

Empowerment and Nutrition: Analyzing Women's Food Consumption through Socio-Economic Lenses Using NFHS 5 Data

Akanksha Yadav, Minni

School of Liberal Studies, Ambedkar University Delhi

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ABSTRACT

The food security of women is contingent upon their economic status, education levels, health, and their position within the family and society and these factors are closely linked to a woman's own nutritional status. In this paper we try to analyze how the consumption of certain food items by women is affected by various socio economics factors using the NFHS 5 dataset. It has been found that mobility, decision making power, financial autonomy, higher education, wealthier households and employment have a positive impact on the consumption of food items.

Key words: Food security, women bargaining power, gender, socio-economic, National Family Health Survey

INTRODUCTION

A situation of food security arises when “all the people, at all the times, have physical availability and economic access to adequate, safe and healthy food to fulfill their food preferences and dietary needs for an active and healthy life” (FAO, 1996).

Food security encompasses the consumption of high-quality food containing sufficient calories, along with essential micro and macro nutrients. Despite the rapid economic growth in India, the enhancement of nutritional well-being among both children and adults has shown only marginal improvements. Although the National Food Security Mission has boosted the production of pulses and cereals, agricultural yield has diversified into fruits, vegetables, and dairy, indicating improvements in the overall quality of diets. Despite significant investments in the agricultural sector, the increase in production has not swiftly and comprehensively translated into improved nutritional statuses for children and adults (Narayan 2015).

Nutritional health is a characteristic of an individual and not the household. The dietary quality and the average nutrient intake of any household is the most significant determinant in the welfare of its members, nutritional welfare is experienced individually. The household is the most dominant institution to affect the nutritional well being of the individuals. Therefore, it is crucial to recognize how individual members are allocated resources within the household (Villa et al 2011). Food distribution within households exhibits a bias favoring adult males both in terms of quantity and priority. Some families display preferential spending on economically productive members, often adult men. Mother's income is positively related to their own calorie intake. Qualitative studies reveal a belief among the respondents that adult males are given priority, particularly in matters of nutrition and delicacies. Typically, the household's manager or earner, handling both household lands and non-agricultural income, is a man unless an adult male is absent. Elderly individuals receive favored and nutritious food as recognition for past economic contributions. Discrimination against women is influenced by individual body mass and energy spending, with those engaged in energy-intensive activities receiving a higher food allocation. Certain household work by women is often perceived as less energy-intensive than men's fieldwork. Individuals with a perceived higher status in the family are favored in allocating high-status or special foods. (Abdullah 1983, Palriwala 1993, Harris-Fry 2017, Rathnayake and Weerahewa 2002, Haddad et al 1996).

A woman's societal status is influenced by gender norms, personal attributes, and achievements. Perceptions of women within their social environment also contribute to shaping their status. The food security of women is

contingent upon their economic status, education levels, health, and their position within the family and society. Women with lower status experience limited control over family resources, lower self-esteem, and restricted access to health services, among other challenges. These factors are closely linked to a woman's own nutritional status (Ramachandran 2004). Historically, as women's status within the family increased with age and the birth of children, particularly sons, they were allocated more nutritious food. However, with the rise of urbanization and modernization, the influence of status on food allocation has diminished (Gittelsohn 1991).

The NFHS 5 has collected data on the frequency of the consumption of seven food categories: **milk, pulses, green leafy vegetables, fruits, eggs, fish and chicken**. The data was collected on how often these foods are consumed by men and women: Daily, weekly, occasionally or never. Around 47 % of women consumed leafy vegetables daily and 38 % consumed them on a weekly basis. Almost 45 % women consumed pulses daily as well as weekly. Milk and curd are being consumed by around 45 % women on a daily basis and weekly by 23 %. Coming to fruits, around 54 % women did not consume fruits even once a week. About one third of women consumed non vegetarian foods like chicken, fish, meat and eggs on a weekly basis. This pattern of food consumption has remained more or less similar since the last NFHS survey in 2005-06. Since the last survey an increase in the daily consumption of milk and curd and a decrease in the daily consumption green leafy vegetables in both men and women has been seen. (NFHS 5: India)

Power Dynamics and Autonomy in Gendered Household Roles: Reviewing the Literature

Gender relations encompass the tangible power dynamics between men and women within both domestic and socio-economic spheres, as outlined by Hodgson and McCurdy in 2001. The concept of gender refers to socially constructed roles and responsibilities accepted by society for each gender. For instance, societal norms often designate women as primarily responsible for child-rearing and domestic duties due to their ability to bear children. These gender-defined roles extend to resource entitlements within households, influencing social, political, and behavioral outcomes (Marshal 1994).

In family settings, men and women assume distinct roles related to procuring, cooking, and distributing food. It is crucial to optimize their contributions by ensuring equitable access and control over resources, promoting food security. Research by Sharon in 2013 highlights that women, especially in developing nations, often have less control over resources compared to men. Nonetheless, studies reveal that when women have control over resources, the overall health and nutrition levels, particularly of women and children, significantly improve.

Women's autonomy manifests in three key domains: the freedom of movement, control over finances, and decision-making power, as identified by Bloom et al in 2001. Notably, studies indicate that when women possess decision-making authority, they tend to allocate food resources in a manner that maximizes nutritional outcomes for the entire household. The influence of women's control extends to production, purchasing, or income, shaping favorable food distribution outcomes for women (Haddad et al 1998, Nazli and Hamid 1999). Conversely, women with limited social mobility exhibit lower food allocations, as observed by Carloni in 1981. Educated women generally have access to resources because they are more likely to earn and thus are able to participate in decision making and thus have a high status and a greater bargaining power in the family. However, some women despite being educated do not yield a bargaining power due to other reasons. (Chen & Li 2009)

The bargaining power of individuals within a household hinges on their "fallback position," representing the options available in the event of cooperation failure. Determinants of this fallback position encompass factors like parental wealth, non-wage income, and legal frameworks governing marriage and family. Resource ownership, particularly productive assets such as land, plays a pivotal role in determining bargaining power. Women possessing more productive resources tend to have a stronger fallback position, directly correlating with enhanced bargaining power (Agarwal 1997, Sen 1990).

Research findings suggest that household income has minimal influence on the nutritional status of females; however, an increase in female income significantly enhances nutritional outcomes for both men and women, as indicated by Messer in 1997. Women's employment not only amplifies their contribution to family income but also elevates their social standing, reducing reliance on males for sustenance. This economic independence grants them greater influence in household matters, thereby bolstering their bargaining power. Additionally,

women with higher status and education are less likely to discriminate against their daughters, attributed to their increased knowledge and control over resources. In the context of marital dynamics, exogamous women, separated from their natal families after marriage, may experience reduced status and control over resources, potentially leading to preferences for sons and insufficient support for daughters. Conversely, endogamous women, residing in proximity to their natal place, enjoy superior social and familial status. It is agreed that higher education level in women is associated with her and her family's well being. Education increases women's knowledge to make effective choices, their independence and control over resources. (Bose, 2011)

The presence of female decision-makers in households is linked to improved nutritional outcomes, resulting from optimized food allocation. However, despite potential benefits, disparities in food allocation towards women may persist due to the overarching responsibility to ensure everyone in the household is adequately fed, as discussed by Harris-Fry et al. in 2017. Despite limited social mobility, women might encounter fewer inequalities in this context, given the historical precedent of women traditionally having more control over food allocation within the household (Harris-Fry et al., 2017).

A large family size can often affect the food consumption especially for the women. Familial hierarchy and larger size of a household have significant impact on food intake by women. It has been found a higher calorie intake for women in larger households (Rathnayake and Weerahewa 2002). Contrarily, another study showed a higher calorie intake by males in large household sizes (Chaudry R 1983).

METHODS

Data Source

We used the data from the nationwide National Family Health Survey, round 5, conducted in 2019-20. It is conducted by the Ministry of Health and Family Welfare, coordinated by the International Institute of Population Sciences, Mumbai. NFHS 5 was conducted in two phases for approximately 636,699 households, with a sample of 724,115 women and 101,839 men who were eligible for interviewing. 4 survey questionnaires were used: household, woman, man, biomarker. For our analysis only the women's and men's questionnaire have been used. It collected information from all eligible men and women aged 15-49 about a variety of topics; on women's characteristics, fertility, marriage, nutrition, reproductive health, domestic violence, sexual behavior, HIV/AIDS and childcare (NFHS 5: India)

The NFHS 5 collected data on the frequency of the consumption of seven food categories: **milk, pulses, leafy vegetables, fruits, eggs, fish and chicken**. The data was collected on how often these foods are consumed by men and women: Daily, weekly, occasionally or never. In the analysis the consumption of food on a daily and weekly basis is combined and the consumption of food occasionally and never is clubbed together. We assign a value of 1 if the respondent consumes the food item on a daily or weekly basis, otherwise value 0 is assigned. The dependent variables used in this study thus becomes dichotomous; coded as 1 and 0 implying that logistic regression would be an appropriate method. We ran seven regression models, one for each food item.

We used NFHS 5 data to see the impact of women's empowerment on their food consumption. NFHS 5 includes information on the frequency of various food items for both men and women. According to table 1, urban women consume more of these food items at least once in a week than rural women. It can be seen in the table below that women who completed more years of schooling have better consumption than women with no or less schooling especially in consumption of milk and fruits. It shows that women with higher education tend to lead a healthy eating behavior. The consumption of milk/curd, fruits and fish is higher among higher caste women compared to lower caste women. Among other food category the difference is negligible. The consumption of milk/curd, pulses and fruits is higher among rich class. Thus, deficiency in diet is found among women with less or no schooling, residing in rural areas and belonging to lower caste and poorer household. (NFHS 5: India)

Table 1: Percentage of women age 15-49 consuming specific foods at least once a week by background characteristics, India: 2019-21

Background characteristic	Milk or curd	Pulses or beans	Dark green, leafy vegetables	Fruits	Eggs	Fish	Chicken or meat	Number of women
Age								
15-19	69.8	91.9	89.4	47.0	43.1	32.8	33.7	122,544
20-29	72.6	93.1	91.3	51.9	46.0	35.7	36.8	236,584
30-39	72.4	93.3	91.1	49.7	46.0	36.8	36.7	197,936
40-49	73.3	93.0	90.7	48.4	44.2	36.5	35.4	167,051
Residence								
Urban	78.8	94.2	91.3	64.5	51.9	38.9	42.4	235,279
Rural	69.1	92.3	90.6	42.5	41.8	34.2	32.8	488,836
Schooling								
No schooling	66.0	92.1	90.1	34.3	41.2	31.9	33.9	163,492
<5 years complete	62.9	91.7	91.3	38.6	51.7	45.7	41.3	37,549
5-7 years complete	69.4	92.8	90.7	44.1	46.1	36.7	37.4	96,806
8-9 years complete	68.4	92.7	91.0	46.7	44.4	37.0	34.5	129,094
10-11 years complete	76.3	93.1	90.5	56.3	47.9	37.5	38.4	109,777
12 or more years complete	81.3	94.0	91.4	66.4	45.4	34.6	35.3	187,396
Religion								
Hindu	72.9	93.3	91.2	48.9	41.5	32.4	32.0	589,164
Muslim	68.2	91.9	89.5	51.4	65.6	54.4	58.1	97,595
Christian	69.6	86.9	81.8	58.8	70.9	63.2	61.6	16,995
Sikh	83.8	91.0	93.5	60.0	13.4	4.2	7.0	11,404
Buddhist/Neo-Buddhist	67.5	89.1	91.3	52.2	59.6	42.0	54.8	4,571

Jain	92.2	98.6	95.2	78.7	6.7	2.6	3.3	1,632
Other	38.9	90.6	91.4	36.4	46.8	41.9	39.4	2,754
Caste/Tribe								
Scheduled caste	68.7	92.2	90.6	44.4	48.4	37.4	37.7	158,483
Scheduled tribe	54.9	90.3	91.0	37.4	46.4	36.0	37.1	67,263
Other backward class	76.5	93.6	90.2	50.3	42.7	32.4	33.7	310,783
Other	74.9	93.5	91.9	57.9	45.7	39.6	37.5	182,474
Don't know	57.9	91.3	91.1	44.0	50.5	43.9	41.6	5,112
Wealth quintile								
Lowest	52.6	91.3	91.1	26.8	41.4	38.5	31.5	133,973
Second	65.9	92.2	90.7	37.9	45.0	37.2	35.3	144,813
Middle	74.5	92.7	90.1	48.3	48.4	36.7	39.1	148,616
Fourth	80.1	93.6	90.2	59.4	48.0	36.2	39.4	150,680
Highest	86.2	94.7	91.9	73.7	42.2	30.2	33.7	146,032
Total	72.2	92.9	90.8	49.7	45.1	35.7	35.9	724,115

Source: NFHS 5

The frequency of consumption of these food items by women is presented in table 2. Amongst these categories, the consumption of milk, pulses, and green vegetables is higher. Approx 49 percent women consume milk/curd daily, 23 percent women consume weekly, and 22 percent consume occasionally but there are 6 percent women who never consume milk/curd. Half of the women consume pulses/ beans on a daily basis, and an additional 43 percent consume on a weekly basis. The consumption of fruits among women is inadequate. Only 12 percent women consume fruits daily and 48 percent consume occasionally. Very few women consume eggs, fish, and chicken/meat daily. Mostly women never consume these non-vegetarian food items.

Table 2: Frequency of consumption by women

Percent distribution of women age 15-49 by frequency of consumption of specific foods, India, 2019-21						
Frequency of consumption						
Type of food	Daily	Weekly	Occasionally	Never	Total	Number
Milk or curd	48.8	23.5	21.9	5.8	100	724,115

Pulses or beans	49.6	43.3	6.7	0.4	100	724,115
Dark green, leafy vegetables	52	38.8	8.9	0.3	100	724,115
Fruits	12.5	37.1	48.7	1.6	100	724,115
Eggs	5.2	39.9	26.9	28	100	724,115
Fish	5.1	30.6	29.9	34.4	100	724,115
Chicken, meat	1.4	34.5	32.6	31.5	100	724,115

Source: NFHS 5

Explanatory variables

1. Bargaining power: Several studies have used a wide range of indicators as proxy to measure women’s bargaining power. In line with the previous studies, we employ the following indicators to measure women’s bargaining power:

1.1 Mobility: To capture this, we included three questions; usually allowed to go to market, allowed to go to health care, and allowed to go to places outside this village provided by NFHS. We used principal component analysis to construct a mobility index.

1.2 Decision making: We again used principal component analysis using three questions (who usually make decides on respondent’s health, on large household purchases and her visits to family and friends) to construct a decision-making index.

1.3 Financial autonomy: Coded as 1 if respondent has money that she alone decides on how to use, otherwise 0.

2. Educational attainment: Four dummies have been used in this study: No education coded as 0, primary education coded as 1, secondary education coded as 2 and higher education coded as 3. No Education is the reference category for educational attainment of women.

3. Employment: Status of respondent is coded as 1 if employed and 0 if unemployed, in the paper.

4. Wealth Index: A composite index based on 33 assets ranging from a pressure cooker to a tractor and housing characteristic such as type of toiled facility, drinking water source, type of windows etc. It was constructed by NFHS itself, coded as 1 for “poorest”, 2 for “poorer”, 3 for “middle”, 4 for “richer” and 5 for “richest”. Poorest is treated as a base category for analysis in logistic regression.

5. Family size: We divided family size into two category and coded as 1=small if family members are less than and equals to 5 and 2= large if family members are greater than 5.

6. Area: We used the codes as 1 if it is an urban area and 2 in case of rural area.

7. Caste: Coded as 1 in case of schedule caste, 2 if schedule tribe and 3 if respondent belongs to general category as control variables. Scheduled Caste is the base category for Caste.

Analysis

The logistic regression results are presented in tables 3 and 4. We ran seven different logistic regressions to examine the effect of all explanatory variables on all the seven food items.

Table 3: Regression results for vegetarian food items:

VARIABLES	Milk	Pulses	Leafy Vegetables	Fruits
Mobility	1.168***	1.187***	1.285***	1.153***
Decision Making	0.879***	1.083**	1.169***	0.959**
Have own money to spend	1.039*	1.277***	1.281***	1.112***
Age Category	1.150**	1.284***	1.074	0.925
Education				
Primary	0.822***	0.921*	1.081	1.161***
Secondary	0.881***	0.926*	1.092**	1.453***
Higher	1.174***	1.1	1.280***	2.290***
Wealth				
Poorer	1.696***	1.031	0.986	1.431***
Middle	2.522***	1.116**	0.938	1.980***
Richer	3.586***	1.172***	0.908*	2.583***
Richest	5.523***	1.531***	1.024	3.937***
Caste				
Scheduled Tribe	0.610***	0.467***	1.013	1.130***
OBC	1.214***	1.072	0.988	1.063**
None of them	1.207***	1.08	1.249***	1.201***
Don't know	0.594***	0.892	0.957	0.774**
Family Size of household	1.029	1.217***	1.201***	0.921***
Employment status of women	1.011	0.890***	0.857***	0.983
Area of residence	1.300***	1.105**	0.989	0.807***
Constant	0.586***	5.681***	5.823***	0.474***
Observations	54,816	54,816	54,816	54,816
Level of significance: *** p<0.01, ** p<0.05, * p<0.1				

Source: Authors own calculation using NFHS 5 data

Table 4: Regression results for Non-Vegetarian Food Items:

VARIABLES	Eggs	Fish	Chicken
Mobility	0.959	0.916****	0.951*
Decision Making	0.948****	1.097****	0.933****
Have own money to spend	0.907****	0.943****	0.901****
Age Category	0.872**	0.937	0.822****
Education			
Primary	1.136****	1.335****	1.046
Secondary	1.330****	1.609****	1.236****
Higher	1.356****	1.688****	1.146****
Wealth			
Poorer	1.130****	0.909****	1.193****
Middle	1.191****	0.777****	1.265****
Richer	1.061*	0.673****	1.218****
Richest	0.696****	0.402****	0.761****
Caste			
Scheduled Tribe	0.889****	0.942**	0.915****
OBC	0.889****	0.942**	0.915****
None of them	0.704****	0.830****	0.760****
Don't know	0.903	1.043	0.967
Family Size of household	0.731****	0.748****	0.732****
Employment status of women	1.104****	0.925****	1.064****
Area of residence	0.564****	0.578****	0.576****
Constant	2.301****	1.468****	1.682****
Observations	54,816	54,816	54,816
Level of significance: **** p<0.01, ** p<0.05, * p<0.1			

Source: Authors own calculation using NFHS 5 data

Bargaining Variables and Dietary Diversity:

Women's mobility or the freedom of movement is significantly and positively related to the consumption of milk, pulses, leafy vegetables and fruits. Compared to women with no mobility, women with higher mobility have higher odds of consuming vegetarian food items. The results suggests that freedom of movement improves women's dietary diversity. But in case of non vegetarian food items, mobility is not positively associated.

Women's **decision-making** power, measured by their involvement in taking decisions regarding their health, household purchases and visits to family, presents a nuanced picture. While it increases the odds of consuming pulses, leafy vegetables and fish but the odds of consuming other food items are lower.

Financial autonomy appears to be a strong predictor for vegetarian food items. Women who have their own money to spend on themselves are significantly more likely to increase the frequency of the consumption of milk, pulses, vegetables and fruits. The odds are lower for non-vegetarian food items. Financial independence gives women some power to reallocate resources towards her own well being. These results show that women with great autonomy can improve their nutrition intake.

Education and Wealth as a strong predictor of nutritional and balanced diet:

As compared to no education, women with **higher education** are significantly more likely to have high nutritional food. The odds of consuming milk, leafy vegetables, fruits, eggs, fish and chicken are significantly higher, meaning better education can help women change the practices that contribute to poor health. Better education not only positively affects them but also ensures the family's well being by promoting a balanced diet.

Similarly, women of **wealthier** households have significantly higher odds of consuming milk, fruits and pulses. The odds of consuming fruits, which is relatively expensive and considered as discretionary food, are 2.6 times and 3.9 times higher for richer and richest households compared to women from poorest households. Women of poorer and middle-income households have higher odds of consuming eggs and chicken relative to wealthier households. This highlights the regional and cultural consumption patterns.

Other control variables:

Women's **employment** shows a mixed pattern. The odds of consuming non-vegetarian items such as eggs and chicken are significantly higher for employed women. On the other hand, the odds are lower for pulses and leafy vegetables consumption. The result may highlight time poverty. Due to hectic schedule, employed women may depend on quick and protein rich food options.

Women belong to **Scheduled Tribe** are significantly more likely to consume eggs, fish and chicken but less likely to consume dairy products and pulses compared to reference group i.e. Scheduled Caste. Women belonging to OBC or General caste have higher odds of consuming milk and fruits but lower odds of consuming meat and eggs. These results highlight the strong connection between food habits and the caste hierarchy. While non-vegetarian consumption is associated with lower caste, vegetarian is often equated with upper caste, high status and purity.

Women residing in **rural** areas have lower odds of consuming non-vegetarian food items compared to urban women. On the other hand, they are positively associated with the consumption of milk and pulses. However, the higher consumption of milk is possibly related to the livestock ownership.

Women belonging to **larger families** have significantly lower odds of consuming fruits, meat and eggs but higher odds of consuming pulses and leafy vegetables compared to women in small or nuclear families.

A well-balanced diet is of utmost importance to achieve a healthy life and should be a priority for everyone irrespective of their gender. In India, men and boys are given priority on food in terms of both quantity and quality. It is one of the basic humans right but still mostly women and girls suffer from malnutrition because of such discrimination. To achieve the sustainable development goal of zero hunger (Goal 2: Zero hunger), we need

to empower women so that they can claim their rights and improve health and nutrition for themselves as well as for their families because women are the ones who make most of the food related decisions in their families.

Qualitative evidence from Maharashtra, India shows that women's mobility influences the availability of green leafy vegetables and fruits in the household. Women who lack mobility are dependent on the male members for procuring food, thus unable to prioritize foods such as fruits, green leafy vegetables and milk (Kehoe et al 2019). Studies suggest that female disadvantage is generally reflected in diet quality and inadequacy of micronutrients rather than in calorie quantity (DeRose et al 2000). Nutritional outcomes also depends on participation in household decision making and control over income, with women with higher authority spending more toward better nutritional foods (Haddad 2019). A study done in Bangladesh shows that if the household head is more educated, less meat is allocated to women than men and land owning households turn out to be more equitable when it comes to fish and less equitable when it came to the allocation of eggs (Bouise et al 1997)

While female autonomy indicators like mobility and financial control enhance vegetarian food consumption, they do not significantly drive the consumption of non-vegetarian foods. Cultural, religious, and socio-economic factors continue to dominate dietary choices in India, underscoring the deep-rooted nature of vegetarianism in the country. In many households, women are traditionally responsible for maintaining dietary practices, including vegetarianism. This role is often seen as part of their duty to uphold family and cultural values. Despite increased autonomy in other areas, such as decision-making and mobility, women might still conform to established dietary norms to fulfill societal expectations and maintain harmony within the household. While men might have the flexibility to eat non-vegetarian food outside the home without significant moral repercussions, women are expected to uphold these traditions within the household. Meat consumption is often associated with masculinity and strength, reinforcing gender stereotypes. This association further entrenches the gender gap in dietary practices, making it challenging for changes in female autonomy to translate into significant dietary shifts. Thus, strong cultural, religious, and gendered foundations of vegetarianism in India explain why female autonomy does not substantially affect non-vegetarian food consumption (Johnston et al 2021, Natrajan & Jacob 2018)

As is visible from the results of this paper that empowerment of women will lead to better health outcomes within households due to an improvement in the consumption of nutritious foods. Women with greater autonomy and bargaining power within the family are more likely to allocate resources towards healthier food options, hence enhancing the overall well being of the family.

CONCLUSION

In a developing country like India the distribution of limited food among all the family members is a tough decision. Despite having enormous economic growth, India is ranks 111th out of 125 countries in the Global Hunger Index. A woman is the prime distributor of food in household, yet she ends up not receiving adequate nutrition due to the prevailing social and cultural practices. A woman's status is determined by societal gender norms, personal attributes and achievements.

The study reveals that women's food consumption is affected by various socio-economic factors. Within the social environment, how others perceive a woman also shapes her status. Women's food security depends on their economics status, along with their education levels and their social status in their family and in the society. Women with higher education and part of a wealthier households presents higher odds of consuming nutritious food, especially milk and fruits. Better education increases knowledge about balanced diet, nutritious food and health awareness. Food consumption patterns are also shaped by caste and family structure. Lower caste women show higher consumption of non-vegetarian food items but lower consumption of dairy product and other vegetarian food items. This highlights the cultural difference rather than purely economics determinants. Women with low status have less control on the family's resources, low self esteem and little access to health services, among other things. These factors are closely connected to a woman's own nutritional status.

The results from this study contribute to the existing literature on food consumption patterns and gender dynamics in India. By signifying a strong positive correlation between women's autonomy (here measured by mobility, decision-making power and financial independence) and the consumption of vegetarian food items,

this study aligns with previous findings highlighting the importance of women's control over resources in improving household nutrition.

Conversely, the limited or negative impact of empowerment indicators on the consumption of non-vegetarian food items such as eggs, fish and chicken emphasizes the influence of cultural norms and traditional dietary practices. Women are supposed to maintain the household eating customs. Even they are empowered, they may still follow the customs regarding the food consumption. Although empowerment increases the consumption of nutrient rich vegetarian food items, but its effects on other dietary patterns are mediated by deeply rooted norms.

Overall, the research reinforces the importance of promoting women's education on nutrition and financial independence to enhance their bargaining power within households and thus strengthening household dietary diversity. This study adds to the literature on gender, women empowerment and nutrition in India by looking at different food items via multidimensional empowerment perspectives. The study emphasizes that food security is not just about availability but it also involves agency, culture and social structure.

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