

Diet Quality, Diet Motives, and Nutrition Literacy of Vegans, Vegetarians and Semi-Vegetarians

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BACKGROUND

- Plant-based individuals have shown favorable dietary behaviors and diet quality^{1,2}
- Evidence suggests that certain diet motivations and nutrition literacy can predict greater dietary quality^{3,4}

OBJECTIVES

- To assess diet quality, diet motives and nutrition literacy in vegans, vegetarians, & semi-vegetarians
- To investigate the association between diet motives and dietary quality

METHODS

- Online cross-sectional survey-based study
- Diet motives, measured by the Food Choice Questionnaire (FCQ)
- Nutrition literacy, measured by the Nutrition Literacy Assessment Instrument (NLit)
- Dietary quality, measured by the Diet History Questionnaire III (DHQ III) and scored by the Healthy Eating Index-2015 (HEI-2015)
- Statistical analysis: ANOVA and multilinear regression
- Participants (n=223): 117 vegans, 51 vegetarians, 55 semi-vegetarians

Age 40+

72%

Female

85%

White

90%

College

86%

RESULTS

Table 1: Diet Quality and Nutrition Literacy Among Groups

	Total (n=223)	Vegan (n=117)	Vegetarians (n=51)	Semi-vegetarians (n=55)	p-value ^a
HEI-2015 (0-100)	78.5 ± 7.8	80.8 ± 6.5	75.3 ± 9.0 ^b	76.8 ± 7.5 ^b	<0.001
Total NLit (0-64)	58.9 ± 3.3	59.2 ± 3.1	58.8 ± 3.6	58.4 ± 3.5	0.381
Vegetarian Literacy (0-6)	5.53 ± 0.72	5.73 ± 0.6	5.45 ± 0.7	5.2 ± 0.83 ^b	<0.001

Figure 1: Distribution of Diet Motives in the Sample

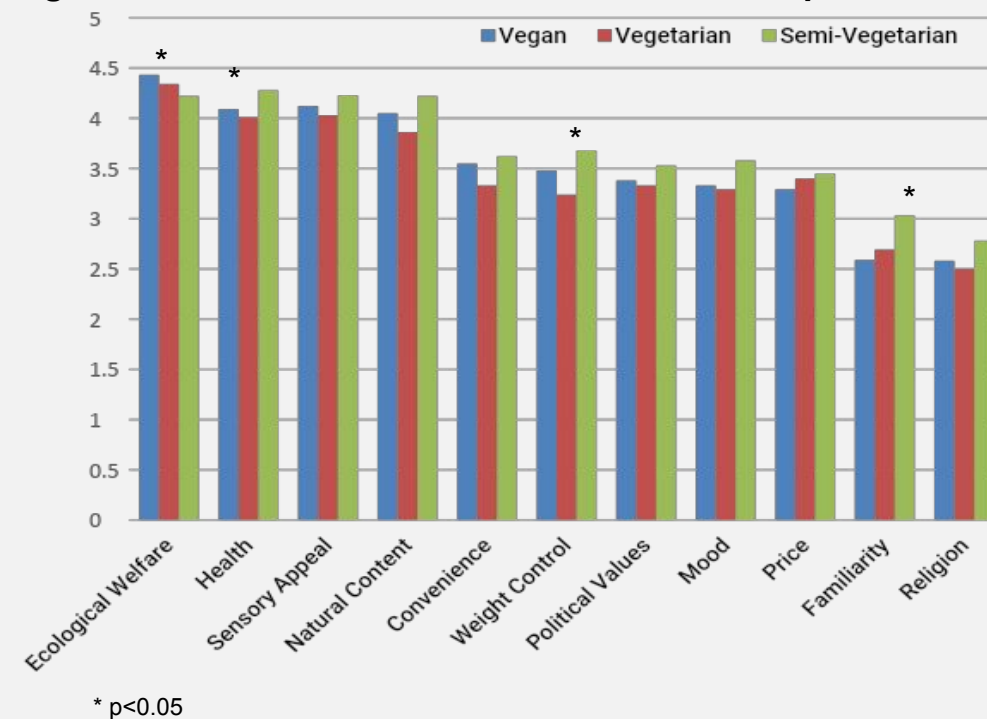


Figure 2: Association Between Diet Motives and Diet Quality



DISCUSSION

- Vegans had higher diet quality scores
 - Low variability in NLit scores may be explained by characteristics of sample
 - Those motivated by sensory appeal likely to have higher intake of “undesirable” nutrients⁵
 - Extrinsic motivations may predict unfavorable dietary choices and adherence^{6,7}
- Strengths:**
- Comprehensive: includes three different diet types
 - Novel: assesses nutrition literacy in a plant-based population
- Limitations:**
- Time-intensive, two-part nature of the study provided low power and potential selection bias

CONCLUSION

- Plant-based individuals have high diet quality and nutrition literacy
- Health and natural content motivations were associated with higher diet quality
- Weight control and sensory appeal motivations were associated with lower diet quality
- Nutrition literacy was not associated with diet quality

ACKNOWLEDGEMENTS & REFERENCES

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References:

- Clarys et al. (2014). *Nutrients*, 6(3).
- Le et al. (2018). *Nutrients*, 10(5).
- Marty et al. (2021). *Appetite*, 157.
- Gibbs et al. (2018). *Journal of Nutrition Education and Behavior*, 50(3).
- Souza et al. (2020). *Nutrients*, 12(5).
- Satia et al. (2001). *Public Health Nutrition*, 4(5).
- Cruwys et al. (2020). *Nutrients*, 12(4).