

1. INTRODUCTION

The global burden of chronic condition is projected to reach \$47 trillion by 2030¹) and chronic metabolic diseases and dietary risks are major causes of mortality and morbidity, and the burden of these diseases is continuously increasing¹. Diet plays a crucial role as a modifiable factor in managing these chronic diseases. The capacity to comprehend and use food labels is closely linked to a patient's self-management abilities, in conjunction with patient health literacy²⁻³. Further, understanding and using food labels can be a proxy indicator of literacy. Previous research has indicated a correlation between health literacy and patient experiences contribution to health outcomes and linked to the inequality of health⁴. However, existing research lacks empiric evidence of the relationship between patient experiences in the journey through chronic disease management and the ability of patients to understand and use food labels.

2. PURPOSE

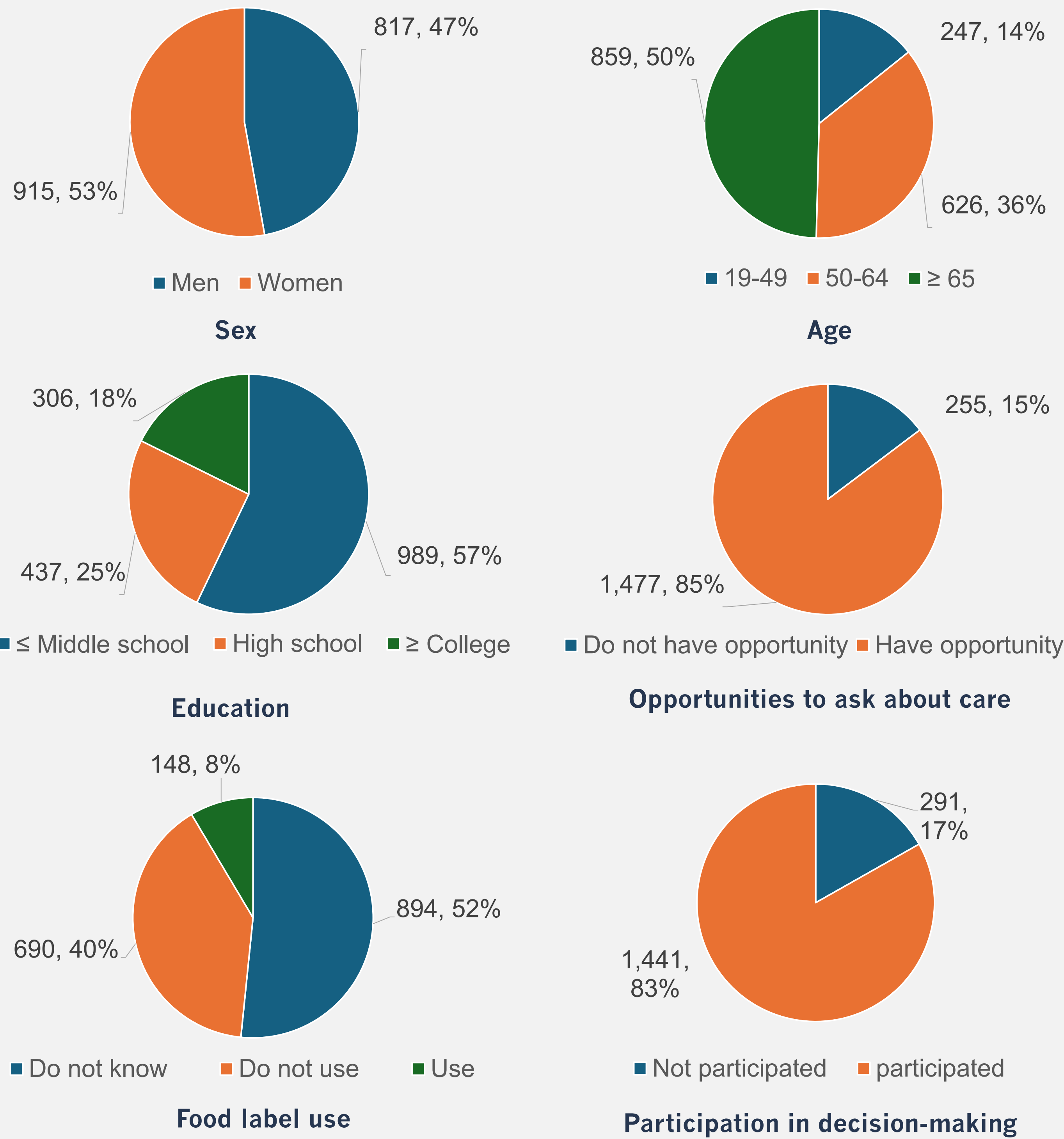
This study analysed the association between food label literacy and patient decision-making in healthcare practice and examined the implications of food label use in managing chronic diseases, using a representative population database.

4. RESULTS

Study population

We analyzed responses from 1,732 adults diagnosed with hypertension or type 2 diabetes. Results revealed that over half of the participants were unaware of food labels, and among those aware, less than 10% actively used labels for dietary choices.

Figure 1. Baseline Characteristics of Population



3. METHODS

Study design and data source

A cross-sectional analysis using data from the 2015 Korea National Health and Nutrition Examination Survey, we analyzed responses from 1,732 adults diagnosed with hypertension or type 2 diabetes (IRB approval: ABN01-202209-21-14).

Study population

The study population comprised 1,732 adults with hypertension or type 2 diabetes mellitus with outpatient care visits more than once a year and who responded to the KNHANES survey in 2015.

Variables and measurements

Outcome variables are patients' experiences in decision making—time for doctor communication, clarity of consultations, ability to ask questions, and participation in decisions. The independent variable is the use of food labels. Control variables are Gender, age, education, economic status, health security type, health status, disability, inpatient care (past year), family history of chronic disease, and hospital type for outpatient visits.

Statistical analysis

The study population comprised 1,732 adults with hypertension or type 2 diabetes mellitus with outpatient care visits more than once a year and who responded to the KNHANES survey in 2015.

Table 1. Factors affecting patients' decision-making according and association with food label use

Dependent variables		Time for communication with doctors	Easy to understand doctor's consultation	Opportunities to ask about care	Participation in decision making
Variables		OR (95% CI)	OR (95% CI)	OR (95% CI)	OR (95% CI)
Sex	Men	1	1	1	1
	Women	1.228 (0.915-1.647)	1.272 (0.889-1.819)	1.051 (0.783-1.41)	1.155 (0.874-1.527)
Age	19-49	1	1	1	1
	50-64	1.320 (0.883-1.972)	1.422 (0.861-2.347)	1.261 (0.799-1.989)	1.040 (0.653-1.657)
	65+	1.752 (1.131-2.715)	1.630 (0.952-2.789)	1.112 (0.693-1.783)	0.840 (0.522-1.353)
Education	≤ Middle school	1	1	1	1
	High school	0.865 (0.603-1.242)	0.820 (0.528-1.274)	1.096 (0.755-1.591)	1.262 (0.882-1.804)
	≥ College	0.753 (0.488-1.161)	0.835 (0.484-1.44)	1.075 (0.675-1.712)	1.331 (0.844-2.098)
Economic status	Upper	1	1	1	1
	Middle	1.074 (0.753-1.533)	0.979 (0.622-1.539)	0.836 (0.563-1.243)	1.013 (0.695-1.477)
	Lower	0.921 (0.592-1.433)	0.740 (0.43-1.272)	0.857 (0.537-1.368)	0.850 (0.551-1.311)
Health security	Health insurance	1	1	1	1
	Medical aid	1.257 (0.694-2.28)	1.420 (0.699-2.887)	0.656 (0.402-1.072)	0.827 (0.515-1.326)
Limitations due to health problems or disabilities	No	1	1	1	1
	Yes	1.014 (0.665-1.546)	0.666 (0.422-1.052)	0.918 (0.619-1.36)	1.189 (0.81-1.743)
Inpatient care within 1 year	No	1	1	1	1
	Yes	1.082 (0.726-1.612)	1.103 (0.681-1.789)	1.308 (0.863-1.984)	1.014 (0.701-1.466)
Family history of chronic diseases	No	1	1	1	1
	Yes	1.045 (0.785-1.392)	0.856 (0.602-1.218)	1.006 (0.757-1.338)	1.118 (0.855-1.461)
Types of hospitals for outpatient visits	General hospitals	0.954 (0.689-1.323)	0.850 (0.575-1.254)	0.915 (0.659-1.272)	0.772 (0.569-1.048)
	Hospitals	1.163 (0.676-2)	1.227 (0.619-2.433)	1.055 (0.621-1.792)	0.661 (0.422-1.037)
	Clinics	1	1	1	1
	Health centers	0.743 (0.362-1.523)	0.544 (0.246-1.202)	0.417 (0.224-0.776)	0.648 (0.335-1.252)
Food label uses	Do not know	1	1	1	1
	Do not use	1.026 (0.763-1.379)	1.091 (0.761-1.564)	1.036 (0.767-1.398)	1.093 (0.822-1.454)
	Use	2.286 (1.214-4.307)	2.917 (1.206-7.056)	1.941 (1.012-3.725)	1.984 (1.042-3.779)

5. CONCLUSION

Findings

Lower use of food label was seen among men, older adults, those with less education, economic disadvantage, or disabilities. Food label users reported greater satisfaction—better physician communication, clearer consultations, and more involvement in decisions. After adjustment, demographics were not significant. In addition, evidence on provider ownership and patient satisfaction is inconclusive, underscoring the need for further research.

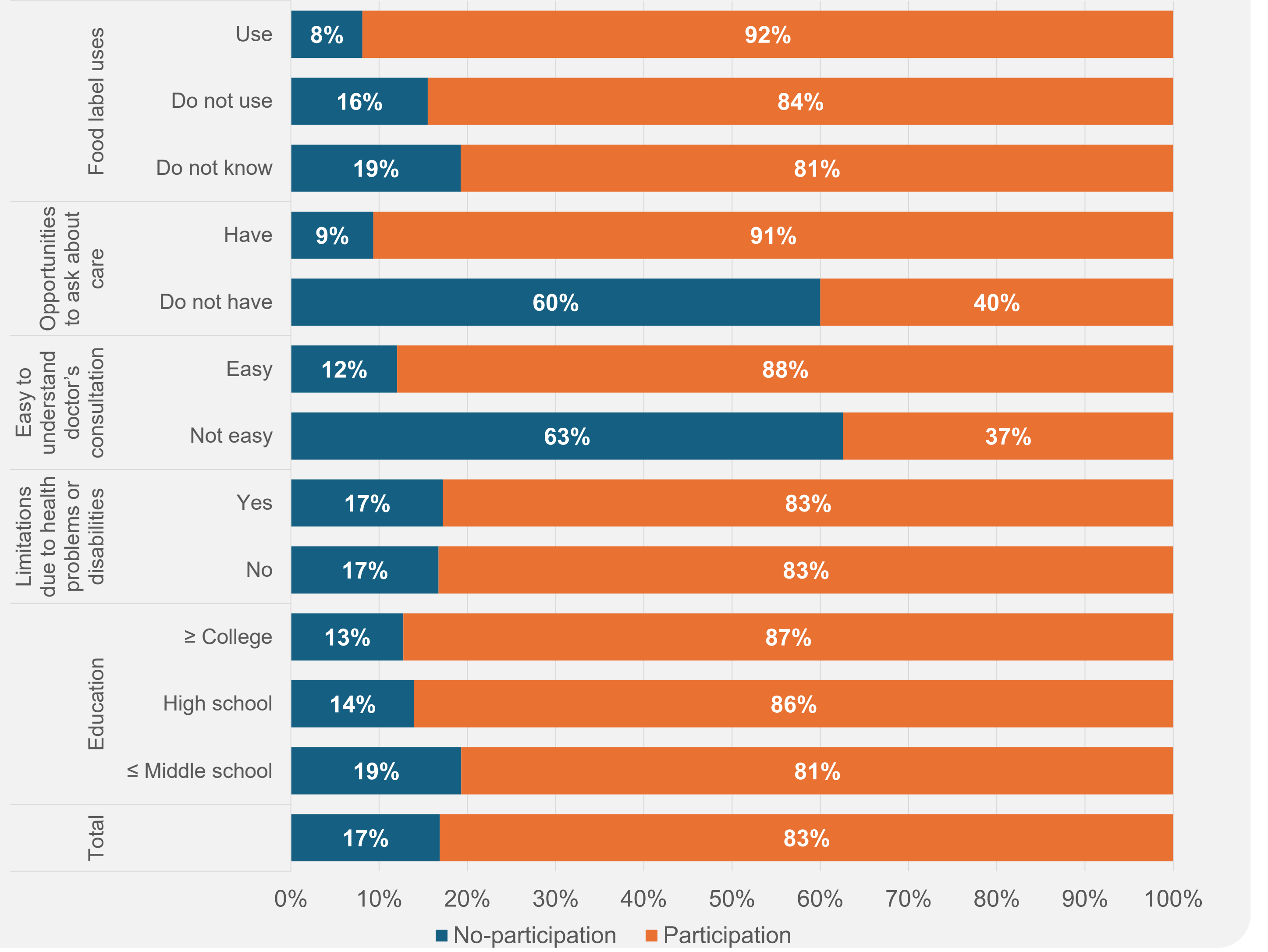
Implication

This study identifies the use of nutritional information as a crucial competency in managing chronic diseases and making informed clinical decisions. Enhancing this competency fosters active patient participation in healthcare, leading to improved health outcomes. Our findings indicate that targeted educational programs promoting food label use can enhance the understanding and application of nutritional information, thereby strengthening effective self-disease management.

Limitations

Cross-sectional design limits causal inference; data are from a single, older year; self-reported measures may introduce bias. However, these were the only available measures of food label use and patients' perceived participation in decision making.

Figure 2. Involvement in healthcare decision-making by participant characteristics



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