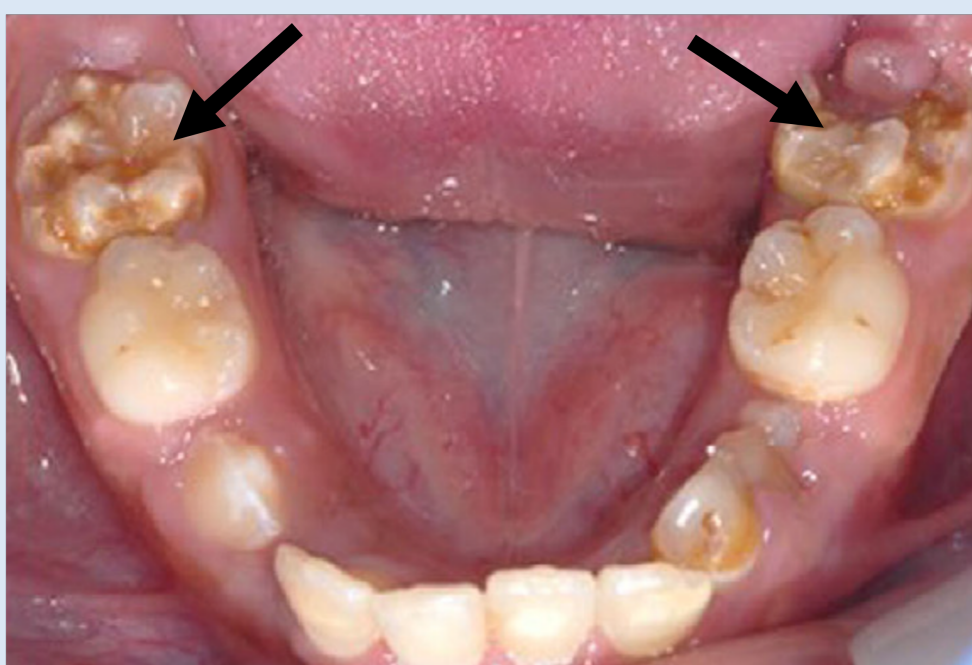


# Knowledge of Molar Incisor Hypomineralization among Physicians and General Dentists in Canada and Saudi Arabia

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## Introduction

- Molar incisor hypomineralization (MIH) is a frequently encountered dental problem globally.
- The lack of awareness of MIH can increase its prevalence among children and influence their oral health and overall well-being.

## Objectives

- The aims of the study were to assess the knowledge of physicians and general dentists in Ontario, Canada and Saudi Arabia about MIH, and its associations with antibiotics exposure during early childhood.

## Methods

- Cross-sectional survey design study
- Study questionnaire distributed electronically.
- Participants were general physicians, pediatricians, and general dentists in Canada and Saudi Arabia.
- **Statistical analysis:**
- The Chi-square test was used to compare differences in levels of knowledge between the study groups.
- A multiple linear regression model was used to compare the confidence levels in diagnosing MIH between the study groups, adjusting for sex and country of residence.

## Results

- 275 participants in the study; dentists (n=125), general physicians (n=69), and pediatricians (n=81).
- Dentists had a higher proportion of prior knowledge of MIH compared to physicians.
- No statistically significant difference between the groups regarding the association between antibiotics and MIH development.

Figure 1: Familiarity with MIH

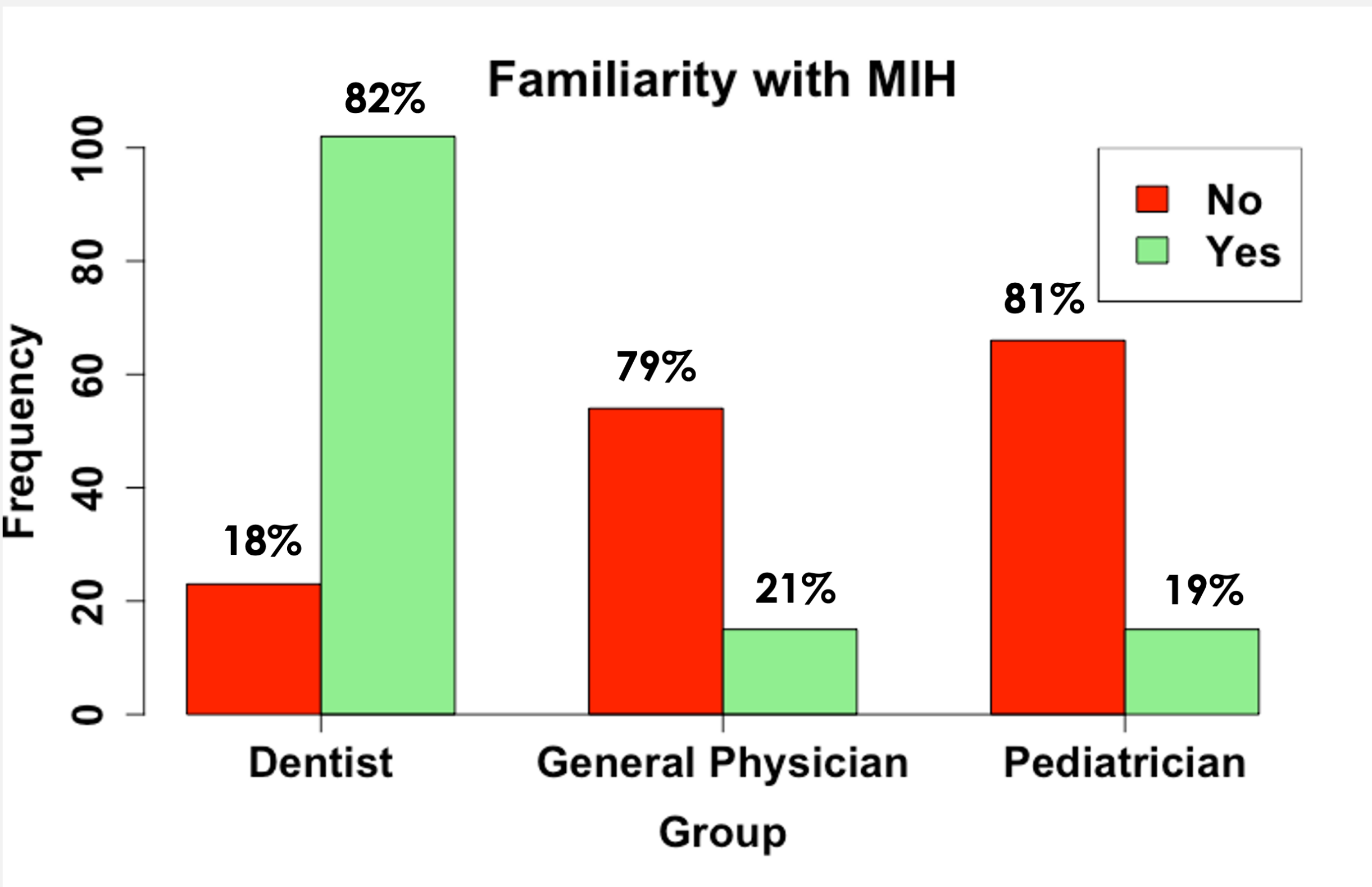


Table 1: Baseline Characteristics of the Study Participants

Variables	Overall n= 275 (%)	Dentist n= 125 (%)	General physician n= 69 (%)	Pediatrician n= 81 (%)
Sex : M:F	129:146 (46.9%:53.1%)	65:59 (52%:47.2%)	36:33 (52.1%:47.8%)	27:53 (33.3%:65.4%)
Country: Canada:Saudi Arabia	87:188 (31.6%:68.3%)	36:89 (28.8%:71.2%)	19:50 (27.5%:72.4%)	32:49 (39.5%:60.4%)
Familiarity with MIH	143 (52%)	102 (81.6%)	15 (21%)	15 (18.5%) P<0.001
Knowledge of an Antibiotic Association	129 (46.9%)	59 (47.2%)	33 (47.8%)	37 (45.6%) P=0.078

Table 2: Level of Confidence in Diagnosing MIH among Study Groups

Variable	Beta	95% CI	P-value
Intercept	3.22	(2.31 to 4.13)	<0.0001
Dentist	Reference		
General physician	-2.29	(-2.72 to -1.85)	<0.0001
Pediatric	-2.04	(-2.46 to -1.61)	<0.0001
Country	-0.20	(-0.56 to 0.16)	0.27
Sex	-0.10	(-0.48 to 0.28)	0.61

The adjusted analysis from the regression model  
 $R^2 = 0.35$ , adjusted  $R^2 = 0.34$ , P-value <0.0001

## Conclusions

- Physicians generally lacked knowledge about the MIH dental condition.
- Most of the study participants had no knowledge about the potential association between MIH and frequent antibiotic intake during infancy and early childhood.

## Significance

- Primary prevention by health care professionals can play an essential role in reducing the disease burden of MIH.
- Given their role in early childhood illnesses and antibiotic prescription, the study highlights the lack of awareness about MIH among general medical practitioners and pediatricians.