (31%) followed by purchase from sale shop (28.5%). Sales shop here includes small dairy who sale milk in their shop. Cooperatives dairy society (18%), Private local vendor (16.5%) and very few from government milk scheme (6%) due to non-supply of milk at consumers door and the shops are not available in more number. These observations are similar to that reported by Ashwini (2021)^[3].

Pattern of milk consumption

Table 2: Categorization of consumers according to the utilization pattern of milk by the family in various income groups

Sr. No.	Category Annual Income (Rs.)	Utilization pattern of milk (n = 200)					Total
		Drinking	Tea	Coffee	Meals	Others	
1	Upto Rs. 2,00,000	48 (24)	75 (37.5)	13 (6.5)	40 (20)	24 (12)	200
2	Rs. 2,00,000 - 3,00,000	57 (28.5)	66 (33)	15 (7.5)	39 (19.5)	23 (11.5)	200
3	Above Rs. 3,00,000	64 (32)	52 (26)	20 (10)	41 (20.5)	23 (11.5)	200
Average		(28.16)	(32.16)	(8.0)	(20.0)	(11.66)	

* (Figures in bracket indicate Percentage)

Out of the total consumers, majority of them utilize milk for tea followed by drinking, meals, coffee etc. Here others include regular removal of clotted cream for making of ghee at household level, making use of curd and use it in salads and or taken with rice. Further, It is seen that as income increased more milk was utilized for drinking. People from income group above Rs. 3,00,000 utilize milk more in drinking (32%)

followed by tea (26%), coffee (10%) while in lower income group utilization of milk in tea is higher than other category. Below Rs. 2,00,000 income group utilization pattern of milk was tea (37.5%), drinking (24%), coffee (6.5%), meals (20%) and others (12%) etc. The findings are in conformity with those of observations Selvakumar and Yoganadan (2018)^[10].

Table 3: Distribution of consumers according to time period of drinking milk

Sr. No.	Category	Frequency (n = 950)		
		M	E	Both
1	Children	154 (28.30)	91 (34.46)	54 (38.02)
2	Teenagers	129 (23.71)	33 (12.5)	25 (17.60)
3	Adolescent	83 (15.25)	38 (14.39)	18 (12.67)
4	Adult	75 (13.78)	47 (17.80)	15 (11.97)
5	Middle age	69 (12.68)	32 (12.12)	18 (12.67)
6	Old	34 (6.25)	23 (8.71)	12 (8.45)
Total		544	264	142
Average		(57.26)	(27.79)	(14.95)

(M - Morning, E - Evening)

* (Figures in bracket indicate percentage)

Data regarding mode of time period of drinking milk that out of the total consumers, 57.26 percent drink milk in the morning hours, 27.79 percent in evening hours preferably during meals or before going to bed and 14.95 percent drink during both hours. It is also noticed that, majority of children, teenagers and adolescent prefer to drink milk during morning hours While mostly children prefer both during morning and evening time period. These observations are in conformity with those of Gavhane (2013)^[5] and Kadam (2016)^[7].

Table 4: Per capita milk consumption (according to income group)

Sr. No.	Category	Annual Income (Rs.)	Per day / per capita milk consumption (ml)
1	Low	Up to Rs. 2,00,000	104
2	Medium	Rs. 2,00,000 - 3,00,000	146
3	High	Above Rs. 3,00,000	155
Average			135

The average per capita milk consumption in the study area was found to be 135 gm /day it was less than prescribed standards of 300 gm /day by ICMR- Indian Council of Medical Research. It is seen from the data given in Table 4,

that the per capita milk consumption was more in High income category (155 ml) which is lower than prescribed standards of 300 ml (By ICMR- Indian Council of Medical Research) while in other two income groups it was much below the prescribed standard. These observations are similar to that reported by Palanisamy (2017)^[9] and Anonymous (2019)^[11].

Conclusions

It can be concluded from the results of this study that, This present study would be highly useful in understanding the socioeconomic and situational characteristics of the milk consumers and their consumption pattern. The results of this study would provide a guideline to dairy industry for promoting future activities and bringing desirable changes in the dairy development. The priority should be given to situational characteristics of consumers irrespective of their age, education, economic condition, etc. for development in dairy industry and increase per capita milk consumption. The milk consumption is more with high income group, it is therefore essential to increase the income of consumer or the milk be made available at affordable prices by providing

standardized toned milk, double toned milk etc. It is concluded that the age, family size, occupation and family income is most important factors for the consumption of milk. The education does not affect the consumption of milk but it may affect on increasing the family income which may indirectly support to the consumption of milk. Type of family whether it is nuclear or joint does not affect on consumption but source of milk affects positively.

References

1. Anonymous; c2019. Economicstimes.indiatimes.com
2. Anole. Consumer survey for consumption pattern of milk and milk products in Nagpur city. Thesis (M.Sc.) (Unpub.) Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola, Maharashtra; c2021.
3. Ashwini AB, Ingole AS, Wankhade BR, Zinjarde RM, Bulle MJ, Motghare AB. Study on consumption pattern of milk and milk products across different socio-economic groups in Deoli Tahsil of Wardha district. *Pharma Innov. J.* 2021;11(2):1758-1761.
4. Avneet Kaur Ahuja, Manoj Sharma. Milk consumption Pattern among Rural Farm Women of District Kapurthala *Krishi Vigyan.* 2014;3(1):48-53.
5. Gavhane N. Consumption Pattern of Milk and Milk Products and its Determinants: A Case of Junagadh District. *Indian Journal of Agricultural Marketing.* 2013;27:142-159.
6. Gopi R, Narmatha N, Sakthivel KM, Uma V, Jothilakshmi M. Socioeconomic Characteristics and its relationship with information seeking pattern of dairy farmers in Tamilnadu, India. *Asian Journal of Dairy and Food Research.* 2017;(36):16-20.
7. Kadam PB. A study on consumer's buying behaviour towards processed liquid packed milk in Kolhapur city, Maharashtra. Ph.D. Thesis (Unpub.) Tilak Maharashtra Vidyapeeth, Pune; c2016.
8. Kamble PR. Consumption pattern of milk and milk products in Parbhani city. Thesis M.Sc. (Unpub.) Vasant Rao Naik Marathwada Krishi Vidyapeeth, Parbhani Maharashtra; c2010.
9. Palanisamy S. A study on consumer behaviour on milk and milk products in Salem city of Tamil Nadu. Thesis (M.B.A). *Agricultural Marketing and Co- operation, University of Agricultural Sci. GKVK, Bengaluru,* 2017, 77.
10. Selvakumar M, Yoganadan G. Raw Milk Purchase and Preference of Commercial Customers in Salem District. *Intl. J Recent Technology and Engineering* 2018;8(4S2):798-803.
11. Senthikumar S, Radhika A, Sudhakar Kota. Customers cognizance factors influencing purchasing decision of designated dairy products. *International Journal of Mechanical and production Engineering Research and Development.* 2020;10(3):35-57.
12. Singh HI, Kalra KK. Consumption pattern of milk and milk products in Meerat district of Uttar Pradesh. *Indian Dairy Science.* 2004;57(1):35-42.
13. Snedecor GV, Chochran WG. *Statistical methods* 6th Edn. The Iowa state Univ. Press, USA; c1967.