Czech and Slovak Dental Students’ Oral Health-Related Knowledge, Attitudes, and Behaviours (KAB): Multi-Country Cross-Sectional Study

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Abstract: Dentists play a key role in the primary prevention of oral diseases and related systemic complications; therefore, their views on behavioural interventions need to be aligned with the current agendas for oral health. Likewise, dental students’ oral health-related knowledge, attitudes, and behaviours (KAB) are of practical importance, as they are the future opinion leaders for oral health in their respective communities. A cross-sectional survey-based study was designed to evaluate the oral health KAB of dental students in both the Czech Republic and Slovakia. The study utilized translated versions of the Hiroshima University Dental Behavioural Inventory (HU-DBI), and it aimed to recruit students from all Czech and Slovak dental schools. A total of 487 students were included in this study, out of which 372 (76.4%) were females, 271 (55.6%) were enrolled in preclinical years, 68 (14%) were enrolled in the first year of dentistry courses; therefore, one can put forward that early implementation of preventive elements in HU-DBI scores occurred after the first academic year when the students received preventive dental education and anti-smoking components and their impact on students’ views and attitudes.

Keywords: Czech Republic; dental education; dental students; Slovakia; health-related knowledge; attitudes and practices; Hiroshima University Dental Behavioural Inventory; HU-DBI; oral health; oral hygiene

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1. Introduction

In May 2021, the World Health Organization (WHO) undertook a historic step by approving a resolution on oral health that incorporates oral health within the vision of 2030 for non-communicable diseases (NCDs) [1]. The WHO member states are urged now to address the modifiable risk factors of oral diseases that are shared with non-communicable diseases, such as free sugar intake and tobacco use [1,2]. Besides the fact that oral diseases are the most prevalent NCDs globally today, the importance of oral health to systemic health is underlined by a myriad of pathophysiologic interactions between oral and systemic diseases, e.g., diabetes mellitus, cardiovascular disease, and malignancies [3–5].

Oral diseases are multi-factorial in nature, even though it has been well-established that all patients’ involvement in oral health is entirely behavioural [6–8]. The primary prevention of oral diseases implies multiple behavioural targets such as twice-daily tooth-brushing, periodic dental check-ups, sugar intake reduction, and smoking cessation, which require multi-level and multi-sectorial approaches to be achieved [3].

Dentists and dental teams’ members have a vital role in this game, as they can provide professional advice to their patients for maintaining good oral hygiene [9,10]. Multiple systematic reviews have recently shown that there is convincing evidence on the immediate effect of educational and promotional interventions in oral health, which justify the need for more active and incentivized roles of dentists and dental hygienists in behavioural counselling [11–16]. Likewise, dental students are the future opinion leaders of oral health in their communities; therefore, their oral health-related knowledge, attitudes, and behaviours (KAB) can reflect their self-care views and indicate how much they may be willing to perform behavioural interventions [17–19]. Given the public perceptions of physicians and dentists as exemplary models for healthy lifestyles, the promotional roles of dentists are not limited to teaching proper brushing techniques, but they can be extended to include other behavioural targets, e.g., tobacco cessation, moderate alcohol consumption, physical activity, healthy nutrition, and immunization [20–28].

In the Czech Republic and Slovakia, the lack of national strategies for oral health is a stumbling block to meeting the targets set by the European and international entities [29]. The Czech oral healthcare system is primarily dependent on private providers and cost-sharing models where the insurance companies are obliged to cover basic preventive and therapeutic services [30]. However, preventive services such as regular check-ups are remunerated by the current packages, and the amount of out-of-pocket expenditures has increased significantly during the last twenty years [30]. Similarly, public insurance covers regular check-ups in Slovakia, with recent initiatives aimed at complementing these preventive services by restoring school visiting programs [31]. Moreover, preventive dentistry has been included in undergraduate dental curricula for a long time, and it is one of the core competencies for trained dental professionals in both countries [32].

The Hiroshima University Dental Behavioural Inventory (HU-DBI) developed by Kawamura in 1988 is a psychometric instrument which is widely used to evaluate oral health-related KAB among dental students [33]. Thanks to its psychometric properties, limited length and filling time, and its multi-dimensionality, the HU-DBI had been translated and culturally adapted to multiple languages; therefore, an international comparison of nationally collected data is deemed feasible [34]. The instrument had been tested in various contexts, and it was found to have good capacity to predict clinical outcomes [35].

The overall aim of this study was to evaluate the oral health KAB of dental students in the Czech Republic and Slovakia. The primary objective was to estimate the levels of oral health KAB using HU-DBI among dental students in the Czech Republic and Slovakia. The secondary objectives were (i) to assess the role of gender, academic level and clinical experience on students’ oral health KAB, and (ii) to explore the association between oral health KAB and risk health behaviours, e.g., tobacco smoking, alcohol drinking, and problematic internet use.
2. Materials and Methods

2.1. Design

A cross-sectional survey-based study was carried out during the autumn semester of the academic year 2021/2022 utilizing a self-administered questionnaire (SAQ) to collect data from dental students in the Czech Republic and Slovakia. The SAQ was coded and disseminated digitally using KoBoToolbox (Harvard Humanitarian Initiative, Cambridge, MA, USA, 2021) [36]. A secured unique resource locator (URL) was used in data collection where no repetitive filling of the questionnaire was possible from the same internet protocol (IP) address. The study was reported according to the STrengthening the Reporting of Observational studies in Epidemiology (STROBE) guidelines for cross-sectional studies [37].

2.2. Participants

The target population of this study were undergraduate dental students in the Czech Republic and Slovakia who were enrolled as full-time students during the academic year 2021/2022. The international students enrolled in English programs were not included in this study, nor were Erasmus students. The master’s degree program of dentistry lasts for five years in the Czech Republic and six years in Slovakia [32,38]. The first three years in Czech and Slovak curricula are predominantly occupied by basic medical and dental sciences; therefore, the first, second, and third year are considered preclinical years. On the other hand, the curricula of the following years: fourth and fifth year in the Czech Republic; and fourth, fifth, and sixth year in Slovakia are occupied by clinical dentistry courses; therefore, they are considered clinical years [32,38].

The target participants were invited through multiple channels: (i) a mass email was sent to the members’ list of the Slovak Association of Dental Students (Slovenský Študentov Zubného Lekárstva “SSŠZL”), and (ii) promotional posts were published at Facebook groups of dental students in the Czech Republic [39]. The participants who did not complete the survey or those who did not indicate their informed consent digitally at the beginning were excluded from the final analyses.

According to the latest report of the Slovak Dentists Chamber (Slovenská Komora Zubných Lekárov “SKZL”), the total number of dental students enrolled in Slovak universities was 674 students in 2020 [40,41]. The total number of dental students in the Czech Republic was estimated to be ≈1800 students [42]. The sample size required for this study was computed using Epi-Info™ version 7.2.5 (CDC. Atlanta, GA, USA, 2021) through the “Population Survey” module, following the assumptions that the confidence level would be 95%, error margin would be 5%, number of clusters would be 2, and expected frequency would be 50% [43,44]. The required sample was 167 students in each country, which is equal to 333 students overall.

A total of 493 responses were received from the target population, four Slovak responses and two Czech responses were empty, and they were excluded from the study. None of the eligible responses had missing or invalid data; therefore, the remaining 487 responses were included in the final analysis (Figure 1).

2.3. Instrument

The SAQ comprised three main categories: (i) demographic characteristics including gender, university, and academic level, (ii) the original HU-DBI items (n = 20), and (iii) general health behaviours including tobacco smoking “I consume tobacco at least once a week”, alcohol drinking “I drink alcohol at least once a week”, problematic internet use “I find myself using my smartphone/computer longer than I planned”, and regular dental check-ups “I go to the dentist/hygienist for a regular check-up at least once a year” [45–47] (Appendix A).
2.3. HU-DBI Scoring System

The original HU-DBI instrument had twenty dichotomous (Agree/Disagree) items that are used to evaluate oral health-related knowledge (items no. 2, 8, 10, 15, and 19), attitudes (items no. 9, 11, and 14), and behaviours (items no. 4, 9, 12, 16) [17]. The overall score of HU-DBI is based on the sum of twelve core items; therefore, it ranges between 0 and 12, where the higher score indicates better overall oral health KAB. For the final HU-DBI score, one point is given for each “agree” answer of items no. 4, 9, 11, 12, 16, and 19, and each “disagree” answer of items no. 2, 6, 8, 10, 14, and 15.

2.3.2. Czech HU-DBI

The guidelines of Beaton et al. 2000 for translation and cross-cultural adaptation had been followed for producing a validated Czech version of HU-DBI [48]. Firstly, forward translation from English to Czech had been performed by two independent translators (FT1 and FT2) whose first language was Czech, and both of them had a dental background. Then, an experts’ panel was formed to review the two Czech versions (FT1 and FT2) and produce a common version (FT–12) which was used in the third stage, “backward translation”. Two translators (BT1 and BT2) whose first language was English had been invited to translate the FT–12 from Czech to English independently. In the fourth stage, another experts’ panel comprising the four translators and the study investigators was formed to review BT1, BT2, FT–12, and original English HU-DBI versions in order to discuss all the linguistic and grammatical discrepancies with the intention of producing a pre-final Czech version.

The pre-final Czech version had undergone two phases of psychometric testing to verify its bi-lingual reliability (preliminary testing) and test–re-test reliability (final testing).
The preliminary testing phase involved a random sample of 20 young Czech individuals who had a good proficiency level of the English language who were invited to fill in the English version of HU-DBI primarily, and after 24 h, they filled in the pre-final Czech version. Cognitive debriefing (interviews) was conducted by asking 10 out of the 20 volunteers who participated in preliminary testing to share their feedback about the clarity and equivalence of the Czech translation and their suggestions to improve it. The minimum inter-rater agreement level was set to be 80%; therefore, any item rated as unclear by at least 20% of the volunteers, would have been referred back to the expert panel for further consultation and adaptation.

The final phase of psychometric testing (test–re-test reliability) was carried out by inviting a random sample of 40 Czech university students to fill in the pre-final Czech version twice with an interval of 48 h, recommended by Marx et al. 2003 [49]. The mean Cohen’s kappa coefficient ($\kappa$) was $0.941 \pm 0.070$, and it ranged between 0.754 (item no. 1) and 1.000 (items no. 5, 6, 7, 15, 16, 18, 19, and 20). According to McHugh criteria for interpreting the Cohen’s $\kappa$ coefficient, the Czech HU-DBI version had an almost perfect level of reliability [50] (Supplementary Table S1).

2.3.3. Slovak HU-DBI

The WHO guidelines for translation and cross-cultural adaptation had been used in producing the Slovak HU-DBI version [51]. The WHO guidelines were pragmatic and involved forward translation by two Slovak native translators (from English to Slovak) and backward translation by a single translator (from Slovak to English). All translators were healthcare professionals. Then, an expert panel was formed to review the produced versions and compare them to the original English HU-DBI version in order to relieve linguistic and grammatical issues. Psychometric testing involved five students who were asked about their opinion about the clarity and equivalence of the Slovak translation to the English source.

Eventually, two items were found to be non-comparable between Czech and Slovak versions; therefore, cross-country comparison of those two items (no. 1 and no. 5) should be approached with caution. The verb "worry" in item no. 1 was translated as "fear" in the Czech version, while the Slovak version used its synonym "concern". The term "child-sized toothbrush" in item no. 5 was literally translated in the Slovak version, while the Czech version simplified it as "small-headed toothbrush" (Appendix A).

2.4. Ethics

The Ethics Committee of the Faculty of Medicine, Masaryk University reviewed and approved the protocol of this study on 20 November 2019 (Ref no. 48/2019). The declaration of Helsinki for research involving human subjects and the European Union (EU) general data protection regulation (GDPR) guided the design and execution of the present study [52,53]. All participating students had to indicate their consent digitally prior to their participation, and those who failed to indicate their consent were disqualified from the study. No identifying personal data was collected; therefore, retrospective identification of the participants was not possible. Participation in this study was not encouraged by any means of incentives, and it was not coerced by any means of penalties.

2.5. Analyses

Initially, Shapiro–Wilk test had been performed to verify whether the overall HU-DBI score (0–12) and its subdomains, i.e., knowledge (0–5), attitudes (0–3), and behaviours (0–4) were normally distributed or not with a significance level ($\text{Sig.}$) $< 0.05$. The HU-DBI scores of Czech and Slovak dental students were not normally distributed; therefore, the non-parametric analytical tests were used.

Descriptive statistics for the nominal variables (gender and country), ordinal variables (academic level and HU-DBI items answers), and numerical variables (HU-DBI scores) had been executed using frequencies ($n$) and percentages (%) for qualitative variables, and
mean and standard deviations (µ ± SD) for quantitative variables. Inferential statistics had been executed to test the association between HU-DBI responses and scores and sociodemographic and behavioural correlates. Chi-squared test (χ²), Fisher’s exact test, Mann–Whitney test (U), and Jonckheere-Terpstra test (JT) were used with a confidence level (CI) of 95% and a significance level (Sig.) < 0.05.

Binary logistic regression had been performed on the dependent variable (country); and it estimated the adjusted odds ratio (AOR) of the HU-DBI core items and the sociodemographic and behavioural predictors, which were found to be significant in the univariate analysis (Chi-squared test (χ²) and Fisher’s exact test). The Nagelkerke pseudo R² was used to explain the variability of group membership (country). Similarly, logistic regression analysis was used to evaluate the predictors of tobacco smoking behaviours.

3. Results
3.1. Demographic Characteristics

Out of the 487 students who were included in the downstream analyses, 372 (76.4%) were females and represented 73.5% and 77.9% of Czech and Slovak samples, respectively, without a statistically significant difference (Sig. = 0.277). Over half of the participants (55.6%) were enrolled in preclinical years without a statistically significant difference (Sig. = 0.909) between Czech (55.3%) and Slovak (55.8%) samples (Table 1).

Table 1. Sociodemographic characteristics of Czech and Slovak dental students` responding to HU-DBI Survey, Autumn 2021 (n = 487).

| Variable         | Outcome | Czech (n = 170) | Slovak (n = 317) | Total (n = 487) | Sig.
|------------------|---------|----------------|-----------------|----------------|------
| Gender           | Female  | 125 (73.5%)    | 247 (77.9%)     | 372 (76.4%)    | 0.277|
|                  | Male    | 45 (26.5%)     | 70 (22.1%)      | 115 (23.6%)    |      |
| Academic Level   | First Year | 13 (7.6%)     | 72 (22.7%)      | 85 (17.5%)     | <0.001|
|                  | Second Year | 56 (32.9%)    | 60 (18.9%)      | 116 (23.8%)    | <0.001|
|                  | Third Year  | 25 (14.7%)    | 45 (14.2%)      | 70 (14.4%)     | 0.878|
|                  | Fourth Year | 28 (16.5%)    | 83 (26.2%)      | 111 (22.8%)    | 0.015|
|                  | Fifth Year  | 48 (28.2%)    | 30 (9.5%)       | 78 (16%)       | <0.001|
|                  | Sixth Year  | N/A            | 27 (8.5%)       | 27 (5.5%)      | N/A  |
| Clinical Experience | Preclinical | 94 (55.3%)   | 177 (55.8%)     | 271 (55.6%)    | 0.909|
|                  | Clinical   | 76 (44.7%)    | 140 (44.2%)     | 216 (44.4%)    |      |

Chi-squared test (χ²) had been used with a significance level (Sig.) ≤ 0.05. The significant values are in bold font.

From the Czech Republic, 170 students were included with the Faculty of Medicine and Dentistry, Palacký University Olomouc being the most contributing faculty (79.4%), followed by the Faculty of Medicine, Masaryk University (10%), and the First Faculty of Medicine, Charles University (5.9%).

From Slovakia, 317 students were included with Jessenius Faculty of Medicine in Martin, Comenius University being the most contributing faculty (32.2%), followed by the Faculty of Medicine, Pavol Jozef Šafárik University (29.7%), the Faculty of Medicine in Bratislava, Comenius University (24.3%), and the Faculty of Medicine, Slovak Medical University in Bratislava (13.9%).

3.2. Health Behaviours

Tobacco smoking at least once a week was reported by 68 (14%) students, and it was significantly (Sig. = 0.008 and <0.001) more common among Slovak (17%) and male students (24.3%) than their Czech (8.2%) and female colleagues (10.8%), respectively. Drinking alcohol at least once a week was reported by more than one-third of the participants (35.5%), with males having a significantly (Sig. < 0.001) higher prevalence (50.4%) than females (30.9%) in both countries.
The majority of participants (88.3%) reported problematic internet use, which was more common (Sig. = 0.017) among Slovak (90.9%) than Czech (83.5%) students. Regular dental check-ups annually were also reported by the vast majority of our participants (93.6%) with no statistically significant differences based on country, gender, or clinical experience (Table 2).

Table 2. Health-related behaviours of Czech and Slovak dental students’ responding to HU-DBI survey, Autumn 2021 (n = 487).

| Variable                  | Outcome | Czech (n = 170) | Slovak (n = 317) | Sig. | Female (n = 372) | Male (n = 115) | Sig. | Preclinical (n = 271) | Clinical (n = 216) | Sig. | Total (n = 487) |
|---------------------------|---------|----------------|-----------------|------|-----------------|---------------|------|---------------------|-------------------|------|----------------|
| Tobacco Smoking           | Yes     | 14 (8.2%)      | 54 (17%)        | 0.008| 40 (10.8%)      | 28 (24.3%)    | <0.001| 32 (11.8%)          | 36 (16.7%)         | 0.124| 68 (14%)       |
|                           | No      | 156 (91.8%)    | 263 (83%)       |      | 332 (89.2%)     | 87 (75.7%)    |      | 239 (88.2%)         | 180 (83.3%)        |      | 419 (86%)      |
| Alcohol Drinking          | Yes     | 60 (35.3%)     | 113 (35.6%)     | 0.938| 257 (69.1%)     | 57 (49.6%)    | <0.001| 179 (66.1%)         | 135 (62.5%)        | 0.416| 314 (64.5%)    |
|                           | No      | 110 (64.7%)    | 204 (64.4%)     |      | 115 (30.9%)     | 58 (50.4%)    |      | 102 (33.9%)         | 81 (37.5%)         |      | 183 (37.5%)    |
| Problematic Internet Use  | Yes     | 142 (83.5%)    | 288 (90.9%)     | 0.017| 332 (89.2%)     | 98 (82.2%)    | 0.240| 240 (88.6%)         | 190 (88%)          | 0.838| 430 (88.3%)    |
|                           | No      | 28 (16.5%)     | 29 (9.1%)       |      | 40 (10.8%)      | 17 (14.8%)    |      | 31 (11.4%)          | 26 (12%)           |      | 57 (11.7%)     |
| Regular Dental Check-up   | Yes     | 157 (92.4%)    | 299 (94.3%)     | 0.396| 351 (94.4%)     | 105 (91.3%)   | 0.242| 257 (94.8%)         | 199 (92.1%)        | 0.225| 456 (93.6%)    |
|                           | No      | 13 (7.6%)      | 18 (5.7%)       |      | 21 (5.6%)       | 10 (8.7%)     |      | 14 (5.2%)           | 17 (7.9%)          |      | 31 (6.4%)      |

Chi-squared test ($\chi^2$) had been used with a significance level (Sig.) $\leq 0.05$. The significant values are in bold font.

3.3. HU-DBI Responses

Among Czech students, item no. 3 of worrying about teeth colour received the highest level of agreement (94.1%), followed by item no. 1 of dental anxiety (91.2%), and item no. 5 of using child-sized toothbrushes (90%). Contrarily, item no. 2 of bleeding gingiva had the lowest level of agreement (0.6%), followed by item no. 17 of using toothbrushes with hard bristles (1.8%), item no. 7 of dissatisfaction with gingival colour (2.4%), and item no. 6 of incapacity to maintain oral health in older age (2.9%).

Among Slovak students, item no. 3 of worrying about teeth colour received the highest level of agreement (96.2%), followed by item no. 9 of careful toothbrushing (80.1%), and item no. 12 of post-brushing checking (79.2%). Contrarily, item no. 5 of using child-sized toothbrushes had the lowest level of agreement (3.8%), followed by item no. 2 of bleeding gingiva (8.8%), item no. 15 delaying dental visits (8.8%), item no. 7 of dissatisfaction with gingival colour (10.4%), and item no. 17 of using toothbrushes with hard bristles (10.4%).

The difference between Czech and Slovak students was statistically significant in fifteen items. Slovak students exhibited significantly higher agreement levels for items no. 2 of gingival bleeding (8.8% vs. 0.6%), no. 4 of noticing dental plaque (31.9% vs. 16.5%), no. 6 of incapacity to maintain oral health in older age (30.3% vs. 2.9%), no. 7 of dissatisfaction with gingival colour (10.4% vs. 2.4%), no. 8 of perceived-efficacy of oral hygiene (20.2% vs. 6.1%), no. 10 of receiving professional oral hygiene training (25.6% vs. 5.9%), no. 14 of preventing periodontal of toothbrushing solely (34.1% vs. 15.3%), no. 17 of using a toothbrush with hard bristles (10.4% vs. 1.8%), and no. 18 of aggressive toothbrushing (14.5% vs. 3.5%) than Czech students. On the other hand, Slovak students exhibited significantly lower agreement levels for items no. 11 of toothbrushing without toothpaste (37.5% vs. 84.1%), no. 16 of using plaque-disclosing agents (37.2% vs. 70%), and no. 19 of spending too much time while toothbrushing (18% vs. 52.9%) than Czech students (Table 3).
Table 3. Czech and Slovak dental students’ responses to HU-DBI items, stratified by academic level, Autumn 2021 (n = 487).

| Item | Response | State | 1st Year (n = 85) | 2nd Year (n = 116) | 3rd Year (n = 70) | 4th Year (n = 111) | 5th Year (n = 78) | 6th Year (n = 111) | Sig. χ² | Total (n = 487) | Sig. χ² |
|------|----------|-------|------------------|-------------------|------------------|------------------|------------------|------------------|---------|----------------|---------|
| No. 1 | Agree | CZ | 9 (69.2%) | 51 (91.1%) | 25 (100%) | 25 (89.3%) | 45 (93.8%) | N/A | 0.015 | 155 (91.2%) | <0.001 |
|       |         | SK | 10 (13.9%) | 5 (8.3%) | 4 (8.9%) | 14 (16.9%) | 4 (13.3%) | 2 (7.4%) | 0.381 | 39 (12.3%) |         |
| No. 2 | Disagree | CZ | 12 (92.3%) | 56 (100%) | 25 (100%) | 28 (100%) | 48 (100%) | N/A | 0.055 | 169 (99.4%) | <0.001 |
|       |         | SK | 66 (91.7%) | 54 (90%) | 42 (93.3%) | 73 (88%) | 28 (93.3%) | 26 (96.3%) | 0.426 | 289 (91.2%) |         |
| No. 3 | Agree | CZ | 13 (100%) | 52 (92.9%) | 21 (84%) | 28 (100%) | 46 (95.8%) | N/A | 0.458 | 160 (94.1%) | 0.288 |
|       |         | SK | 69 (95.8%) | 58 (96.7%) | 42 (93.3%) | 81 (97.6%) | 28 (93.3%) | 27 (100%) | 0.284 | 305 (96.2%) |         |
| No. 4 | Agree | CZ | 2 (15.4%) | 10 (17.9%) | 3 (12%) | 10 (30%) | N/A | 0.664 | 28 (16.5%) | 0.006 | 153 (90%) | <0.001 |
|       |         | SK | 26 (36.1%) | 15 (25%) | 16 (35.6%) | 29 (34.9%) | 10 (20.8%) | 6 (22.2%) | 0.190 | 101 (31.9%) |         |
| No. 5 | Agree | CZ | 11 (84.6%) | 48 (85.7%) | 24 (96%) | 26 (92.9%) | 44 (91.7%) | N/A | 0.453 | 153 (90%) | <0.001 |
|       |         | SK | 1 (1.4%) | 0 (0%) | 1 (2.2%) | 7 (8.4%) | 1 (3.3%) | 2 (7.4%) | 0.122 | 12 (3.8%) |         |
| No. 6 | Disagree | CZ | 11 (84.6%) | 54 (96.4%) | 24 (96%) | 28 (100%) | 48 (100%) | N/A | 0.006 | 165 (97.1%) | <0.001 |
|       |         | SK | 51 (70.8%) | 41 (68.3%) | 35 (77.8%) | 56 (67.5%) | 18 (60%) | 20 (74.1%) | 0.751 | 221 (69.7%) |         |
| No. 7 | Agree | CZ | 1 (7.7%) | 1 (1.8%) | 1 (4%) | 0 (0%) | 1 (1.2%) | N/A | 0.318 | 153 (90%) | 0.001 |
|       |         | SK | 6 (8.3%) | 9 (15%) | 7 (15.6%) | 7 (8.4%) | 2 (6.7%) | 2 (7.4%) | 0.881 | 33 (10.4%) |         |
| No. 8 | Disagree | CZ | 12 (92.3%) | 52 (92.9%) | 23 (92%) | 26 (92.9%) | 46 (95.8%) | N/A | 0.605 | 159 (93.9%) | <0.001 |
|       |         | SK | 54 (75%) | 47 (78.3%) | 37 (82.2%) | 64 (77.1%) | 26 (86.7%) | 25 (92.6%) | 0.053 | 253 (79.8%) |         |
| No. 9 | Agree | CZ | 9 (69.2%) | 44 (78.6%) | 20 (80%) | 20 (71.4%) | 38 (79.2%) | N/A | 0.454 | 131 (77.1%) | 0.428 |
|       |         | SK | 49 (68.1%) | 50 (83.3%) | 39 (86.7%) | 69 (83.1%) | 22 (73.3%) | 25 (92.6%) | 0.013 | 254 (80.1%) |         |
| No. 10 | Disagree | CZ | 10 (76.9%) | 54 (96.4%) | 23 (92%) | 27 (96.4%) | 46 (95.8%) | N/A | 0.029 | 160 (94.1%) | <0.001 |
|       |         | SK | 52 (72.2%) | 43 (71.7%) | 34 (75.6%) | 59 (71.1%) | 26 (86.7%) | 22 (81.5%) | 0.347 | 236 (74.4%) |         |
| No. 11 | Agree | CZ | 7 (53.8%) | 50 (89.3%) | 19 (76%) | 23 (82.1%) | 44 (91.7%) | N/A | 0.001 | 143 (84.1%) | <0.001 |
|       |         | SK | 14 (19.4%) | 18 (30%) | 17 (37.8%) | 37 (44.6%) | 15 (50%) | 18 (66.7%) | <0.001 | 119 (37.5%) |         |
| No. 12 | Agree | CZ | 12 (92.3%) | 44 (78.6%) | 16 (64%) | 17 (60.7%) | 29 (60.4%) | N/A | 0.031 | 118 (69.4%) | 0.016 |
|       |         | SK | 58 (80.6%) | 49 (81.7%) | 35 (77.8%) | 67 (80.7%) | 21 (70%) | 21 (77.8%) | 0.760 | 251 (79.2%) |         |
Table 3. Cont.

| Item | Response | State | 1st Year \((n = 85)\) | 2nd Year \((n = 116)\) | 3rd Year \((n = 70)\) | 4th Year \((n = 111)\) | 5th Year \((n = 78)\) | 6th Year \((n = 111)\) | Sig. \(U\) | Total \((n = 487)\) | Sig. \(\chi^2\) |
|------|----------|-------|-----------------------|------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|-------------------|-----------|
| No. 13 | Agree | CZ | 6 (46.2%) | 20 (35.7%) | 10 (40%) | 10 (35.7%) | 16 (33.3%) | N/A | 0.397 | 62 (36.5%) | 0.567 |
| | | SK | 17 (23.6%) | 21 (35%) | 26 (57.8%) | 27 (32.5%) | 18 (60%) | 15 (55.6%) | 0.003 | 124 (39.1%) | | |
| No. 14 | Disagree | CZ | 10 (76.9%) | 51 (91.1%) | 18 (72%) | 27 (96.4%) | 38 (79.2%) | N/A | 0.862 | 144 (84.7%) | <0.001 |
| | | SK | 50 (69.4%) | 45 (75%) | 29 (64.4%) | 49 (59%) | 20 (66.7%) | N/A | 0.341 | 209 (65.9%) | | |
| No. 15 | Disagree | CZ | 12 (92.3%) | 54 (96.4%) | 24 (96%) | 27 (96.4%) | 44 (91.7%) | N/A | 0.941 | 161 (94.7%) | 0.160 |
| | | SK | 65 (90.3%) | 54 (90%) | 44 (97.8%) | 75 (90.4%) | 25 (83.3%) | 26 (96.3%) | 0.330 | 289 (91.2%) | | |
| No. 16 | Agree | CZ | 7 (53.8%) | 34 (60.7%) | 18 (72%) | 20 (71.4%) | 40 (83.3%) | N/A | 0.026 | 119 (70%) | <0.001 |
| | | SK | 24 (33.3%) | 16 (26.7%) | 18 (40%) | 27 (32.5%) | 16 (53.3%) | 17 (63%) | 0.008 | 118 (37.2%) | | |
| No. 17 | Agree | CZ | 2 (15.4%) | 0 (0%) | 1 (4%) | 0 (0%) | 0 (0%) | N/A | 0.006 | 3 (1.8%) | <0.001 |
| | | SK | 13 (18.1%) | 7 (11.7%) | 3 (6.7%) | 9 (10.8%) | 1 (3.3%) | 0 (0%) | 0.018 | 33 (10.4%) | | |
| No. 18 | Agree | CZ | 0 (0%) | 2 (3.6%) | 0 (0%) | 2 (7.1%) | 2 (4.2%) | N/A | 0.458 | 6 (3.5%) | <0.001 |
| | | SK | 18 (25%) | 8 (13.3%) | 2 (4.4%) | 11 (13.3%) | 5 (16.7%) | 2 (7.4%) | 0.053 | 46 (14.5%) | | |
| No. 19 | Agree | CZ | 4 (30.8%) | 26 (46.4%) | 15 (60%) | 17 (60.7%) | 28 (58.3%) | N/A | 0.080 | 90 (52.9%) | <0.001 |
| | | SK | 10 (13.9%) | 8 (13.3%) | 10 (22.2%) | 16 (19.3%) | 7 (23.3%) | 6 (22.2%) | 0.318 | 57 (18%) | | |
| No. 20 | Agree | CZ | 9 (69.2%) | 43 (76.8%) | 22 (88%) | 26 (92.9%) | 43 (89.6%) | N/A | 0.069 | 143 (84.1%) | 0.102 |
| | | SK | 53 (73.6%) | 46 (76.7%) | 35 (77.8%) | 66 (79.5%) | 23 (76.7%) | 24 (88.9%) | 0.105 | 247 (77.9%) | | |

\(U\) Mann–Whitney test \((U)\) between first- vs. final-year students had been used with a significance level \((\text{Sig. } U)\) ≤ 0.05. \(\chi^2\) Chi-squared test \((\chi^2)\) between Czech vs. Slovak students had been used with a significance level \((\text{Sig. } \chi^2)\) ≤ 0.05. The significant values are in **bold** font.
3.3.1. Academic Level

In the Czech Republic, the fifth-year students (seniors) had significantly higher agreement levels for items no. 1 of dental anxiety (93.8% vs. 69.2%), no. 11 of toothbrushing without toothpaste (91.7% vs. 53.8%), and no. 16 of using plaque-disclosing agents (83.3% vs. 53.8%) than the first-year students (freshers), respectively. On the other hand, freshers had significantly higher agreement levels for items no. 6 (15.4% vs. 0%), no. 10 of receiving professional oral hygiene training (23.1% vs. 4.2%), no. 12 of post-brushing checking (92.3% vs. 60.4%), and no. 17 of using toothbrushes with hard bristles (15.4% vs. 0%) than seniors, respectively.

In Slovakia, the sixth-year students (seniors) had significantly higher agreement levels for items no. 9 of careful toothbrushing (92.6% vs. 75%), no. 11 of toothbrushing without toothpaste (66.7% vs. 19.4%), no. 13 of worrying about halitosis (55.6% vs. 23.6%), and no. 16 of using plaque-disclosing agents (63% vs. 33.3%), than the first-year students (freshers), respectively. On the other hand, freshers had significantly higher agreement levels for items no. 17 of using toothbrushes with hard bristles (18.1% vs. 0%) and no. 18 of aggressive toothbrushing (25% vs. 7.4%) than seniors, respectively (Table 3).

3.3.2. Gender

On comparing HU-DBI responses across genders, item no. 3 of worrying about teeth colour was significantly more common among females (97.6%) than males (88.77%) in both countries. Czech female students had a significantly higher agreement level for item no. 5 of using child-sized toothbrushes (94.4% vs. 77.8%) and a lower agreement level for item no. 14 of preventing periodontal disease with brushing alone (12% vs. 24.4%) than Czech males. Slovak female students had a significantly higher agreement level for item no. 16 of using plaque-disclosing agents (40.1% vs. 27.1%) than Slovak males (Table 4).

3.3.3. Clinical Experience

On comparing the HU-DBI responses based on clinical experience, clinical students had significantly higher agreement levels for items no. 11 of toothbrushing without toothpaste (63.4% vs. 46.1%), no. 16 of plaque-disclosing agents use (55.6% vs. 43.2%), and no. 20 of positive feedback of treating dentist (84.3% vs. 76.8%) than their preclinical peers in both countries. Contrarily, clinical students had a significantly lower agreement level for item no. 17 of using toothbrushes with hard bristles (4.6% vs. 9.6%) than preclinical students. Additionally, clinical students had a significantly higher agreement level for item no. 5 of using child-sized toothbrushes (7.1% vs. 1.1%) than preclinical students in Slovakia only. (Table 4)

3.3.4. Tobacco Smoking

In both countries, the students who reported smoking tobacco at least once a week had a significantly lower agreement level for item no. 5 of using child-sized toothbrushes (22.1% vs. 35.8%) and higher agreement levels for items no. 14 of preventing periodontal disease through toothbrushing alone (42.6% vs. 25.1%), and no. 15 of delaying dental visits (14.7% vs. 6.4%) than non-smoking students (Table 4).
Table 4. Czech and Slovak dental students’ responses to HU-DBI items, stratified by gender, clinical experience and tobacco smoking, Autumn 2021 (n = 487).

| Item | Response | State | Female (n = 372) | Male (n = 115) | Sig. | Preclinical (n = 271) | Clinical (n = 216) | Sig. | Non-Smoker (n = 419) | Smoker (n = 68) | Sig. |
|------|----------|-------|------------------|----------------|------|----------------------|---------------------|------|---------------------|----------------|------|
| No. 1 | Agree    | CZ    | 116 (92.8%)      | 39 (86.7%)     | 0.228* | 85 (90.4%)          | 70 (92.1%)          | 0.701 | 145 (92.9%)        | 10 (71.4%)    | 0.023* |
|      |          | SK    | 31 (12.6%)       | 8 (11.4%)      | 0.801 | 19 (10.7%)          | 20 (14.3%)          | 0.339 | 29 (11%)           | 10 (18.5%)    | 0.127 |
|      |          | Total | 147 (39.5%)      | 47 (40.9%)     | 0.796 | 104 (38.4%)         | 90 (41.7%)          | 0.461 | 174 (41.5%)        | 20 (29.4%)    | 0.058 |
| No. 2 | Disagree | CZ    | 124 (99.2%)      | 45 (100%)      | 1.000* | 93 (98.9%)          | 76 (100%)          | 1.000* | 155 (99.4%)       | 14 (100%)     | 1.000* |
|      |          | SK    | 226 (91.5%)      | 63 (90%)       | 0.697 | 162 (91.5%)         | 127 (90.7%)         | 0.800 | 240 (91.3%)       | 49 (90.7%)    | 1.000* |
|      |          | Total | 350 (94.1%)      | 108 (93.9%)    | 0.945 | 255 (94.1%)         | 203 (94%)          | 0.958 | 395 (94.3%)       | 63 (92.6%)    | 0.581* |
| No. 3 | Agree    | CZ    | 122 (97.6%)      | 38 (84.4%)     | 0.004* | 86 (91.5%)          | 74 (97.4%)          | 0.188* | 146 (93.6%)       | 14 (100%)     | 1.000* |
|      |          | SK    | 241 (97.6%)      | 64 (91.4%)     | 0.028* | 169 (95.5%)         | 136 (97.1%)         | 0.441 | 251 (95.4%)       | 54 (100%)     | 0.231* |
|      |          | Total | 363 (97.6%)      | 102 (88.7%)    | <0.001 | 255 (94.1%)         | 210 (97.2%)         | 0.099 | 397 (94.7%)       | 68 (100%)     | 0.057* |
| No. 4 | Agree    | CZ    | 19 (15.2%)       | 9 (20%)        | 0.457 | 15 (16%)           | 13 (17.1%)          | 0.841 | 24 (15.4%)        | 4 (28.6%)     | 0.252* |
|      |          | SK    | 77 (31.2%)       | 24 (34.3%)     | 0.622 | 57 (32.2%)          | 44 (31.4%)          | 0.883 | 88 (33.5%)        | 13 (24.1%)    | 0.178 |
|      |          | Total | 96 (25.8%)       | 33 (28.7%)     | 0.539 | 72 (26.6%)          | 57 (26.4%)          | 0.964 | 112 (26.7%)       | 17 (25%)      | 0.764 |
| No. 5 | Agree    | CZ    | 118 (94.4%)      | 35 (77.8%)     | 0.003* | 83 (88.3%)          | 70 (92.1%)          | 0.411 | 140 (89.7%)       | 13 (92.9%)    | 1.000* |
|      |          | SK    | 8 (3.2%)         | 4 (5.7%)       | 0.308* | 2 (1.1%)           | 10 (7.1%)           | 0.005 | 10 (3.8%)         | 2 (3.7%)      | 1.000* |
|      |          | Total | 126 (33.9%)      | 39 (33.9%)     | <0.001 | 85 (31.4%)          | 80 (37%)           | 0.189 | 150 (35.8%)       | 15 (22.1%)    | 0.026* |
| No. 6 | Disagree | CZ    | 122 (97.6%)      | 43 (95.6%)     | 0.609* | 89 (94.7%)          | 76 (100%)          | 0.066* | 151 (96.8%)       | 14 (100%)     | 1.000* |
|      |          | SK    | 177 (71.7%)      | 44 (62.9%)     | 0.157 | 127 (71.8%)         | 94 (67.1%)          | 0.375 | 184 (70%)         | 37 (68.5%)    | 0.833 |
|      |          | Total | 299 (80.4%)      | 87 (75.7%)     | 0.275 | 216 (79.7%)         | 170 (78.7%)         | 0.787 | 335 (80%)         | 51 (75%)      | 0.350 |
| No. 7 | Agree    | CZ    | 2 (1.2%)         | 2 (4.4%)       | 0.286* | 3 (3.2%)           | 1 (1.3%)            | 0.629* | 3 (1.9%)         | 6 (8.8%)      | 0.217* |
|      |          | SK    | 25 (10.1%)       | 8 (11.4%)      | 0.752 | 22 (12.4%)          | 11 (7.9%)           | 0.186 | 28 (10.6%)        | 5 (9.3%)      | 0.761 |
|      |          | Total | 27 (7.3%)        | 10 (8.7%)      | 0.611 | 25 (9.2%)           | 12 (5.6%)           | 0.129 | 31 (7.4%)         | 6 (8.8%)      | 0.681 |
| No. 8 | Disagree | CZ    | 117 (93.6%)      | 42 (93.3%)     | 0.950* | 87 (92.6%)          | 72 (94.7%)          | 0.756* | 146 (93.6%)       | 13 (92.9%)    | 1.000* |
|      |          | SK    | 195 (78.9%)      | 58 (82.9%)     | 0.472 | 136 (78%)           | 115 (82.1%)         | 0.358 | 211 (80.2%)       | 42 (77.8%)    | 0.683 |
|      |          | Total | 312 (83.9%)      | 100 (87%)      | 0.423 | 225 (83%)           | 187 (86.6%)         | 0.281 | 357 (85.2%)       | 55 (80.9%)    | 0.360 |
| Item | Response | State | Female (n = 372) | Male (n = 115) | Sig. | Preclinical (n = 271) | Clinical (n = 216) | Sig. | Non-Smoker (n = 419) | Smoker (n = 68) | Sig. |
|------|----------|-------|-----------------|----------------|------|----------------------|-------------------|------|---------------------|----------------|------|
| No. 9 | Agree | CZ | 98 (78.4%) | 33 (73.3%) | 0.488 | 73 (77.7%) | 58 (76.3%) | 0.836 | 121 (77.6%) | 10 (71.4%) | 0.740 * |
| | | SK | 199 (80.6%) | 55 (78.6%) | 0.712 | 138 (78%) | 116 (82.9%) | 0.279 | 213 (81%) | 41 (75.9%) | 0.396 |
| | | Total | 297 (79.8%) | 88 (76.5%) | 0.445 | 211 (77.9%) | 174 (80.6%) | 0.468 | 334 (79.7%) | 51 (75%) | 0.376 |
| No. 10 | Disagree | CZ | 120 (96%) | 40 (88.9%) | 0.132 * | 87 (92.6%) | 73 (96.1%) | 0.515 * | 147 (94.2%) | 13 (92.9%) | 0.587 * |
| | | SK | 186 (75.3%) | 50 (71.4%) | 0.512 | 129 (72.9%) | 107 (76.4%) | 0.472 | 196 (74.5%) | 40 (74.1%) | 0.945 |
| | | Total | 306 (82.3%) | 90 (78.3%) | 0.336 | 216 (79.7%) | 180 (83.3%) | 0.307 | 343 (81.9%) | 53 (77.9%) | 0.442 |
| No. 11 | Agree | CZ | 106 (84.8%) | 37 (82.2%) | 0.685 | 76 (80.9%) | 67 (88.2%) | 0.195 | 132 (84.6%) | 11 (78.6%) | 0.469 * |
| | | SK | 94 (38.1%) | 25 (35.7%) | 0.721 | 49 (27.7%) | 70 (50%) | <0.001 | 95 (36.1%) | 24 (44.4%) | 0.250 |
| | | Total | 200 (53.8%) | 62 (53.9%) | 0.978 | 125 (46.1%) | 137 (63.4%) | <0.001 | 227 (54.2%) | 35 (51.5%) | 0.678 |
| No. 12 | Agree | CZ | 90 (72%) | 28 (62.2%) | 0.222 | 72 (76.6%) | 46 (60.5%) | 0.024 | 108 (69.2%) | 10 (71.4%) | 1.000 * |
| | | SK | 198 (80.2%) | 53 (75.7%) | 0.419 | 142 (80.2%) | 109 (77.9%) | 0.606 | 212 (80.6%) | 39 (72.2%) | 0.167 |
| | | Total | 288 (77.4%) | 81 (70.4%) | 0.127 | 214 (79%) | 155 (71.8%) | 0.065 | 320 (76.4%) | 49 (72.1%) | 0.441 |
| No. 13 | Agree | CZ | 43 (34.4%) | 19 (42.2%) | 0.350 | 36 (38.3%) | 26 (34.2%) | 0.582 | 55 (33.3%) | 7 (50%) | 0.272 |
| | | SK | 94 (38.1%) | 25 (35.7%) | 0.721 | 49 (27.7%) | 70 (50%) | <0.001 | 95 (36.1%) | 24 (44.4%) | 0.250 |
| | | Total | 137 (36.8%) | 49 (42.6%) | 0.265 | 100 (36.9%) | 86 (39.8%) | 0.511 | 154 (36.8%) | 32 (47.1%) | 0.105 |
| No. 14 | Disagree | CZ | 110 (88%) | 34 (75.6%) | 0.047 | 79 (84%) | 65 (85.5%) | 0.789 | 133 (85.3%) | 11 (78.6%) | 0.452 * |
| | | SK | 163 (66%) | 46 (65.7%) | 0.965 | 124 (70.1%) | 85 (60.7%) | 0.081 | 181 (68.8%) | 28 (51.9%) | 0.017 |
| | | Total | 273 (73.4%) | 80 (69.6%) | 0.423 | 203 (74.9%) | 150 (69.4%) | 0.180 | 314 (74.9%) | 39 (57.4%) | 0.003 |
| No. 15 | Disagree | CZ | 117 (93.6%) | 44 (97.8%) | 0.448 * | 90 (95.7%) | 71 (93.4%) | 0.515 * | 148 (94.9%) | 13 (92.9%) | 0.548 * |
| | | SK | 229 (92.7%) | 60 (85.7%) | 0.069 | 163 (92.1%) | 126 (90%) | 0.515 | 244 (92.8%) | 45 (83.3%) | 0.035 * |
| | | Total | 346 (93%) | 104 (90.4%) | 0.362 | 253 (93.4%) | 197 (91.2%) | 0.373 | 392 (93.6%) | 58 (85.3%) | 0.017 |
| No. 16 | Agree | CZ | 87 (69.6%) | 32 (71.1%) | 0.850 | 59 (62.8%) | 60 (78.9%) | 0.022 | 109 (69.9%) | 10 (71.4%) | 1.000 * |
| | | SK | 99 (40.1%) | 19 (27.1%) | 0.048 | 58 (32.8%) | 60 (42.9%) | 0.065 | 97 (36.9%) | 21 (38.9%) | 0.781 |
| | | Total | 186 (50%) | 51 (44.3%) | 0.289 | 117 (43.2%) | 120 (55.6%) | 0.007 | 206 (49.2%) | 31 (45.6%) | 0.584 |
| Item | Response | State | Female \((n = 372)\) | Male \((n = 115)\) | Sig. | Preclinical \((n = 271)\) | Clinical \((n = 216)\) | Sig. | Non-Smoker \((n = 419)\) | Smoker \((n = 68)\) | Sig. |
|------|----------|-------|----------------------|-------------------|------|----------------------|----------------------|------|----------------------|---------------|------|
| No. 17 | Agree | CZ | 1 (0.8%) | 2 (4.4%) | 0.171 * | 3 (3.2%) | 0 (0%) | 0.254 | 3 (1.9%) | 0 (0%) | 1.000 * |
| | | SK | 24 (9.7%) | 9 (12.9%) | 0.448 | 23 (13%) | 10 (7.1%) | 0.090 | 31 (11.8%) | 2 (3.7%) | 0.076 |
| | | Total | 25 (6.7%) | 11 (9.6%) | 0.308 | 26 (9.6%) | 10 (4.6%) | **0.038** | 34 (8.1%) | 2 (2.9%) | 0.130 |
| No. 18 | Agree | CZ | 3 (2.4%) | 3 (6.7%) | 0.190 * | 2 (2.1%) | 4 (5.3%) | 0.409 | 6 (3.8%) | 0 (0%) | 1.000 * |
| | | SK | 34 (13.8%) | 12 (17.1%) | 0.479 | 28 (15.8%) | 18 (12.9%) | 0.457 | 38 (14.4%) | 8 (14.8%) | 0.945 |
| | | Total | 37 (9.9%) | 15 (13%) | 0.347 | 30 (11.1%) | 22 (10.2%) | 0.753 | 44 (10.5%) | 8 (11.8%) | 0.754 |
| No. 19 | Agree | CZ | 68 (54.4%) | 22 (48.9%) | 0.525 * | 45 (47.9%) | 45 (59.2%) | 0.141 | 81 (51.9%) | 9 (64.3%) | 0.375 |
| | | SK | 43 (17.4%) | 14 (20%) | 0.618 | 28 (15.8%) | 29 (20.7%) | 0.260 | 49 (18.6%) | 8 (14.8%) | 0.506 |
| | | Total | 111 (29.8%) | 36 (31.3%) | 0.765 | 73 (26.9%) | 74 (34.3%) | 0.080 | 130 (31%) | 17 (25%) | 0.315 |
| No. 20 | Agree | CZ | 106 (84.8%) | 37 (82.2%) | 0.685 | 74 (78.7%) | 69 (90.8%) | **0.032** | 132 (84.6%) | 11 (78.6%) | 0.469 * |
| | | SK | 193 (78.1%) | 54 (77.1%) | 0.859 | 134 (75.7%) | 113 (80.7%) | 0.286 | 206 (78.3%) | 41 (75.9%) | 0.698 |
| | | Total | 299 (80.4%) | 91 (79.1%) | 0.770 | 208 (76.8%) | 182 (84.3%) | **0.039** | 338 (80.7%) | 52 (76.5%) | 0.421 |

Chi-squared test \(\chi^2\) and Fisher’s exact test (*) had been used with a significance level \((\text{Sig.}) \leq 0.05\). The significant values are in **bold** font.
3.4. HU-DBI Scores

The mean HU-DBI score of the entire sample was 8.18 ± 1.80, with Czech students (9.34 ± 1.29) having a significantly higher score (Sig. < 0.001) than Slovak students (7.56 ± 1.73). Czech students had significantly higher knowledge (4.35 vs. 3.55) and attitudes scores (2.66 vs. 1.73) than their Slovak counterparts. The gender-based differences were not statistically significant (Sig. = 0.316); nevertheless, females exhibited slightly higher scores (Table 5).

Table 5. HU-DBI scores of Czech and Slovak dental students, Autumn 2021 (n = 487).

| Variable               | Outcome          | Knowledge (0–5) | Sig. | Attitudes (0–3) | Sig. | Behaviours (0–4) | Sig. | HU-DBI (0–12) | Sig. |
|------------------------|------------------|-----------------|------|-----------------|------|------------------|------|---------------|------|
| State                  | Czech Republic   | 4.35 ± 0.65     | <0.001 | 2.66 ± 0.56    | <0.001 | 2.33 ± 0.83     | 0.488 | 9.34 ± 1.29   | <0.001 |
|                        | Slovakia         | 3.55 ± 0.88     |      | 1.73 ± 0.85    |      | 2.28 ± 0.88     |      | 7.56 ± 1.73   |      |
| Gender                 | Female           | 3.83 ± 0.90     | 0.772 | 2.08 ± 0.88    | 0.376 | 2.33 ± 0.83     | 0.185 | 8.24 ± 1.76   | 0.316 |
|                        | Male             | 3.81 ± 0.87     |      | 1.99 ± 0.88    |      | 2.20 ± 0.98     |      | 8.00 ± 1.93   |      |
| Academic Level         | First Year       | 3.49 ± 0.91     | <0.001 | 1.68 ± 0.76    |      | 2.20 ± 0.95     |      | 7.38 ± 1.56   |      |
|                        | Second Year      | 3.86 ± 0.85     |      | 2.23 ± 0.87    |      | 2.26 ± 0.89     |      | 8.35 ± 1.87   |      |
|                        | Third Year       | 3.96 ± 0.79     | <0.001 | 2.03 ± 0.82    | 0.002 | 2.36 ± 0.92     | 0.061 | 8.34 ± 1.53   | <0.001 |
|                        | Fourth Year      | 3.71 ± 1.02     |      | 1.98 ± 0.94    |      | 2.27 ± 0.82     |      | 7.96 ± 1.99   |      |
|                        | Fifth Year       | 4.15 ± 0.76     |      | 2.35 ± 0.82    |      | 2.37 ± 0.81     |      | 8.87 ± 1.73   |      |
|                        | Sixth Year       | 3.89 ± 0.58     |      | 2.00 ± 0.88    |      | 2.56 ± 0.70     |      | 8.44 ± 1.22   |      |
| Clinical Experience    | Preclinical      | 3.77 ± 0.87     | 0.070 | 2.01 ± 0.85    | 0.097 | 2.27 ± 0.91     | 0.301 | 8.04 ± 1.75   | 0.016 |
|                        | Clinical         | 3.89 ± 0.91     |      | 2.12 ± 0.91    |      | 2.34 ± 0.80     |      | 8.35 ± 1.86   |      |
| Tobacco Smoking        | Yes              | 3.62 ± 1.02     | 0.073 | 1.84 ± 0.89    | 0.024 | 2.18 ± 0.90     | 0.292 | 7.63 ± 2.01   | 0.012 |
|                        | No               | 3.86 ± 0.86     |      | 2.09 ± 0.87    |      | 2.32 ± 0.86     |      | 8.27 ± 1.75   |      |
| Alcohol Drinking       | Yes              | 3.85 ± 0.89     | 0.532 | 2.02 ± 0.88    | 0.496 | 2.31 ± 0.88     | 0.782 | 8.18 ± 1.67   | 0.798 |
|                        | No               | 3.81 ± 0.89     |      | 2.07 ± 0.88    |      | 2.29 ± 0.86     |      | 8.18 ± 1.77   |      |
| Problematic Internet Use| Yes             | 3.79 ± 0.90     | 0.015 | 2.02 ± 0.89    | 0.016 | 2.30 ± 0.86     | 0.817 | 8.11 ± 1.83   | 0.036 |
|                        | No               | 4.11 ± 0.72     |      | 2.33 ± 0.72    |      | 2.26 ± 0.92     |      | 8.70 ± 1.50   |      |
| Regular Dental Check-up| Yes              | 3.84 ± 0.88     | 0.163 | 2.06 ± 0.87    | 0.556 | 2.33 ± 0.84     | 0.041 | 8.23 ± 1.78   | 0.016 |
|                        | No               | 3.58 ± 1.06     |      | 1.94 ± 1.00    |      | 1.90 ± 1.08     |      | 7.42 ± 2.03   |      |

Mann–Whitney test (U) and Jonckheere-Terpstra test (JT) had been used with a significance level (Sig.) ≤ 0.05. The significant values are in bold font.

The highest HU-DBI score was recorded by the fifth-year students (8.87 ± 1.73), while the lowest score was recorded by the first-year students (7.38 ± 1.56). Similarly, the highest knowledge (4.15 ± 0.76) and attitude (2.35 ± 0.82) scores were achieved by the fifth-year students, while the lowest knowledge (3.49 ± 0.91) and attitude (1.68 ± 0.76) scores were achieved by the first-year students. The differences between the academic levels were statistically significant (Figure 2).

Clinical students from both countries had a significantly higher HU-DBI score (8.35 ± 1.86) than preclinical students (8.04 ± 1.75). The differences were in favour of clinical students in terms of knowledge and attitudes, even though these differences were not statistically significant (Figure 3).

The students who reported smoking at least once a week had a significantly lower HU-DBI score (7.63 ± 2.01) than non-smokers (8.27 ± 1.75). Similarly, the students who reported problematic internet use had a significantly lower HU-DBI score (8.11 ± 1.83) than those who did not report it (8.70 ± 1.50). Problematic internet use was associated with lower knowledge (3.79 vs. 4.11) and attitude (2.02 vs. 2.33) scores. Regular dental check-ups were significantly associated with higher HU-DBI (8.23 vs. 7.42) and behaviours (2.33 vs. 1.90) scores. Knowledge and behaviours scores were also higher among the students who reported regular dental check-ups without statistical significance (Figure 4).
The highest HU-DBI score was recorded by the fifth-year students (8.87 ± 1.73), while the lowest score was recorded by the first-year students (7.38 ± 1.56). Similarly, the highest knowledge (4.15 ± 0.76) and attitude (2.35 ± 0.82) scores were achieved by the fifth-year students, while the lowest knowledge (3.49 ± 0.91) and attitude (1.68 ± 0.76) scores were achieved by the first-year students. The differences between the academic levels were statistically significant (Figure 2).

Figure 2. HU-DBI score of Czech and Slovak dental students stratified by state and academic level; Autumn 2021 (n = 487).

The students who reported smoking at least once a week had a significantly lower HU-DBI score (7.63 ± 2.01) than non-smokers (8.27 ± 1.75). Similarly, the students who reported problematic internet use had a significantly lower HU-DBI score (8.11 ± 1.83) than those who did not report it (8.70 ± 1.50). Problematic internet use was associated with lower knowledge (3.79 vs. 4.11) and attitude (2.02 vs. 2.33) scores. Regular dental check-ups were significantly associated with higher HU-DBI (8.23 vs. 7.42) and behaviors (2.33 vs. 1.90) scores. Knowledge and behaviors scores were also higher among the students who reported regular dental check-ups without statistical significance (Figure 4).

Figure 3. HU-DBI score of Czech and Slovak dental students stratified by state and clinical experience; Autumn 2021 (n = 487).
In the Czech Republic, gender-based differences were not statistically significant; nevertheless, females scored slightly better. The fifth-year students had the highest HU-DBI score (9.50 ± 0.62), while the first-year students had the lowest HU-DBI score (8.31 ± 1.55). Clinical students (9.50 ± 1.22) and the students who reported regular dental check-ups (9.39 ± 1.23) had higher HU-DBI scores than preclinical students (9.20 ± 1.34) and those who did not report regular dental check-ups (8.31 ± 1.55). HU-DBI scores of the students who reported tobacco smoking and alcohol drinking were not significantly different from their counterparts (Table 6).

Figure 3. HU-DBI score of (a) Czech and (b) Slovak dental students stratified by smoking behaviour and academic level; Autumn 2021 (n = 487).

3.4.1. Czech Students

In the Czech Republic, gender-based differences were not statistically significant; nevertheless, females scored slightly better. The fifth-year students had the highest HU-DBI score (9.56 ± 1.29), while the first-year students had the lowest HU-DBI score (8.31 ± 1.55). Clinical students (9.50 ± 1.22) and the students who reported regular dental check-ups (9.39 ± 1.23) had higher HU-DBI scores than preclinical students (9.20 ± 1.34) and those who did not report regular dental check-ups (8.62 ± 1.76). HU-DBI scores of the students who reported tobacco smoking and alcohol drinking were not significantly different from their counterparts (Table 6).

Figure 4. HU-DBI score of (a) Czech and (b) Slovak dental students stratified by smoking behaviour and academic level; Autumn 2021 (n = 487).
### Table 6. HU-DBI scores of Czech dental students, Autumn 2021 (n = 170).

| Variable                        | Outcome | Knowledge (0–5) | Attitudes (0–3) | Behaviours (0–4) | HU-DBI (0–12) |
|---------------------------------|---------|-----------------|-----------------|------------------|---------------|
| Gender                          | Female  | 4.37 ± 0.67     | 2.70 ± 0.52     | 2.35 ± 0.81      | 9.42 ± 1.23   |
|                                  | Male    | 4.29 ± 0.59     | 2.53 ± 0.63     | 2.27 ± 0.92      | 9.09 ± 1.44   |
| Academic Level                  | First Year | 3.85 ± 0.80 | 2.15 ± 0.80     | 2.31 ± 0.86      | 8.31 ± 1.55   |
|                                  | Second Year | 4.32 ± 0.61 | 2.77 ± 0.47     | 2.36 ± 0.84      | 9.45 ± 1.14   |
|                                  | Third Year | 4.40 ± 0.65 | 2.44 ± 0.65     | 2.28 ± 1.02      | 9.12 ± 1.48   |
|                                  | Fourth Year | 4.46 ± 0.64 | 2.79 ± 0.42     | 2.14 ± 0.80      | 9.39 ± 1.10   |
|                                  | Fifth Year | 4.42 ± 0.61 | 2.71 ± 0.50     | 2.44 ± 0.74      | 9.56 ± 1.29   |
| Clinical Experience             | Preclinical | 4.28 ± 0.66 | 2.60 ± 0.61     | 2.33 ± 0.89      | 9.20 ± 1.34   |
|                                  | Clinical  | 4.43 ± 0.62     | 2.74 ± 0.47     | 2.33 ± 0.77      | 9.50 ± 1.22   |
| Tobacco Smoking                 | Yes     | 4.43 ± 0.65     | 2.57 ± 0.65     | 2.43 ± 1.09      | 9.43 ± 1.40   |
|                                  | No      | 4.35 ± 0.63     | 2.67 ± 0.55     | 2.32 ± 0.81      | 9.33 ± 1.29   |
| Alcohol Drinking                | Yes     | 4.35 ± 0.63     | 2.63 ± 0.55     | 2.43 ± 0.85      | 9.42 ± 1.20   |
|                                  | No      | 4.35 ± 0.66     | 2.67 ± 0.56     | 2.27 ± 0.82      | 9.29 ± 1.34   |
| Problematic Internet Use        | Yes     | 4.35 ± 0.65     | 2.68 ± 0.54     | 2.33 ± 0.81      | 9.36 ± 1.28   |
|                                  | No      | 4.32 ± 0.61     | 2.56 ± 0.63     | 2.32 ± 0.98      | 9.21 ± 1.37   |
| Regular Dental Check-up         | Yes     | 4.36 ± 0.63     | 2.66 ± 0.56     | 2.38 ± 0.77      | 9.39 ± 1.23   |
|                                  | No      | 4.15 ± 0.80     | 2.69 ± 0.48     | 1.77 ± 1.30      | 8.62 ± 1.76   |

Mann–Whitney test (U) and Jonckheere–Terpstra test (JT) had been used with a significance level (Sig.) ≤ 0.05. The significant values are in bold font.

### 3.4.2. Slovak Students

In Slovakia, gender-based differences were not statistically significant. The sixth-year students had the highest HU-DBI score (8.44 ± 1.22), while the first-year students had the lowest HU-DBI score (7.21 ± 1.51). Clinical students (7.73 ± 1.85) and the students who reported regular dental check-ups (7.62 ± 1.71) had significantly higher HU-DBI scores than preclinical students (7.43 ± 1.62) and those who did not report regular dental check-ups (6.56 ± 1.79). HU-DBI scores of the students who reported tobacco smoking, alcohol drinking, and problematic internet use were lower than their counterparts (Table 7).

### Table 7. HU-DBI scores of Slovak dental students, Autumn 2021 (n = 317).

| Variable                        | Outcome | Knowledge (0–5) | Attitudes (0–3) | Behaviours (0–4) | HU-DBI (0–12) |
|---------------------------------|---------|-----------------|-----------------|------------------|---------------|
| Gender                          | Female  | 3.56 ± 0.88     | 1.76 ± 0.84     | 2.32 ± 0.84      | 7.64 ± 1.68   |
|                                  | Male    | 3.50 ± 0.88     | 1.64 ± 0.85     | 2.16 ± 1.02      | 7.30 ± 1.88   |
| Academic Level                  | First Year | 3.43 ± 0.92 | 1.60 ± 0.73     | 2.18 ± 0.97      | 7.21 ± 1.51   |
|                                  | Second Year | 3.43 ± 0.83 | 1.73 ± 0.86     | 2.17 ± 0.92      | 7.33 ± 1.85   |
|                                  | Third Year | 3.71 ± 0.76 | 1.80 ± 0.82     | 2.40 ± 0.86      | 7.91 ± 1.40   |
|                                  | Fourth Year | 3.46 ± 1.00 | 1.71 ± 0.92     | 2.31 ± 0.83      | 7.48 ± 2.00   |
|                                  | Fifth Year | 3.73 ± 0.79 | 1.77 ± 0.90     | 2.27 ± 0.91      | 7.77 ± 1.79   |
|                                  | Sixth Year | 3.89 ± 0.58 | 2.00 ± 1.73     | 2.56 ± 0.70      | 8.44 ± 1.22   |
| Clinical Experience             | Preclinical | 3.50 ± 0.85 | 1.69 ± 0.80     | 2.23 ± 0.93      | 7.43 ± 1.62   |
|                                  | Clinical  | 3.60 ± 0.90     | 1.78 ± 0.91     | 2.35 ± 0.82      | 7.73 ± 1.85   |
| Tobacco Smoking                 | Yes     | 3.41 ± 1.00     | 1.65 ± 0.85     | 2.11 ± 0.84      | 7.17 ± 1.89   |
|                                  | No      | 3.57 ± 0.85     | 1.75 ± 0.85     | 2.32 ± 0.89      | 7.64 ± 1.69   |
| Alcohol Drinking                | Yes     | 3.58 ± 0.89     | 1.70 ± 0.84     | 2.25 ± 0.89      | 7.53 ± 1.83   |
|                                  | No      | 3.52 ± 0.87     | 1.75 ± 0.85     | 2.30 ± 0.88      | 7.58 ± 1.68   |
| Problematic Internet Use        | Yes     | 3.51 ± 0.88     | 1.69 ± 0.85     | 2.29 ± 0.89      | 7.50 ± 1.75   |
|                                  | No      | 3.90 ± 0.77     | 2.10 ± 0.72     | 2.21 ± 0.86      | 8.21 ± 1.47   |
| Regular Dental Check-up         | Yes     | 3.57 ± 0.86     | 1.75 ± 0.84     | 2.30 ± 0.88      | 7.62 ± 1.71   |
|                                  | No      | 3.17 ± 1.04     | 1.39 ± 0.92     | 2.00 ± 0.91      | 6.56 ± 1.79   |

Mann–Whitney test (U) and Jonckheere–Terpstra test (JT) had been used with a significance level (Sig.) ≤ 0.05. The significant values are in bold font.
3.5. Year-Over-Year Analysis

3.5.1. Czech Students

The year-over-year (YOY) analysis for Czech students’ HU-DBI scores revealed that the differences between first vs. second year were statistically significant for the knowledge score \((\text{Sig.} = 0.042)\), attitudes score \((\text{Sig.} = 0.002)\), and overall HU-DBI score \((\text{Sig.} = 0.007)\). Additionally, the attitudes score significantly increased from each year to the following one; first vs. second year \((\text{Sig.} = 0.002)\), second vs. third year \((\text{Sig.} = 0.014)\), and third vs. fourth year \((\text{Sig.} = 0.033)\). There were no other significant differences found between the consecutive academic years in terms of HU-DBI scores (Table 8).

Table 8. Pairwise comparison of Czech dental students’ HU-DBI scores across consecutive academic levels, Autumn 2021 \((n = 170)\).

| Pair                   | Knowledge Mean Rank | Attitudes Mean Rank | Behaviours Mean Rank | HU-DBI Mean Rank |
|------------------------|---------------------|---------------------|---------------------|------------------|
| 1st Year vs. 2nd Year  | 25.92/37.11         | 0.042               | 22.69/37.86         | 0.002            |
| 2nd Year vs. 3rd Year  | 40.05/43.12         | 0.544               | 44.43/33.32         | 0.014            |
| 3rd Year vs. 4th Year  | 26.22/27.70         | 0.697               | 23.04/30.54         | 0.033            |
| 4th Year vs. 5th Year  | 39.66/37.82         | 0.694               | 39.96/37.63         | 0.357            |

Mann–Whitney \((U)\) test was used with a significance level \((\text{Sig.}) \leq 0.05\). The significant values are in \textit{bold} font.

3.5.2. Slovak Students

The year-over-year (YOY) analysis for Slovak students’ HU-DBI scores revealed no significant differences between the consecutive academic years in terms of HU-DBI scores. Nevertheless, the largest differences were found between second vs. third year without statistical significance (Table 9).

Table 9. Pairwise comparison of Slovak dental students’ HU-DBI scores across consecutive academic levels, Autumn 2021 \((n = 317)\).

| Pair                   | Knowledge Mean Rank | Attitudes Mean Rank | Behaviours Mean Rank | HU-DBI Mean Rank |
|------------------------|---------------------|---------------------|---------------------|------------------|
| 1st Year vs. 2nd Year  | 66.96/65.95         | 0.870               | 64.22/69.23         | 0.421            |
| 2nd Year vs. 3rd Year  | 49.18/58.10         | 0.103               | 51.64/54.81         | 0.575            |
| 3rd Year vs. 4th Year  | 69.43/61.83         | 0.229               | 66.86/63.22         | 0.575            |
| 4th Year vs. 5th Year  | 54.77/63.17         | 0.190               | 56.39/58.70         | 0.727            |
| 5th Year vs. 6th Year  | 28.05/30.06         | 0.591               | 27.17/31.04         | 0.352            |

Mann–Whitney \((U)\) test was used with a significance level \((\text{Sig.}) \leq 0.05\).

3.6. Regression Analysis of State

According to the univariate analysis for HU-DBI core items, items no. 2 (bleeding gingiva), no. 4 (noticing dental plaque), no. 6 (incapacity to maintain oral health in older age), no. 8 (perceived-efficacy of oral hygiene), no. 10 (receiving professional oral hygiene training), no. 11 (toothbrushing without toothpaste), no. 12 (post-brushing checking), no. 14 (preventing periodontal disease through brushing alone), no.16 (plaque-disclosing agents use), and no. 19 (spending too much time while brushing) were used in the binary logistic regression analysis to predict group membership “country” of the participants. In addition, tobacco smoking and problematic internet use were found significantly associated with students’ country; therefore, they were suggested to be used in the regression model (Table 10).
Table 10. Predictors of state membership; Autumn 2021 (n = 487).

| Predictor                          | Beta  | S.E.  | Wald | df | AOR  | 95% CI              | Sig.  |
|-----------------------------------|-------|-------|------|----|------|---------------------|-------|
| Item No. 2: Disagree              | −1.83 | 1.17  | 2.45 | 1  | 0.161| 0.016–1.583          | 0.117 |
| Item No. 4: Agree                 | 0.20  | 0.32  | 0.38 | 1  | 1.22 | 0.655–2.253          | 0.537 |
| Item No. 6: Disagree              | −2.07 | 0.51  | 16.40| 1  | 0.13 | 0.047–0.344          | <0.001|
| Item No. 8: Disagree              | −0.90 | 0.43  | 4.36 | 1  | 0.41 | 0.176–0.947          | 0.037 |
| Item No. 10: Disagree             | −0.76 | 0.44  | 2.92 | 1  | 0.47 | 0.196–1.118          | 0.087 |
| Item No. 11: Agree                | −1.58 | 0.28  | 31.45| 1  | 0.21 | 0.118–0.357          | <0.001|
| Item No. 12: Agree                | 0.35  | 0.29  | 1.41 | 1  | 1.42 | 0.797–2.516          | 0.236 |
| Item No. 14: Disagree             | −0.74 | 0.31  | 5.72 | 1  | 0.48 | 0.262–0.876          | 0.017 |
| Item No. 16: Agree                | −0.87 | 0.26  | 11.21| 1  | 0.42 | 0.250–0.698          | <0.001|
| Item No. 19: Agree                | −1.62 | 0.28  | 34.32| 1  | 0.20 | 0.115–0.340          | <0.001|
| Tobacco Smoking: Yes              | 0.89  | 0.41  | 4.71 | 1  | 2.43 | 1.090–5.425          | 0.030 |
| Problematic Internet Use: Yes     | 0.12  | 0.36  | 0.10 | 1  | 1.12 | 0.553–2.279          | 0.748 |

Logistic regression had been used with a significance level (Sig.) ≤ 0.05. The Czech Republic was coded as “0” and Slovakia was coded “1”. All significant associations are in bold font.

The suggested model managed to predict the country of the participating students with 80.9% of accuracy. Nagelkerke pseudo R² indicated that the model could explain 52.7% of the variability in the dependent variable (country) (Table 11).

Table 11. Observed and predicted group membership of state; Autumn 2021 (n = 487).

| Observed Group | Predicted Group | Correct Percentage |
|---------------|----------------|--------------------|
|               | Czech Republic | Slovakia           |
| State         | 118            | 52                 | 69.4%              |
| Slovak Republic | 41           | 276                | 87.1%              |
| Overall       |                |                    | 80.9%              |

The cut-off value is 0.50. Nagelkerke R² = 0.527.

3.7. Regression Analysis of Tobacco Smoking

According to the univariate analysis for HU-DBI core items, items no. 14 (preventing periodontal disease through brushing alone) and no. 15 (delaying dental visits) were used in the binary logistic regression analysis to predict group membership “tobacco smoking” of the participants. In addition, Slovak nationality, male gender, and alcohol drinking were found significantly associated with students’ smoking behaviour; therefore, they were suggested to be used in the regression model (Table 12).

Table 12. Predictors of tobacco smoking among Czech and Slovak dental students; Autumn 2021 (n = 487).

| Predictor                          | Beta  | S.E.  | Wald | df | AOR  | 95% CI              | Sig.  |
|-----------------------------------|-------|-------|------|----|------|---------------------|-------|
| State: Slovakia                   | 0.79  | 0.33  | 5.59 | 1  | 2.20 | 1.14–4.21           | 0.018 |
| Gender: Male                      | 0.88  | 0.29  | 9.09 | 1  | 2.40 | 1.36–4.24           | 0.003 |
| Alcohol Drinking: Yes             | 0.83  | 0.28  | 9.02 | 1  | 2.30 | 1.34–3.97           | 0.003 |
| Item No. 14: Agree                | 0.63  | 0.28  | 4.91 | 1  | 1.87 | 1.08–3.26           | 0.027 |
| Item No. 15: Agree                | 0.65  | 0.43  | 2.32 | 1  | 1.92 | 0.83–4.42           | 0.128 |

Logistic regression had been used with a significance level (Sig.) ≤ 0.05. All significant associations are in bold font.

The suggested model managed to predict the country of the participating students with 85.6% of accuracy. Nagelkerke pseudo R² indicated that the model could explain 13.7% of the variability in the dependent variable (tobacco smoking) (Table 13).
4. Discussion

The present study found that the mean HU-DBI score of Czech dental students (9.34 ± 1.29) was significantly higher than the mean score of Slovak students (7.56 ± 1.73). While the knowledge score (4.35 vs. 3.55) and attitudes score (2.66 vs. 1.73) were significantly higher among Czech students, the behaviours score (2.33 vs. 2.28) was not significantly different between Czech vs. Slovak students. In both countries, female dental students (8.24 ± 1.76) had higher HU-DBI scores than their male colleagues (8.00 ± 1.93); nevertheless, the gender-based differences were not statistically significant. Preclinical students (8.04 vs. 8.35), the students who reported tobacco smoking (7.63 vs. 8.27), and those who reported problematic internet use (8.11 vs. 8.70) had significantly lower HU-DBI scores than their counterparts. On comparing our findings to the HU-DBI-based studies of European dental students, Czech and Slovak students had HU-DBI score (8.18 ± 1.80), which was comparable with the students from Western Europe and Nordic countries, e.g., Swiss (8.02 ± 1.27), Dutch (8.0 ± 1.19), Portuguese (7.74 ± 1.40), Brits (7.33), and Finns (7.15 ± 1.13) students [19,54–56]. Our participants’ score was significantly higher than the score of the students from Eastern Europe, e.g., Serbian (6.27 ± 0.27), Lithuanian (6.35 ± 1.43), Croatian (6.62 ± 1.54), and Romanian (6.96) students [57–60].

While twice-daily brushing with fluoride toothpaste is a universal recommendation for oral hygiene, multiple systematic reviews and meta-analyses revealed that toothpaste has no contribution to the mechanical removal of dental plaque [61–63]. Sälzer et al. 2020 confirmed that a reduction in plaque scores by 50% can be achieved by toothbrushing either with or without toothpaste [63]. Therefore, agreement with item no. 11 of toothbrushing without toothpaste and disagreement with item no. 14 of preventing periodontal disease by toothbrushing solely were depicted as indicators for excellent oral health-related awareness and attitudes. Our study found that Czech students were significantly more agreeable with item no. 11 (84.1% vs. 37.5%) and disagreeable with item no. 14 (84.7% vs. 65.9%) than their Slovak counterparts; nevertheless, final-year students had significantly higher agreement levels with item no. 11 than their first-year colleagues in both the Czech Republic (91.7% vs. 53.8%) and Slovakia (66.7% vs. 19.4%). Similar positive trend was previously reported in Romania (freshers: 26% vs. seniors: 58%), Poland (1.9% vs. 33.9%), Greece (11% vs. 64%), Japan (59% vs. 96%), South Korea (3% vs. 88%) [18,60,64,65]. In Croatia, final-year dental students (42.6%) reported using plaque-disclosing agents significantly more than their first-year colleagues (16.1%) [66]. On the other hand, Croatian nurses with completed secondary school (16.3%) and nurses with bachelor’s or master’s degrees (19.6%) did not have significant differences (Sig. = 0.671) in terms of plaque-disclosing agents use; thus, indicating the positive impact of dental curricula on dental students’ oral health attitudes [67].

Plaque-disclosing agents use (item no. 16) indicates positive oral health behaviours; therefore, it was incorporated in the HU-DBI scoring system. Recent studies revealed that the vast majority of dental hygienists in the Czech Republic (88.2%) recommend their patients use plaque detectors at home in the form of tablets (78.3%) and mouthwashes (9.9%) due to the ease of their application; nevertheless, more than half of Czech adults reported that they had never visited a dental hygienist in their life [68,69]. The use of plaque-disclosing agents was significantly (Sig. < 0.001) higher among Czech (70%) stu-
dents than their Slovak counterparts (37.2%), even though there was a significant and steady increase (+30%) of their use from the first year to the final year in both the Czech Republic (53.8% vs. 83.3%) and Slovakia (33.3% vs. 63%). In Turkey, several HU-DBI-based studies reported the same increasing pattern of plaque-disclosing agents use from the first year to the final year [70–73]. On comparing dental students to other healthcare students, e.g., general medicine and nursing students, the use of plaque-disclosing agents was significantly increasing through dental education, while it did not differ between freshmen and seniors of other healthcare programs [73,74]. Therefore, it is evident that dental curricula, through their preventive elements, can help in increasing the use of plaque-disclosing agents.

The use of toothbrushes with hard bristles (item no. 17) can be associated with hard dental tissues loss and soft tissues injuries. A randomized controlled trial by Zimmer et al. 2011 revealed that hard bristles had higher efficiency for plaque removal; however, they also caused soft tissue injuries more frequently compared with soft bristles [75]. Other studies concluded that hard dental tissue loss (erosion) had been mediated by stiffness of toothbrushes bristles, and it was mainly caused by toothpaste and their chemical composition [76]. A recent population-based study from Brazil found that bristles stiffness was significantly associated with erosive tooth wear among adolescents [77]. In our study, Slovak students had significantly (Sig. < 0.001) higher agreement with item no. 17 of using toothbrushes with hard bristles than their Czech counterparts (10.4% vs. 1.8%, respectively); and in both countries first-year students had significantly higher agreement levels compared with their final-year colleagues. In agreement with our findings, a recent survey for oral health practices of medical and dental hygiene students at the Third Faculty of Medicine, Charles University (Prague, Czech Republic) reported that the vast majority of participating students were using either extra-soft or ultra-soft toothbrushes [78]. Nevertheless, population-based studies for oral hygiene behaviours of Czech adults are recommended to address bristles stiffness for a better understanding of consumption patterns.

Aggressive toothbrushing refers to applying excessive mechanical forces during brushing that may cause tooth surface abrasion [79–83]. Several studies recommended that the application of appropriate mechanical forces during toothbrushing should be an integral part of oral hygiene education in order to avoid the negative consequences of aggressive toothbrushing [79,82]. In our study, Slovak students had a significantly (Sig. < 0.001) higher rate of reported aggressive toothbrushing (item no. 18) compared with Czech students, 14.5% vs. 3.5%, respectively. Among Czech students, the rate of aggressive toothbrushing did not differ significantly between preclinical and clinical students, while in Slovakia, first-year students (25%) had a higher rate than final-year students (7.4%). Similar to the Slovak trend, final-year dental students had significantly lower levels of aggressive toothbrushing than their first-year colleagues in Poland (0% vs. 13%), Greece (7% vs. 33%), and Japan (13% vs. 48%) [18,56,64].

Worrying about teeth colour (item no. 3) was one of the few items that were not significantly different between Czech vs. Slovak students or preclinical vs. clinical students, even though this issue was significantly more common among female students than their male peers in both the Czech Republic (97.6% vs. 84.4%) and Slovakia (97.6% vs. 91.4%). Interestingly enough, the responses to items no. 7 of dissatisfaction with gingival colour and no. 13 of worrying about halitosis were not significantly different across gender or clinical experience. Prior HU-DBI-based studies found that female dental students were more worried about their teeth colour (item no. 3) than male students, e.g., Poland (38.6% vs. 20.4%) and Romania (44% vs. 31%) [60,64]. In Brazil, a descriptive cross-sectional study concluded that female dental students were less satisfied with their smiles than their male peers, and the preclinical students were more interested in having brighter teeth than clinical students [84]. While multiple studies revealed no significant differences between female and male dental students in their skills of teeth shade matching, few studies found that female dental students had superior skills [85–87]. Another explanation could be based on the finding that females are more concerned with facial appearance;
therefore, they are more sensitive to teeth shape and colour and more inclined to seek esthetic treatments [88–93].

Female students represented the majority of our sample (76.4%); thus reflecting the female dominance of the dental profession in both the Czech Republic (64.9%) and Slovakia (61.2%), according to the latest reports of the Czech Dental Chamber (ČSK) and the Slovak Chamber of Dentists (SKZL) [41,94]. According to the Council of European Dentists (CED), countries with well-established public oral healthcare systems, such as Nordic and Eastern European countries, used to have higher shares of female dentists, e.g., Poland (78%), and Finland (69%). Additionally, the recent CED report pointed out the rising trend of female dentists in Europe, which was clearly evident in Western countries such as the United Kingdom, which witnessed a significant increase in female dentists proportion from 34% in 2008 to 45% in 2015 and France (36% vs. 40%) [95].

ˇCepová et al. 2018 found that female adults in Slovakia were significantly more likely to visit dentist/dental hygienist for routine check-ups (59.9% vs. 49.1%), report twice-daily toothbrushing (83.5% vs. 72.3%), and use interdental cleaning devices (62.5% vs. 42.1%) than male adults [96]. Similarly, Samohyl et al. 2021 concluded that avoidance of preventive oral healthcare was significantly more common among male adolescents than females in Slovakia [97]. The Health Behaviour in School-aged Children (HBSC) study found a significant difference between female (71.7%) and male (54.8%) adolescents in Slovakia in terms of twice-daily toothbrushing [98]. In the Czech Republic, the HBSC indicated that 32–38% of male and 21% of female adolescents were not brushing their teeth twice a day, even though there was an observed positive trend towards the twice-daily brushing habit among males between 1994 and 2014 [99]. In our sample, the gender-based differences were not statistically significant in HU-DBI scores and the vast majority of items responses, which is in contrast to what was previously reported about oral health behaviours and awareness of general Czech and Slovak populations [96–99]. Consequently, one may put forward that dental education can contribute to squeezing or probably closing the gender gaps in oral health attitudes and behaviours, which might be a sound reasoning for population-level interventions that target oral health literacy of the public [100–102].

Clinical students had a higher HU-DBI score than pre-clinical students in both countries (8.35 vs. 8.04); nevertheless, this difference was only statistically significant among Slovak (7.73 vs. 7.43; Sig. = 0.032) not Czech (9.50 vs. 9.20; Sig. = 0.166) students, which could be due to sample size differences. The superiority of clinical students in HU-DBI scores was observed in prior studies, e.g., Lithuania (6.81 vs. 5.96), Romania (7.35 vs. 6.60), and Turkey (7.47 vs. 6.00) [58,60,71]. The standard hypothesis for explaining this difference implies that improvement of oral health KAB is a collateral gain from the professional education on oral diseases and prevention, which is gradually received by dental students [59]. On comparing the undergraduate dental curricula of both countries, the courses of preventive dentistry and dental public health are administered earlier in Czech than Slovak universities. In the Czech Republic, the course of preventive dentistry and dental hygiene (B03033) is administered during the first semester (first year) at Charles University (Prague); and the course of preventive dentistry and cariology (ST1/ZUB01) is also administered during the second semester (first year) at Palacky University (Olomouc) [103,104]. On the other hand, the course of preventive dentistry (J-S-ZL-035) is administered during the sixth semester (third year) at Comenius University (Bratislava), and the course of preventive dentistry (SK/PreZL-ZL/15) is administered during the fifth semester (third year) in Pavol Jozef Šafárik University (Košice) [105,106]. The year-over-year analysis (YOY) indicated that the only significant improvement for HU-DBI score occurred among Czech students was between the first vs. second year (Sig. = 0.007); thus, it may be depicted as an immediate effect of preventive courses that were administered during the first year.

The reported prevalence of tobacco smoking in our sample was 14%, which is significantly lower than the prevalence of tobacco smoking in both Czech (31.5%) and Slovak (32.3%) general adult populations [107,108]. Tobacco smoking was more significantly common among male students (24.3%) than females (10.8%), which is in agreement with
the current demographics of tobacco use in both the Czech Republic (35.4% vs. 22.6%) and Slovakia (39.2% vs. 23.2%) [109]. Notably, Slovak students were significantly more likely to report tobacco smoking (17%) than their Czech counterparts (8.2%). According to the latest European Tobacco Control Scale (ETCS) report of 2019, the rank of the Czech Republic (23rd) had improved by eight positions since the report of 2016 (31st) due to the fact that the country adopted comprehensive anti-smoking legislations since February 2017 and ratified the WHO FCTC Illicit Trade Protocol [110]. The ECTS report of 2019 also showed that the rank of Slovakia (32nd) had dropped by two positions since the 2016 report (30th) as no progress was made since 2010 in the fight against tobacco [110]. Anti-smoking education was first introduced to undergraduate dental curricula in the Czech Republic twenty years ago [111]. The rationale for this move was based on the prior findings on the underestimation of smoking risks by healthcare professionals, including physicians and dentists, who were not reimbursed for helping their patients quit smoking [111]. In our study, the students who reported smoking tobacco at least once a week had a significantly lower HU-DBI score (8.27 vs. 7.63) and a higher agreement level for item no. 15 of delaying dental visits (14.7% vs. 6.4%) compared with non-smoking students. Our findings suggest that tobacco smoking may be associated with poor oral health KAB among dental students; thus, calling for a re-evaluation of the currently implemented anti-smoking curricula in Czech dental schools.

Mravčík et al. 2019 concluded that although alcohol consumption and heavy episodic drinking levels in the Czech Republic are one of the highest worldwide, there was a recent declining trend for alcohol drinking among adolescents and children [112]. A total of 35.5% of our participants reported drinking alcohol at least once a week, with a significant (Sig. < 0.001) difference between males (50.4%) and females (30.9%). Longitudinal analysis for HBSC data of Czech adolescents pointed out this significant decline of alcohol drinking between 1994 and 2014, with an increased vulnerability of male adolescents [113]. The same trend was reported by HBSC in Slovakia with similar gender-based differences [114]. A recent large cross-sectional study for American adults revealed that alcohol consumption, especially heavy drinking, was significantly associated with alterations of oral microbiome that might explain the aetiology of multiple alcohol-related diseases [115]. While alcohol drinking was not associated with poor oral health KAB among our participants, it is still imperative to educate and motivate future dentists to perform screening for alcohol use, especially heavy drinking, among their patients as this can be a life-saving intervention for early detection of oral and oropharyngeal cancers [116].

The vast majority of our participants (88.3%) reported using their smartphones and laptops longer than they planned. Problematic internet use had been consistently found among all age groups of Czech society, while the 12–15-year-old adolescents exhibited the highest level of excessive internet use [117]. In our sample, problematic internet use was significantly associated with a lower oral health-related knowledge score (3.79 vs. 4.11), attitudes score (2.02 vs. 2.33), and HU-DBI score (8.11 vs. 8.70). Recently, a national survey-based study for Korean adolescents revealed that problematic internet use affected sleep quality directly and oral health indirectly [118]. Our results warrant further investigation for the potential association between oral health KAB and problematic internet use, especially among younger age groups.

4.1. Strengths

To the best of the authors’ knowledge, this was the first study to evaluate the oral health KAB of dental students in the Czech Republic and Slovakia. The use of HU-DBI as a widely used instrument facilitated international comparison of the Czech and Slovak dental students’ outcomes. Following a rigorous methodology for translation and cross-cultural adaptation of the HU-DBI, especially in producing the Czech version, ensured the validity of the translated versions. The identity of the participants was anonymous in order to limit the Hawthorne’s effect and information bias that is predicted to occur with healthcare professionals and students.
4.2. Limitations

The first limitation of the present study is the cross-sectional design that did not allow for real-time evaluation of the year-over-year gains of oral health KAB during dental education. Secondly, cross-country comparison was limited in items no. 1 (dental anxiety) and no. 5 (use of child-sized toothbrushes) due to discrepancies of Czech vs. Slovak translations; nevertheless, gender- and academic-level-based comparisons were possible for each country. Thirdly, there was a lack of information on tobacco smoking and alcohol drinking because the investigators aimed to keep the questionnaire as short as possible in order to ensure a satisfactory response rate. Fourthly, the unequal sample sizes of Czech and Slovak students may have limited the cross-country comparison.

4.3. Implications

The findings of this study suggest that early implementation of preventive elements in undergraduate dental curricula may yield better and more sustainable oral health gains for the students. Future research on Czech and Slovak dental curricula need to re-evaluate the current anti-smoking components and their impact on students’ views and attitudes. The potential association between problematic internet use and oral health KAB need further investigation, especially among young adult groups, including future healthcare professionals.

5. Conclusions

The present study found that the mean HU-DBI score of Czech and Slovak dental students (8.18 ± 1.80) is comparable with the previously reported scores of dental students in Nordic and Western European countries. Czech students (9.34 ± 1.29) had a significantly higher score than their Slovak counterparts (7.56 ± 1.73). In both countries, preclinical students (8.04 vs. 8.35), the students who reported tobacco smoking (7.63 vs. 8.27), and those who reported problematic internet use (8.11 vs. 8.70) had significantly lower HU-DBI scores than their counterparts. In the Czech Republic, the significant increases in HU-DBI scores occurred after the first academic year when the students received preventive dentistry courses; therefore, one can put forward that early implementation of preventive elements in undergraduate dental curricula may yield better and more sustainable oral health gains for the students. Future research on Czech and Slovak dental curricula need to re-evaluate the current anti-smoking components and their impact on students’ views and attitudes.

Supplementary Materials: The following supporting information can be downloaded at: https://www.mdpi.com/article/10.3390/ijerph19052717/s1, Table S1. Test-re-test Reliability of HU-DBI Czech Version.

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Institutional Review Board Statement: The study was conducted in accordance with the Declaration of Helsinki and approved by the Ethics Committee of the Faculty of Medicine, Masaryk University (Ref no. 48/2019) on 20 November 2019.

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Appendix A

Table A1. Hiroshima University Dental Behavioural Inventory (HU-DBI) in English (EN), Czech (CZ), and Slovak (SK).

| #  | Language | Question Otázka Otázka | Agree Souhlasim Súhlasim | Disagree Nesouhlasim Nesúhlasim |
|----|----------|-------------------------|---------------------------|---------------------------------|
| 1  | EN       | I do not worry much about visiting the dentist. | □ □ | □ □ |
|    | CZ       | Nemám moc velký strach z návštěvy zubaře. | □ □ | □ □ |
|    | SK       | Nezáleží mi na návštevách u zubného lekára. | □ □ | □ □ |
| 2  | EN       | My gum tends to bleed when I brush my teeth. | □ □ | □ □ |
|    | CZ       | Když si čistím zuby, moje dásně mají sklon krvácet. | □ □ | □ □ |
|    | SK       | Moje d'asná majú tendenciu krvácať pri čistení zubov. | □ □ | □ □ |
| 3  | EN       | I worry about the color of my teeth. | □ □ | □ □ |
|    | CZ       | Záleží mi na barvě mých zubů. | □ □ | □ □ |
|    | SK       | Záleží mi na farbe mojich zubov. | □ □ | □ □ |
| 4  | EN       | I have noticed some white sticky deposits on my teeth. | □ □ | □ □ |
|    | CZ       | Všiml(a) jsem si bílých lepivých nánosů na mých zubech. | □ □ | □ □ |
|    | SK       | Všimla/všimol som si biele usadeniny na mojich zuboch. | □ □ | □ □ |
| 5  | EN       | I use a child sized toothbrush. | □ □ | □ □ |
|    | CZ       | Používám zubní kartáček s malou hlavičkou. | □ □ | □ □ |
|    | SK       | Používam zubnú kefku detskej veľkosťi. | □ □ | □ □ |
| 6  | EN       | I think that I cannot help having false teeth when I am old. | □ □ | □ □ |
|    | CZ       | Myslím si, že ve stárší budu nosit zubní protézy a nemůžu s tím nic dělat. | □ □ | □ □ |
|    | SK       | Myslím, že sa v budúcnosti nevyhni noseniu protézy. | □ □ | □ □ |
| 7  | EN       | I am bothered by the color of my gum. | □ □ | □ □ |
|    | CZ       | Vadi mi barva mých dásní. | □ □ | □ □ |
|    | SK       | Trápi ma farba mojich d'asien. | □ □ | □ □ |
| 8  | EN       | I think my teeth are getting worse despite my daily brushing. | □ □ | □ □ |
|    | CZ       | Myslím si, že stav mých zubů se zhoršuje, i přesto, že si je každý den čistím. | □ □ | □ □ |
|    | SK       | Aj napriek dennému čistieniu zubov mám pocit, že sa stav mojich zubov zhoršuje. | □ □ | □ □ |
| 9  | EN       | I brush each of my teeth carefully. | □ □ | □ □ |
|    | CZ       | Pečlivě si čistím každý zub zvlášť. | □ □ | □ □ |
|    | SK       | Čistím si poctivo každý zub. | □ □ | □ □ |
| # | Language | Question | Agree |Souhlasim | Disagree | Nesouhlasim |
|---|---------|----------|-------|----------|----------|-------------|
| 10 | EN      | I have never been taught professionally how to brush. Nikdy jsem nebyl(a) odborné poučen(a), jak si mám čistit zuby. Nikdy som neabsolvoval sedenie s hygienistkou ohľadom správnej techniky čistenia zubov. | ☐ | ☐ | ☐ | ☐ |
| 11 | EN      | I think I can clean my teeth well without using toothpaste. Myslím si, že si mohu dobře vyčistit zuby i bez použití zubní pasty. | ☐ | ☐ | ☐ | ☐ |
|     | CZ      |                  | ☐ | ☐ | ☐ | ☐ |
|     | SK      |                  | ☐ | ☐ | ☐ | ☐ |
| 12 | EN      | I often check my teeth in a mirror after brushing. Často si kontroluji zuby po vyčištění v zrkadle. | ☐ | ☐ | ☐ | ☐ |
|     | CZ      |                  | ☐ | ☐ | ☐ | ☐ |
|     | SK      |                  | ☐ | ☐ | ☐ | ☐ |
| 13 | EN      | I worry about having bad breath. Mám obavy, že je mi cítit zuby. Obávam sa halitózy. | ☐ | ☐ | ☐ | ☐ |
|     | CZ      |                  | ☐ | ☐ | ☐ | ☐ |
|     | SK      |                  | ☐ | ☐ | ☐ | ☐ |
| 14 | EN      | It is impossible to prevent gum disease with tooth brushing alone. Není možné předcházet onemocnění dásní pouze pomocí čištění zubů. Je nemožné předísť gingivitide len s čistením zubov zubnou kefkou. | ☐ | ☐ | ☐ | ☐ |
|     | CZ      |                  | ☐ | ☐ | ☐ | ☐ |
|     | SK      |                  | ☐ | ☐ | ☐ | ☐ |
| 15 | EN      | I put off going to dentist until I have a toothache. Odkladám návštěvu zubního lékaře, dokud mě zuby neboli. Odkladám návštěvu zubára až kým ma nezačnú bolieť zuby. | ☐ | ☐ | ☐ | ☐ |
|     | CZ      |                  | ☐ | ☐ | ☐ | ☐ |
|     | SK      |                  | ☐ | ☐ | ☐ | ☐ |
| 16 | EN      | I have used a dye to see how clean my teeth are. Použil(a) jsem barvící detektor plaku, abych si zkontroloval(a), jak jsou mé zuby vyčištěné. Použil som v minulosti plak indikátor na zlepšenie orálnej hygiény. | ☐ | ☐ | ☐ | ☐ |
|     | CZ      |                  | ☐ | ☐ | ☐ | ☐ |
|     | SK      |                  | ☐ | ☐ | ☐ | ☐ |
| 17 | EN      | I use a toothbrush which has hard bristles. Používám kartáček s tvrdými štětinami. Používam zubnú kefkú s tvrdými štetinami. | ☐ | ☐ | ☐ | ☐ |
|     | CZ      |                  | ☐ | ☐ | ☐ | ☐ |
|     | SK      |                  | ☐ | ☐ | ☐ | ☐ |
| 18 | EN      | I do not feel I have brushed well unless I brush with hard strokes. Nemám pocit vyčištěných zubů, pokud na kartáček hodně netlačím. Nemám pocit čistých zubov pokiaľ netlačím na zubnú kefkú. | ☐ | ☐ | ☐ | ☐ |
|     | CZ      |                  | ☐ | ☐ | ☐ | ☐ |
|     | SK      |                  | ☐ | ☐ | ☐ | ☐ |
| 19 | EN      | I feel I sometimes take too much time to brush my teeth. Nεkdy mám pocit, že m€i čišt€ní zubú bere přišš mnoho času. Mám pocit, že umývan€ zubov m€i zaber€ pr€iš veľa času. | ☐ | ☐ | ☐ | ☐ |
|     | CZ      |                  | ☐ | ☐ | ☐ | ☐ |
|     | SK      |                  | ☐ | ☐ | ☐ | ☐ |
Table A1. Cont.

| #  | Language | Question Otázka Otázka | Agree Souhlasim Súhlasim | Disagree Nesouhlasim Nesúhlasim |
|----|----------|-------------------------|---------------------------|---------------------------------|
| 20 | EN       | I have had my dentist tell me that I brush very well. | ☐ ☐ | ☐ ☐ |
| 20 | CZ       | Můj zubní lékař mi řekl, že si čistím zuby velmi dobře. | ☐ ☐ | ☐ ☐ |
| 20 | SK       | Zubný lékar ma pochvalil za orálnu hygienu. | ☐ ☐ | ☐ ☐ |
| 21 | EN       | I find myself using my smartphone/compute longer than I planned. | ☐ ☐ | ☐ ☐ |
| 21 | CZ       | Používám svůj smartphone nebo počítač déle, než jsem plánoval(a). | ☐ ☐ | ☐ ☐ |
| 21 | SK       | Používám svoj počítač alebo telefon dlhšie, než by som chcel. | ☐ ☐ | ☐ ☐ |
| 22 | EN       | I consume tobacco at least once a week. | ☐ ☐ | ☐ ☐ |
| 22 | CZ       | Alespoň jednou týdne kouřím cigaretu. | ☐ ☐ | ☐ ☐ |
| 22 | SK       | Minimálné jeden krát za týždeň užívam tabakové výrobky. | ☐ ☐ | ☐ ☐ |
| 23 | EN       | I drink alcohol at least once a week. | ☐ ☐ | ☐ ☐ |
| 23 | CZ       | Alespoň jednou týdne mám alkoholický nápoj. | ☐ ☐ | ☐ ☐ |
| 23 | SK       | Minimálné jeden krát do týždňa pijem alkohol. | ☐ ☐ | ☐ ☐ |
| 24 | EN       | I go to the dentist/ hygienist for regular check-up at least once a year. | ☐ ☐ | ☐ ☐ |
| 24 | CZ       | Alespoň jednou ročně navštěvuji zubního lékaře nebo dentální hygienistku. | ☐ ☐ | ☐ ☐ |
| 24 | SK       | Navštěvujem zubního lékařa/hygienistku minimálně jedenkrát za rok. | ☐ ☐ | ☐ ☐ |

Items no. 1–20 are the original HU-DBI items, and the items in bold font are used to compute the overall score. The verb “worry” in item no. 1 was not translated equivalently in Czech and Slovak versions, and the term “child-sized toothbrush” in item no. 5 was not identical in both versions.

References

1. World Health Assembly Resolution Paves the Way for Better Oral Health Care. Available online: https://www.who.int/news/item/27-05-2021-world-health-assembly-resolution-paves-the-way-for-better-oral-health-care (accessed on 23 January 2022).

2. Sheiham, A.; Watt, R.G. The Common Risk Factor Approach: A rational basis for promoting oral health. Community Dent. Oral Epidemiol. 2000, 28, 399–406. [CrossRef] [PubMed]

3. Peres, M.A.; Macpherson, L.M.D.; Weyant, R.J.; Daly, B.; Venturelli, R.; Mathur, M.R.; Listl, S.; Celeste, R.K.; Guarnizo-Herreño, C.C.; Kearns, C.; et al. Oral Diseases: A Global Public Health Challenge 2019; Elsevier: Amsterdam, The Netherlands, 2019; Volume 394, pp. 249–260.

4. Jin, L.J.; Lamster, I.B.; Greenspan, J.S.; Pitts, N.B.; Scully, C.; Warnakulasuriya, S. Global burden of oral diseases: Emerging concepts, management and interplay with systemic health. Oral Dis. 2016, 22, 609–619. [CrossRef] [PubMed]

5. Migliorati, C.A.; Madrid, C. The interface between oral and systemic health: The need for more collaboration. Clin. Microbiol. Infect. 2007, 13, 11–16. [CrossRef] [PubMed]

6. Skaret, E.; Søevdsnes, E.K. Behavioural science in dentistry. The role of the dental hygienist in prevention and treatment of the fearful dental patient. Int. J. Dent. Hyg. 2005, 3, 2–6. [CrossRef] [PubMed]

7. Werner, H.; Hakeberg, M.; Dahlström, L.; Eriksson, M.; Sjögren, P.; Strandell, A.; Svanberg, T.; Svensson, L.; Wide Boman, U. Psychological Interventions for Poor Oral Health. J. Dent. Res. 2016, 95, 506–514. [CrossRef] [PubMed]

8. Schou, L. The relevance of behavioural sciences in dental practice. Int. Dent. J. 2000, 50, 324–332. [CrossRef] [PubMed]

9. Rizvi, N.; Livny, A.; Chestnutt, I.; Virtanen, J.; Gallagher, J.E. Dental Public Health Education in Europe: A survey of European Dental Schools to determine current practice and inform a core undergraduate programme. Community Dent. Health 2020, 37, 275–280. [CrossRef] [PubMed]

10. Wagle, M.; Trovik, T.A.; Basnet, P.; Acharya, G. Do dentists have better oral health compared to general population: A study on oral health status and oral health behavior in Kathmandu, Nepal. BMC Oral Health 2014, 14, 23. [CrossRef]

11. Ghaffari, M.; Rakshanderou, S.; Ramezankhani, A.; Buunk-Werkhoven, Y.A.B.; Noroozi, M.; Armoon, B. Are educating and promoting interventions effective in oral health?: A systematic review. Int. J. Dent. Hyg. 2018, 16, 48–58. [CrossRef] [PubMed]

12. Stein, C.; Santos, N.M.L.; Hilgert, J.B.; Hugo, F.N. Effectiveness of oral health education on oral hygiene and dental caries in schoolchildren: Systematic review and meta-analysis. Community Dent. Oral Epidemiol. 2018, 46, 30–37. [CrossRef]

13. Ucheka, P.; Cinar, A.B.; Ling, J.; Derek, R. A systematic review of the use of common behavioural interventions in oral health and diabetes management. Orpub J. 2021, 2, e819. [CrossRef]
14. de Silva, A.M.; Hegde, S.; Akudo Nwagbara, B.; Calache, H.; Gussy, M.G.; Nasser, M.; Morrice, H.R.; Riggs, E.; Leong, P.M.; Meyenn, L.K.; et al. Community-based population-level interventions for promoting child oral health. *Cochrane Database Syst. Rev.* 2016, 2016. [CrossRef]

15. Cooper, A.M.; O’Malley, L.A.; Elison, S.N.; Armstrong, R.; Burnside, G.; Adair, P.; Dugdill, L.; Pine, C. Primary school-based behavioural interventions for preventing caries. *Cochrane Database Syst. Rev.* 2013, 2013. [CrossRef]

16. Langford, R.; Bonell, C.P.; Jones, H.E.; Pouliou, T.; Murphy, S.M.; Waters, E.; Komro, K.A.; Gibbs, L.F.; Magnus, D.; Campbell, R. The WHO Health Promoting School framework for improving the health and well-being of students and their academic achievement. *Cochrane Database Syst. Rev.* 2014, 2014. [CrossRef] [PubMed]

17. Al-wesabi, A.A.; Abdelgawad, F.; Sasahara, H.; El Motayam, K. Oral health knowledge, attitude and behaviour of dental students in a private university. *BDJ* Open 2019, 5, 16. [CrossRef] [PubMed]

18. Polychronopoulou, A.; Kawamura, M. Oral self-care behaviours: Comparing Greek and Japanese dental students. *Eur. J. Dent. Educ.* 2005, 9, 164–170. [CrossRef] [PubMed]

19. Komabayashi, T.; Kwan, S.Y.L.; Hu, D.Y.; Kajiwara, K.; Sasahara, H.; Kawamura, M. A comparative study of oral health attitudes and behaviour using the Hiroshima University—Dental Behavioural Inventory (HU-DBI) between dental students in Britain and China. *J. Oral Sci.* 2005, 47, 1–7. [CrossRef]

20. Stacey, F.; Heasman, P.A.; Heasman, L.; Hepburn, S.; McCracken, G.I.; Preshaw, P.M. Smoking cessation as a dental intervention—Views of the profession. *Br. Dent. J.* 2006, 201, 109–113. [CrossRef]

21. Vollath, S.E.; Bobak, A.; Jackson, S.; Sennhenn-Kirchner, S.; Kanzow, P.; Wiegand, A.; Raupach, T. Effectiveness of an innovative and interactive smoking cessation training module for dental students: A prospective study. *Eur. J. Dent. Educ.* 2020, 24, 361–369. [CrossRef] [PubMed]

22. Monaghan, N. What is the role of dentists in smoking cessation? *Br. Dent. J.* 2002, 193, 611–612. [CrossRef]

23. Palacios, C.; Joshipura, K.J.; Willett, W.C. Nutrition and health: Guidelines for dental practitioners. *Oral Dis.* 2009, 15, 369–381. [CrossRef] [PubMed]

24. Curran, A.E.; Caplan, D.J.; Lee, J.Y.; Paynter, L.; Gizlice, Z.; Champagne, C.; Ammerman, A.S.; Agans, R. Dentists’ Attitudes About Their Role in Addressing Obesity in Patients: A national survey. *J. Am. Dent. Assoc.* 2010, 141, 1307–1316. [CrossRef] [PubMed]

25. Kelly, S.A.M.; Moynihan, P.J. Attitudes and practices of dentists with respect to nutrition and periodontal health. *Br. Dent. J.* 2008, 205, E9. [CrossRef] [PubMed]

26. Riad, A.; Abdulqader, H.; Morgado, M.; Domnori, S.; Koščík, M.; Mendes, J.J.; Klugar, M.; Kateeb, E. Global Prevalence and Drivers of Dental Students’ COVID-19 Vaccine Hesitancy. *Vaccines* 2021, 9, 566. [CrossRef] [PubMed]

27. Kateeb, E.; Danadneh, M.; Pokorná, A.; Klugarová, J.; Abdulqader, H.; Klugar, M.; Riad, A. Predictors of Willingness to Receive COVID-19 Vaccine: Cross-Sectional Study of Palestinian Dental Students. *Vaccines* 2021, 9, 954. [CrossRef] [PubMed]

28. Riad, A.; Huang, Y.; Abdulqader, H.; Morgado, M.; Domnori, S.; Koščík, M.; Mendes, J.J.; Klugar, M.; Kateeb, E. IAIDS-SCORE Universal Predictors of Dental Students’ Attitudes towards COVID-19 Vaccination: Machine Learning-Based Approach. *Vaccines* 2021, 9, 1158. [CrossRef] [PubMed]

29. Lentcová, E.; Pikhart, H.; Broukal, Z. Early childhood caries trends and surveillance shortcomings in the Czech Republic. *BMC Public Health* 2012, 12, 547. [CrossRef] [PubMed]

30. Alexa, J.; Rečka, L.; Votápková, J.; Van Ginneken, E.; Spranger, A.; Wittenbecher, F. Health Systems in Transition. *Czech Repub. Health Syst. Rev.* 2015, 17, 117.

31. Smetanová, M.; Pažitní, P.; Kandílek, D.; Laktišová, M.; Sedláková, D.; Palušková, M.; Van Ginneken, E.; Spranger, A. Health Systems in Transition: Slovakia. *Slovakia Health Syst. Rev.* 2016, 18, 150.

32. Masaryk University Dentistry—Master’s Studies. Available online: https://www.muni.cz/en/bachelors-and-masters-study-programmes/23446-zubni-lekarstvi (accessed on 19 January 2022).

33. Kawamura, M. Dental behavioral science. The relationship between perceptions of oral health and oral status in adults. *Hiroshima Daigaku Daigaku Shigaku Zasshi.* 1988, 20, 273–286.

34. Komabayashi, T.; Kawamura, M.; Kim, K.J.; Wright, F.A.C.; Declerck, D.; Freire, M.D.C.M.; Hu, D.Y.; Hongkala, E.; Lévy, G.; Kalwitzki, M.; et al. The hierarchical cluster analysis of oral health attitudes and behaviour using the Hiroshima University—Dental Behavioural Inventory (HU-DBI) among final year dental students in 17 countries. *Int. Dent. J.* 2006, 56, 310–316. [CrossRef] [PubMed]

35. Kawamura, M.; Sasahara, H.; Kawabata, K.; Iwamoto, Y.; Konishi, K.; Wright, F.A.C. Relationship between CPITN and oral health behaviour in Japanese adults. *Aust. Dent. J.* 1993, 38, 381–388. [CrossRef] [PubMed]

36. Harvard Humanitarian Initiative Welcome to KoBoToolbox. Available online: https://support.kobotoolbox.org/welcome.html (accessed on 4 January 2022).

37. Von Elm, E.; Altman, D.G.; Egger, M.; Pocock, S.J.; Gatza, P.C.; Vandenbroucke, J.P. The Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) Statement: Guidelines for reporting observational studies. *UroToday Int. J.* 2007, 335, 806–808. [CrossRef] [PubMed]

38. Jesseniova Lekárska Fakulta UK Študijný Program Zubné Lekárstvo. Available online: https://www.jfmed.uniba.sk/studium/uchadzaci/studijnie-programy/studijnie-program-zubne-lekarstvo/ (accessed on 19 January 2022).

39. Slovenský Spolok Študentov Zubného Lekárstva. Available online: https://ssssl.sk/ (accessed on 19 January 2022).
40. Inštitút Zamestnanosti Počet Študentov Zubárstva. Available online: https://www.iz.sk/30-grafov-o-zdravotnictvte/studenti-zubari (accessed on 19 January 2022).
41. Slovenská Komora Zubných Lekárov (SKZL) Aktuálna Situácia Zubného Lekárstva na Slovensku. Available online: https://www.skzl.sk/images/2019/TS/TS.pdf (accessed on 19 January 2022).
42. Největší Lékařská Fakulta v ČR Má Tri Tisíce Studentů. Available online: https://www.doktorvach.cz/2014/06/05/nejvetsi-lekarska-fakulta-v-cr-ma-tri-tisice-studentu/ (accessed on 19 January 2022).
43. Centers for Disease Control and Prevention, (CDC) Epi InfoTM for Windows. Available online: https://www.cdc.gov/epiinfo/pc.html (accessed on 25 December 2020).
44. Centers for Disease Control and Prevention (CDC) Population Survey or Descriptive Study. Available online: https://www.cdc.gov/epiinfo/user-guide/statcalc/samplesize.html (accessed on 1 December 2021).
45. Riad, A.; Al-Khanati, N.M.; Issa, J.; Zenati, M.; Abdessem, N.B.; Attia, S.; Krsek, M.; Afsarshetefar, K.; Tchounwou, P.B. Oral Health-Related Knowledge, Attitudes and Behaviours of Arab Dental Students: Multi-National Cross-Sectional Study and Literature Analysis 2000–2020. Int. J. Environ. Res. Public Health 2022, 19, 1658. [CrossRef] [PubMed]
46. Riad, A.; Pöld, A.; Olak, J.; Howaldt, H.-P.; Klugar, M.; Krsek, M.; Attia, S. Estonian Dental Students’ Oral Health-Related Knowledge, Attitudes and Behaviours (KAB): National Survey-Based Study. Int. J. Environ. Res. Public Health 2022, 19, 1908. [CrossRef] [PubMed]
47. Proton Technologies AG General Data Protection Regulation (GDPR) Compliance Guidelines. Available online: https://gdpr.eu/ (accessed on 19 January 2022).
48. World Medical Association. World Medical Association declaration of Helsinki: Ethical principles for medical research involving human subjects. JAMA-J. Am. Med. Assoc. 2013, 310, 2191–2194. [CrossRef]
49. Marx, R.G.; Meneses, A.; Horovitz, L.; Jones, E.C.; Warren, R.F. A comparison of two time intervals for test-retest reliability of health status instruments. J. Clin. Epidemiol. 2003, 56, 730–735. [CrossRef]
50. McHugh, M.L. Interrater reliability: The kappa statistic. Biochem. Med. 2012, 22, 276–282. [CrossRef]
51. World Health Organization (WHO) Process of Translation and Adaptation of Instruments. Available online: https://www.who.int/substance_abuse/research_tools/translation/en/ (accessed on 19 January 2022).
52. World Medical Association. World Medical Association declaration of Helsinki: Ethical principles for medical research involving human subjects. JAMA-J. Am. Med. Assoc. 2013, 310, 2191–2194. [CrossRef]
53. Proton Technologies AG General Data Protection Regulation (GDPR) Compliance Guidelines. Available online: https://gdpr.eu/ (accessed on 1 May 2020).
54. Dias, A.R.d.S.S. Atitudes e Comportamentos de Saúde Oral em Estudantes de Medicina Dentária em Portugal e na Holanda—Um Estudo Comparativo; Universidade Católica Portuguesa: Lisboa, Portugal, 2015.
55. Kawamura, M.; Honkala, E.; Widström, E.; Komabayashi, T. Cross-cultural differences of self-reported oral health behaviour in Japanese and Finnish dental students. Int. Dent. J. 2000, 50, 46–50. [CrossRef] [PubMed]
56. Gajić, M.; Lalic, M.; Kalezic, K.; Lazić, E.; Pavlović, M.; Ivanović, M.; Milić, J.; Matijević, D.; Vojinović, J. The application of artificial intelligence algorithms for testing the correlation between the state of oral health and adolescent behavior concerning oral health. Vojnosanit. Pregl. 2021, 78, 858–864. [CrossRef]
57. Pacauskiene, I.M.; Smailiene, D.; Siudikienė, J.; Savanėvytė, J.; Nedzelskiene, I. Self-reported oral health behavior and attitudes of dental and technology students in Lithuania. Stomatologija 2014, 16, 65–71. [PubMed]
58. Badovinac, A.; Božić, D.; Vučinac, I.; Vešligaj, J.; Vražić, D.; Plancak, D. Oral health attitudes and behavior of dental students at the University of Zagreb, Croatia. J. Dent. Educ. 2013, 77, 1171–1178. [CrossRef] [PubMed]
59. Dumitrescu, A.L.; Kawamura, M.; Sasahara, H. An assessment of oral self-care among Romanian dental students using the Hiroshima University–Dental Behavioural Inventory. Oral Health Prev. Dent. 2007, 5, 95–100. [PubMed]
60. Paraskevas, S.; Timmerman, M.F.; van der Velden, U.; van der Weijden, G.A. Additional Effect of Dentifrices on the Instant Efficacy of Toothbrushing. J. Periodontol. 2006, 77, 1522–1527. [CrossRef]
61. Valkenburg, C.; Slot, D.E.; Bakker, E.W.P.; van der Weijden, F.A. Does dentifrice use help to remove plaque? A systematic review. J. Clin. Periodontol. 2016, 43, 1050–1058. [PubMed]
62. Flórez, S.; Graetz, C.; Dörfer, C.E.; Slot, D.E.; Van der Weijden, F.A. Contemporary practices for mechanical oral hygiene to prevent periodontal disease. Periodontol. 2000, 2004, 35–44. [CrossRef]
63. Olszowski, T.; Walczak, A.; Janiszewska-Olszowska, J.; Milona, M.; Higieny, Z.; Zdrowia Publicznego, E.; Uniwersytet Medyczny Szczecin; P; Stomatologii Ogólnej, Z. Self-assessment of oral health behaviors among dental students of Pomeranian Medical University in Szczecin. Probic Hig. Epidemiol. 2012, 92, 798–803.
64. Kim, K.J.; Komabayashi, T.; Moon, S.E.; Goo, K.M.; Okada, M.; Kawamura, M. Oral health attitudes/behavior and gingival self-care level of Korean dental hygiene students. J. Oral Sci. 2001, 43, 49–53. [CrossRef]
65. Lujo, M.; Meštrović, M.; Malčić, A.I.; Karlović, Z.; Matijević, J.; Jukić, S. Knowledge, attitudes and habits regarding oral health in first- and final-year dental students. Acta Clin. Croat. 2016, 55, 636–643. [CrossRef]
67. Ivančić Jokić, N.; Bakarčić, D.; Ciccarič, O.; Šimunović-Erpusina, M.; Zukanović, A.; Hefler, G.; Nastić, V. Knowledge, attitudes and habits regarding oral health among nurses of Clinical hospital center Rijeka. Sestrin. Glas. 2021, 26, 19–23. [CrossRef]
68. Grycova, P. The Importance and Use of Disclosing Agents in the Dental Hygienist’s Office. Available online: https://dspace.cuni.cz/bitstream/handle/20.500.11956/108133/130260004.pdf (accessed on 20 January 2022).
69. Slávik, A. Dental Hygiene Awareness in Czech Republic. Available online: https://dspace.cuni.cz/bitstream/handle/20.500.11956/124083/130286075.pdf (accessed on 20 January 2022).
70. Peker, K.; Uysal, O.; Bermek, G.; Uysal, O.; Bermek, G. Dental training and changes in oral health attitudes and behaviors in Istanbul dental students. J. Dent. Educ. 2010, 74, 1017–1023. [CrossRef] [PubMed]
71. Yildiz, S.; Dogan, B. Self reported dental health attitudes and behaviour of dental students in Turkey. Eur. J. Dent. 2011, 5, 253–259. [CrossRef] [PubMed]
72. Özkan Karaca, E.; Tunar, O.L. Evaluation of Oral Health Attitudes and Behaviors of Yeditepe University Dental Faculty Students. Yeditepe J. Dent. 2020, 16, 54–58. [CrossRef]
73. Dogan, B. Differences in Oral Health Behavior and Attitudes Between Dental and Nursing Students. J. Marmara Univ. Inst. Health Sci. 2013, 3, 1. [CrossRef]
74. Rong, W.S.; Wang, W.J.; Yip, K.H.K. Attitudes of dental and medical students in their first and final years of undergraduate study to oral health behaviour. Eur. J. Dent. Educ. 2006, 10, 178–184. [CrossRef] [PubMed]
75. Zimmer, S.; Öztürk, M.; Barthel, C.R.; Bizhang, M.; Jordan, R.A. Cleaning efficacy and soft tissue trauma after use of manual toothbrushes with different bristle stiffness. J. Periodontal. 2011, 82, 267–271. [CrossRef]
76. Hara, A.T.; González-Cabazas, C.; Creeth, J.; Farman, M.; Eckert, G.J.; Zero, D.T. Interplay between fluoride and abrasivity of dentifrices on dental erosion-abrasion. J. Dent. 2009, 37, 781–785. [CrossRef] [PubMed]
77. Racki, D.N.D.O.; Comim, L.D.; Dalla Nora, A.; Zenkner, J.E.D.A.; Alves, L.S. Is Toothbrush Bristle Stiffness Associated with Erosive Tooth Wear in Adolescents? Findings from a Population-Based Cross-Sectional Study. Caries Res. 2021, 55, 515–520. [CrossRef] [PubMed]
78. Wiegand, A.; Burkhard, J.P.M.; Eggmann, F.; Attin, T. Brushing force of manual and sonic toothbrushes affects dental hard tissue abrasion. Clin. Oral Investig. 2013, 17, 815–822. [CrossRef] [PubMed]
79. Wiegand, A.; Schwerzmann, M.; Sener, B.; Carolina Magalhães, A.; Roos, M.; Ziebolz, D.; Imfeld, T.; Attin, T. Impact of toothpaste slurry abrasivity and toothbrush filament stiffness on abrasion of eroded enamel—An in vitro study. Acta Odontol. Scand. 2008, 66, 231–235. [CrossRef] [PubMed]
80. Grycová, P. The Importance and Use of Disclosing Agents in the Dental Hygienist’s Office. Available online: https://dspace.cuni.cz/bitstream/handle/20.500.11956/108133/130260004.pdf (accessed on 20 January 2022).
81. Danser, M.M.; Timmerman, M.F.; Ijzerman, Y.; Bulthuis, H.; Van Der Velden, U.; Van Der Weijden, G.A. Evaluation of the incidence of gingival abrasion as a result of toothbrushing. J. Clin. Periodontol. 2012, 39, 375–381. [CrossRef] [PubMed]
82. Carls da Silva, G.; de Castilhos, E.D.; Masotti, A.S.; Rodrigues-Junior, S.A. Dental aesthetic self-perception of Brazilian dental students. RSBO Rev. Sul-Brasileira Odontol. 2009, 5, 781–785. [CrossRef] [PubMed]
83. Jaju, R.A.; Nagai, S.; Karimbux, N.; Silva, J.D. Da Evaluating Tooth Color Matching Ability of Dental Students. J. Dent. Educ. 2010, 74, 1002–1010. [CrossRef]
84. Akarslan, Z.; Sadik, B.; Ertan, H.; Karabulut, E. Dental aesthetic satisfaction, received and desired dental treatments for improvement of esthetics. Indian J. Dent. Res. 2009, 20, 195. [CrossRef] [PubMed]
85. Samra, A.P.B.; Moro, M.G.; Mazur, R.F.; Vieira, S.; De Souza, E.M.; Freire, A.; Rached, R.N. Performance of Dental Students in Shade Matching: Impact of Training. J. Esthet. Restor. Dent. 2017, 29, E24–E32. [CrossRef]
86. Vallittu, P.K.; Vallittu, A.S.J.; Lassila, V.P. Dental aesthetics—A survey of attitudes in different groups of patients. J. Dent. 1996, 24, 335–338. [CrossRef]
87. Nomay, N. Public attitude and awareness towards their teeth color and dental bleaching in Saudi Arabia: A cross-sectional survey. J. Public Health Epidemiol. 2016, 8, 45–52. [CrossRef]
88. Šafaříková, E. The Attitude of Non-Professional and Professional Public to Dental Hygiene in the Czech Republic. Available online: https://dspace.cuni.cz/bitstream/handle/20.500.11956/103135/130205443.pdf (accessed on 20 January 2022).
89. Council of European Dentists (CED). The EU Manual of Dental Practice 2015; Kravitz, A.S., Bullock, A., Cowpe, J., Barnes, E., Eds.; Council of European Dentists: Brussels, Belgium, 2015.
96. Cepová, E.; Cicvaková, M.; Kolářík, P.; Markovská, N.; Gecková, A.M. Associations of multidimensional health literacy with reported oral health promoting behaviour among Slovak adults: A cross-sectional study. *BMC Oral Health* **2018**, *18*, 44. [CrossRef]

97. Samohyl, M.; Babjakova, J.; Vondrova, D.; Jurkovicová, J.; Stofko, J.; Kollar, B.; Hirosova, K.; Filova, A.; Argalasova, L. Factors Associated with Non-Attendance at Dental Preventive Care in Slovak High School Students. *Int. J. Environ. Res. Public Health* **2021**, *18*, 1295. [CrossRef]

98. Timková, S.; Kolářík, P.; Gecková, A.M. Self-Reported Oral Health Related Behaviour and Gum Bleeding of Adolescents in Slovakia in Relation to Socioeconomic Status of Their Parents: Cross-Sectional Study Based on Representative Data Collection. *Int. J. Environ. Res. Public Health* **2019**, *16*, 2484. [CrossRef]

99. Vašíčková, J.; Hollein, T.; Sigmundová, D.; Honkala, S.; Pavelka, J.; Kalman, M. Trends in children’s toothbrushing in the Czech republic from 1994 to 2014: Results of the HBSC study. *Cent. Eur. J. Public Health* **2017**, *25*, S57–S59. [CrossRef]

100. Horowitz, A.M.; Kleinman, D.V. Oral Health Literacy: The New Imperative to Better Oral Health. *Int. J. Environ. Res. Public Health* **2022**, 19, 2717.