Background

Vaccines are among the most cost-e ective public health-care practices globally, saving lives by controlling or eliminating infectious diseases and protecting millions of children from diseases and disabilities each year [1]. Despite these bene ts of vaccines, there is a decrease in vaccination rates in children around the world, which

toward childhood vaccines. For the dependent variable (parental attitude towards childhood vaccines), the presence of hesitation was taken as 1, and the absence of hesitation as 0. e analysis that was made to determine the factors associated with parental attitudes toward childhood vaccines was found to be statistically signi cant (*p*

risk for the increase of preventable diseases with childhood vaccines in our country. Right at this point, it is important to know the reasons for vaccine hesitancy and to implement serious scienti c and political measures for these reasons. In the present study, 3.4% of the parents said that they did not have at least one vaccination for their children. is rate was reported to be higher in two separate studies conducted in Italy [11, 12]. Consistent with our ndings, only 3.2% of parents refused to be vaccinated despite their hesitancy about childhood vaccinations in Malaysia [13]. In Turkey, 4.8% of parents refused to vaccinate their children [20]. In another study, 97.1% had been routinely vaccinated under the childhood immunization program in Turkey hesitation and rejection rate of 2.9% in this study [28]. e reason for these di erent results may be because the studies were conducted in di erent countries or regions. Di erent cultural structures, education levels, perceptions about vaccines, etc. may a ect vaccine hesitancy. In our research, although the rates of hesitancy about vaccination in parents were found to be high, the rate of those who said that their children had at least one missing vaccine was low. is shows that although parents are hesitant about vaccinations, they still decide to vaccinate. Possible reasons for this can be the lack of information, infodemic, and confusion. Interventions must be implemented to raise awareness about the safety of vaccines to reduce vaccine hesitancy and confusion among parents.

Although vaccine hesitancy is associated with both low and high socioeconomic status in terms of income [29], it was also reported that there is no such relationship [17, 30]. However, studies reporting that parents who had low household income also had higher vaccination hesitancy levels support our ndings [31, 32]. e reason for these di erent results may be that previous studies were conducted in di erent sections of society. Income status, which is an important indicator of socioeconomic vari-

vaccines by 0.440 times. In this context, developing pro-vaccine attitudes in society must be one of the important targets of public healthcare, and healthcare professionals have important duties in this respect. Motivating suggestions must be developed for parents and behavioral or educational interventions must be realized so that parents can decide to vaccinate their children. It was emphasized in a limited number of intervention studies that

3. Smith SE, Sivertsen N, Lines L, De Bellis A. Decision making in vaccine hesitant parents and pregnant women–An integrative review. IJNS Adv. 2022; (4): 100062.
4. Mahase E. Childhood vaccination: Access problems in UK began way before covid-19. BMJ. 2021;373:n1436.
5. Sağlık Bakanlığı TC. Aşı Portalı. https://asi.saglik.gov.tr/genel-bilgiler/52-sa%C4%9Fl%C4%B1k-bakanl%C4%B1%C4%9F%C4%B1-taraf%C4%B1ndan-%C3%BClkemizde-uygulanan-%C3%A7ocukluk-d%C3%B6nemi-a%C5%9F%C4%B1-takviminde-hangi-a%C5%9F%C4%B1lar-yer-al%C4%B1yor.html (2022). Accessed 22 Oct 2022.
6. Sağlık Bakanlığı TC. Sağlık İstatistikleri Yıllığı 2020. Türkiye Cumhuriyeti Sağlık Bakanlığı Sağlık Bilgi Sistemleri Genel Müdürlüğü. https://dosyasb.saglik.gov.tr/Eklenti/43399,siy2020-tur-26052022pdf.pdf?0 (2022). Accessed 22 Oct 2022.
7. Eskiocak M, Marangoz B. Türkiye'de Bağışıklama Hizmetlerinin Durumu. 2. Baskı, Ankara: Türk Tabipler Birliği Yayınları. https://www.ttb.org.tr/user□les/□les/turkiyede_bagisiklama_hizmetlerinin_durumu.pdf (2021). Accessed 20 Oct 2022.
8. Yu□ka A, Wagner AL, Nawawi Y, Wahyuniati N, Anwar S, Yusri F, et al. Parents' hesitancy towards vaccination in Indonesia: a cross-sectional study in Indonesia. Vaccine. 2020;38(11):2592–9.
9. Altuntaş M, Şahin MK. Çocukluk çağı aşı tereddüdü ile karşılaşma sıklığı, nedenleri ve çözüm önerileri: Samsun Ili aile sağlığı merkezlerindeki sağlık çalışanlarıyla kesitsel bir çalışma. TJFMPC. 2022;16(4):761–71.
10. MacDonald NE. Vaccine hesitancy: de□nition, scope and determinants. Vaccine. 2015;33(34):4161–4.
11. Bianco A, Mascaro V, Zucco R, Pavia M. Parent perspectives on childhood vaccination: how to deal with vaccine hesitancy and refusal? Vaccine. 2019;37(7):984–90.
12. Napolitano F, D'Alessandro A, Angelillo IF. Investigating Italian parents'