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A study on consumption pattern of meat products among the households in Srinagar city of Jammu & Kashmir, India

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Abstract

The present study was carried out to understand the behaviour and consumer perception towards the consumption of meat products at household level. For this 245 households from Srinagar district were selected and were surveyed. It was found that as far as the consumption of cooked meat varieties are concerned, about 49.38 percent preferred it on weekly basis and the major reason for such selective preference was habituation among majority of meat consuming households. Additionally, an average monthly expenditure on cooked meat products turned out to be greater than Rs 2250/household. On the other hand *wazwan* items were preferred rarely at household level and that too due to the demand of children/guests as revealed by majority of population. A very less portion of people preferred the processed/packaged meat at household level due to quality concern associated with the same. The results of the study also reveal that majority of respondents consume meat only sometimes and not regularly under commercial setup like eateries and restaurants. Nearly half portion of the selected households preferred these meat products to celebrate an occasion with monthly expenditure of Rs 501-1000 per household on the consumption of meat products under commercial setup. Thus there is need with regard to restaurants and eateries to use their marketing tools more effectively and defining new strategies, determination of consumer preferences and the factors affecting them that have great importance. The result of current study gives an idea on the future strategies need to be adopted by authorities and stakeholders to understand the felt need of consumers and ways to tackle the fluctuations in rates and irregular supply issues of meat in Srinagar, Jammu and Kashmir.

Keywords: Commercial, consumption pattern, household level, meat products, processed meat, packaged meat

Introduction

Traditionally meat consumption has been an integral part of human diet in many states of India like Andhra Pradesh, Kerala, Kashmir and many Muslim majority regions (Devi *et al.*, 2014; NSSO, 2012) [4-7]. Higher disposal income, urbanization, favorable demographic shifts, improved transportation and consumer perceptions regarding quality and safety are changing Indian food especially meat and meat products consumption patterns (Kiran *et al.*, 2017) [6]. Meat consumption is affected by many factors, such as price, income, nutritional value, flavor, dietary habits, safety, eating quality and convenience of purchase (Devine, 2003; Verbeke, 2005; Verbeke and Vackier, 2004) [5, 11, 12]. Meat sector contributes to the development of livestock sector with a sustainable production through a good demand with reasonable returns to its producers. In spite of huge potential for meat owing to large livestock population, the meat industry has not taken its due share on account of negative perceptions like presence of high content of cholesterol and saturated fatty acids in meat having a deleterious effect on human health (Singh *et al.*, 2003) [10]. This distinction can also be attributed to our 2000-year-old tradition of vegetarianism and even the non-vegetarian population generally eats less meat. However, like all old culture, vegetarianism is changing as well. It is expected that demand for meat is going to increase faster in India with sustained economic growth, rising per capita income, strengthening urbanization trends and increasing awareness of the nutritive value of meat and meat products (Anonymous 2018) [1].

Srinagar in Jammu and Kashmir is having human population of diverse socio-economic background and has maximum urbanization in the district. As such it provides ideal situation for the study of trends on meat consumption in this part of the region. Besides this, despite of widespread interest among scholars, market analysts and economists to know about new eating habits of the consumers there have been very few attempts to study the consumption behaviour of meat products among the Srinagar population. The findings to be obtained in this survey will also guide the entrepreneurs engaged in meat sector to develop products in line with consumer preferences and expectations, and to carry out research and development targeting consumer demands and preferences.

Materials and Methods

The present study was carried in Srinagar district of Jammu and Kashmir Union territories (erstwhile Jammu and Kashmir state), India. The district was chosen decisively because of having human population of diverse socio-economic background and has maximum urbanization in the region. Accordingly, the data required for appropriate inferences demand different sources and types. Thus proposed study was restricted within Srinagar district of Kashmir valley. As per Srinagar Municipal Corporation (SMC), the Srinagar city is divided into 35 administrative wards. The data were collected through a pre-tested interview schedule during May 2019. For the present study, all administrative wards (35) were covered

as an extensive sampling pattern and from each selected administrative ward, 7 meat consuming households were randomly selected for the study. Finally, from each household, one member was selected and interviewed on various identified parameters based on the objectives of the study, making total of 245 respondents. The selected respondents were personally interviewed with the help of specially designed and pretested interview schedule. The data collected were analysed using appropriate tools to draw the inferences in the form of tables.

Results and Discussion

A general profile of respondents

A good majority of respondents (60.00%) who represented the households selected for the study (Table 1) were living in nuclear families with an average family member size of 5-7. More or less similar results have been reported by Rajgopal and Ajitkumar (2014) in their area of study where they observed an average family size of 5.9 as compared to 5.01 in present study. Businesses turned out to be their main occupation for earning their livelihood, with annual income of Rupees 360001-650000 and an overall average income of Rs 409665.30±239548.69 per annum. More or less similar results have been reported by Rao *et al.* 2017 in their study. Statistical analysis of income data revealed no significant difference ($p < 0.05$) between the different zones of the city.

Table 1: Distribution of respondents as per their socio-economic characteristics

Socio economic variable	Zones				Total=245
	Zone I	Zone II	Zone III	Zone IV	
i. Family type					
Joint	24 (42.86)	26 (41.27)	24 (42.86)	24 (34.29)	98 (40.00)
Nuclear	32 (57.14)	37 (58.73)	32 (57.14)	46 (65.71)	147 (60.00)
ii. Family size (in no's)					
Small (2-4)	21 (37.50)	27 (42.86)	25 (44.64)	23 (32.86)	96 (39.18)
Medium (5-7)	32 (57.14)	31(49.21)	27 (48.21)	43 (61.43)	133 (54.29)
Large (8 & above)	3 (5.36)	5 (7.94)	4 (7.14)	4 (5.71)	16 (6.53)
Mean± SD	4.94±1.60	5.06±2.01	4.94±1.66	5.07±1.03	5.01±1.64
iii. Primary family occupation					
Agricultural farming	2 (3.57)	3 (4.76)	0 (0.00)	4 (5.71)	9 (3.67)
Business	29 (51.79)	31 (49.20)	28 (50.00)	21(30.00)	109 (44.49)
Govt. service	18 (32.14)	22 (34.92)	20 (35.71)	39 (55.71)	99 (40.41)
Caste occupation	4 (7.14)	4 (6.35)	5 (8.93)	2 (2.86)	15 (6.12)
Others	3 (5.36)	3 (4.76)	3 (5.36)	4 (5.71)	13 (5.31)
iv. Average annual income (Rs)					
Less (up to 360000)	25 (44.64)	24 (38.10)	24 (42.86)	21 (30.00)	94 (38.37)
Moderate (360001-660000)	17 (30.36)	31 (49.21)	23 (41.07)	35 (50.00)	106 (43.27)
High (> 660000)	14 (25.00)	8 (12.70)	9 (16.07)	14 (20.00)	45 (18.38)
Mean± SD	411642.85 ± 263164.82	396952.38± 221419.13	391928.57± 250350.72	433714.28± 229594.29	409665.30± 239548.69

Figures in parenthesis indicate percentage

Consumption of cooked meat products at household level

Different aspects of consumer's preference on consumption of meat products cooked at household level are represented in Table 2. The findings indicate that nearly half (49.38%) of selected households in Srinagar always prefer to have meat products on weekly basis. Among those households who consumed cooked meat products majority (44.49%) revealed habituation as major reason behind the consumption. The traditional habituation with the consumption of meat products could be viewed from the fact that it provides a lot of variation in varieties which could be prepared out of different vegetables that are easily available to use in households. Since these vegetables are also grown locally and consumed with meat in a better way. Besides this, it is common observation

that people in general give it to sick and weak persons with the view that the same has a higher concentration of proteins in it, which have a role in improving such conditions. With regard to time taken in cooking of specific meat product at household level, it was noted that majority (52.62%) of households cooked meat within 31-60 minutes. The results thus are of opinion that meat preparation does not require enough time but at the same time took a bit (an hour on an average) before being served with a remainder of the fact that the most of the meat varieties are in ready to be cook form. Furthermore, a high percentage (55.10%) of the families spent more than Rs 2250 which in turn reiterates its importance in the diet of households.

Table 2: Distribution of households as per their preference for consumption of meat products cooked at household level

Variable (n=245)	Pattern observed			
	Daily	Weekly	Monthly	Never
Frequency of meat products cooked at household level.	38 (15.51)	121 (49.38)	86 (35.10)	0 (0.00)
Reason for consumption of meat products cooked at household level.	Taste	Habituated	Nutritious	Demand by children/guests
	36 (14.69)	109 (44.49)	84 (34.29)	16 (6.53)
Time of cooking	up to 30 min	31-60 min	60-90min	>90 min
	0 (0.00)	129 (52.65)	102 (41.63)	14 (5.71)
Av. Expenditure on consumption of meat products cooked at household level.	< Rs750	750-1500	1500-2250	> 2250
	3 (1.22)	36 (14.69)	71 (28.97)	135 (55.10)

Figures in parenthesis indicate percentage

Preference of Wazwan items (traditional Kashmiri cuisine) consumed at household level

Wazwan is multicourse meal in Kashmiri cuisine. Almost all the dishes are meat based using lamb, beef or chicken with few vegetarian dishes. It consists of many dishes like *Rista*, *Kabab*, *Gustaba* etc. and is considered a point of pride in Kashmiri culture and identity. The various findings as observed in Table 3 reveal that *wazwan* (a traditional cuisine) are less preferred and were rarely prepared by majority

(56.32%) of households and the reason behind the consumption was found to be demand by children/guests. More or less *wazwan* items were considered out of routine dishes either for their cumbersome preparation or specific non common articles needed in their preparation by about 52.38 percent of non consuming households. Further it was seen that *wazwan* took a comparatively longer time (60-90 minutes) to cook. The average expenditure turned out to be more than Rs 1500 by high percentage (55.10%) of respondents.

Table 3: Distribution of households as per their preference for consumption of *wazwan* items

Variable	Pattern observed			
	Always	Sometimes	Rarely	Never
Frequency of <i>wazwan</i> items at household level (n=245)	0 (0.00)	65(26.53)	138 (56.32)	42 (17.14)
Reason for consumption of <i>wazwan</i> items at household level.(n=203)	Taste	Habituated	Nutritious	Demand by children/guests
	91 (44.82)	6 (2.95)	3 (1.47)	103 (50.73)
Time of cooking(n=203)	up to 30 min	31-60 min	60-90min	>90 min
	0 (0.00)	19 (9.35)	184 (90.64)	0 (0.00)
Reason for non consumption of <i>wazwan</i> items at household level (n=42)	Unhealthy	Costly	Not easy to cook	Taboo
	7 (16.66)	11 (26.19)	22 (52.38)	2 (0.04)
Av. Expenditure on consumption of <i>wazwan</i> items at household level. (n=203)	< Rs500	500-1000	1000-1500	> 1500
	3 (1.22)	36 (14.69)	71 (28.97)	135 (55.10)

Figures in parenthesis indicate percentage

Preference of processed/packaged meat and meat products consumed at household level

Processed meat and meat products refers to foods that have been salted, cured, smoked, fermented or otherwise processed to modify flavour or for preservation while simple packaged meat consists of dressed meat kept under freezing temperature to long shelf life with or without use of minor preservatives. It was seen (Table 4) that majority of households (55.92%) do not consumed processed/packaged meat and meat products at household level as major portion of them were concerned about the quality of these products and had some quality consciousness issues with the items. Similar findings were also reported by Reddy and Raju (2010) [9] and Rao *et al.*, (2017) [8] in their area of study who revealed majority of people were not willing to include processed/ packaged meat and meat products in their diets although the pattern is changing in other Asian countries (Chen, 1995 and Cho *et*

al.,2003) [2, 3]. Those households that consume these products preferred it rarely and reported it's easy to cook nature as major reason behind its consumption by 49.07 percent of them. Among the sizeable portion of households consuming processed/packaged meat and meat products, their average monthly expenditure on it ranged up to Rs 500 per month. Moreover, regarding place of purchase the results indicate that majority (55.55%) have it from local markets which are easily accessible. The trend although picking up seems to be still in infancy as is seen from average expenditure in purchasing processed/ packaged meat and meat products. Further, the typical geographic location of Srinagar and its connectivity with rest of the world had a great impact on the utilization of processed or packaged meat and meat products. However, over the years the local enterprise in this regard have come up in good numbers which had led to the importance of such food items into the diets of households.

Table 4: Distribution of households as per their preference for consumption of processed/packaged meat

Variable	Pattern observed			
	Often	Sometimes	Rarely	Never
Frequency of processed/ packaged meat consumption (n=245)	0 (0.00)	48 (19.59)	60 (24.48)	137 (55.92)
Reason for consumption of processed/ packaged meat (N=108)	Taste	Easy to cook	Demand by children/guests	To get rare products
	7 (6.48)	53 (49.07)	36 (33.33)	12 (11.11)
Av. Monthly expenditure on consumption (Rs) (N=108)	up to 500 (Low)		501-1000 (Medium)	>1000 (High)
	69 (63.88)		31 (28.70)	8 (7.40)
Place of purchase (N=108)	Local market		Super market	Both
	60 (55.55)		25 (23.14)	23 (21.29)
Reason for non-consumption of processed/ packaged meat (N=137)	Habituated to fresh meat	Quality concern	Costly	Non availability
	24 (17.51)	57 (41.60)	37 (27.00)	19 (13.86)

Figures in parenthesis indicate percentage

Pattern of meat product consumption prepared under commercial setup at household level

Respondents were asked about the consumption of meat products that are prepared under commercial setup (Table 5) to which majority (33.46%) responded that they do not prefer to consume these meat products as most of them (13.87%) were habituated to homemade meat products and some considered the same less hygienic than their home-made preparation. The people have many reservations with regard to preference of consumption of meat products that are prepared under commercial setup. However, portion of them still use this platform for the consumption. The average monthly expenditure on consumption of meat products under commercial setup ranges from Rs 501-1000 as reported by majority (40.81%). This indicates a portion of the income is

used for meat consumption prepared outside their homes. The reason behind the consumption revealed by majority (46.63%) was to celebrate an occasion and most of them preferred the consumption of products on a specific day (occasions) like birthdays, anniversaries etc. Thus, the commercial setup gives a sort of vent for the celebration or utilization of food outside the routine day to day homemade products in certain way. The results also reveal that respondents who consumed these products prepared at restaurants/eateries, majority (24.89%) preferred specific city centre restaurants followed by local eateries/restaurants near their residence. Thus, results are pointer to the fact that people in general want to venture out to some distance from their houses for the buying of meat products under commercial setup. The city centre further provides the avenues for their taste satisfaction.

Table 5: Distribution of respondents according to pattern of commercial meat products consumption at household level

Variable	Pattern observed			
	Often	Sometimes	Rarely	Never
Frequency of meat products consumption at commercial level (n=245)	36 (14.69)	74 (30.20)	53 (21.65)	82 (33.46)
Reasons for consumption of meat products at commercial level (N=163)	Specific taste	To celebrate an occasion	On specific demand	A new trend
	57 (34.96)	76 (46.63)	9 (5.52)	21 (12.57)
Preference for day of consumption (N=163)	No preference	Holiday	Weekends	Occasion days
	61 (37.42)	36 (22.08)	17 (10.42)	49 (30.06)
Preferred location of restaurants/eateries (N=163)	No preference	Specific city centre restaurants		Local eateries near residence
	13 (17.30)	89 (54.60)		61 (82.43)
Av. monthly expenditure on C. meat consumption (Rs) (N=163)	up to 500	501-1000		>1000
	30 (18.40)	89 (54.60)		44 (26.99)
Reasons for non-consumption of meat products at c. level (N=82)	Costly	Habituated to Homemade	Unhygienic concern	Taboo
	17 (20.73)	34 (41.46)	22 (26.82)	9 (10.67)

Figures in parenthesis indicate percentage

Conclusion

There are numerous factors affecting the overall consumption of meat products at household level, which has an important place in human nutrition. Habituation for homemade cooked meat, demand by children/guests for *wazwan* items, easy to cook nature for packaged meat and to celebrate an occasion for meat prepared under commercial setup are generally thought to be major reason that have an effect on the demand for meat and its products. In conclusion, it is possible for restaurants and eateries to increase their market shares by selling products at amounts and qualities in line with consumer preference in domestic consumption and use advertisement, promotions and other marketing tools more effectively towards consumer demand only. The result of current study gives an idea on the future strategies need to be adopted by stalk holders, authorities, leaders and butchers to understand the felt needs of consumers thus the drastic fluctuations in rates and their availability can be checked by ensuring regular supply of meat.

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Conflict of interest & ethics statement

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