

ORIGINAL RESEARCH

Assessment of personality traits among pediatric dentists in Saudi Arabia: a cross-sectional analytical study

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Abstract

Background: The essence of an individual is shaped by their persistent array of traits that constitute their personality. The study's aim is to determine the prevalent personality attributes present in Pediatric dentists practicing in Saudi Arabia. **Methods:** A cross-sectional analytical research was conducted using the Big Five Personality Test International Personality Item Pool of the Big Five Markers (BFPT IPIP-BFM), which included 50 questions assessing extroversion, agreeableness, conscientiousness, neuroticism, and openness to experience. The survey was distributed to all participants through a Google form. Each trait was evaluated using a Likert scale, and the data was analysed statistically. **Results:** Out of a total of 132 pediatric dentists, 115 responded by completing the questionnaire in full, resulting in a response rate of 87.12%. The extroversion trait (33.17 ± 5.48) had the highest mean score among males, whereas the agreeableness trait (32.89 ± 4.29) was higher among females. The least expressed trait was neuroticism (28.4 ± 7.6) in both males and females (31.42 ± 5.84) and the difference was found to be statistically significant (p -value < 0.05). Comparison of the overall mean personality scores revealed that agreeableness (32.95 ± 4.83) was the highest scoring personality trait, whereas neuroticism (30.45 ± 6.68) was the lowest. *Post-hoc* multiple pairwise comparison revealed that only the difference between agreeableness and neuroticism remained statistically significant (p value < 0.005). **Conclusions:** Among male and female pediatric dentists in Saudi Arabia, agreeableness was the most significantly expressed trait, and females expressed slightly higher neuroticism scores than males.

Keywords

Agreeableness; Conscientiousness; Extroversion; Neuroticism; Openness to experience; Personality; Pediatric dentist

1. Introduction

Personality encompasses the unique characteristics, behaviors, and emotions that set one person apart from others. It comprises an individual's self-concept, emotional patterns, motivations, interests, values, and skills [1]. According to the American Psychological Association, personality refers to the distinctive ways people think, feel, and act [2]. Though the genetic makeup of an individual plays a critical role in shaping various personality characteristics, the environment to which they are exposed also exerts influence [1]. Personality traits control one's daily activities, behavior, and performance in the workplace. It also aids in dealing with interpersonal skills, anxiety, stress, and workload, resulting in positive or negative behavioral outcomes [3]. There are

several proposed models for assessing personality traits, such as the Honesty-Humility (H), Emotionality (E), Extraversion (X), Agreeableness (A), Conscientiousness (C), and Openness to Experience (O) (HEXACO) model, Myers-Briggs Type Indicator (MBTI), Eysenck's Three-Factor Model, and the Five-Factor Model (FFM) [4]. The most frequently utilized and rigorously validated model for comprehending personality traits is the five-factor model among all suggested models. Extroversion, agreeableness, conscientiousness, neuroticism, and openness to experience are the key trait dimensions known as the Big Five that have widespread recognition [5, 6].

Dentistry is a profession that requires a skillset for basic and advanced dental treatments along with behavior management of patients [7]. Pediatric dentists play a fundamental role in the field of dentistry. They are responsible for not only

managing the behavior of children and providing specialized care during treatment, but also for effectively communicating with their caregivers about the procedures and treatment plans. This multifaceted approach ensures that children receive the best possible dental care tailored to their specific needs, while also empowering parents and guardians to make informed decisions regarding their children's oral health [8]. Being young children, pediatric patients are more apprehensive and frequently display reluctance towards dental treatment. Therefore, practitioners must be capable of combining both clinical expertise and behavior management skills to ensure effective treatment [9]. Managing the expectations of caregivers is a crucial aspect that pediatric dentists must address, requiring strong interpersonal skills [10].

Dentists believe that they are regarded substantially based on their personality and that patients value interpersonal or emotional qualities when selecting a dentist, which is validated by research on patient satisfaction in dentistry [11]. It is crucial to understand personality traits in pediatric dental practice, as pediatric dentists possess unique personal qualities compared with general dentists, other dental specialists, and pediatricians. It is known that pediatric dentists prefer sensing over intuition, feeling over thinking, and judging over perceiving compared with other health professionals [12]. The complex relationship between the child, parent, pediatric dentist and social environment constitutes the treatment triangle in pediatric dentistry. It is, thus, crucial that a pediatric dentist possess qualities that facilitate interactions in this triangle, contributing to their professionalism [13]. Furthermore, the ability to build trust and establish a good rapport for minimizing the fear and anxiety of the patient and caregivers depends mainly on personality traits of pediatric dentists [10]. The dentist's personality has a significant impact on interpersonal relations, which shape the dentist-patient relationship and the success of therapy [14]. Understanding the personality traits of pediatric dentists is vital, as it enhances communication, fosters trust, and aids in managing dental anxiety among children. These factors are essential for successful clinical practice, positive patient perceptions, and improved outcomes, including cooperation, satisfaction, and future attendance. Additionally, they support the delivery of high-quality, child-centered care, promote long-term health behavior adoption, and contribute to effective behavior management [15–17]. Hence, the distribution of personality traits among pediatric dentists should be evaluated on a large scale.

With the ongoing multidimensional growth of pediatric dentistry in Saudi Arabia, significant progress is being made in identifying the oral health needs of children across various social strata and overcoming existing barriers to care [18]. Analysing the personality traits of pediatric dentists practicing in Saudi Arabia is important because this will aid in identifying areas requiring improvement for addressing the oral health needs of the young children, eventually leading to better treatment outcomes. There are previous studies reported in literature evaluating the personality traits among other dental specialists [19] and students [20] in Saudi Arabia. However, to our knowledge, personality traits of pediatric dentists have not been explored. Hence, the present cross-sectional analytical study primarily aimed to determine the personality traits

among pediatric dentists in Saudi Arabia.

2. Materials and methods

A cross-sectional research was conducted to assess the personality traits among pediatric dentists employed in various settings such as private/government colleges, dental centres, hospitals, and university clinics in Saudi Arabia using a Big five personality test (BFPT). Initial approval by Scientific Research, College of Dentistry, Jazan University, with reference no (CODJU-23151) was obtained, and final approval from the Jazan University Standing Committee for Scientific Research (HAPO-10-Z-001) with a reference no: REC-45/05/897 was obtained. The study was started in February 2025 and data was collected by June 2025. The roster of pediatric dentists, comprising approximately 270 dentists in number, was acquired from the Saudi Society of Pedodontics. This research is reported adhering to STROBE (Strengthening the Reporting of Observational Studies in Epidemiology) guidelines.

2.1 Sample size estimation

Sample size was calculated based on the formula (Eqn. 1).

$$\text{Sample Size } (n) = \frac{Z_{(1-\alpha/2)}^2 \times p \times (1-p)}{d^2} \quad (1)$$

Where, $Z_{(1-\alpha/2)} = 1.96$ for a 95% confidence interval, $p = 0.5$ prevalence of pediatric dentist expressing neuroticism trait [13], $d = 0.1$ of margin of error.

The estimated sample size was adjusted to 96 by replacing the values. An additional 5% of the estimated sample size was included to accommodate any potential sampling losses, resulting in a final sample size of a minimum of 100 participants.

2.2 Study population

Based on the inclusion and exclusion criteria outlined below, a total of 132 participants were recruited for the study.

2.3 Participant selection

2.3.1 Inclusion criteria

Pediatric dentists currently practising and willing to participate were included.

2.3.2 Exclusion criteria

Pediatric dental specialists who are not actively practicing were not included.

2.4 Big five personality test (BFPT)

The Big Five personality traits framework categorizes five principal features believed to explain individual variations and is regarded as the most extensively researched and applied personality model worldwide, developed by McCrae and Costa [21]. A concise summary of the five personality traits is presented in Table 1 [6, 13, 22].

TABLE 1. Description of five personality traits.

Personality traits	Description
Extroversion	Interaction with the external environment (sociability), enthusiasm, positive effect and other good emotions
Agreeableness	Appreciation for social unity, collaboration, moral values such as integrity and respectability, empathy, kindness, patience, and cooperation
Conscientiousness	Readiness, persistence, focus on achieving goals, organization, reliability, and self-discipline responsibility
Neuroticism	Emotional instability, stress, struggle to achieve calmness, excessive reaction in excess, and persistent encounter of negative emotions
Openness	Self-awareness, autonomy, intellectual curiosity, creativity, flexibility, and openness to new ideas

2.5 Data collection instrument—a 50-item international personality item pool of the big five markers (IPIP-BFM)

The BFPT (IPIP-BFM) [23] questionnaire that was validated consisted of two components. The initial phase involved the collection of demographic data, including the gender, contact number, and email address of Pediatric dentists. Additionally, information regarding the location, work sector (private/government), and job description (clinician/academic/both) was gathered. The term “clinician” describes one who is only involved in clinical practice, while “academician” is one who works in an institute with a balance of both practice and teaching/research. The second section consisted of a 50-item questionnaire that was designed to assess personality based on Goldberg’s (1992) work, which is already available in the public domain. This questionnaire comprised of five subscales each demonstrating good internal consistency indicated by Cronbach’s alpha, which are as follows: (1) Extraversion ($\alpha = 0.81$), (2) Agreeableness ($\alpha = 0.76$), (3) Conscientiousness ($\alpha = 0.82$), (4) Emotional Stability ($\alpha = 0.80$), and (5) Intellect/Imagination ($\alpha = 0.79$). Each subscale consists of 10 items, which are self-rated on five point Likert scale. The questionnaire is attached as a **Supplementary material**.

2.6 Study procedure

A consent form was created in conjunction with an online structured self-explanatory questionnaire. The questionnaire was disseminated via email as a Google e-form, containing 50 questions, with 10 questions pertaining to each of the five trait categories. Each participant was permitted to submit a single response. Participants were presented with the study details and informed consent upon selecting the link, which was followed by a series of questions. The email included a clear privacy statement at the start of the survey regarding the confidentiality of the data collected. A self-rated questionnaire using the BFPT (IPIP-BFM) instrument with a Likert scale was administered among the participants. Intra-rater reliability was not applicable in this research, as no external raters were involved. The questionnaire was not translated into any other language and was administered in English to involve all the pediatric dentists from other countries actively practising in Saudi Arabia.

2.7 Scoring

Respondents assessed their degree of accord by selecting the appropriate option. The scale ranged from “disagree” to “agree” and was scored on a scale of 1 to 5, with 1 representing disagreement, 2 representing slight disagreement, 3 representing neutrality, 4 representing minor agreement, and 5 representing agreement. The sum of the individual ratings for each attribute was used to calculate the total scores, which ranged from 0 to 50. The consistency and totality of the data were confirmed subsequent to its acquisition.

2.8 Statistical analysis

The Statistical Package for the Social Sciences (SPSS) software (20 SPSS Inc., Chicago, IL, USA) was employed to conduct the statistical evaluation. Assumptions of normality and homogeneity of variance were checked before conducting the *t*-test. An independent *t*-test was utilized to compare the mean values of each attribute between males and females. The Mann-Whitney U test was employed to analyse each question pertaining to the neuroticism trait by gender. Repeated measures Analysis of Variance (ANOVA) omnibus test was used to analyse the differences among five personality traits, and *post-hoc* multiple pairwise comparison was performed using Bonferroni correction to adjust for multiple comparisons. The level of significance was set at p -value < 0.05 .

3. Results

Among 132 pediatric dentists, 115 individuals participated, comprising 46 males (40%) and 69 females (60%). This resulted in a response rate of 87.12%, with all submitted questionnaires being fully completed. The demographic characteristics of the participants were comprehensively outlined in Table 2. Table 3 illustrated the average scores of the five personality traits categorized by gender. The majority of males exhibited the extroversion trait (33.17 ± 5.48), while the agreeableness trait (32.89 ± 4.29) was more prominent among females. Neuroticism was the lowest scoring trait in both males (28.4 ± 7.6) and females (31.42 ± 5.84). However, females had significantly (p -value < 0.05) higher neuroticism scores compared with males with a moderate effect size (Cohen’s $d = -0.46$). The ten questions regarding neuroticism that exhibited notable gender differences were summarized in Table 4. The analysis of the overall mean personality scores

TABLE 2. Distribution of the demographic details of the participants.

Variable	Frequency n (%)
Gender	
Male	46 (40)
Female	69 (60)
Work Sector	
Government	89 (77.39)
Private	26 (22.61)
Job Description	
Academician	9 (7.83)
Clinician	83 (72.17)
Both	23 (20.00)
Designation	
Assistant Professor	18 (15.65)
Associate Professor	18 (15.65)
Demonstrator	26 (22.61)
HOD	51 (44.35)
Professor	2 (1.74)

HOD: Head of the department/Division.

TABLE 3. Comparison of the five personality trait scores between the genders.

SI. No	Personality Traits	Males (Mean \pm SD)	Females (Mean \pm SD)	<i>p</i> -value	Cohen's <i>d</i> (absolute)
1	Extroversion	33.17 \pm 5.48	31.59 \pm 4.05	0.07	0.34
2	Agreeableness	33.04 \pm 5.59	32.89 \pm 4.29	0.87	0.03
3	Conscientiousness	31.86 \pm 4.80	31.44 \pm 3.78	0.60	0.10
4	Neuroticism	28.40 \pm 7.60	31.42 \pm 5.84	0.04*	-0.46
5	Openness to experience	31.45 \pm 3.99	31.04 \pm 3.58	0.41	0.11

*Significant at $p < 0.05$ level, *Independent *t*-test. SD: Standard deviation; SI. No: Serial number.

TABLE 4. Comparison of the neuroticism scores between genders.

Q. No	Questions	Males [Median (Q1, Q3)]	Females [Median (Q1, Q3)]	<i>p</i> -value	Rank-biserial correlation (<i>r</i>)
4	I get stressed out easily	3 (2, 4)	4 (3, 5)	0.007**	0.38
9	I am relaxed most of the time	3 (2, 4)	3 (2, 3)	0.06	0.14
14	I worry about things	4 (3, 5)	4 (3, 5)	0.47	0.05
19	I seldom feel blue (sad)	3 (3, 3.75)	3 (2, 3)	0.08	0.17
24	I am easily disturbed	3 (1, 3)	3 (3, 4)	0.0018**	0.42
29	I get upset easily	3 (1, 3)	3 (2, 4)	0.002**	0.40
34	I change my mood a lot	3 (2, 4)	3 (3, 4)	0.16	0.12
39	I have frequent mood swings	3 (2, 3)	3 (1, 4)	0.75	0.03
44	I get irritated easily	3 (2, 4)	3 (1, 4)	0.04*	0.26
49	I often feel blue (sad)	3 (2, 3)	3 (2, 3)	0.49	0.06

**Significant at $p < 0.01$ level; *Significant at $p < 0.05$ level, *Mann Whitney *U* test. Q. No: Question number.

indicated that agreeableness (32.95 ± 4.83) was the most frequently displayed personality trait among the participants, while neuroticism (30.45 ± 6.68) was the least prevalent with a very high statistical significance (p -value < 0.001) as shown in Table 5.

The Bonferroni-adjusted pairwise comparison revealed that the agreeableness score remained significantly higher than neuroticism (p -value = 0.0011), with a small to moderate magnitude of effect ($r = 0.38$). This difference remained significant after the Bonferroni correction, adjusted $\alpha = 0.005$. Agreeableness also differed from conscientiousness, (p -value = 0.01), although this did not survive the more conservative threshold for significance and should, therefore, be interpreted cautiously. No other pairwise comparisons remained significant following correction. Overall, these findings suggested that despite modest variations in mean scores, only the contrast between agreeableness and neuroticism reflects a reliable difference once multiple comparisons were accounted for, as shown in Table 6.

4. Discussion

Personality traits are crucial in dentistry, particularly in pediatric dentistry, where practitioners must create a comfortable and reliable environment for children's oral care. These traits are of paramount importance for successful clinical practice

and play a key role in the proficiency of managing young patients [19]. Despite the increasing number of studies on health professionals, there are no previous studies published evaluating the personality traits of pediatric dentists in Saudi Arabia. A recent systematic review evaluating the personality traits of health professionals using different models showed that dentists are most commonly presented with introversion followed by extroversion traits [24]. Likewise, another cross-sectional study by Al-Dlaigan *et al.* [19] using the Big Five model showed that there was a significant difference among the personality traits of dental students and general dentists, where the majority exhibited the introversion trait. Grandy *et al.* [25] reported that no significant differences in personality traits between general practitioners and specialists were observed using the Myers-Briggs Type Indicator (MBTI) model.

In the present study, agreeableness was the most common trait expressed among females. This observation aligned with a previous study by Asokan *et al.* [13] conducted among pediatric dentists in India using the BFPT questionnaire, where agreeableness was the most common trait among female and male pediatric dentists. Agreeableness is attributed to good listening skills, which were essential for establishing good communication with children and parents. This highlights the social and cultural similarities between the Indian subcontinent and the Middle East. This could also be related to the global collaborative efforts in health care systems and medical

TABLE 5. Comparison of the overall mean personality trait scores.

SI. No	Personality Traits	Overall Score (Mean \pm SD)	p -value
1	Extroversion	32.22 \pm 4.72	
2	Agreeableness	32.95 \pm 4.83	
3	Conscientiousness	31.61 \pm 4.20	<0.001***
4	Neuroticism	30.45 \pm 6.68	
5	Openness to experience	31.20 \pm 3.74	

***Significant at $p < 0.001$ level. SD: Standard deviation; SI. No: Serial number. Effect size was small (partial eta squared $\eta_p^2 = 0.05$).

TABLE 6. Bonferroni-adjusted pairwise comparison of personality traits.

SI. No	Personality Trait comparison	p -value	Significance	Effect Size (r)
1	Agreeableness vs. Conscientiousness	0.01	Not Significant	0.15
2	Agreeableness vs. Neuroticism	0.0011*	Significant	0.38
3	Agreeableness vs. Extroversion	1	Not Significant	0.01
4	Agreeableness vs. Openness to experience	0.02	Not Significant	0.12
5	Conscientiousness vs. Extroversion	1	Not Significant	0.01
6	Conscientiousness vs. Neuroticism	0.7	Not Significant	0.05
7	Conscientiousness vs. Openness to experience	1	Not Significant	0.01
8	Extroversion Neuroticism	0.17	Not Significant	0.1
9	Extroversion vs. Openness to experience	1	Not Significant	0.01
10	Openness to experience vs. Neuroticism	0.32	Not Significant	0.08

*Significant at $p < 0.05$ for Repeated measures ANOVA omnibus test.

*Significant at $p < 0.005$ (Bonferroni adjusted pairwise comparison).

SI. No: Serial number.

education in both countries. Similarly, previous studies in other health care sectors, like dental students [26], psychiatrists [27], and nurses [28], showed that agreeableness was the most prevalent trait; however, variations amongst genders were not evaluated. This also highlights the importance of straightforwardness and positive concerns about the emotional side of patients and caretakers.

Extroversion was the most commonly observed trait among male pediatric dentists. People with high extroversion traits feel free to interact socially and engage with others. These individuals are action-oriented, friendly, and assertive. Extroverts interact with their associates in a friendly way such that they can easily gain the trust of the pediatric patient [29]. This would help them to establish a good rapport with children and parents. Since the pediatric dentists are educated about the behavior management of patients and caregivers more than any other specialty in dentistry, they provide ease of practice among children and precision in treatment. This could be a reason for the dominance of favourable traits like extroversion amongst them. A few studies in other healthcare professionals, like surgeons and forensic pathologists, supported this observation, where extroversion was reported to be a dominant common trait [30–32]. The current observation was in contrast to the results obtained by the previous study done in India, where extroversion was the least observed trait among male pediatric dentists [13]. This variation could be due to the differences in culture, work ethics, work sector, and nature of practice (solo or group). Dissimilar to our results, a study conducted in Riyadh, Saudi Arabia, using the MBTI model among 243 dental specialists reported that extroversion was less common than introversion among pediatric dentists [19]. However, they have not evaluated the gender variations in personality traits. A systematic review evaluating the personality traits using the MBTI model showed that dentists were most commonly presented with introversion [32]. This contrast in results could be mainly ascribed to the difference in the scoring system employed. MBTI is a popular personality test that sorts people into 16 types; however, our current study used the BFPT (IPIP-BFM) model.

In our research, neuroticism was the least expressed trait among both female and male pediatric dentists with a statistically significant difference. The nature of pediatric dentistry, which requires a mix of technical skills, understanding, compassion, and a positive atmosphere, may foster emotional stability and resilience, potentially leading to lower neuroticism levels in professionals [32]. A study among dental practitioners, including specialists, dental practitioners, and dental nurses of the United Kingdom, reported that conscientiousness and neuroticism were the most and least reported traits among dental practitioners, respectively [32]. A variety of medical professionals also exhibited the low neuroticism trait as per previous research [33, 34]. It is always important to consider that individuals who scored higher in neuroticism may struggle to feel comfortable in a position where clinician error can be linked to a significantly adverse patient outcome [32]. Evaluation of the facets of neuroticism showed that females were the ones who got stressed, disturbed, and upset easily compared with men. The increased neuroticism as well as most facets of neuroticism in female pediatric dentists included

in the present study could be attributed to their increased levels of anxiety, depression, self-consciousness, and self-doubt compared with men [35, 36].

According to the overall mean personality scores, the most common personality trait among the participants was agreeableness, while the least common was neuroticism. A study conducted on dental students by Chamberlain *et al.* [26] revealed similar findings, and the results were partially mixed, with neuroticism being the least reported trait and conscientiousness being the most prevalent [26].

It is well known that pediatric dentists must consistently remain aware of the child's emotions, movements, and overall behavior during dental care, as well as the emotions and inquiries of the parent, whom the dentist must endeavour to satisfy [12]. Understanding the personality traits among pediatric dentists has practical value for improving recruitment, training, and clinical protocols. Evidence revealed that traits such as conscientiousness and agreeableness are linked to stronger job performance, organizational ability, and improved communication with patients, and behavior guidance and emotional responsiveness are central to care [26]. By considering these traits during recruitment, dental schools and pediatric dentistry programs can better identify applicants whose interpersonal profiles align with the demands of caring for children and anxious parents. In addition to it, it helps in highlighting areas where additional support may be needed, such as providing stress management or communication training for individuals high in neuroticism, a trait shown to influence anxiety and emotional vulnerability among dental students [26]. Research shows that combinations such as high neuroticism paired with high conscientiousness can actually support more attentive, cautious, and responsive care, whereas high neuroticism without adequate conscientiousness may lead to greater stress and inconsistency. Practitioners can more accurately adjust their assessments of patients and acquire understanding of the aspects that affect their interactions with them by considering these distinctions [37]. The personalities and communication skills of the dental team are crucial to providing a positive dental experience for the child and gaining the trust of both the child and the parent [38].

The influence that personality traits have on the performance of dentists and the care that they provide to patients can provide an explanation for the clinical and practical consequences of the inquiry on the characteristics of practicing dentists. Research in this area adds to the development of appropriate training programs that are intended to instill a positive attitude and implant better personality qualities among those who work in the healthcare industry. The "agreeableness" demonstrated in this study suggests that dentists may be prepared to deal with the parent and child, foster a friendly environment, express empathy, kindness, and a supportive response, and therefore build trust in their relationship. It also explains reduced use of coercive techniques, preferring positive reinforcement and trust-enhancing strategies. Although least expressed, dentists with neuroticism, need to be trained to cope with stress management, anger, and anxiety to tolerate challenging situations as well as emotional exhaustion and ensure smoother appointments in pediatric dental practice. The stress can negatively affect behavior guidance and procedural confidence; also, chil-

dren are sensitive to clinician anxiety, which may amplify dental fear. The pediatric dentists with neuroticism need to be trained effectively, which is essential for sustainable practice, resilience training, and emotional regulation skills. Similarly, all other personality traits pose a unique practical relevance in the pediatric dental setup. It is documented that the association between personality and occupation is likely bidirectional. Professionals' personality may shift in different directions as a result of their job. Those who modify their personality as positive are known to appreciate any challenges that occur in their job [32]. Hence, the self-awareness of these traits amongst pediatric dentists can aid them in improving their relationship with the child and parent, fostering both job satisfaction for the dentists and successful treatment outcomes for the patient. Taken together, these clinical implications demonstrated that understanding personality profiles has meaningful potential to strengthen practitioner development, enhance dentist–child–parent communication, improve behavior management strategies and stress management, and ultimately improve the quality of pediatric dental care. Although, the survey couldn't explore the personality traits of all the practicing pediatric dentists in the country, the responses of them working in varied role in their practice (academician, clinician or both) can add insights to the implications of this study.

Even though our study described the personality profiles of pediatric dentists in Saudi Arabia, the reasons why certain traits were more prevalent remain unclear. It is possible that individuals with higher agreeableness or conscientiousness are more likely to self-select into pediatric dentistry due to the interpersonal and behavior-management demands of the specialty [19]. Otherwise, aspects of professional training may cultivate these traits over time. Cultural factors specific to Saudi Arabia, such as social norms, gender expectations, or educational pathways, may also play a role. Future research should explore these potential influences to better understand the mechanisms underlying these personality patterns and their implications for both practitioner development and patient care [19]. A number of researchers, including McCrae and Costa [21], have shown that while the basic structure of personality is similar across cultures, the way people express certain traits can differ depending on cultural expectations. In a Middle Eastern context, qualities such as cooperation, calmness, and emotional control are often emphasized, especially in professional roles [19]. Similar to the results of this study, a study on the Big Personality trait among university students in six Arab nations found that men scored higher on extroversion, women scored higher on agreeableness, and neuroticism was the least scored trait [39].

This means that traits like agreeableness or lower emotional reactivity may be more commonly expressed or more socially encouraged among healthcare providers in the region. In light of this, the personality patterns seen in our sample may not reflect only who chooses pediatric dentistry or what is learned during training, but also broader cultural norms that shape how individuals reported and exhibited their personality in clinical settings. Further research that explores the influence of culture in shaping the personality traits is essential.

5. Limitations

The findings of the study necessitate careful interpretation, taking into account the nature of the cross-sectional study design and inherent limitations. The primary objective of the study was to determine the personality traits among the practicing pediatric dentists. Hence, age and year of experience were considered irrelevant in the initial stage of research to make the questionnaire concise, ensure anonymity, and reduce response burden among respondents. The absence of potential covariates, such as age, may have restricted the applicability of its findings. However, gender-based analyses have revealed minute differences, which must be acknowledged when interpreting the findings. The limited sample size can further affect the generalizability. Owing to the exploratory nature of this study, a prevalence-based formula was used to determine the sample size due to the lack of any similar studies in the literature.

The nature of self-reporting in Google e-forms can further add to the possibility of social desirability bias as well as lack of understanding of all the questions. In addition to it, information about nonresponders wasn't available, so it's not possible to determine how they might differ from those who participated in the study. It is possible that dentists who chose to respond were more engaged with research or more interested in personality topics, which could have introduced a potential selection bias. Although a rough estimate of the registered pediatric dentists in Saudi Arabia are known, the national data on the total number of practicing pediatric dentists in Saudi Arabia were unavailable. Thus, the representativeness of our sample cannot be confirmed. So, we advocate conducting further extensive studies through more complete workforce data, as this limits the generalizability of the findings.

6. Conclusions

The most strongly expressed overall personality trait was agreeableness, whereas neuroticism was expressed the least in this study. While females expressed agreeableness the most, males rated extroversion, followed by agreeableness. However, the overall differences between traits were modest and, therefore, should be interpreted cautiously. We also noted that female pediatric dentists rated higher on neuroticism than males, indicating slightly lower emotional resilience. This implies that the majority of the pediatric dentists, in this study expressed positive personality traits, while only a few faced emotional instability and stress intolerance.

AVAILABILITY OF DATA AND MATERIALS

The data that support findings of this study are available from the corresponding author, upon reasonable request.

AUTHOR CONTRIBUTIONS

PCM, RNA, AFA, KA, HAB, NA, AKMG, VM and SV—performed the research. PCM, AMB, VM and SV—analysed the data. PCM, RNA, AFA, AKMG, VM and SV—wrote the manuscript. PCM, AMB, KA, HAB, NA, SP, VM and SV—

edited the manuscript. All authors designed the research study. All authors contributed to editorial changes in the manuscript. All authors read and approved the final manuscript.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

Initial approval by Scientific Research, College of Dentistry, Jazan University, with reference no (CODJU-23151) was obtained and final approval from Jazan University Standing Committee for Scientific Research (HAPO-10-Z-001) with a reference no: REC-45/05/897 was obtained. Informed consent was obtained before the pedodontists showed their willingness to participate in the study.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

SUPPLEMENTARY MATERIAL

Supplementary material associated with this article can be found, in the online version, at <https://oss.jocpd.com/files/article/2072911510844129280/attachment/Supplementary%20material.pdf>.

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