

INTRODUCTION

As a result of The COVID-19 pandemic, adolescents (individuals ages 10-17) have experienced mental health disturbances including depression, anxiety, and loneliness due to social isolation. These disturbances have caused changes in electronic nicotine delivery system (ENDS) use among the teenage population (1).

ENDS use among adolescents is a leading public health concern. In 2021, the National Youth Tobacco survey reported that 2.8% of middle schoolers and 11.3% of high schoolers utilized electronic cigarettes within the past thirty days (2). In that same year, 2.13 million middle and high school students reported current use of ENDS (3). Adolescents are also susceptible to nicotine addiction, which may negatively affect their brain development and mental health. For some adolescents, use of ENDS may act as a gateway to other tobacco products and drugs (4).

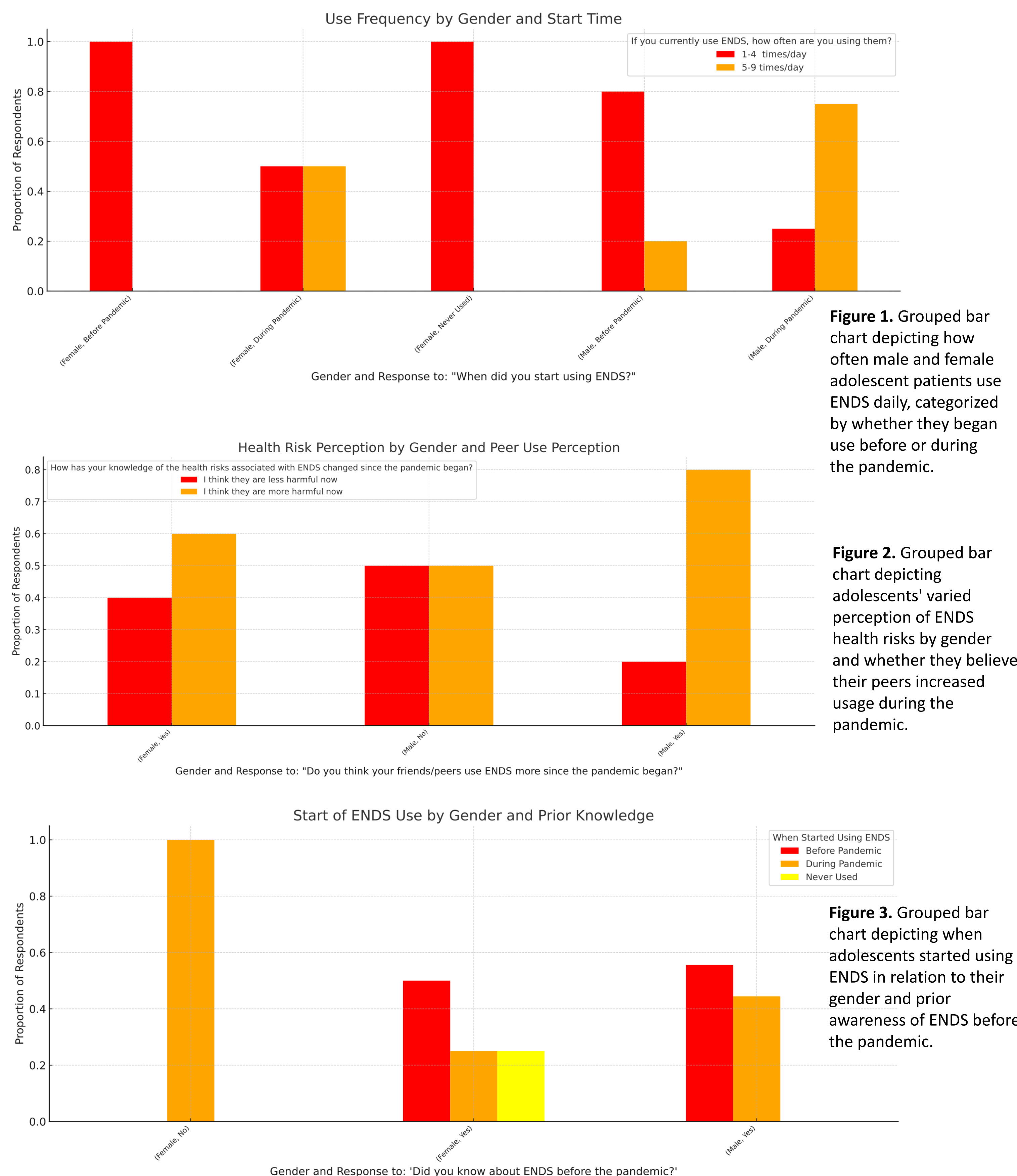
Pediatric dentists play an important role in providing tobacco cessation, tobacco counseling, reinforcement and prevention for adolescents (4). Post- pandemic, adolescents have changed their attitude towards ENDS. One indicator of this changing attitude is the increase in ENDS use among adolescents as a coping mechanism for stress and anxiety related to the pandemic's lingering effects (5).

Exploring and understanding adolescents' attitudes towards ENDS post-pandemic will allow pediatric dentists to effectively adapt their approaches to ENDS screening, education, and intervention.

METHODS

50 pediatric dental patients ages 10-17 that consented to the study via a minor assent form at Interfaith Medical Center were given anonymous questionnaires regarding ENDS use pre and post-pandemic. Surveys that denied current or prior ENDS use were excluded. 14 surveys were included in data analysis. Data was entered securely on Excel and descriptive statistics and nonparametric Chi square analyses were performed using SPSS v. 26 (Armonk, NY).

RESULTS



Overall, no statistically significant associations were found (p 's > .05). However, several important tendencies emerged (noted at p values less than 0.10 and approaching 0.05).

One observed trend was a greater number of puffs per session in the male group compared to females ($p=0.078$). This suggests that males may engage in more intense ENDS usage. There was also a consistent perception among adolescents that their peers have increased ENDS use post-pandemic ($p=0.078$), reflecting possible shifts in social norms or greater visibility of ENDS use in social settings since 2020.

Another key tendency was that many adolescents initiated ENDS use during the pandemic ($p=0.094$), a period characterized by isolation and stress. These factors may have contributed to experimentation. Regardless of whether use began before or during the pandemic, most adolescents reported using ENDS 1–4 times per day ($p=0.094$), suggesting stable patterns of moderate use across groups.

The data also showed that most adolescents perceived ENDS to be more harmful post-pandemic (64.3% of participants). But, this increased awareness did not translate into behavioral change, as many current users expressed no intention of quitting (42.9% of participants).

One limitation of this study is the small sample size. Future studies with larger and more diverse samples are needed. Self-reporting bias may have also affected the accuracy of the responses, as some adolescents may have been reluctant to disclose their ENDS usage to their dentist.

Overall, understanding adolescents' shifting attitudes towards ENDS use is crucial for pediatric dentists, who serve as key healthcare providers for adolescents. By staying informed, pediatric dentists are better equipped to counsel their patients on ENDS-related health risks.

