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An Analysis of Offal Meat Consumption Pattern: A case of Srinagar District in Jammu and Kashmir

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ABSTRACT

Offals are entrails and internal organs of animals used as food. Its consumption has a tremendous regional impact that ranges from local to global where a range of factors like social, economic and cultural determine the consumer behaviour towards offal meat consumption. The present study was purposively carried out in Srinagar city of Kashmir region in order to understand the consumption behavior towards offals among the consumers in this district. The major findings of the study reveal that majority of the households were Muslims, living in nuclear families with most of them having business as their main occupation and average annual income of Rs.409665.30. Among the different types of offals, red offals was the most preferred one where habituation towards its consumption turned out to be major reason for such selective preference. Dark offals were the least preferred type of offal meat among the lot and grey offals were also consumed by only half portion (53.06 %) of population. Taboo associated with the consumption of these two said offals was hindering their uptake. With regard to consumption of offals, an average monthly consumption turned out to be 0.74 kg; 1.06 kg and 0.49 kg for grey, dark and red offals per household respectively and average monthly expenditure of Rs. 184.49; 251.05 and 122.25 was spent on grey, dark and red offals respectively among households which clearly indicates that the demand of overall offal meat was very low in Srinagar city. So, there is need with regard to our authorities, leaders and municipalities to enlighten people about the nutritional benefits of offal meat consumption.

Keywords: *Consumption pattern, Dark offals, Grey offals, Red offals, Srinagar city.*

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INTRODUCTION

Offal, also called variety or organ meat is a collective term used to describe internal organs or visceral and entrails obtained from a butchered animal or carcass which includes liver, intestines, lungs, heart and kidney. Offal is an essential source of some micronutrients with higher bio-availability which can hardly be compensated for by plant- derived pro-vitamins and has potential to combat protein malnutrition and food insecurities in many countries (Biesalski, 2005; Alao et al., 2017). Offals are grouped into three categories viz grey offals, dark offals and red offals. Grey offals consist of stomach, intestines, spleen and lungs; Dark offals consist of head and feet while as Red offals consist of liver, kidney and heart (Ali et al., 2017). The preference for offal is a relatively unstable food habit and is increasingly becoming the deciding factor for the development of livestock sector (Raju and Suryanarayana, 2005). In India, less preferential consumption exists in spite of the importance of offal as cheap source of protein with high biological value. This distinction can be attributed to our 2000 year old tradition of vegetarianism and even the non-vegetarian population generally eats less offal meat. Besides this, a range of factors such as economic, social and cultural are classified as most important motivators for preferring and purchasing a variety meat (Ojewola and Onwuka, 2001). Limited studies on consumption behaviour towards offal meat consumption among the consumers have been attempted so far. However, to the best of our knowledge, some of the studies that have focused on consumer's perception of offal meat consumption were conducted by Felix et al. (2016) in Ghana; Alao et al. (2018) in South Africa; Rao et al. (2017) in Andhra Pradesh; Ali et al. (2017) in Jammu and Kashmir and many more. Jammu and Kashmir, an Indian agrarian region has its own distant and cultural ethos with Srinagar district having human population of diverse socio-economic background. As such it provides ideal situation for the study of trends on offal meat consumption in this part of the region. This study, therefore, sought to identify the factors that were more important to the consumer in offal meat consumption in Srinagar district of Jammu and Kashmir.

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MATERIALS AND METHODS

The present study was conducted in spring season of 2019 and it was purposively carried out in Srinagar District of Jammu & Kashmir region. As per Srinagar Municipal Corporation (SMC), the Srinagar city is divided into 2 divisions (right side and left side of river Jhelum), 4 zones (North, South, East, West) and 35 administrative wards. The East zone is divided into 8 wards, West zone into 8 wards, North into 9 wards and South into 10 wards. For the present study, all administrative wards (35) were covered as an extensive sampling pattern and from each selected administrative ward, 7 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. Data so collected was further analyzed and presented in the form of tables.

RESULTS AND DISCUSSION

General profile of respondents: A good majority of respondents (93.87 %) who represented the households selected for the study (Table 1) were Muslims followed by Sikhs and Hindus. The results pertaining to religion are in line with the findings of Bafanda et al. (2017) who found similar results in Jammu Division of J &K. They were living in nuclear families with average family member

size of 5 - 7. More or less similar results were reported by Rajgopal and Ajithkumar (2014) in rural locality of North Kerala where they observed average family size of 5.9 as compare to 5.01 in present study. Businesses turned out to be their main occupation for earning their livelihood and were having medium annual income of Rs. 360001 - 650000 with an overall average income of Rs. 409665.30 ± 239548.69 per annum. More or less similar results were reported by Rao et al. (2017) in Andhra Pradesh.

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. Religion					
Muslims	54 (96.43)	63(100)	54 (96.43)	59 (84.29)	230 (93.87)
Hindus	2 (3.57)	0 (0.00)	2 (3.57)	0 (0.00)	4 (1.64)
Sikhs	0(0.00)	0(0.00)	0(0.00)	11(15.71)	11 (4.49)
ii. 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)
iii. 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
iv. 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)
v. 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)

Preference for offal meat consumption at household level: Different aspects of consumer's preference on offal meat consumption are presented in Table 2. In this study, preference was measured on three- point continuum of highly preferred, preferred and least preferred categories and it was found that red offals is the favorite offal meat variety of the households in Srinagar as about 77.96 % consumed it. The liking for liver, kidney and heart (red offals) could be traced back to history in the area, since the people from ages are fond of red offals and its delicacies. The same is validated through results in the study wherein habituation turned out to be the major reason for such selective preference by majority (29.84 %) of households in Srinagar. Similar findings were found by Ali et al. (2017) in Jammu region of J&K where most preferred offal meat type were red offals. On the other hand, just about 22.04 % claimed that they do not consume red offals and health concern associated with its consumption was the main reason towards its non-uptake. With regard to grey and dark offals, the families in general on whole were not much fond of the said meat types and its delicacies as about 41.63 percent and 53.06 percent respectively do not consume them and taboo associated with their consumption was found to be a major reason for their non-uptake. Most of the people consider it inferior and is against their status which in-turn restricts them to purchase the said offals. In fact, religious sentiments were also hindering the overall offal consumption among non-Muslims that was further playing vital role in its aversion. However, among those who consumed grey and dark offals reported its higher affordability (30.06 % and 29.57 % respectively) as main reason behind the consumption since the average cost of offals (red, grey and dark) is much lower than that of rest of the meat types like mutton, chevon etc. Further from the results, it was also noted that offals were consumed occasionally only, clearly indicating that it was not a routine affair among the

households in Srinagar city which is more or less in contrary with findings of Ali et al., (2017) who reported offals were consumed once/twice a week (more frequently) in Jammu region. The better economic prosperity and a changing dietary habit could also be associated with the specific results obtained.

Table 2. Distribution of households as per their preference for offal meat consumption

i. Preference for offal meat consumption at household level

Offal types	Highly preferred	Least preferred	Don't consume	Overall consumption
Grey offals (N=245)	26 (10.61)	117 (47.75)	102 (41.63)	143 (58.36)
Dark offals (N=245)	30 (12.24)	85 (34.69)	130 (53.06)	115 (46.93)
Red offals (N=245)	53 (21.63)	138 (56.32)	54 (22.04)	191 (77.96)

ii. Average frequency of offal meat consumption among consuming households

Offal types	Once in a week	Once in a fortnight	Once a month	Occasionally
Grey offals (N=143)	9 (3.67)	17 (6.93)	46 (18.77)	71 (28.97)
Dark offals (N=115)	12 (4.89)	18 (7.34)	29 (11.83)	56 (22.85)
Red offals (N=191)	21 (8.57)	32 (13.06)	95 (38.77)	43 (17.55)

iii. Reason behind consumption of offal meat among consuming households

Offal types	Taste	Habituated	Affordable	Nutritious	Demand by children
Grey offals (N=143)	35 (24.47)	11 (7.69)	43 (30.06)	28 (19.58)	26 (18.18)
Dark offals (N=115)	27 (23.47)	9 (7.82)	34 (29.57)	13 (11.30)	32 (27.82)
Red offals (N=191)	46 (24.08)	57 (29.84)	52 (27.22)	22 (11.51)	14 (7.32)

iv. Reason behind non consumption of offal meat among non- consuming households

Offal types	Religious sentiment	Taboo	Family tradition	Not good for health	Less availability
Grey offals (N=102)	15 (14.70)	42 (41.17)	26 (25.49)	19 (18.62)	0 (0.00)
Dark offals (N=130)	15 (11.53)	59 (45.38)	26 (20.00)	7 (5.38)	23 (17.69)
Red offals (N=54)	15 (27.77)	10 (18.51)	11 (20.37)	18 (33.33)	0 (0.00)

(Figures in parenthesis indicate percentage)

Decadal trend in consumption of offal meat among the households in Srinagar

Respondents were enquired about the change in consumption pattern of offal meat during last 10 years and responses to this effect are presented in Table 3. The findings revealed that the pattern has more or less remained same by majority with less variation in it. This indicates that there is a certain fraction of population which is having the liking for these offals in more or less static conditions. However, the increase decadal consumption of meat should have reflected in the growth of offal consuming population which is not the case. This might be due to the fact that because of the change in lifestyle, with better economic conditions, the overall offal meat consumption seems to be on steady decline with more increase in demand of mutton and chicken over the years.

Table 3. Distribution of households as per their change in consumption pattern of offals during last 10 years

Offal types	Change in consumption pattern of offals		
	Increased	Decreased	Remained same
Grey offals (N=143)	25 (17.48)	43 (30.06)	75 (52.44)
Dark offals (N=115)	38 (33.04)	23 (20.00)	54 (46.95)
Red offals (N=191)	31 (16.23)	76 (39.79)	84 (43.97)

(Figures in parenthesis indicate percentage)

Place, quantity and expenditure on purchase of offal meat by households in Srinagar

The various findings as observed in Table 4 indicate that most of the consumers prefer to purchase grey and red offals from retail shops. This could be due to the fact that the said offals are usually sold by butchers along with the different meat types on retail shops. While dark offals were purchased from road side hawkers that do not have their own permanent shops as reported by most (66.08 %) of offal consuming households. This might be due the reason that road side hawker's offer one stock outlet for different varieties of dark offals with great variation to suit the local needs and demand. Further it was found that the average quantity of offals purchased by households turned out to be 0.74 kg/month grey offals, 1.06 kg/month dark offals and 0.48 kg/month red offals with most of the families purchasing grey and dark offals within a range of 1-2kg per month while red offals within a range up to 1 kg. The quantities are a clear indicator of the fact that somehow offals are a part of dietary habits of households in Srinagar especially dark offals with varying expenditure. Moreover, the average monthly expenditure on consumption of different types of offals among households in Srinagar indicates that it ranges between Rs 251-500 for grey and dark offals while it is up to Rs 250 for red offals. The amount mentioned is nearly about only 1 percent of their average monthly income of the households as revealed in Table 1 with an average value turned out to be Rs 184.49 on grey offals, Rs 251.05 on dark offals and Rs 122.25 on red offals spent per month in the present study.

Table 4. Distribution of households as per their place, quantity and expenditure on purchase of offal meat by households in Srinagar

I. Place of purchase for offal meat by consuming households

Offal types	Retail shops	Road side hawkers	Other places
Grey offals (N=143)	111 (77.62)	32 (22.37)	0 (0.00)
Dark offals (N=115)	39 (33.91)	76 (66.08)	0 (0.00)
Red offals (N=191)	132 (69.10)	59 (30.89)	0 (0.00)

ii. Average quantity of offal meat purchased monthly (kg)

Offal types	up to 1	1.1-2	>2	Mean± SD
Grey offals (N=143)	52 (36.36)	91 (63.63)	0 (0.00)	0.74±0.48
Dark offals (N=115)	31 (26.95)	60 (52.17)	24 (20.86)	1.06±0.50
Red offals (N=191)	191 (100)	0 (0.00)	0 (0.00)	0.49±0.32

iii. Average monthly expenditure on offal meat (Rs)

Offal types	up to 250	251-500	>500	Mean± SD
Grey offals (N=143)	52 (36.36)	91 (63.63)	0 (0.00)	184.49± 01.69
Dark offals (N=115)	31 (26.95)	60 (52.17)	24(20.86)	251.05± 24.97
Red offals (N=191)	191 (100)	0 (0.00)	0 (0.00)	122.25±79.56

(Figures in parenthesis indicate percentage)

CONCLUSION

The findings of this study indicate that households in Srinagar had some inhibitions with overall consumption of offal meat as just limited portion of them have it as part of their diets. It still faces serious socio-economic taboo and family tradition for its non-uptake. Moreover, the trend of consuming offals during last 10 years remained more or less same with less variation in it.

Recommendations: As we know, offal meat is relatively cheap source of protein for Kashmir's malnourished masses, mainly those cohorts who already have high incidence of anemia and malnutrition. So, our authorities, leaders and municipalities need to re-orientate and enlighten people about the nutritional benefits and health implications of offal meat consumption. In addition to this, the increase decadal consumption of meat should have reflected in the growth of offal consuming population which is not the case, so the same needs to be part of future studies in this regard.

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CONFLICT OF INTEREST

The authors have no conflict of interest associated with the material presented in this paper.

ETHICS STATEMENT

Respondents had agreed on voluntary basis and passed no objection on the particular survey and questionnaire.

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