



Patient autonomy and preference for dental decision-making with periodontitis patients

Ji-Young Jung, Kyung-A Ko, Yuan Park, Jung-Seok Lee*

Research Institute for Periodontal Regeneration, Department of Periodontology, College of Dentistry, Yonsei University, Seoul, Korea

Introduction & Objective

Information needs for clinical decision-making vary based on patient preferences and disease prognosis, significantly impacting treatment outcomes and satisfaction. In periodontics, managing periodontal disease often involves difficult decisions between treatments to save the tooth and extractions for implants and prosthodontics. This study aims to assess information-seeking preferences among periodontitis patients who completed the Autonomy Preference Index (API) questionnaires and to identify the factors that influence these preferences.

Materials and methods

The Information-Seeking (IS) Preference Questionnaire, using a 5-point Likert scale, was administered to 96 patients with generalized, localized, or stage III/IV periodontitis from May 2021 to February 2022 at Yonsei University Dental Hospital. The questionnaire included various statements (Figure1) and collected demographic data, oral health-related conditions, and general medical conditions. Descriptive analysis was performed on demographic characteristics and decision categories, while linear regression assessed the impact of demographic variables on information-seeking preferences. Internal consistency was evaluated using Cronbach's alpha, and all statistical analyses were conducted with STATA/BE 18.

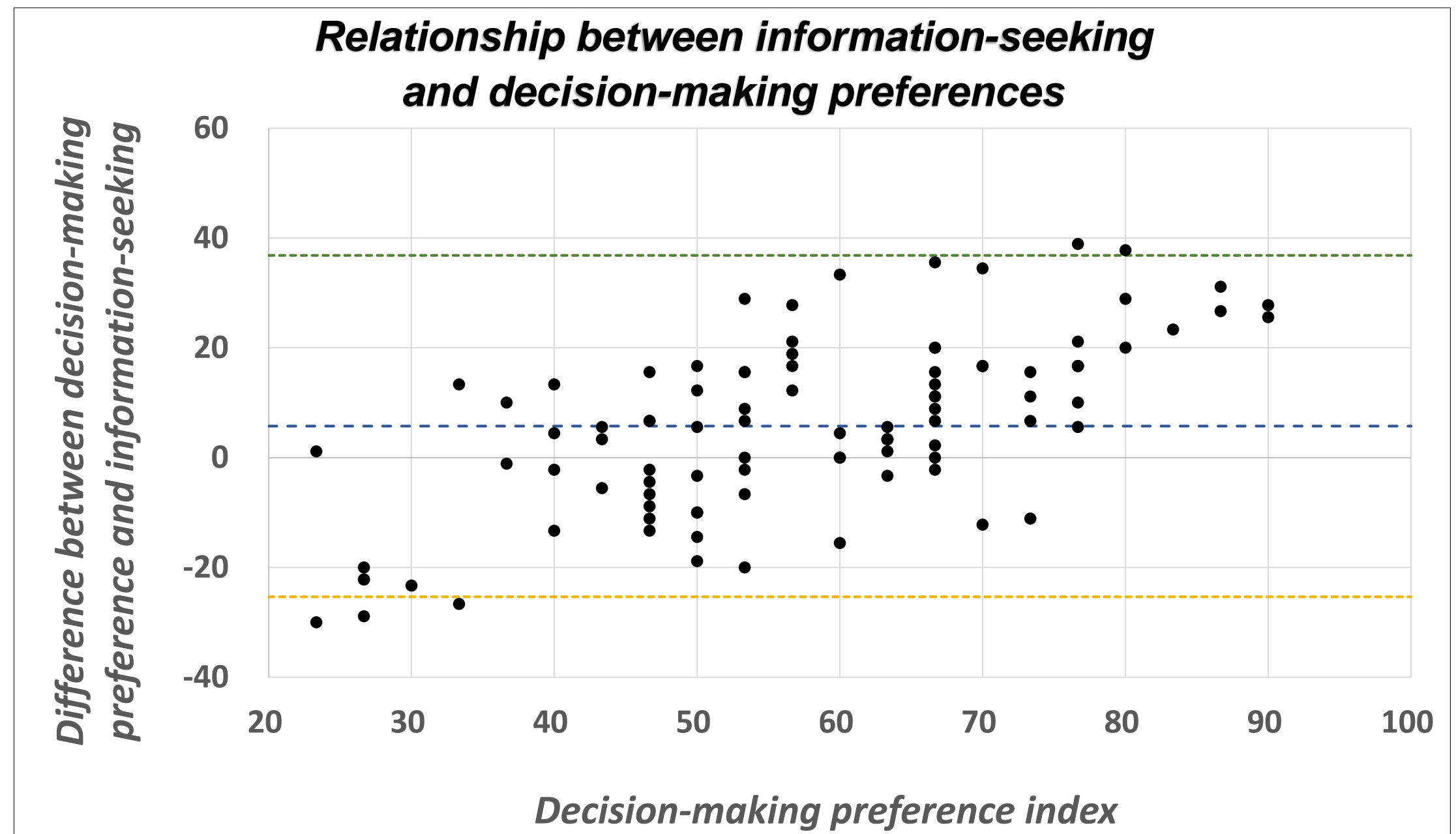


Figure2. The scatter plot demonstrates the relationship between information-seeking and decision-making preferences in the Autonomy Preferences Index (API). The Y-axis represents the difference, calculated as the subtraction between decision-making preference and information-seeking. The green and yellow lines indicate the upper and lower limits of standard deviation for the difference values on the Y-axis, respectively. The blue line represents the average of the difference. The negative correlation between the Y-axis and the decision-making preference index (X-axis) suggests that periodontitis patients sought information regardless of their autonomy preferences.

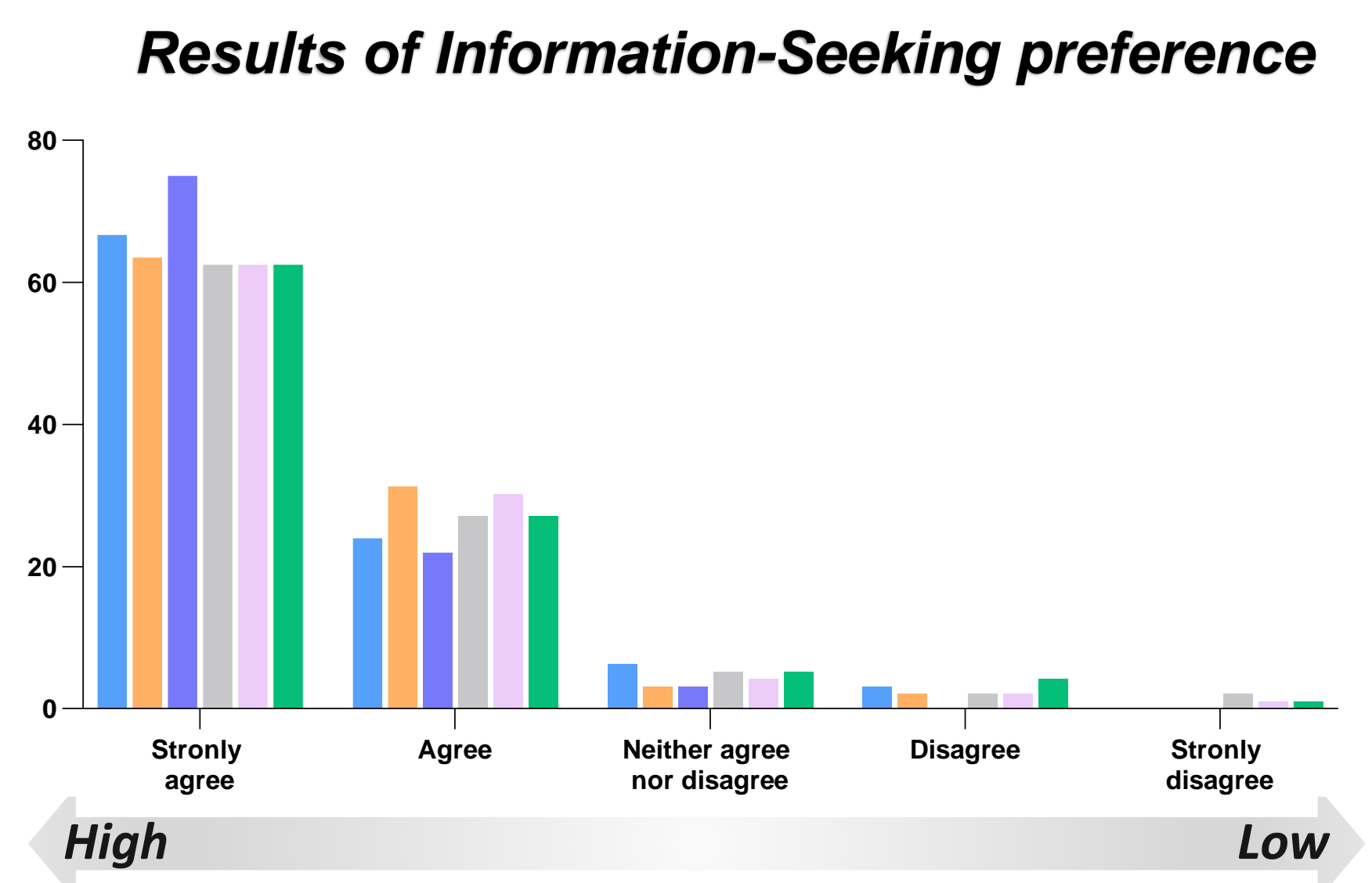
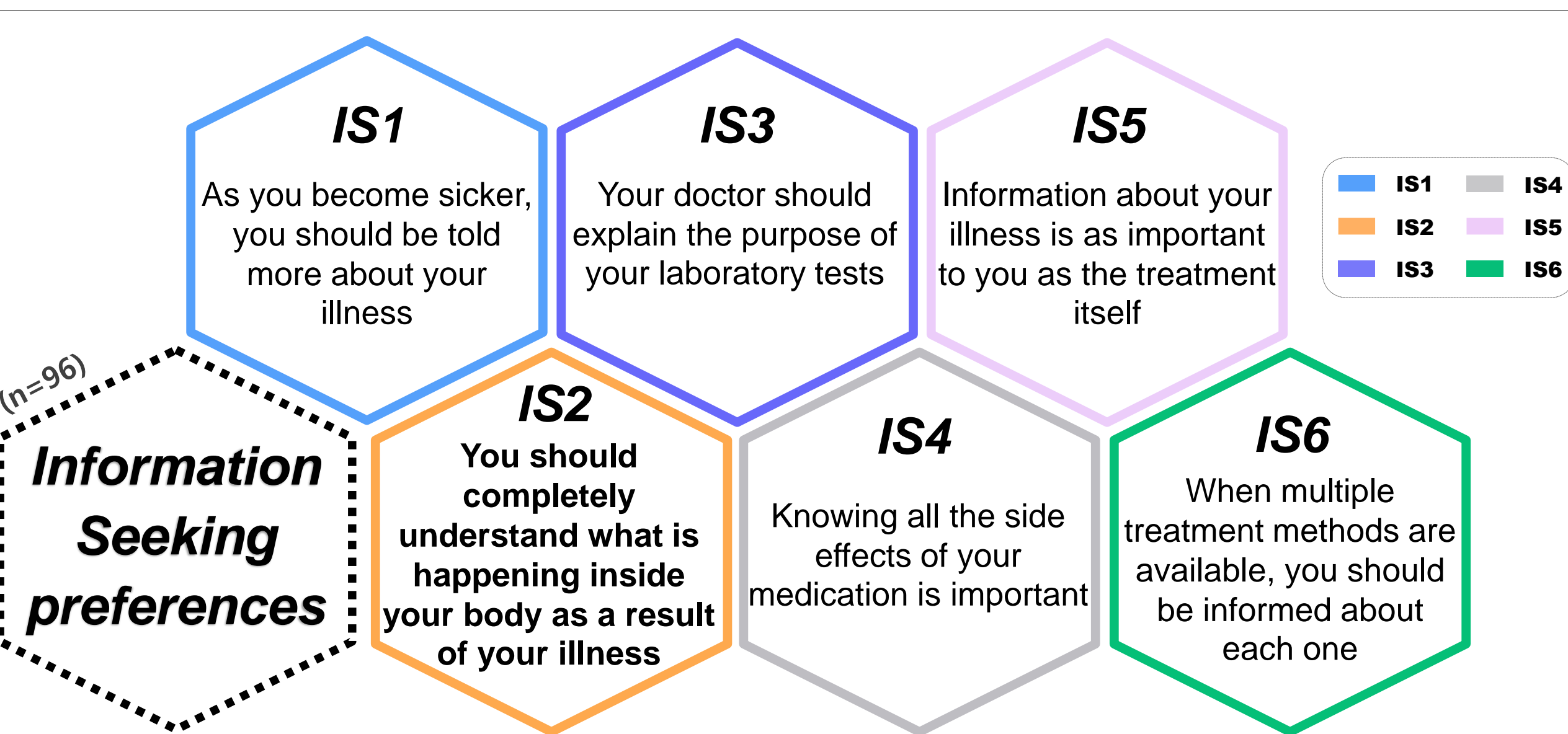


Figure1. Questions and results of Information-Seeking (IS) preference in the Autonomy Preferences Index (API).

Results

The information-seeking preference had a mean score of 4.31 ± 0.58 (out of 5) demonstrating high information-seeking preference. The highest mean score was IS3 ('Your doctor should explain the purpose of your laboratory tests') at 4.72 ± 0.51 . The negative correlation in Figure 2 ($r = -0.434$, $p < 0.001$) suggests that patients pursued more information regardless of their desired autonomy level in decision-making. Significant determinants of high information-seeking at the 10% level with univariate analysis included older age ($p = 0.069$), financial burden ($p = 0.062$), and lower frequency of alcohol consumption ($p = 0.011$). In multi univariate analysis, the impact of financial burden ($p = 0.034$) and lower frequency of alcohol consumption ($p = 0.006$) were significant for information-seeking preference (Figure3). Most of the differences did not reach statistical significance, including gender, education level, smoking status, drinking status, tooth brushing, use of fluoride toothpaste, experience with tooth extraction, oral health conditions, and AOHSS.

Conclusions

A strong preference for information was observed among periodontitis patients, unaffected by their autonomy preference in decision-making. Key factors influencing information-seeking was age, sugar intake, chronic conditions, and financial burden.

Ethics Approval

Ethical approval was obtained from the Institutional Review Board of Yonsei University Dental Hospital (IRB no. 2-2021-0018)

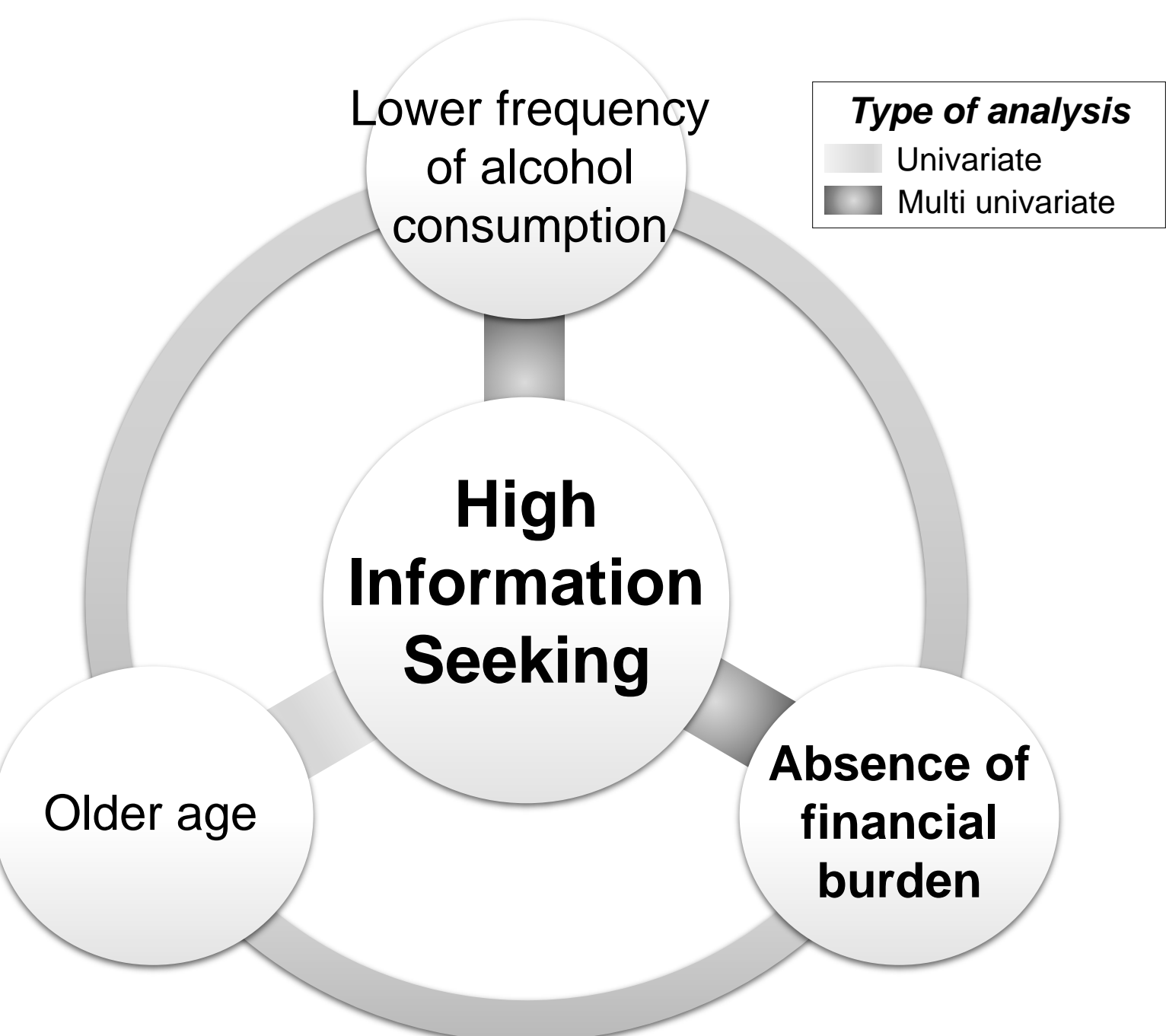
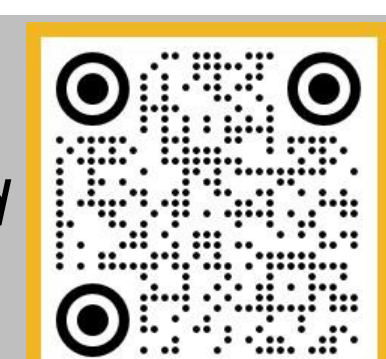


Figure3. Patient's characteristics affect information-seeking preference. The univariate analysis indicated that older age ($p = 0.069$), absence of financial burden ($p = 0.062$), and lower frequency of alcohol consumption ($p = 0.011$) were associated with higher information-seeking preference. In multi univariate analysis, the impact of financial burden ($p = 0.034$) and lower frequency of alcohol consumption ($p = 0.006$) were significant for information-seeking preference.



Full questionnaire