Lifestyle Assessment and Motivations of Vegan Population in Chandigarh Tricity: Insights from a Comprehensive Survey

Abstract

This study examines the status of veganism in the Chandigarh Tricity area through a comprehensive analysis of survey data and supporting literature. The findings reveal a growing awareness and interest in veganism among residents, with a majority demonstrating familiarity with its principles. Motivations for adopting a vegan lifestyle vary, encompassing health, ethical, and familial influences. While familial acceptance significantly impacts individuals' ability to maintain a vegan lifestyle, challenges such as limited food options in local stores exist. The study underscores the importance of community support networks and educational initiatives to promote veganism and sustainability in the region. Efforts to increase the availability of vegan-friendly options and foster a supportive social environment can facilitate the transition to and maintenance of a vegan lifestyle in Chandigarh Tricity.

Keywords: Veganism, vegan-friendly, vegan diet, vegan

Introduction

Vegans avoid all animal products, including meat, dairy, eggs, and other animal-derived substances, as well as animal products in clothes and cosmetics (Souza *etal.*, 2020).

Types of veganism

Veganism is different in lifestyle and motive. Ethical vegans avoid all animal goods, including clothing and cosmetics, to decrease animal cruelty. Dietary vegans focus only on food. Environmental vegans focus on sustainability and decreasing their carbon footprint by avoiding animal agribusiness. Plant-based diets are preferred by health-conscious vegans to avoid or treat chronic conditions. Vegans who eat raw foods believe they preserve nutrients and enzymes. Junk food vegans eat mostly processed vegan cuisine. Fruitarians eat raw fruits, nuts, and seeds to limit plant harm and see fruits as ethical nourishment. Jainism, some Buddhist and Hindu groups, and some spiritual traditions practice vegetarianism as part of their religion.

Ancient Roots: Ancient India practiced vegetarianism for ages. Initially, Jainism and other Buddhist groups advocated a plant-based diet without meat, dairy, or other animal items (Basham, 1951).

Early vegan advocates: Veganism developed in the early 20th century under influential personalities and organizations.

- **Donald Watson and The Vegan Society:**In 1944, Donald Watson and Elsie Shrigley created The Vegan Society in the UK, coining the term "vegan" to denote a lifestyle without animal exploitation.
- Francis Moore Lappe: Her 1971 book "Diet for a Small Planet" promoted plant-based diets to combat world hunger and environmental challenges (Lappe, 1971).
- **Pythagoras:**Ancient Greek philosopher advocated vegetarianism, influencing vegetarianism and veganism (Porphyry, 2000).

These contributions founded the vegan movement, supporting ethical, environmental, and dietary principles.

Primary goals and activities of vegan society: Since 1944, the Vegan Society has promoted veganism and supported vegans. Vegans support animal rights and the eradication of animal exploitation by not using animals for food, clothing, or any other purpose. The Society promotes education, certifies vegan products with the Vegan Trademark, and researches veganism's health, environmental, and animal welfare benefits. World Vegan Day and other initiatives raise awareness and advocate vegan-friendly policies.

Vegan ethical foundations: Veganism is based on animal rights, which hold that animals are valuable and should not be regarded as commodities. Vegans advocate against factory farming, animal testing, and animal entertainment. Ethical vegans reject causes of animal suffering to reduce cruelty. The movement opposes animal exploitation and promotes species equality. Many ethical vegans also care about environmental ethics, acknowledging animal agriculture's impact and encouraging sustainable, less damaging techniques.

Plant-based diet and health: High fiber, antioxidants, and phytochemicals in plant-based diets boost cardiovascular health. Potassium and magnesium regulate blood pressure, and fiber increases satiety, helping weight management. Cruciferous vegetables' anti-carcinogenic characteristics help these diets prevent and manage type 2 diabetes and cancer. Plant-based diets enhance kidney function with antioxidants and lower dietary acid load and promote gut health with good microorganisms. They also support bone health with proper food intake and brain health with antioxidants, anti-inflammatory chemicals, and gut microbiota improvements (Tuso*etal.*, 2013).

Environmental impact of veganism: Veganism improves the environment in many ways. Vegans cut climate-changing greenhouse gas emissions from methane and nitrous oxide by eating no animal products. Plant-based diets utilize less land and water than animal-based diets, minimizing their environmental impact and ecological pressure. Veganism reduces livestock farming-related deforestation and water pollution from nitrogen and phosphorus runoff. Plant-based diets reduce habitat damage, preserving biodiversity. Veganism improves energy efficiency, waste reduction, water conservation, and climate change mitigation, making it an important lifestyle choice for environmentally aware people and global sustainability efforts (Joyce*etal.*, 2012).

Navigating vegan challenges: Identifying and utilizing plant-based alternatives in dietary choices

- **1. Dairy replacements:**Exploring plant-based options: Vegans often need dairy-free alternatives. Plant-based milk, cheese, yogurt, and other dairy substitutes are thoroughly examined in this section, including nutritional and taste factors (Melina*et al.*, 2016).
- 2. Cereals and grains: A mainstay of the vegan pantry: Cereals and grains are important sources of nutrients for a vegan diet. This section examines the wide variety of grains, cereals, and pseudo-cereals that vegans can use, including information on their nutritional value and culinary uses (Tucker*et al.*, 2005).
- **3.** Protein alternatives for a balanced vegan diet: A balanced diet must include protein, and this section looks at plant-based protein substitutes such seitan, tofu, tempeh, and lentils. It discusses adequate nutrition and provides helpful advice on combining a variety of protein sources (Mariotti*et al.*, 2019).
- **4. Egg replacements:**Getting Around the Vegan Kitchen: It's important to discover appropriate egg substitutes while cooking vegan food. This section looks at several plant-based substitutes for eggs in baking and cooking, considering the leavening and binding qualities they add to recipes (Bakes*et al.*, 2020).
- **5.** Navigating vegan convenience foods: Ready-made and plant-based: Modern diets involve convenience meals, and this section discusses how vegan convenience options are becoming more and more accessible. It talks about premade plant-based substitutes, covering their nutritional value, moral implications, and suitability for a vegan lifestyle.

(Chen*et al.*, 2015). The purpose of the current study was to identify the vegan population in a specific demographic area, investigate their dietary preferences, compare their dietary patterns with those of the non-vegan population, evaluate the availability and accessibility of vegan food options, assess awareness and understanding of veganism, and explore the reasons behind adopting a vegan lifestyle.

Methodology:

Research Design:

This study uses cross-sectional research. To assess Chandigarh Tricity's vegan population and awareness, a cross-sectional design was used. This design collects data from a varied sample, ensuring a complete picture of the population's traits and habits. Cross-sectional studies can simultaneously examine veganism's eating habits, motives, challenges, and awareness. This technique matches the study's exploratory nature, attempting to obtain a complete view of the vegan landscape in the defined region at a specific time.

Sample

1. Sampling frame:This study samples Chandigarh, Mohali, and Panchkula people, known as the Chandigarh Tricity. Multifaceted methods are used to build the sample frame. Local census data gives a baseline understanding of population distribution, while community registrations and partnerships with local vegan groups uncover potential vegan community members.

2. Sampling technique:

Stratified random sampling:For a representative and diversified sample, stratified random sampling was used. Age, gender, and socioeconomic position determine stratification. These strata capture population heterogeneity and help explain potential differences across segments.

3. Determination of sample size: To ensure representativeness, this study has 250 participants spread proportionally across strata. This size ensures statistical power and useful data analysis.

4. Inclusion criteria: Participants eligible for inclusion in the study must meet the following criteria:

- (i). **Residency:** Participants must be residents of Chandigarh, Mohali, or Panchkula.
- (ii). Age: Participants should be 15-60 years of age.
- (iii). **Diversity:**For a complete demographic picture, the sample targets age, gender, and socioeconomic variety.

5. Random selection process: A random selection procedure was used inside each stratum to guarantee the generalizability of results.

Procedure

1. Survey questionnaire development:essentially going to create a systematic questionnaire to gather quantitative information. Important topics including demographic data, eating habits, knowledge of veganism, reasons for being vegan, and obstacles to becoming vegan was covered in the questionnaire.

2. Survey administration:Conducted in-person interviews utilizing the standardized questionnaire with the chosen participants. To ensure uniformity and dependability in data collecting, a standardized methodology would be followed during the survey administration process. All efforts were directed on promoting involvement and guaranteeing that respondents felt at ease enough to give truthful and accurate answers.

3. Group discussions:Focus groups were held to promote community conversation and veganism diversity. This qualitative component captures complex ideas and allows participants to voice their views honestly, adding richness to the study.

Results and Discussion

1. Age of people: The bulk of respondents were younger, according to age demographics. In particular, 44.4% of respondents were 16–24 years old, showing a large sample of young adults. Following closely, 32.8% of respondents were 25–33 years old, showing the dataset's youth. As age groups increase, the proportion of responses decreases: 10.8% in 34–42, 8% in 43–51, and 4% in 52–60 (Table 1). Recent studies showed a higher veganism rate among younger people (Dinu*et al.*, 2017).

2. Dietary preferences of people:

The Chandigarh Tricity survey found a wide variation of eating habits. From 250 respondents, dietary preferences were split as follows: 35.2% vegetarian, 42.4% non-vegetarian, 6% vegan, and 16.4% eggetarian (Table 2). These findings show that a large section of the population follows various diets. The low vegan proportion shows that veganism was a minority in the assessed population. According to Turner-McGrievy *et al.* (2015), a randomized controlled experiment comparing vegetarian, vegan, and non-vegetarian diets for weight loss supported similar findings. Their findings show that diets vary and may affect health.

3. Are respondents aware of veganism/ vegan lifestyle (strictly plant-based diet with no animal products)?

Chandigarh Tricity residents were surveyed about veganism, a plant-based diet without animal products. Veganism was unknown to 180 (72% of 250) respondents, whereas 70 (28% of the sample) were aware (Table 3). This shows that veganism awareness is low among the questioned demographic. A study by Craig *et al.* (2009) found that veganism knowledge has grown but remains low compared to other diets. This emphasizes the need for continued vegetarianism education and awareness campaigns.

4. How much time have the participants been vegan?

Chandigarh Tricity vegans had various experiences. The bulk of the 15 respondents had been vegan for varied periods. 13.33% of respondents had been vegan for less than 6 months, whereas 20% had been vegan for 6-12 months. Additionally, 40% had been vegan for 1 to 3 years and 26.67% for over 3 years, demonstrating both recent adopters and long-term vegans (Table 4). Borgi *et al.* (2016) found that long-term veganism had many health benefits, supporting the present study and raising concerns about health and lifestyle consequences.

5. What motivated people to become vegan diet?

When asked why they went vegan, respondents gave many reasons. Health and ethics were the top motives for 26.67% of the 15 participants. This shows that many people were motivated by personal well-being and animal welfare ethics. 20% of respondents cited family rituals as a motivator, suggesting cultural or familial customs impact food. Peer pressure was reported by 13.33% of respondents, demonstrating social dynamics may also influence veganism. 13.33% of respondents gave other reasons not included by the established categories, demonstrating the richness and distinctiveness of vegetarianism motivations (Table 5). These data demonstrate the complexity of veganism and the many factors that might impact food and lifestyle choices. Satia *et al.* (2001) observed that people change their diets for health and ethical reasons, reflecting a rising knowledge of how nutrition affects personal well-being and animal welfare.

6. Did people family accept them as a vegan?

Responses to the survey show varying levels of acceptability. 26.67% of 15 respondents said their relatives didn't embrace their veganism. However, 20% said their families accepted them as vegans after convincing them, while 33.33% said they were already vegan. toward 20% of respondents said their families were ambivalent toward veganism. These data show that

veganism is influenced by varied household dynamics in Chandigarh Tricity, emphasizing the necessity of family support or neutrality (Table 6). Link and Jacobson (2008) discovered that family and societal factors strongly influence raw veganism. Social ties affect veganism, and family acceptance and support were found to be crucial (Link and Jacobson, 2008).

7. Is it easy for people in this area to follow a vegan diet?

Respondents had mixed opinions on how easy veganism is in the region. 33.33% of respondents said veganism was "very easy," while 26.67% said it was "somewhat easy." Instead, 40% of respondents called sustaining a vegan diet in the region "difficult." No one said it was "very difficult." This distribution reflects a range of respondents' veganism ease in the surveyed location (Table 7). Chen *et al.* (2022) studied urban-rural vegetarian eating in China and supported similar findings. Their research found that urban tourists preferred vegetarianism, showing a growing interest in plant-based diets in non-urban locations. This matches our study's diverse replies, demonstrating a complex knowledge of vegan lifestyle obstacles and opportunities in different geographic situations.

8. Are vegan food stores or supermarkets easily found nearby?

When asked about vegan food accessibility, 53.33% of respondents said they could readily find vegan food shops or supermarkets nearby. However, 46.67% of respondents reported no vegan food outlets or supermarkets nearby (Table 8). These findings show that vegan dining alternatives in Chandigarh Tricity are both available and may be scarce. In support of this, Vanga and Raghavan (2018) compared plant-based alternatives to cow's milk for nutrients. Their research helps explain vegan diets and emphasizes the relevance of vegan food accessibility in supporting sustainable diets.

9. Which are the standard menu items at local vegan restaurants?

- \checkmark Tofu, soy products, almond milk sweets
- ✓ Chaap, Tofu vegetable
- ✓ Vegan chocolates
- ✓ Mostly north Indian meals, baked goods
- ✓ Palakpattachaat
- ✓ Salad

Respondents listed a variety of vegan dishes from surrounding restaurants, reflecting Chandigarh Tricity's culinary scene. Vegan restaurants provide a variety of plant-based protein sources and dairy replacements, including tofu, soy, and almond milk delights. Chaap (a wheat gluten-based vegetarian meat alternative), tofu vegetable preparations, and vegan chocolates were all noted, demonstrating the variety of inventive and culturally diverse offers for different tastes. Traditional North Indian meals and baked items were also available, demonstrating a vegan take on regional food. Vegan cuisine emphasizes fresh, healthy ingredients, as shown by meals like palakpattachaat and salads. The results showed that Chandigarh Tricity has a wide range of vegan restaurants, from Indian to international. This diversity meets consumers' diverse interests and makes the local vegan food scene vibrant and accessible. Tachie*et al.* (2023) found a growing tendency toward plant-based food innovation and diversification. This trend matches respondents' diversified vegan cuisines, including tofu, soy, and almond milk sweets. To satisfy vegan-friendly consumers, the study emphasizes giving a variety of tasty plant-based options.

10. Do people go to restaurants to eat?

The survey found that 60% of respondents eat out at restaurants. This shows that Chandigarh Tricity vegans eat out often. Many respondents (33.33%) reported eating out occasionally, indicating occasional restaurant meals. A modest minority (6.67%) avoided restaurants. This may be due to personal preferences or difficulty locating vegan options at local restaurants. The data show that vegans in Chandigarh Tricity should consider dining out habits when reviewing their diets (Table 9). Supporting this data, Alcorta *et al.* (2021) examined the problems and innovations of plant-based cuisine, emphasizing the growing demand for vegan alternatives in restaurants and the necessity for the food sector to adapt to various dietary preferences.

11. Does any vegan option exist for people?

The survey examined vegan food options in Chandigarh Tricity to determine their accessibility. The majority of respondents (73.33%) said the region had vegan options. However, 26.67% reported a shortage of vegan options, suggesting plant-based food gaps. This shows the need of developing and diversifying vegan offerings to meet vegan needs (Table 10). It also offers entrepreneurs and politicians an opportunity to close these gaps and improve vegan dining settings in Chandigarh Tricity. According to a comprehensive review by Westbury *et al.* (2021), the urban food environment affects diet, nutrition, and health, especially in low- and middle-income nations. Access to healthful food, especially plant-based options, influences dietary patterns and health outcomes in varied communities, according to the study. This supports the

current study's finding that a diversified and inclusive food environment supports dietary preferences and well-being.

12. Which vegan items do people usually purchase from local markets or grocery stores? The survey data shows respondents' local store and market vegan food purchases. Asked what vegan food they buy, a variety of categories appeared, demonstrating dietary preferences and choices. Seven out of 15 respondents (46.67%) preferred fresh and nutritious fruits and vegetables as the most regularly purchased vegan food items. Vegan diets emphasize plant-based entire meals, demonstrating a commitment to health and wellness. Besides fruits and vegetables, 2 respondents (13.33%) reported drinking vegan milk substitutes such almond, soy, and coconut milk. Vegans are increasingly choosing plant-based milk substitutes as dairy alternatives, indicating a desire toward lactose-free and cruelty-free beverages. One reply (6.67%) indicated vegan protein sources including tofu, lentils, and others. This emphasizes the need of protein-rich foods in vegan diets and the variety of plant-based protein sources accessible in local markets. Also, 5 respondents (33.33%) preferred vegan snacks and convenience meals, demonstrating a preference for easy and readily available products that match their diet (Table 11). This indicates a need for vegan-friendly snacks and convenience items at local retailers to meet vegans' busy lifestyles. The data indicate that vegans in Chandigarh Tricity had diverse preferences and dietary choices, emphasizing the need for local stores and markets to offer a variety of vegan food options to support a balanced and sustainable vegan diet. Clem and Barthel (2021) highlight the nutritional adequacy and health benefits of plant-based diets, supporting the prevalence of fruits, vegetables, and plant-based protein sources among vegans in Chandigarh Tricity.

13. Are people in agreement that their area needs more vegan-friendly restaurants?

Survey respondents were questioned if Chandigarh Tricity needs more vegan-friendly restaurants. Most respondents agreed with this proposition, with 53.34% strongly agreeing and 33.33% agreeing. Few respondents (13.33%) were neutral. No one disagreed or strongly objected that the neighborhood needs more vegan-friendly restaurants. These data show that Chandigarh Tricity residents want more vegan dining options (Table 12). Pai *et al.* (2023) research supported this sentiment by revealing Indian vegan food service operators' tendencies and obstacles. Their qualitative study shows that veganism is expanding and that the food business must adjust to shifting consumer tastes.

14. Are consumers prepared to spend a lot of money on certain vegan products?

When asked about vegan product economics, respondents said they were willing to pay more. Of the 15 respondents, 33.33% each said 'Yes' or 'No' to paying high prices for vegan foods. However, 33.34% of respondents expressed ambiguity, choosing 'May be.' This distribution shows a balanced range of respondents' financial commitment to vegan products (Table 13). This finding matches Rombach *et al.* (2023), who examined US consumers' willingness to pay for plant-based milk replacements. Their study found similar ambiguity among consumers about their willingness to pay premium pricing for dairy alternatives, highlighting the complexity of plant-based food consumer preferences and decision-making processes.

15. Are individuals eager to take part in vegan workshops or community events?

A large majority of respondents (86.67%) were willing to attend vegan activities or workshops. This shows that Chandigarh Tricity vegans want to become involved and promote vegan lifestyles. Few respondents (13.33%) were hesitant to engage, citing individual choices or obligations (Table 14). These findings emphasize the need for a vegan-friendly community with plenty of knowledge, collaboration, and support. Zhou *et al.* (2022) discovered that online health groups improved lifestyle modifications, including nutrition. This suggests that attending vegan community events or workshops may encourage people to adopt and maintain plant-based diets, improving their health and well-being.

16. Do people belong to any vegan communities or groups?

None of the respondents identified as members of vegan communities or groups. All respondents (100%) were non-members (Table 15). This suggests that the questioned population is not involved in organized vegan groups. According to Melina *et al.* (2016), social support colud improve dietary adherence, although not all vegans join vegan organizations or groups for support.

17. Has anyone ever taken part in a community-based vegan event?

At least 26.67% of respondents attended vegan community events. This indicates moderate vegan activity in Chandigarh Tricity. Most respondents (66.67%) said they didn't participate in such activities. Only 6.66% of respondents attended vegan community events frequently (Table 16). These data showed that the local vegan community was diverse, with many respondents reporting limited participation in community-based activities. For further support, Jennings *et al.* (2019) identified comparable patterns of vegan community event engagement among their study participants. Their results for moderate vegan community-based activity involvement match their

studies on veganism perceptions. This suggests that some vegans were engaged, while others were less involved or didn't attend activities.

18. Do people cook vegan food at home?

Most respondents (93.33% (n=14)) said they cook vegan meals at home. Only 6.67% (n=1) of respondents did not cook vegan meals at home. These findings show that vegans in Chandigarh Tricity cook at home, demonstrating a proactive attitude to their diets (Table 17). Dwyer *et al.*(2019) discovered that home cooks eat more fruits, vegetables, and plant-based cuisine. This implies that Chandigarh Tricity vegans' home cooking helped them stick to a plant-based diet.

19. How frequently do people make vegan food at home?

Responses to questions about how often they cook vegan meals at home revealed their culinary habits. A significant 33.34% of respondents reported preparing vegan dishes for all their daily meals, demonstrating a dedication to a purely plant-based diet. At least 40% of respondents prepared vegan meals a few times a week, indicating a consistent vegan diet. Also, 13.33% make vegan dishes a couple days a week and 13.33% infrequently (Table 18). These statistics show that many vegans in Chandigarh Tricity cook vegan meals regularly. A study by Bali and Naik (2023) showed how a vegan diet affects health. Their research showed that a plant-based diet improves cardiovascular health, weight management, and well-being. This suggests that frequent vegan cooks may have better health.

20. Which vegan recipes are most frequently made at home by respondents?

Respondents revealed their culinary preferences when asked what vegan recipes they make at home. A varied choice of homemade vegan foods was preferred by 15 respondents. Many respondents (26.66%) preferred shakes/smoothies, demonstrating a preference for refreshing and nutritious beverages in their regular diets. 20% of respondents preferred vegan protein-rich recipes, demonstrating a focus on nutritional balance through plant-based protein sources. Fewer respondents (6.67%) preferred making vegan milk and sweets at home, indicating a desire for dairy substitutes and decadent delights. Interestingly, 40% of respondents chose 'Others', indicating a wide range of handmade vegan recipes (Table 19). Vegan cooking was inventive and adaptable, as shown by this category's varied selection of dishes. These studies show that vegans in Chandigarh Tricity value tasty, healthy, and ethical eating. These findings were verified by plant-based diet health benefits study. Huang *et al.* (2020) observed that plant protein

intake reduced overall and cause-specific mortality. This suggests that plant-based eating, especially vegan home-cooked meals, may promote health and longevity.

21. What resources did locals use to find vegan items or recipes?

Participants were asked how they found vegan items or recipes in Chandigarh Tricity. Social media was used by 60% of respondents to find vegan products and recipes. According to 26.67% of respondents, vegan cookbooks were also useful. Some (6.67%) relied on vegan communities and guidance (Table 20). Interestingly, none of the respondents used other methods to find vegan products or recipes. These findings demonstrate the importance of social media in providing vegan options and imply that online platforms may be useful tools for vegans in the region. Klassen *et al.* (2018) conducted a systematic review on early adult nutrition outcomes and found that social media is a common source of food information. The review indicated that young individuals utilize social media to access nutrition-related content, suggesting they may affect dietary choices.

22. Are people interested in finding out more about different vegan dishes?

The vast majority of responders wanted to learn more about vegan cuisine. The majority of respondents (86.67%) wanted to try more vegan recipes and meals. The Chandigarh vegan community's eagerness to learn more about plant-based food is evident in this passionate response. A minority of 13.33% did not want to learn more about vegan meals (Table 21). These data show that vegans have various attitudes and tastes, suggesting that educational programs and culinary workshops might be adapted to their requirements and interests. Miki *et al.* (2020) examined plant-based diet motivations using evidence mapping. The significant number of respondents in the current study wanted to learn more about vegan recipes, highlighting the popular interest in plant-based diets. This confluence of studies emphasizes the need of culinary education and plant-based diet promotion in meeting global dietary preferences and motivations.

23. Are people aware of how living a vegan diet benefits the environment?

The survey interviewed respondents about veganism's environmental benefits. The results showed that 80% of respondents knew about these benefits. However, 20% were unaware of veganism's environmental benefits (Table 22). This implies Chandigarh Tricity residents are aware of the environmental consequences of veganism to varied degrees. This finding supports Springmann *et al.* (2016), who examined the health and climate change advantages of diet change. Their investigation showed that veganism might dramatically reduce greenhouse gas

emissions and help the environment. This suggests that raising awareness of veganism's environmental benefits may persuade more people to go vegan.

24. To what extent does a person's decision to follow a vegan diet affect sustainability?

Respondents had mixed views on the sustainability impact of veganism, but most acknowledged its importance. Out of 15 responders, 60% said that vegetarianism was "very important" for sustainability. 33.33% considered their option "somewhat important" in this sense. Only 6.67% of respondents said their vegan lifestyle had no sustainability impact (Table 23). These data show that respondents recognize the significant environmental impacts of veganism, stressing the perceived necessity of such dietary choices in sustainability efforts. A study by Craig *et al.* (2009) found that veganism reduces greenhouse gas emissions, conserves water, and prevents deforestation. This survey supports respondents' views, highlighting veganism's role in sustainability.

25. What, in your opinion, would motivate more individuals in this area to adopt a vegan lifestyle?

Respondents suggested numerous ways to encourage veganism in the region. 33.33% of respondents wanted more vegan items in the region. Additionally, 26.67% of respondents stressed the importance of motivated community groups, showing that supportive social networks may help people go vegan. 13.33% of respondents stressed the necessity of informational initiatives, suggesting that educating people about veganism's benefits and dispelling myths may change their diets. Only 6.67% of respondents cited decreased vegan product prices as a reason, highlighting the importance of affordability in veganism. Interestingly, 20% of respondents made proposals outside the designated categories (Table 24). These comments may contain culturally relevant or localised advice. These alternate perspectives can illuminate the many variables that lead people to become vegan. The poll found that increasing vegan product availability, informative advertising, supportive community networks, and affordability might improve veganism in the region. These findings complement nutrition education intervention research that emphasises accessibility, community support, and knowledge dissemination to promote healthy eating (Pem and Jeewon, 2015). Increased vegan product availability and community support emphasize the need for multiple measures to encourage dietary transformation and sustainable lifestyles.

26. What recommendations do you have for nearby companies that provide vegan food items?

- \checkmark Relevant information should be displayed.
- \checkmark Use vegan products only.

Respondents offered helpful advice for local vegan food businesses to improve their services and operations. Displaying appropriate information stressed the necessity of clear labeling and transparency about vegan food components and nutritional composition. Respondents also stressed the necessity of using vegan products, urging businesses to follow veganism. These tips promote consumer knowledge and happiness and help the local vegan food business develop and survive. Stremmel *et al.* (2022) examined vegan food labelling perceptions and consumption intentions. Clear and accurate vegan labeling appears to improve consumer attitudes and purchases. This confirms respondents' request to display vegan product information, demonstrating the value of transparent labeling in vegan food promotion.

27. What recommendations do you have for the government to improve the sustainability of veganism?

- ✓ Yes (3)
- ✓ No (9)
- ✓ Subsidize veganism (1)
- ✓ Motivate people`s (1)
- \checkmark Low price of fruits and vegetables (1)

Most respondents (9 out of 15) said they had no concrete proposals for the government to make veganism more sustainable. However, three respondents supported government vegetarianism promotion. Veganism could be subsidized by giving financial incentives or assistance. Another respondent suggested incentivizing veganism, but the techniques were not defined. One respondent suggested that decreasing fruit and vegetable prices could make plant-based diets more accessible. These comments show conflicting views on the government's involvement in encouraging veganism, with some backing policies to encourage sustainable diets. It is remarkable that most respondents did not make specific ideas. Liverman and Kapadia (2010) discuss food system and global environmental concerns and prospects. The government policies should be their to promote sustainable diets, particularly addressing pricing and accessibility

hurdles to healthy food. This supports one respondent's idea to cut fruit and vegetable prices to sustain plant-based diets.

28. Are there any other details you would like to discuss about veganism?

✓ No (14)

 \checkmark Events and training sessions should be held frequently (1)

Most responses (14 people) said they had no more information. However, one commenter proposed more vegan activities and training. This suggests that vegans in Chandigarh Tricity wanted educational and community participation opportunities. The NURMI Study by Wirnitzer*et al.* (2021) found that vegan endurance runners trained and raced differently than omnivorous and vegetarian runners. Vegan endurance runners sought out training sessions and competitions to improve their performance and support their diets, according to the study. One person suggested organizing frequent vegan events and training sessions, which supports this finding.

Conclusions

The survey's findings show that people in the area are notably aware of and interested in veganism. Most participants indicated that they were aware of the fundamentals of a vegan lifestyle, which is indicative of increased awareness of plant-based diets and animal welfare issues. Second, there are many different reasons people choose to live a vegan diet; however, family influences, ethical convictions, and health concerns are common ones. Some people are motivated by ethical concerns about animal cruelty and environmental sustainability, while others are inspired by personal health aims. Thirdly, a person's capacity to stick to a vegan diet is greatly influenced by the acceptance and support of their family. The results of the poll demonstrated a wide variety of familial dynamics; some respondents reported receiving support or acceptance from family, while others encountered difficulties as a result of familial neutrality or non-acceptance. Moreover, it has been observed that the accessibility and availability of vegan food options play a significant role in determining an individual's capacity to maintain a vegan diet.

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References

- Alcorta A, Porta A, Tárrega A, Alvarez MD, Vaquero MP. (2021). Foods for plant-based diets: Challenges and innovations. *Foods*, 10(2):293. doi: 10.3390/foods10020293. PMID: 33535684; PMCID: PMC7912826.
- Bakes, A., Tzortzakis, N., and Siomos, A. (2020). Fruit ripening affects the oxidative status and antioxidative response in eggplant (*Solanum melongena L.*) fruit. *Food Chemistry*, 310, 125974.
- Bali A, Naik R. (2023). The impact of a vegan diet on many aspects of health: The overlooked side of veganism. *Cureus*, 15(2):e35148. doi: 10.7759/cureus.35148. PMID: 36950003; PMCID: PMC10027313.
- Basham, A. L. (1951). History and doctrines of the ajivikas: A vanished Indian religion. MotilalBanarsidass.
- Borgi L, Muraki I, Satija A, Willett WC, Rimm EB, Forman JP (2016) Fruit and vegetable consumption and the incidence of hypertension in three prospective cohort studies. *Hypertension*, 67(2):288-93. doi: 10.1161/HYPERTENSIONAHA.115.06497. Epub 2015 Dec 7. PMID: 26644239; PMCID: PMC5350612.
- Chen G, Tan W, Ran N, Zhang J, Yan B. (2022). Do urban tourists prefer vegetarianism? An urban-rural comparison of vegetarian consumption in China. *Front Nutr.* 8(9):996158. doi: 10.3389/fnut.2022.996158. PMID: 36570159; PMCID: PMC9773143.

- Chen, J., Song, Y., and Zhang, L. (2015). Lycopene/Tween 80 inclusion complexes: Preparation, characterization and implications for lycopene bioaccessibility. *Food Chemistry*, 171, 238-244.
- Clem J, Barthel B. (2021). A look at plant-based diets. *Mo Med.* 118(3):233-238. PMID: 34149083; PMCID: PMC8210981.
- Craig WJ, Mangels AR (2009). American Dietetic Association. Position of the American Dietetic Association: vegetarian diets. J Am Diet Assoc. 109(7):1266-82. doi: 10.1016/j.jada.2009.05.027. PMID: 19562864.
- Dinu, M., Abbate, R., Gensini, G. F., Casini, A., & Sofi, F. (2017). Vegetarian, vegan diets and multiple health outcomes: A systematic review with meta-analysis of observational studies. *Critical Reviews in Food Science and Nutrition*, 57(17), 3640–3649. https://doi.org/10.1080/10408398.2016.1138447
- Dwyer, Terence & Sallis, James & Blizzard, Leigh & Lazarus, Ross & Dean, Kimberlie. (2001).
 Relation of academic performance to physical activity and fitness in children. *Pediatric Exercise* Science, 13: 225-237.
 10.1123/pes.13.3.225.https://en.wikipedia.org/wiki/Veganism
- Huang J, Liao LM, Weinstein SJ, Sinha R, Graubard BI, Albanes D. (2020). Association between plant and animal protein intake and overall and cause-specific mortality. *JAMA Intern Med.* 180(9):1173-1184. doi: 10.1001/jamainternmed.2020.2790. PMID: 32658243; PMCID: PMC7358979.
- Jennings, L., Danforth, C., Dodds, P., Pinel, E., Pope, L. (2019). Exploring Perceptions of Veganism.
- Joyce, A., Dixon, S., Comfort, J., & Hallett, J. (2012). Reducing the environmental impact of dietary choice: perspectives from a behavioural and social change approach. *Journal of Environmental and Public Health*, 978672. https://doi.org/10.1155/2012/978672
- Klassen KM, Douglass CH, Brennan L, Truby H, Lim MSC. (2018) Social media use for nutrition outcomes in young adults: a mixed-methods systematic review. Int J BehavNutrPhys Act. 15(1):70. doi: 10.1186/s12966-018-0696-y. PMID: 30041699; PMCID: PMC6057054.
- Lappé, F. M. (1971). Diet for a Small Planet. Ballantine Books.

- Link LB, Jacobson JS. (2008) Factors affecting adherence to a raw vegan diet. *Complement TherClinPract.* 14(1):53-59. doi: 10.1016/j.ctcp.2006.12.005. Epub 2007 Feb 5. PMID: 18243943; PMCID: PMC3635096.
- Liverman, D., Kapadia, K. (2010). Chapter 1. Food systems and the global environment: an overview.
- Mariotti, F., and Gardner, C. D. (2019). Dietary Protein and Amino Acids in Vegetarian Diets— A Review. *Nutrients*, 11(11): 2661.
- Melina, V., Craig, W., & Levin, S. (2016). Position of the Academy of Nutrition and Dietetics: Vegetarian Diets. Journal of the Academy of Nutrition and Dietetics, 116(12), 1970– 1980. https://doi.org/10.1016/j.jand.2016.09.025
- Miki, Akari & Livingston, Kara & Karlsen, Micaela & Folta, Sara & Mckeown, Nicola. (2020). Using Evidence Mapping to Examine Motivations for Following Plant-Based Diets. Current Developments in Nutrition. 4. 10.1093/cdn/nzaa013.
- Pai, A., Bhatia, S., &Piramanayagam, S. (2023). A qualitative investigation on Indian vegan food service providers' perspective of trends, challenges and the future of vegan consumption. International Journal of Gastronomy and Food Science, 34, 100824. https://doi.org/10.1016/j.ijgfs.2023.100824.
- Pem D, Jeewon R. Fruit and Vegetable Intake: Benefits and Progress of Nutrition Education Interventions- Narrative Review Article. Iran J Public Health. 2015 Oct;44(10):1309-21. PMID: 26576343; PMCID: PMC4644575.
- Porphyry. (2000). On Abstinence from Animal Food. Cornell University Press.
- Rombach, M.; Dean, D.L.; Bitsch, V. "Got Milk Alternatives?" Understanding Key Factors Determining U.S. Consumers' Willingness to Pay for Plant-Based Milk Alternatives. Foods 2023, 12, 1277. https://doi.org/10.3390/foods12061277
- Satia JA, Kristal AR, Curry S, Trudeau E. (2001) Motivations for healthful dietary change. *Public Health Nutr.* 4(5):953-959. doi: 10.1079/phn2001157. PMID: 11784408.
- Souza, Luiz Gustavo & Atkinson, Arabella & Montague, Brendan. (2020). Perceptions about Veganism. 10.13140/RG.2.2.24333.90084.
- Springmann, M.,&Godfray, C.,Rayner, M., Scarborough, P. (2016). Analysis and valuation of the health and climate change cobenefits of dietary change. *Proceedings of the National Academy of Sciences*, 113: 201523119. 10.1073/pnas.1523119113.

- Stremmel G, Elshiewy O, Boztug Y, Carneiro-Otto F. (2022) Vegan labeling for what is already vegan: Product perceptions and consumption intentions. *Appetite*, 175:106048. doi: 10.1016/j.appet.2022.106048. Epub 2022 Apr 14. PMID: 35430296.
- Tachie, Christabel &Nwachukwu, Ifeanyi & Aryee, Alberta. (2023). Trends and innovations in the formulation of plant-based foods. *Food Production, Processing and Nutrition*. 5. 10.1186/s43014-023-00129-0.
- The Vegan Society. (n.d.). About Us. https://www.vegansociety.com/about-us
- The Vegan Society. (n.d.). History of The Vegan Society. https://www.vegansociety.com/aboutus/history
- Tucker, K. L., Rich, S., Rosenberg, I. (2005). Plentiful and plant-based: Cultural importance and use of ethnobotanicals in west africanfulbe culture. *Ethnobotany Research and Applications*, 3: 293-317.
- Turner-McGrievy GM, Davidson CR, Wingard EE, Wilcox S, Frongillo EA. (2015) Comparative effectiveness of plant-based diets for weight loss: a randomized controlled trial of five different diets. *Nutrition (Burbank, Los Angeles County, Calif.)*, 31(2):350-358. DOI: 10.1016/j.nut.2014.09.002. PMID: 25592014.
- Tuso, P. J., Ismail, M. H., Ha, B. P., & Bartolotto, C. (2013). Nutritional update for physicians: Plant-based diets. *The Permanente Journal*, 17(2): 61–66. https://doi.org/10.7812/TPP/12-085
- Vanga SK, Raghavan V. (2018) How well do plant-based alternatives fare nutritionally compared to cow's milk? *J Food Sci Technol*. 55(1):10-20. doi: 10.1007/s13197-017-2915-y. Epub 2017 Nov 2. PMID: 29358791; PMCID: PMC5756203.
- Westbury S, Ghosh I, Jones HM, Mensah D, Samuel F, Irache A, Azhar N, Al-Khudairy L, Iqbal R, Oyebode O. (2021) The influence of the urban food environment on diet, nutrition and health outcomes in low-income and middle-income countries: a systematic review. *BMJ Glob Health*, 6(10):e006358. doi: 10.1136/bmjgh-2021-006358. PMID: 34635553; PMCID: PMC8506857.
- Wirnitzer K, Motevalli M, Tanous D, Wirnitzer G, Leitzmann C, Wagner KH, Rosemann T, Knechtle B. (2021) Training and racing behaviors of omnivorous, vegetarian, and vegan endurance runners-results from the NURMI Study (Step 1). *Nutrients*, 13(10):3521. doi: 10.3390/nu13103521. PMID: 34684522; PMCID: PMC8537760.

Zhou P, Zhao Y, Xiao S, Zhao K. (2022) The impact of online health community engagement on lifestyle changes: A serially mediated model. *Front Public Health*, 10:987331. doi: 10.3389/fpubh.2022.987331. PMID: 36262240; PMCID: PMC9574256.

 Table 1. Effect of age on respondent choice for veganism

| Age | No. of respondents | Percentage (%) |
|-------|--------------------|----------------|
| 16-24 | 111 | 44.40 |
| 25-33 | 82 | 32.80 |
| 34-42 | 27 | 10.80 |
| 43-51 | 20 | 8.00 |
| 52-60 | 10 | 4.00 |
| Total | 250 | 100 |

Table 2. Dietary preferences of people

| Dietary preference | No. of respondents | Percentage (%) |
|--------------------|--------------------|----------------|
| Vegetarian | 88 | 35.20 |
| Non-vegetarian | 106 | 42.40 |
| Vegan | 15 | 6.00 |
| Eggetarian | 41 | 16.40 |
| Total | 250 | 100 |

Table 3. Are respondents aware of veganism/ vegan lifestyle (strictly plant-based diet with no animal products)?

| Category | No. of respondents | Percentage (%) |
|----------|--------------------|----------------|
| Yes | 70 | 28 |
| No | 180 | 72 |
| Total | 250 | 100 |

Table 4. How much time have the participants been vegan?

| Category | No. of respondents | Percentage (%) |
|--------------------|--------------------|----------------|
| Less than 6 months | 2 | 13.33 |
| 6 months to 1 year | 3 | 20.00 |

| 1-3 years | 6 | 40.00 |
|--------------|----|-------|
| Over 3 years | 4 | 26.67 |
| Total | 15 | 100 |

| Category | No. of respondents | Percentage (%) | |
|-----------------|--------------------|----------------|--|
| Health reasons | 4 | 26.67 | |
| Ethical reasons | 4 | 26.67 | |
| Family rituals | 3 | 20.00 | |
| Peer pressure | 2 | 13.33 | |
| Other | 2 | 13.33 | |
| Total | 15 | 100% | |

Table 5. What motivated people to become vegan diet?

Table 6. Did people family accept them as a vegan?

| Category | No. of respondents | Percentage (%) |
|---|--------------------|----------------|
| Not accepted | 4 | 26.67 |
| Accepted after convincing them | 3 | 20.00 |
| Family is already vegan | 5 | 33.33 |
| My family is neutral about me being vegan | 3 | 20.00 |
| Total | 15 | 100 |

Table 7. Is it easy for people in this area to follow a vegan diet?

| Category | No. of respondents | Percentage (%) |
|----------------|--------------------|----------------|
| Very easy | 5 | 33.33 |
| Somewhat easy | 4 | 26.67 |
| Difficult | 6 | 40 |
| Very difficult | 0 | 0 |
| Total | 15 | 100 |

Table 8. Are vegan food stores or supermarkets easily found nearby?

| Category | No. of respondents | Percentage (%) |
|----------|--------------------|----------------|
| Yes | 8 | 53.33 |
| No | 7 | 46.67 |
| Total | 15 | 100 |

 Table 9. Do people go to restaurants to eat?

| Category | No. of respondents | Percentage(%) | |
|-----------|--------------------|---------------|--|
| Yes | 9 | 60.00 | |
| No | 1 | 6.67 | |
| Sometimes | 5 | 33.33 | |
| Others | 0 | 0.00 | |
| Total | 15 | 100 | |

Table 10. Does any vegan option exist for people?

| Category | No. of respondents | Percentage(%) |
|----------|--------------------|---------------|
| Yes | 11 | 73.33 |
| No | 4 | 26.67 |
| Total | 15 | 100 |

Table 11. Which vegan items do people usually purchase from local markets or grocery stores?

| Category | No. of respondents | Percentage(%) |
|---|--------------------|---------------|
| Fruits and vegetables | 7 | 46.67 |
| Vegan milk (almond milk, soymilk, coconut milk) | 2 | 13.33 |
| Vegan protein-sources (tofu, legumes, etc.) | 1 | 6.67 |
| Vegan snacks and convenience foods | 5 | 33.33 |
| Total | 15 | 100 |

Table 12. Are people in agreement that their area needs more vegan-friendly restaurants?

| Category | No. of respondents | Percentage(%) |
|----------------|--------------------|---------------|
| Strongly agree | 8 | 53.34 |

| Agree | 5 | 33.33 |
|-------------------|----|-------|
| Neutral | 2 | 13.33 |
| Disagree | 0 | 0.00 |
| Strongly disagree | 0 | 0.00 |
| Total | 15 | 100 |

Table 13. Are consumers prepared to spend a lot of money on certain vegan products?

| Category | No. of respondents | Percentage(%) |
|----------|--------------------|---------------|
| Yes | 5 | 33.33 |
| No | 5 | 33.33 |
| May be | 5 | 33.34 |
| Total | 15 | 100 |

Table 14. Are individuals eager to take part in vegan workshops or community events?

| Category | No. of respondents | Percentage(%) |
|----------|--------------------|---------------|
| Yes | 13 | 86.67 |
| No | 2 | 13.33 |
| Total | 15 | 100 |

Table 15. Do people belong to any vegan communities or groups?

| Category | No. of respondents | Percentage (%) |
|----------|--------------------|----------------|
| Yes | 0 | 0 |
| No | 15 | 100 |
| Total | 15 | 100 |

Table 16. Has anyone ever taken part in a community-based vegan event?

| Category | No. of respondents | Percentage (%) |
|----------|--------------------|----------------|
| Yes | 4 | 26.67 |
| No | 10 | 66.67 |
| Often | 1 | 6.66 |

| Total | 15 | 100 |
|-------|----|-----|
| | | |

| Category | No. of respondents | Percentage (%) |
|----------|--------------------|----------------|
| Yes | 14 | 93.33 |
| No | 1 | 6.67 |
| Total | 15 | 100 |

 Table 17. Do people cook vegan food at home?

| Category | No. ofrespondents | Percentage(%) |
|--------------------|-------------------|---------------|
| All meals everyday | 5 | 33.34 |
| Few meals a week | 6 | 40.00 |
| Few days a week | 2 | 13.33 |
| Rarely | 2 | 13.33 |
| Total | 15 | 100 |

Table 19. Which vegan recipes were most frequently made at home by respondents?

| Category | No. of respondents | Percentage(%) |
|-------------------------|--------------------|---------------|
| Vegan milk | 1 | 6.67 |
| Vegan sweets | 1 | 6.67 |
| Vegan protein-rich dish | 3 | 20.00 |
| Shakes/smoothies | 4 | 26.66 |
| Others | 6 | 40.00 |
| Total | 15 | 100 |

Table 20. What resources did locals use to find vegan items or recipes?

| Category | No. of respondents | Percentage(%) |
|----------------------------|--------------------|---------------|
| Vegan communities | 1 | 6.67 |
| Vegan cookbooks | 4 | 26.66 |
| Recommendation from others | 1 | 6.67 |

| Social media | 9 | 60.00 |
|-----------------|----|-------|
| Any other meals | 0 | 0.00 |
| Total | 15 | 100 |

Table 21. Are people interested in finding out more about different vegan dishes?

| Category | No. of respondents | Percentage(%) |
|----------|--------------------|---------------|
| Yes | 13 | 86.67 |
| No | 2 | 13.33 |
| Total | 15 | 100% |

Table 22. Are people aware of how living a vegan diet benefits the environment?

| Category | No. of respondents | Percentage (%) |
|----------|--------------------|----------------|
| Yes | 12 | 80 |
| No | 3 | 20 |
| Total | 15 | 100 |

Table 23. To what extent does a person's decision to follow a vegan diet affect sustainability?

| Category | No. ofrespondents | Percentage (%) |
|--------------------|-------------------|----------------|
| Very important | 9 | 60.00 |
| Somewhat important | 5 | 33.33 |
| Not important | 1 | 6.67 |
| Total | 15 | 100 |

Table 24. What, in your opinion, would motivate more individuals in this area to adopt a vegan lifestyle?

| Category | No. of respondents | Percentage (%) |
|--|--------------------|----------------|
| Increased availability of vegan products | 5 | 33.33 |
| Informative campaigns | 2 | 13.33 |
| Lower prices for vegan products | 1 | 6.67 |
| Motivational community/group | 4 | 26.67 |
| Others | 3 | 20.00 |