



A Preliminary Study on Perception of Non – Vegetarian Consumers about Backyard Poultry Farming

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

The present study was conducted in District Ludhiana of Punjab state to know about perception of non-vegetarian consumers about backyard poultry farming. The study was conducted by personally interviewing randomly selected Urban (Group A, n=50) and Rural (Group B, n=50) non vegetarian consumers. None of the respondent was above 60 years. Most of the non vegetarian consumers were having education level of graduation. Majority of the respondents were consuming non vegetarian food 1-2 times per week. Most of the Group A consumers were purchasing non vegetarian products from local market, while Group B consumers were

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purchasing it from farmers. Most of the Group A consumers has no knowledge about breeds of backyard poultry. A large chunk of consumers belonging to both Group A and Group B did not know about differences between exotic and indigenous breed. The present study highlighted the importance of strengthening of extension activities related with backyard poultry and strengthening of marketing linkages of backyard poultry farmers to the urban consumers. Fast-tracking the supply of a backyard poultry farmer's produce to a city dweller's doorstep ensures fresher, higher-quality food by reducing transit time, which helps to minimize spoilage and waste. It also expands market access for farmers, increases convenience for consumers, supports local economies, and can lower environmental impact by reducing transportation distances. Overall, it enhances food security and fosters a more efficient food system.

Keywords: Perception; non vegetarian; backyard; poultry, consumers.

1. INTRODUCTION

Egg and meat are integral part of human diet and are crucial sources of much-needed nutrients which cannot easily be obtained from plant-based foods [1]. Poultry birds can be reared at commercial farming system or by backyard poultry farming system. As one of the world's leading poultry producers, India had a chicken population of 851.8 million in 2019, with 37.2% comprising native breeds. These indigenous chickens are valued for their adaptability to local conditions and contribute significantly to the livelihoods of rural farmers [2]. Among rural and landless families in India, Backyard poultry farming is common and a beneficial source of additional income. Backyard poultry is a low input/no input venture Mandal et al [3] and yields high economic returns, and can be easily managed by women, children, and elders. Backyard poultry farming has been reported to be profitable Baruah and Raghav, [4] and contributes towards women empowerment Gangwar et al., [5] and can act as an effective tool for poverty alleviation in the rural families [6]. Meat and eggs from such birds are of low-cost and rich source of protein and energy for poor households [7]. Another factor that makes backyard poultry farming as a more sustainable source of revenue for rural households is its low dependency on natural factors like soil topography, rainfall and climate [8]. At national level, there is an increasing trend in production and consumption of non-vegetarian products (meat and eggs) as the consumers demand high value food products due to increasing income, industrialization, changing life style and food habits [9]. So, a study was planned to know about perceptions of consumers towards backyard poultry farming in district Ludhiana of Punjab state.

2. METHODOLOGY

District Ludhiana is located in the central part of Punjab state and is the largest district of Punjab state both by area and population. This district is purposively selected under the present study. A total of 250 urban and rural consumers (125 each) belonging to Ludhiana district were randomly contacted and were asked for their eating method. About 40% of the consumers i.e. 50 urban (Group A) and 50 rural (Group B) consumers were Non Vegetarian. They were asked about perception about backyard Poultry farming. Each consumer was personally interviewed using a semi-structured interview schedule that was developed after consulting subject matter experts of Veterinary University and Veterinarian and after reviewing relevant literature.

3. RESULTS AND DISCUSSION

The findings of present study were discussed under following sub heads:-

3.1 Age and Education

Table 1 discuss about distribution of non-vegetarian consumers regarding age and education. In Group A, 46% of consumers were below 30years, other 54 % were between 30-60 and none was above 60 years. Likewise in Group B, 44% were below 30 followed by 56% who were in between 30-60 years of age and none was above 60 years (Fig. 1). Kumar and Kapoor [9] reported in their study that none of the non vegetarian consumer is below 20 years of age and above 50 years of age. In contrast to younger individuals, older age groups displayed a lower preference for native chicken meat. This trend suggests that age influences preferences for native chicken, indicating that as people age, their tastes or dietary habits may shift away from native poultry Kathiravan and Chitrambigan [2].

Table 1. Distribution of non-vegetarian consumers

Parameter	Category	Group A (n=50)	Group B (n=50)	Total (n=100)
Age	Below 30 years	23 (46)	22 (44)	45 (45)
	30-60 years	27 (54)	28 (56)	55 (55)
	Above 60 years	0 (0)	0 (0)	0 (0)
Education	Below Matric	2 (4)	1 (2)	3 (3)
	Matric	1 (2)	14 (28)	15 (15)
	Secondary	8 (16)	18 (36)	26 (26)
	Graduate	22 (44)	11 (22)	33 (33)
	Post-graduate	17 (34)	6 (12)	23 (23)

Figure in parenthesis indicate percentage

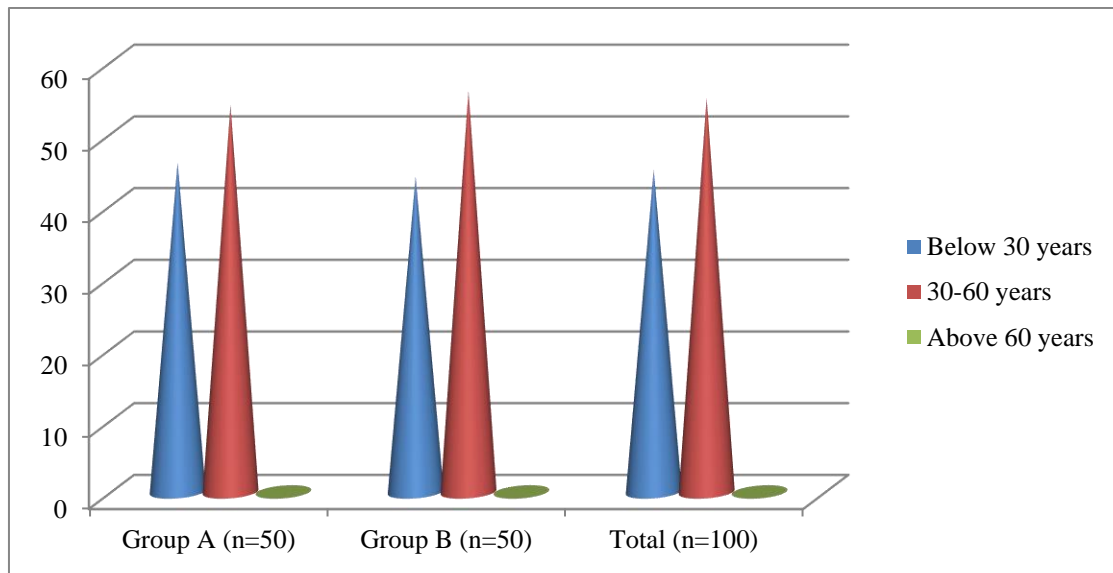


Fig. 1. Distribution of non-vegetarian consumers regarding age

As shown in Fig. 2, in Group A only 4% of the consumers were having education levels below matric, 2% were matric, 16% were with higher secondary education levels followed by 44% who were graduate and rest 34% were post-graduate. In Group B, 2% were education levels below matric followed by 28% who studied till matric followed by 36% who were with higher secondary education levels, other 22% were graduates and rest 12% were post-graduates. However, Kumar and Kapoor [9] reported that most of the non-vegetarian consumers were graduate (47.5%) and post-graduate (44.4%).

3.2 Consumption of Eggs

Table 2 depicts the preference towards desi eggs or intensive egg consumption. From Group A 22% consumers were consuming eggs that were coming from backyard sector and rest 78% accounts for intensive sector eggs. Similarly in Group B 80% were consuming desi eggs and

rest 20% were consuming intensive eggs. Mahiuddin et al. [7] in his study held at Mymensingh district revealed that majority of the people preferred and consumed eggs from desi birds.

3.3 Consumption of Meat

In Group A, 30% respondents were consuming meat that was coming from backyard sector and 46% were consuming intensive poultry's meat whereas rest 24% accounts for those who does not take meat in their diet. Likewise in Group B, 64% respondents were consuming backyard poultry's meat and 12% were consuming meat that was coming from intensive poultry and rest 24% were not consuming any meat (Table 2). Mahiuddin et al. [10] also communicated about meat preferences that most of the people preferred desi birds meat over broiler meat and quail meat.

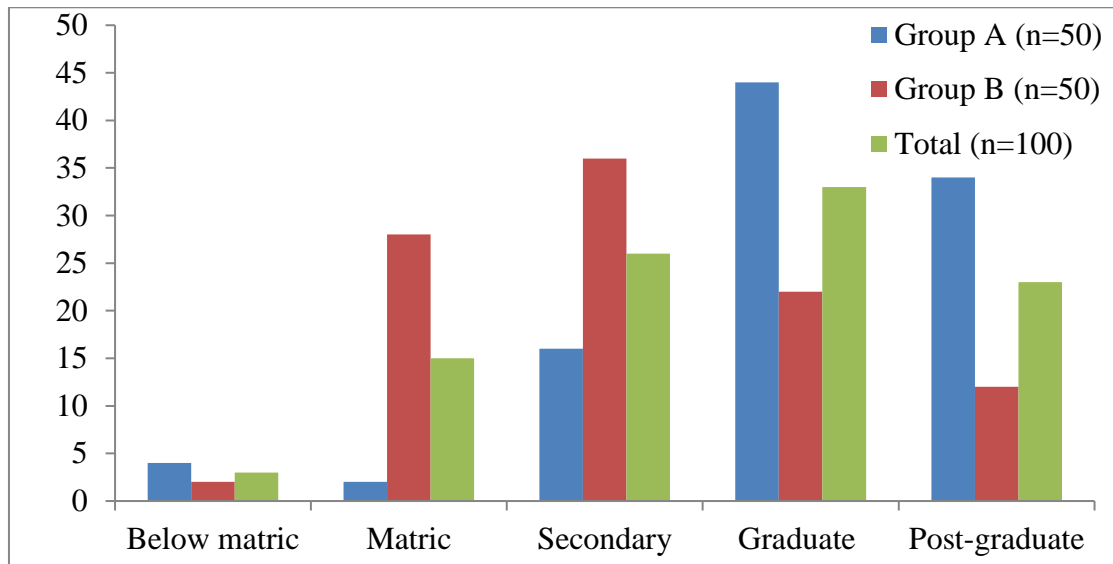


Fig. 2. Distribution of non-vegetarian consumers regarding education

Kathiravan and Chitrambigai [2] also reported that native chicken meat consumption rates vary with educational background, showing 61.54% among those with primary education, 88.89% among secondary-level educated individuals, and 59.53% among graduates. This suggests that educational attainment influences consumption patterns and preferences for native chicken meat.

3.4 Difference in Egg and Meat Quality of Backyard and Intensive Poultry

- (i) **Taste:** From Group A, none of the consumer reported taste difference between products of backyard and intensive poultry. Whereas from Group B, 4% were agreed upon taste difference as mentioned in Table 2. Loo et al. [11] revealed that 94% of the respondents perceived taste as the most attribute of desi meat.
- (ii) **Nutritive value:** 14% of the consumers from Group A reported nutritive value difference whereas 10% from Group B were agreed upon the same.
- (iii) **Other factor:** It includes colour, size and texture. 38% from Group A and 70% from Group B accounts for other factors.

Rest 48% from Group A and 16% from Group B were like there is no difference between egg and meat quality of two.

Similar study was done by Loo et al. [11] in which the author explained that 94% of the population from total surveyed population revealed that taste was the utmost important attribute that was considered by the consumers. Other important factors considered by the respondents were nutritive value, absence of medical residues etc.

3.5 Easy Availability of Eggs and Meat of backyard Poultry

Table 2 indicates that 16% of Group A consumers perceived easy availability followed by 76% from group B whereas 84% from group A and 24% from group B denied the same. Loo et al. [11] revealed that higher prices of organic meat was identified as the major limiting factor, followed by poor availability.

3.6 Frequency of Consumption of Non-Veg in a Week

Table 2 clears that 18% from group A and 76% from group B were consuming non vegetarian items 1-2 times a week. On the other hand, 20% from group A and 24% from group B were consuming 3-4 times a week. Kumar et al. [9] revealed in his study that 67% of the non-veg consumers consumed meat on monthly basis.

3.7 Capital worth of Backyard Poultry

52% from group A and 82% from group B considered capital worth of Backyard Poultry, while 48% from group A and 18% from group B were on the other side.

Table 2. Distribution of non-vegetarian consumers regarding perceptions towards Backyard Poultry Farming

Parameter	Response	Category	Group A (n=50)	Group B (n=50)	Total (n=100)
Consumption of eggs	Yes	Preferences to Backyard Poultry	11 (22)	40 (80)	51 (51)
		Preferences to Intensive Poultry	39 (78)	10 (20)	49 (49)
	No		0 (0)	0 (0)	0 (0)
Consumption of meat	Yes	Preferences to Backyard Poultry	15 (30)	32 (64)	47 (47)
		Preferences to Intensive Poultry	23 (46)	6 (12)	29 (29)
	No		12 (24)	12 (24)	24 (24)
Difference in egg and meat quality of Backyard and Intensive Poultry	Yes	Taste	0 (0)	2 (4)	2 (2)
		Nutritive value	7 (14)	5 (10)	12 (12)
		Others	19 (38)	35 (70)	54 (54)
	No		24 (48)	8 (16)	32 (32)
Easy availability of eggs and meat of Backyard Poultry	Yes		8 (16)	38 (76)	46 (46)
	No		42 (84)	12 (24)	54 (54)
Frequency of consumption of non-veg in a week		1-2 times	40 (80)	38 (76)	78 (78)
		3-4 times	10 (20)	12 (24)	22 (22)
Capital worth of Backyard Poultry	Yes		26 (52)	41 (82)	67 (67)
	No		24 (48)	9 (18)	33 (33)
Place of buying		Local market	36 (72)	16 (32)	52 (52)
		Farmer	8 (16)	25 (50)	33 (33)
		Any other /Both	6 (12)	9 (18)	15 (15)
Knowledge about breeds of Backyard Poultry	Yes		19 (38)	32 (64)	51 (51)
	No		31 (62)	18 (36)	49 (49)
Knowledge about difference between exotic and indigenous breed	Yes		21 (42)	41 (82)	62 (62)
	No		29 (58)	9 (18)	38 (38)

Figure in parentheses indicate percentage

3.8 Place of Buying

It is clear from Table 2 that this was categorized into three groups i.e. local markets, farmers and other/both.72% from group A and 32% from group B were buying from poultry products from local markets. 16 from group A and 50% from group B were buying products from farmer directly whereas 12% from group A and 18% from group B were taking from both the above mentioned sources.

3.9 Knowledge about breeds of Backyard Poultry

Only 38% people from Group A and 64% from group B had knowledge about the backyard poultry breeds while 62% from group A and 36% from group B had no knowledge. So, there is dire need to organize knowledge imparting camps for urban people and apprise them about local breeds.

3.10 Knowledge about Difference between Exotic and Indigenous Breed

Only 42% people from group A and 82% from group B had knowledge about difference between exotic and indigenous breeds while 62% from group A and 36% from group B had no knowledge.

4. CONCLUSIONS

It can be concluded from the present study that among the non vegetarian consumers, none was above 60 years age and most have education level of graduate in both urban and rural area. Rural consumers give more preference to eggs and meat from backyard poultry. There is difficulty in availability of eggs and meat from backyard poultry to urban area. So, suitable market linkages should be strengthened in the rural area as majority of urban consumer buy eggs and meat from local market. Also, there is need to enhance the education of consumers about products of backyard Poultry with the help of extension activities.

DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc.) and text-to-image generators have been used during the writing or editing of this manuscript.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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