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A study on women's wisdom on under-utilized green leafy vegetables (UUGV) before and after intervention in urban slums of Lucknow district, India

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Abstract

A women's health affects the household economic well being. The present study was carried out with the objectives to study human wisdom on underutilized green leafy vegetables among women of reproductive age residing in urban slums in Lucknow district. The total 40 rural women were selected from different slums of the city. Purposive sampling techniques were used for the selection of the respondents. The study was longitudinal. The data was collected through a developed questionnaire based on General Information, Attitude and Awareness regarding UUGVs. 70% (majority) were of the age group of 20-35 years and married, it is quite an important issue for them to know about the dietary intake and the adequate amount during that particular period of time. Also, many of them were mothers too, therefore it was necessary for them to understand the importance of utilization of UUGVs for them as well as for their kids and other family members. 60% of them said that UUGVs are beneficial in preventing diseases, whereas after the educational intervention 80% agreed to it. 30% women used to cultivate them but after the programme, the number has increased to 40%.

Keywords: underutilized green leafy vegetable, educational intervention, mortality, anaemia, reproductive age.

Introduction

Green leafy vegetables are a treasure trove of nutrients. The World Health Organization (WHO) recommends a daily intake of more than 400g of vegetables per person to protect against diet related chronic diseases. India secured second position in the world next to china in vegetable production. Although, 175 major and minor vegetable crops are grown in India including 82 leafy vegetables, there is a challenge to achieve the target of 160 million tons of vegetables to fulfil the recommended requirement by 2020¹. Some indigenous leafy vegetables grow in the wild and are readily available in the field as they do not require any formal cultivation. Although they can be raised comparatively at lower management cost and on poor marginal soil, they have remained underutilized, due to lack of awareness of their nutritional values in favour of the exotic ones (Raghuvanshi, 2001) ^[2].

Green leafy vegetables are the cheapest of all the vegetables within the reach of poor man, being richest in their nutritional value. There are 45,000 species of wild plants, out of which 9,500 species are ethno-botanically important species. Of these 7,500 species are in medicinal use for indigenous health practices. About 3,900 plant species are used by tribal people as food (out of which 145 species comprise of root and tubers, 521 species of leafy vegetables). India is blessed with a vast resource of greeneries and wide array of Green Leafy Vegetables. Green Leafy Vegetables are sources of nutrients and micronutrients such as iron and vitamin C, which are lacking from staple foods and are primary sources of lutein and zeaxanthine, which have been identified as important eye protective agents. Also contains natural antioxidants such as tocopherols, vitamin C and polyphenols which are necessary in neutralizing free radicals which are known human chemical hazard. Thus the green leaves possess many Nutraceutical effects and phytochemical effects which will be very useful in treating and preventing the many diseases. Especially the bioactive compounds like alkaloids, flavonoids, tannins and phenolic compounds are the reason for the medicinal value of plants that produce a definite physiological action on the body.

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It would be beneficial for the humans to explore the traditional green varieties to include into their daily diet menu and can able lead a healthy life in a natural way Globally, 50 percent of all pregnant women are anemic, and at least 120 million women in less developed countries are underweight. Research shows that being underweight hinders women's productivity and can lead to increased rates of illness and mortality. In some regions, the majority of women are underweight: In South Asia, for example, an estimated 60 percent of women are underweight. Women are more likely to suffer from nutritional deficiencies than men are, for reasons including women's reproductive biology, low social status, poverty, and lack of education. Socio-cultural traditions and disparities in household work patterns can also increase women's chances of being malnourished. Globally, 50 percent of all pregnant women are anemic, and at least 120 million women in less developed countries are underweight. Research shows that being underweight hinders women's productivity and can lead to increased rates of illness and mortality. In some regions, the majority of women are underweight: In South Asia, for example, an estimated 60 percent of women are underweight.

Iron Deficiency and Anemia in Women

Iron deficiency and anemia are the most prevalent nutritional deficiencies in the world. The body uses iron to produce hemoglobin, a protein that transports oxygen from the lungs to other tissues in the body via the blood stream, and anemia is defined as having a hemoglobin level below a specific level (less than 12 grams of hemoglobin per deciliter of blood [g/dl] in non pregnant women; less than 10 g/dl in pregnant women). Most women who develop anemia in less developed countries are not consuming enough iron- rich foods or are eating foods that inhibit the absorption of iron. However,

malaria can also cause anemia and is responsible for much of the endemic anemia in some areas. Other causes of anemia include hookworm and schistosomiasis, HIV/AIDS, other micronutrient deficiencies, and genetic disorders.

Anemia affects about 43 percent of women of reproductive age in less developed countries. Women are especially susceptible to iron deficiency and anemia during pregnancy, and about half of all pregnant women in less developed countries are anemic, although rates vary significantly among regions. Iron deficiency and anemia cause fatigue, reduce work capacity, and make people more susceptible to infection. Severe anemia places women at higher risk of death during delivery and the period following childbirth. Recent research suggests that even mild anemia puts women at greater risk of death.

Materials and methods

The present study was conducted in Nirala Nagar Slum, opposite Ram Krishna Math and Daliganj Slum, Lucknow, Uttar Pradesh, India. The total 40 rural women were selected from Nirala Nagar Slum and Daliganj Slum, Lucknow between the age group of 25-40 years. Purposive sampling techniques were used for the selection of the respondents. The data was collected through a developed questionnaire. It was enclosed with following Information- General Information, Attitude of Women Regarding Underutilized Green Leafy Vegetables before and after the Nutrition Awareness Programme and Awareness regarding UUGVs. Educational Intervention included: Puppet Show, Awareness through Posters, personal interactions and FAQs. The data obtained for the study was tabulated and analyzed with the help of statistical techniques percentage, mean score.

Results and discussions

Table 1: Distribution of The Respondents According To The General Information.

General information			
Parameters	Options	No. Of women	Total
Age	20-35	34	40
	36-45	6	
Family size	2-6	20	40
	7-11	14	
	11-16	6	
	>16	-	
Education level	No	34	40
	Primary	6	
	High school	-	
	Intermediate	-	
Nature of family	Joint	20	40
	Nuclear	20	
Marital status	Married	36	40
	Single	4	
	Separated	-	
Occupation	Housewife	38	40
	Labourer	-	
	Other	2	
Number of children	No child	4	40
	1-2	6	
	>2	30	
Anaemic	Yes	16	40
	No	8	
	Don't know	16	

Table 2: Knowledge Level of Women Regarding Underutilized Green Leafy Vegetables before and after the Nutrition Awareness Programme.

Nutritional Aspects	Knowledge Level Of Women.			
	Before		After	
	Yes (%)	No (%)	Yes (%)	No (%)
Q 1. Are UUVs beneficial in preventing diseases?	55%	45%	90%	10%
Q 2. Are UUVs equally nutritious as common GLVs?	50%	50%	70%	30%
Q 3. Do they cause allergies?	85%	15%	10%	90%
Q 4. Do you cultivate them?	15%	85%	40%	60%
Q 5. Is it easy to cultivate them?	30%	70%	85%	15%
Q 6. Do you sell UUVs, after their cultivation?	10%	90%	10%	90%
Q 7. Are they expensive?	95%	5%	59%	41%
Q 8. Are they organic or safe to eat?	75%	25%	85%	15%
Q 9. Do you wash UUVs before cooking?	80%	20%	95%	5%
Q 10. Do you want to live a healthy life?	100%	0	100%	0
Q 11. Can you identify UUVs in your locality?	35%	65%	90%	10%
Q 12. Are you aware of the nutritional aspect of green leafy vegetables?	70%	30%	90%	10%
Q 13. Do you take GLVs in your meal regularly?	55%	45%	75%	25%
Q 14. Are you aware of the iron content present in GLVs?	65%	35%	85%	15%
Q 15. Have you ever heard about Organic Farming?	40%	60%	65%	35%
Q 16. Do you know that Self-cultivated GLVs are inexpensive?	85%	15%	95%	5%
Q 17. Do you have a kitchen garden?	15%	85%	40%	60%
Q 18. Are you interested in developing the kitchen garden?	35%	65%	60%	40%
Q 19. Have you ever experimented with UUVs to make different recipes?	60%	40%	75%	25%
Q 20. Do you understand the relationship between diet & health?	45%	55%	65%	35%
Q 21. Do you understand the difference between organically/inorganically produced vegetables?	70%	30%	90%	10%
Q 22. Will you motivate your friends to consume UUVs?	45%	55%	95%	5%

The study revealed the comparison of attitudes of women living in urban slums towards importance of under utilized green leafy vegetables from before to after intervention. Majority of the subjects in urban slums were of reproductive age therefore it was necessary for them to get proper awareness through intervention.

Where 55% (half of the women thought that under utilized GLVs) has increased to 90% after the intervention which indicates about the positive significant change in almost all the attitudes and aware nesses.

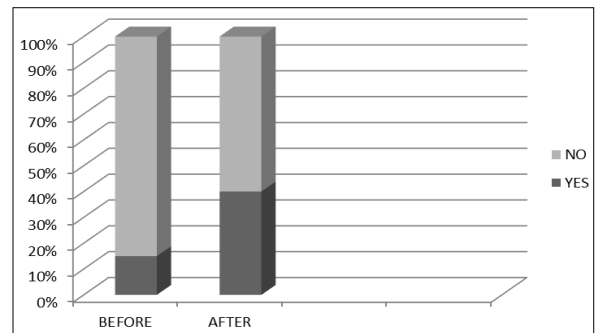


Fig 3: Do they cultivate them

Graphical representation

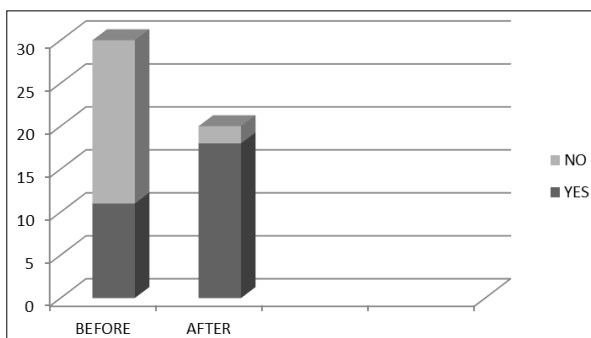


Fig 1: Are UUVs beneficial in preventing diseases

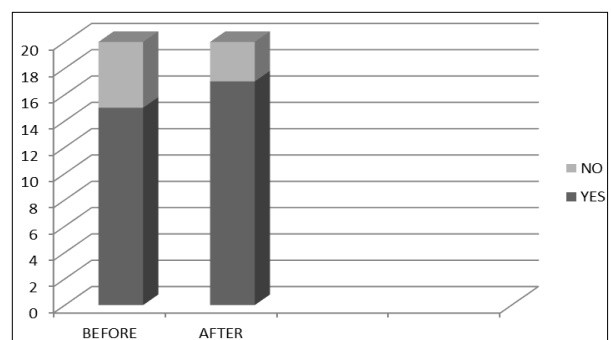


Fig 4: Are UUVs organic or safe to eat

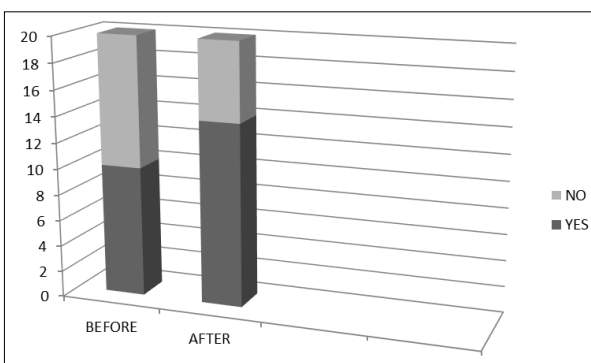


Fig 2: Are UUVs equally nutritious as common GLVs

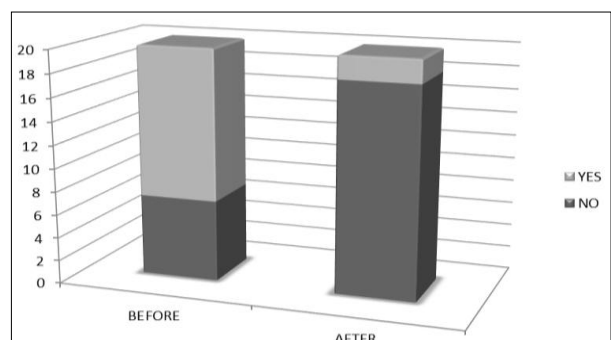


Fig 5: Identification of UUVs in their localities

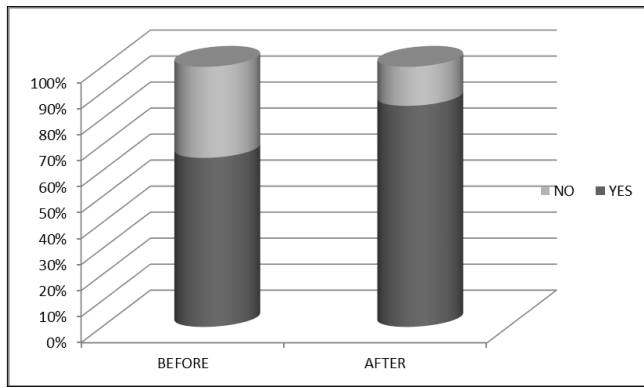


Fig 6: Awareness regarding iron content in green leafy vegetables

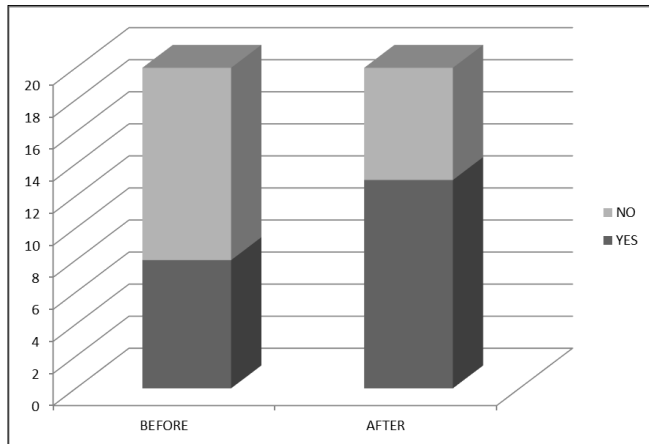


Fig 7: Awareness regarding organic farming

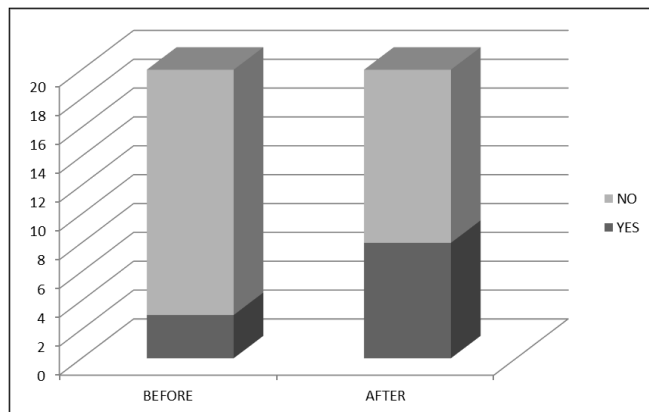


Fig 8: Women having kitchen garden

The Graphical Representation of the data has been depicted in the figures showing significant positive change in almost all the attitudes from before to after.

Conclusion

It has been concluded that green leafy vegetables have always been rich source of nutrients. India, a country rich in agriculture, has so many different varieties of vegetables, fruits which are under utilized due to many reasons, one of the biggest reasons being less awareness in rural areas towards green leafy vegetables which are under utilized. Proper awareness can be incorporated so that people will get to know about various alternatives like, Kitchen Gardens, Organic farmings, etc.

Acknowledgement

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References

1. Geetanjali K, Subhdra K, Rana K, Chengappa. Nutritional knowledge, attitude and practices of competitive Indian sportsman. *The Indian Journal of Nutrition and Dietetics*. 2005-2006. 43:293-304.
2. Raghuvanshi RS, Singh R. Nutritional Composition of uncommon foods and their role in meeting in micronutrient needs. *Int. Journal of Food Science and Nutrition*. 2001; 32:331-335.
3. Gupta S, Lakshmi AJ, Manjunath MN, Prakash J. Analysis of nutrient and anti-nutrient content of underutilized green leafy vegetables. *LWT*. 2005; 38(4):339-345.
4. Arora RK, Pandey A. Wild edible plants of India, Conservation and Use, Indian Council of Agricultural Research. National Bureau of Plant Genetic Resources, New Delhi, India, 1996.
5. Singh Jyoti, Neeru Bala, Verma Anisha. Knowledge attitude and practices of rural women regarding underutilized green leafy vegetables in Allahabad district. *International Journal of Applied and Pure Science and Agriculture*, 2015.
6. Gowthami R, Prakash BG, Raghavendra KV, Brunda SM, Niranjana Kumara B. Survey of Underutilised Leafy Vegetables in South Karnataka of India to Attain Nutritional Security. *Agricultural Research & Technology: Open Access Journal* ISSN: 2471-6774, 2016.