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"A Study To Assess The Knowledge Regarding Vegan Food Among General Public In Selected Area Of Metropolitan City."

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ABSTRACT:
Vegan food is a culinary approach centered on plant-based ingredients, entirely free from animal products or by-products. This means that in a vegan diet, one abstains from consuming meat, poultry, fish, dairy, eggs, honey, and any other animal-derived ingredients. The aim of the study was to assess the knowledge about the vegan diet and to assess the environmental impact of adopting a vegan diet. The present study was conducted to assess the knowledge regarding vegan food among general public. In this study random sampling technique was used. 100 samples were selected through convenient sampling. Using knowledge questionnaire data was collected. The data were analyzed and interpreted by applying statistical methods. The conclusion were drawn on the basis of the findings of the study. The majority of subject have excellent knowledge about vegan food among general public.
MATERIALS AND METHODS: A descriptive survey method design was used with a quantitative approach. The sample size for the present study was 100. The sample collection done by using random sampling technique. Data collection done by the self-reporting method by using questionnaire. The result shows that the majority 60% were in the 20-25 years age group, followed by 17% in the 26-30 years group, 12% in the 31-35 years group, and 11% in the 36 and above age group and the 4% know the term 'meat ban' were 19% know the term 'animal ban' were 70% know the term 'dairy ban' and 7% know the term 'food ban'. The data were analyzed and interpreted by applying statistical methods. The conclusion were drawn on the basis of the findings of the study. The majority of subject have excellent knowledge about vegan food among general public.

Keywords: Assess, Knowledge, Vegan Food, Metropolitan City.

INTRODUCTION

Vegan food is a culinary approach centered on plant-based ingredients, entirely free from animal products or by-products. This means that in a vegan diet, one abstains from consuming meat, poultry, fish, dairy, eggs, honey, and any other animal-derived ingredients.
Veganism is more than just a diet; it's a lifestyle choice for many, driven by concerns about animal welfare, environmental sustainability, and personal health. By embracing vegan food, individuals aim to minimize their impact on animals and the planet while promoting their own well-being.
The foundation of vegan cuisine lies in plant foods such as fruits, vegetables, grains, legumes, nuts, seeds, and plant-based oils. These ingredients provide a diverse array of flavors, textures, and nutrients, making vegan meals not only delicious but also nutritious.

BACKGROUND OF THE STUDY:

In recent years, there has been a growing interest in vegan diets, which exclude all animal products, including meat, dairy, eggs, and even honey (Tso et al., 2013). Veganism has been associated with numerous health benefits, including reduced risk of heart disease, type 2 diabetes, and certain types of cancer (Huang et al., 2015; Spencer et al., 2014).
A well-planned vegan diet can provide all the necessary nutrients for optimal health, including protein, iron, calcium, and vitamin B12 (Manga no et al., 2014). However, vegans may be at risk of nutrient deficiencies if their diet is not well planned (Craig, 2009).

NEED FOR THE STUDY:

This study aims to research vegan, healthy, and organic foods in India to understand national trends and customs, evaluate health benefits, and assess environmental advantages. Currently, a lack of research in this area hinders policy development to promote sustainable and healthy food consumption. This study will shed light on prevalent eating habits, provide evidence of the health benefits of these foods, and highlight their environmental advantages, ultimately supporting the development of a more sustainable food system in India. Furthermore, there is a need to understand the motivations and

barriers to adopting a vegan diet, as well as the impact of vegan diets on environmental sustainability and food security (Tso et al., 2013). A study by Huang et al. (2015) found that vegan diets were associated with a lower risk of chronic diseases, but also highlighted the need for further research on the nutritional adequacy of vegan diets.

OBJECTIVES:

- To assess the knowledge about the vegan diet
- To assess the environmental impact of adopting a vegan diet

REVIEW OF LITERATURE

"Kindness is my superpower, and I fuel it with plants."

A literature review is an overview of the previously published works on a topic. The term can refer to a full scholarly paper or a section of a scholarly work such as a book, or an article. A good literature review can ensure that a proper research question has been asked and a proper theoretical framework and/or research methodology have been chosen.

Vergeer, et al., published on (2020) aimed to estimate the prevalence and sociodemographic characteristics of youth and young adults in major Canadian cities with self-reported vegetarian dietary practices and to examine efforts to alter their diets. Data were collected in autumn 2016 through web-based surveys from 2,566 participants aged 16-30 years. The study found that 13.6% of respondents reported vegetarian dietary practices: 6.6% vegetarian, 4.5% piscatorial, and 2.5% vegan. Sociodemographic factors such as sex, race/ethnicity, and health literacy were significantly correlated with vegetarian practices ($P < 0.01$). Respondents following vegetarian diets were more likely to report efforts to reduce animal products and carbohydrates, and increase consumption of organic, locally produced, and ethically sourced foods. The findings suggest that nearly 14% of youth and young adults in major Canadian cities engage in healthconscious and sustainable dietary practices.

MATERIALS AND METHODS

Research Approach: Quantitative research approach
Research Design: Descriptive survey research design
Setting of the study: online tool survey in selected area of metropolitan city.
Population: General public
Sample Size: 100
Sampling technique: Random sampling technique **Tool for data collection:**
Section A: Demographic variables
Section B: This section determine questionnaire used to assess the knowledge about vegan food.
Section C: This section consist of advantage based on vegan food.
Section D: This section consist of disadvantage based on vegan food.

Feasibility of study

The investigator found that the setting was appropriate to conduct the study as there is adequate samples present. **Pilot study**

Pilot study is a small scale version of the Actual study. It is conducted with the purpose of testing and potentiality refining research plan. A pilot study is to assess the feasibility of research methodology and endure that the investigation laid out in the protocol was realistic.

Validity and Reliability:

The tool was validated by subject experts in nursing and public health. Pilot testing ensured reliability.

Ethical Considerations:

Ethical approval was obtained from the institutional review board. Written consent was obtained from participants.

RESULTS:

Table 1: Distribution of Participants by Demographic Variables

Sr. No.	Demographic variable	Frequency (n)	Percentage (%)
1.	**Gender**		
	Male	49	49%
	Female	51	51%
	Others	0	0%
2.	**Age in years**		
	20-25	60	60%
	26-30	17	17%

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	31-35	12	12%
	36 and above	11	11%
3.	**Religion**		
	Hindu	66	66%
	Muslim	4	4%
	Buddhist	15	15%
	Jain	7	7%
	Catholic	8	8%
4.	**Nutritional deficiencies**		
	Yes	15	15%
	No	85	85%
5.	**Food allergy**		
	Yes	0	0%
	No	100	100%
6.	**No. Of family members consume vegan food**		
	0 member	41	41%
	1 member	21	21%
	2 members	9	9%
	3 members	8	8%
	4 members	9	9%
	5 members	21	21%

1.Shows that the males are 49% and female are 51%
2.Shows that the majority 60% were in the 20-25 years age group, followed by 17% in the 26-30 years group, 12% in the 31-35 years group, and 11% in the 36 and above age group.
3.Shows that 66% of the population are Hindu, 4% are Muslim, 15% are Buddhist, 7% are Jain, and 8% are Catholic.
4.Shows that 15% of people have a nutritional deficiency, while 85% do not have any nutritional deficiency.
5.Shows that 0% of people have a food allergy, while 100% do not.
6.Shows the number of members consume vegan diet 41% 0 members, 21% 1 member, 9% 2 member, 8% 3 member, 9% 4 member and 21% 5 member.

Table 2: This section determine questionnaire used to assess the knowledge about vegan food.

Sr. No.	Knowledge assessment	Frequency (n)	Percentage (%)
1.	**Term about vegan**		
	Meat ban	4	4%
	Animal ban	19	19%
	Dairy ban	70	70%
	Food ban	7	7%
2.	**Food product which is non-vegan**		
	Tofu	8	8%
	Seitan	12	12%
	Soymilk	11	11%
	Honey	69	69%
3.	**Country adopted complete vegan food**		
	China	7	7%
	Israel	76	76%
	Japan	9	9%
	USA	8	8%
4.	**Celebration of world vegan day**		
	November 1	81	81%
	February 15	9	9%
	April 22	8	8%
	December 31	2	2%
5.	**Food product known as wheat meat**		
	Seitan	50	50%

	Tofu	12	12%
	Beans and lentils	33	33%
	Tempeh	5	5%
6.	**True statement about vegan**		
	Soya is unhealthy and causes allergies	6	6%
	Vegans don't gain enough protein	10	10%
	Vegan diet helps for weight loss	10	10%
	It is plant based diet	74	74%
7.	**Tofu is made from which beans**		
	Soya beans	79	79%
	Kidney beans	9	9%
	Green beans	8	8%
	Pinto beans	4	4%
8.	**Products that shouldn't include in vegan diet**		
	Protein	1	1%
	Vegetables	10	10%
	Milk and milk products	88	88%
	Cereals	1	1%
9.	**Plant-based source of vitamin-d**		
	Lentils	5	5%
	Mushroom	81	81%
	Barley	5	5%
	Milk	9	9%
10.	**Good source of omega-3 fatty acid in vegan diet**		
	Flaxseeds	76	76%
	Potatoes	11	11%
	Broccoli	7	7%
	Bread	6	6%
11.	**Good choice of iron product in diet**		
	Dried nuts	4	4%
	Tomatoes	9	9%
	Beans	7	7%
	Green leafy vegetables	80	80%
12.	**Poor source of calcium**		
	Five figs	10	10%
	Almonds	73	73%
	Soya beans	11	11%
	Broccoli	6	6%

1.Shows the 4% know the term 'meat ban' were 19% know the term 'animal ban' were 70% know the term 'dairy ban' and 7% know the term 'food ban'.
2.Shows the non-vegan product 8% tofu, 12% seitan, 11% soymilk, and 69% honey.
3.Shows the complete vegan country are 7% in China, 76% in Israel, 9% in Japan and 8% in USA.
4.Shows the world vegan day celebration 81% in November, 9% in February, 8% in April and 2% in December.
5.Shows the 50% known as seitan, 12% known as tofu, 33% known as beans and lentils and 5% known as tempeh
6.Shows that 6% state soya is unhealthy and causes allergy, 10% state vegans don't gain enough protein, 10% state vegan diet helps for weight loss and 74% state it is plant-based diet as a true statement.
7.Shows that 79% made from soya beans, 9% made from kidney beans, 8% made from green beans and 4% made from pinto beans.
8.Shows that product should not include 1% of protein, 10% of vegetables, 88% of milk and milk products and 1% of cereals.
9.Shows the plant-based source is 5% of lentils, 81% of mushroom, 5% of barley and 9% of milk are the good sources of vitamin d.
10. Shows the good source are 76% flaxseeds, 11% potatoes, 7% broccoli and 6% bread**.**
11. Shows the good sources are 80% of green leafy vegetables, 4% of dried nuts, 9% of tomatoes and 7% of beans.
12. Shows the poor sources are 10% of five figs, 73% of almonds, 11% of soya beans and 6% of broccoli.

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Table 3: This section consist of advantage based on vegan food.

Sr. No.	Knowledge assessment	Frequency (n)	Percentage (%)
1.	**Advantage of vegan diet**		
	Low in fiber	4	4%
	Low in sugar	8	8%
	Low in protein	5	5%
	Low in cholesterol	83	83%
2.	**Advantage of vegan diet in terms of animal welfare**		
	Promotes animal testing	5	5%
	Increases animal exploitation	11	11%
	Supports animal agriculture	10	10%
	Reduces animal suffering	74	74%
3.	**Significant advantage of vegan diet in terms of the environment sustainability**		
	Increase greenhouse gas effect	6	6%
	Higher water uses	10	10%
	Reduced deforestation	80	80%
	Increase pollution	4	4%
4.	**Benefit of vegan diet in terms of weight management**		
	Increase calorie intake	5	5%
	Higher risk of obesity	10	10%
	Lower body mass index	75	75%
	Slower metabolism	10	10%
5.	**Benefit of vegan diet in terms of food safety**		
	Increase risk of food borne disease	5	5%
	Higher risk of antibiotic resistance	17	17%
	Increased risk of pesticides exposure	4	4%
	Lower the risk of food contamination	74	74%

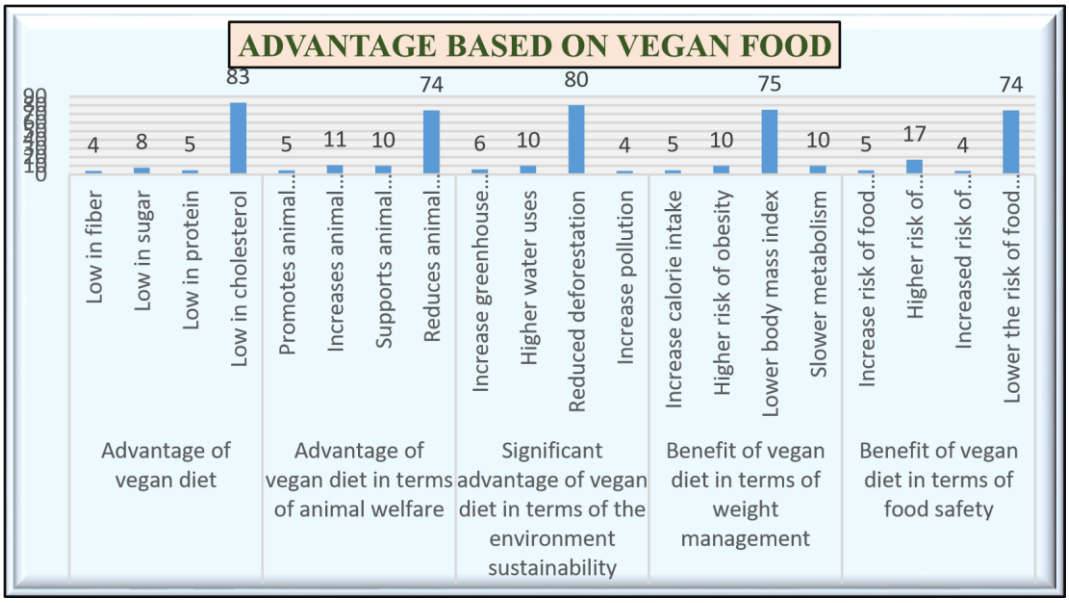

Figure 3: showing that advantages based on vegan food

1.Shows the advantage of diet is 4% of low in fiber, 8% of low in sugar, 5% of low in protein and 83% of low in cholesterol.
2.Shows the advantage related to animal welfare is 5% promotes animal testing, 11% increases animal exploitation, 10% of supports animal agriculture and 74% reduces animal suffering.
3.Shows that advantage related to environment sustainability is 6% of increase greenhouse gas effect, 10% of higher water uses, 80% of reduced deforestation and 4% of increase pollution.

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4.Shows the benefit related to weight management is 5% of increase calorie intake, 10% of higher risk of obesity, 75% of lower body mass index and 10% of slower metabolism.
5.Shows the benefit related to food safety is 5% of increased risk of food borne diseases, 17% of higher risk of antibiotic resistance, 4% of increased risk of pesticides exposure and 74% of lower the risk of food contamination.

Table 4: This section consist of disadvantage based on vegan food.

Sr. No.	Knowledge assessment	Frequency (n)	Percentage (%)
1.	**Potential disadvantage of vegan diet in terms of meal planning**		
	Increased variety of food option	10	10%
	Difficulty in planning balanced meal	45	45%
	Lower the risk of food allergies	23	23%
	Higher the risk of nutrient deficiency	22	22%
2.	**Drawback of vegan diet in terms of social aspect**		
	Difficulty in finding vegan option while eating out	49	49%
	Lower the cost of vegan food	21	21%
	Increase social awareness	23	23%
	Improve relationship with non-vegan friend	7	7%
3.	**Vegan diet may lead to insufficient intake of minerals**		
	Zinc	46	46%
	Sodium	21	21%
	Potassium	28	28%
	Iodine	5	5%

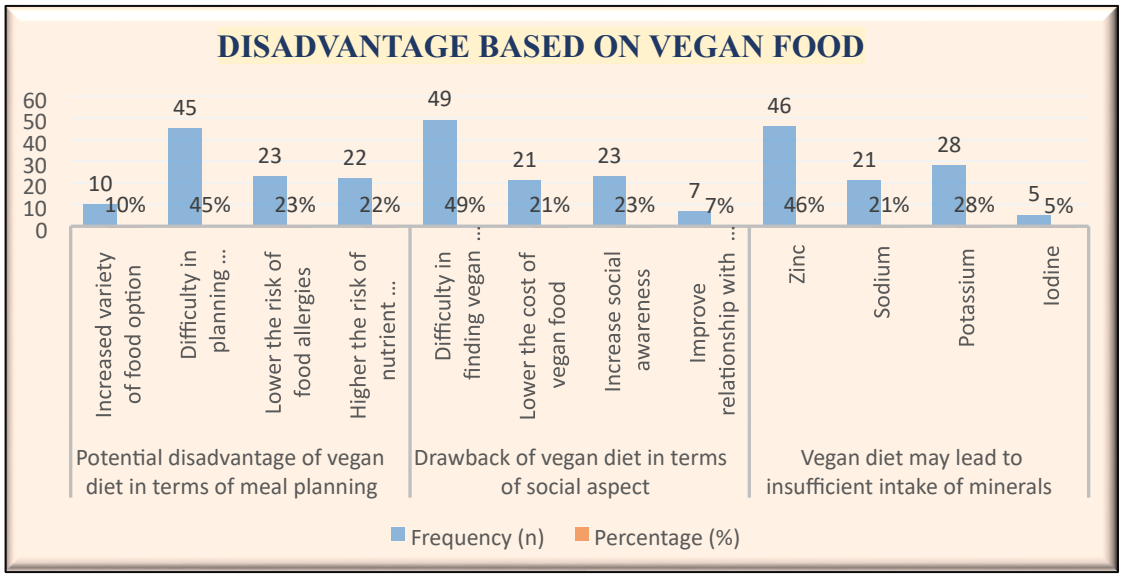

Figure 4: showing that disadvantages based on vegan food

1.Shows the disadvantage related to meal planning is 10% of increased variety of food option, 45% of difficulty in planning balanced meal, 23% of lower the risk of food allergies and 22% of higher the risk of nutrient deficiency.
2.Shows the drawback in terms of social aspect is 49% of difficulty in finding vegan option while eating out, 21% of lower the cost of vegan food, 23% of increase social awareness and 7% of improve relationship with non-vegan friend.
3.Shows the insufficient intake of mineral is 46% of zinc, 21% of sodium, 28% of potassium and 5% of iodine.

CONCLUSION

The present study was conducted to assess the knowledge regarding vegan food among general public. In this study random sampling technique was used. 100 samples were selected through convenient sampling. Using knowledge questionnaire data was collected. The data were analyzed and interpreted by applying statistical methods. The conclusion were drawn on the basis of the findings of the study. The majority of subject have excellent knowledge about vegan food among general public.

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