

Assessing Public Interest in Autism in Türkiye Using Google Trends

Türkiye’de Otizm Yönelik Kamu İlgisinin Google Trends Kullanılarak Değerlendirilmesi

● Berhan Akdağ¹, ● Seda Bozduman Çelebi², ● Hülya Binokay³, ● Ertan Kara⁴

¹Silifke State Hospital, Clinic of Child and Adolescent Psychiatry, Mersin, Türkiye

²University of Health Sciences Türkiye, Başakşehir Çam and Sakura City Hospital, Clinic of Child and Adolescent Psychiatry, İstanbul, Türkiye

³Çukurova University Faculty of Medicine, Department of Biostatistics, Adana, Türkiye

⁴Çukurova University Faculty of Medicine, Department of Public Health, Adana, Türkiye

ABSTRACT

Objectives: The prevalence of autism spectrum disorder (ASD) is increasing globally, presenting substantial challenges to affected individuals and their caregivers. Concurrently, there are no established diagnostic biomarkers for ASD, making awareness essential for timely and accurate diagnosis. Prior research highlighted that analyzing Google search queries offers a valuable method for assessing real-time global trends and public interest in health conditions. Accordingly, this study aims to measure public interest in autism by analyzing Google Trends data from April 2014 to April 2024 in Türkiye.

Materials and Methods: Google Trends, an online service that tracks the frequency of search queries on the internet, was employed to analyze web activity from April 2014 through April 2024 in Türkiye.

Results: Throughout the observation period from April 2014 to April 2024, a significant rise in relative search volume (RSV) for autism was noted. An analysis of monthly search queries across all years identified April as the month with the highest RSV peak for autism, attributable to autism awareness events such as World Autism Awareness Day. However, this trend was transient and did not encompass the entire year.

Conclusion: The findings reveal an increase in internet interest in autism in Türkiye. They also highlight the potential impact of autism awareness events on the rise of internet interest. Enacting policies that enhance awareness of autism among the general population is essential. Crucially, these initiatives should be implemented throughout the entire year and not be limited to specific times.

Keywords: Awareness, autism, Google Trends, internet interest, Türkiye

ÖZ

Amaç: Otizm spektrum bozukluğunun (OSB) yaygınlığı küresel olarak artmakta ve etkilenen bireyler ve bakıcıları için önemli zorluklar ortaya çıkarmaktadır. OSB için belirlenmiş tanısal biyobelirteçler bulunmamakta olup bu durum zamanında ve doğru tanı için farkındalığı önemli hale getirmektedir. Önceki araştırmalar, Google arama sorgularını analiz etmenin, gerçek zamanlı küresel eğilimleri ve sağlık koşullarına yönelik kamu ilgisini değerlendirmek için değerli bir yöntem sunduğunu vurgulamıştır. Bu doğrultuda, bu çalışma Türkiye’de Nisan 2014’ten Nisan 2024’e kadar Google Trends verilerini analiz ederek otizme olan kamu ilgisini ölçmeyi amaçlamaktadır.

Gereç ve Yöntem: İnternette arama sorgularının sıklığını takip eden çevrim içi bir hizmet olan Google Trends, Nisan 2014’ten Nisan 2024’e kadar Türkiye’deki internet etkinliğini analiz etmek için kullanılmıştır.

Bulgular: Nisan 2014’ten Nisan 2024’e kadar olan gözlem dönemi boyunca, otizm için göreceli arama hacminde önemli bir artış kaydedilmiştir. Tüm yıllar boyunca aylık arama sorgularının analizi, Dünya Otizm Farkındalık Günü gibi otizm farkındalık etkinliklerine atfedilebilecek şekilde, Nisan ayının otizm için en yüksek göreceli arama hacmine sahip ay olduğunu ortaya koymuştur. Bununla birlikte, bu eğilim kısa süreli olmuş ve tüm yıla yayılmamıştır.

Sonuç: Bulgular, Türkiye’de otizme yönelik internet ilgisinde bir artış olduğunu ortaya koymaktadır. Ayrıca, otizm farkındalık etkinliklerinin internet ilgisindeki artış üzerindeki potansiyel etkisini de vurgulamaktadır. Genel nüfus arasında otizm farkındalığını artıracak politikaların hayata geçirilmesi elzemdir. Daha da önemlisi, bu girişimler belirli zamanlarla sınırlı kalmamalı, tüm yıl boyunca uygulanmalıdır.

Anahtar Kelimeler: Farkındalık, otizm, Google Trends, internet ilgisi, Türkiye

Address for Correspondence/Yazışma Adresi: Berhan Akdağ, MD, Silifke State Hospital, Clinic of Child and Adolescent Psychiatry, Mersin, Türkiye

E-mail: drberhanakdag@gmail.com ORCID: orcid.org/0000-0002-5203-403X

Received/Geliş Tarihi: 06.12.2024 Accepted/Kabul Tarihi: 24.12.2024 Yayınlanma Tarihi/Publication Date: 11.11.2025

Cite this article as/Atf: Akdağ B, Bozduman Çelebi S, Binokay H, Kara E. Assessing public interest in autism in Türkiye using Google Trends.

Turk J Child Adolesc Ment Health. 2025;32(3):170-4

Copyright© 2025 The Author. Published by Galenos Publishing House on behalf of the Turkish Association for Child And Adolescent Psychiatry. This is an open access article under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 (CC BY-NC-ND) International License.



Introduction

Autism spectrum disorder (ASD) is a complex neurodevelopmental condition defined by two primary characteristics: deficits in social communication and the presence of restricted or repetitive behaviors and interests.¹ The global prevalence of ASD has been rising, with current estimates suggesting that approximately 1 in 31 children are diagnosed with the disorder.² This upward trend is likely due to modifications in diagnostic criteria, enhancements in screening and diagnostic technologies, and heightened public awareness.³ Notably, there are no established diagnostic biomarkers for ASD,⁴ making awareness essential for timely and accurate diagnosis.

The awareness of ASD among the general population varies depending on several factors. While females are more likely to be aware of autism,^{5,6} the link between age and ASD awareness is inconsistent.^{6,7} Additionally, higher educational status, internet usage, more frequent contact with individuals with autism, having a family member with autism, and not belonging to an ethnic minority are linked to greater awareness of autism.^{7,8} Nevertheless, prior research indicates that the level of autism awareness within the general population falls short of global expectations. In Türkiye, as in many other countries, there are notable gaps in understanding specific characteristics and symptoms of ASD within the general population.⁹

Increasing public awareness is crucial for promoting inclusivity, reducing discrimination, and enabling individuals with autism to attain fulfilling lives. Nonetheless, ongoing misconceptions and stigma resulting from limited understanding still affect individuals on the spectrum and their caregivers.¹⁰⁻¹² In response to this issue, global initiatives have been launched to ensure timely access to high-quality, culturally relevant health and social care, allowing those impacted to fully exercise their human rights.¹³ Additionally, countries have developed specific autism policies at national and regional levels, shaped by community needs. Accordingly, in 2016, Türkiye launched the “National Action Plan for Individuals with ASDs.” This plan has prioritized enhancing awareness of ASD in society and improving collaboration between institutions to ensure ongoing health, education, and support services for individuals with ASD.¹⁴ However, there is not enough data to evaluate how these initiatives affect autism awareness among the general population in Türkiye.

The Current Study

The advent of the internet has significantly altered the landscape of information acquisition, establishing itself as a crucial platform for knowledge dissemination. It facilitates efficient searching and understanding of a wide array of topics, including health-related information. Within this framework, Google (Alphabet Inc.) dominates the market, holding shares of 89.08% in North America, 91.91% in Europe, 95.41% in South America, and 97.53% in Africa.¹⁵ Consequently, analyzing Google search queries offers a valuable method for assessing real-time global

trends and public interest in health conditions.¹⁶ Accordingly, this study investigates whether the marked increase in ASD prevalence correlates with the growing public interest in ASD within Türkiye by utilizing data from Google Trends.

Materials and Methods

Google Trends, an online service that monitors the frequency of search queries on the internet, was utilized to analyze web activity from April 2014 to April 2024 in Türkiye. This tool quantifies the percentage of searches for specified user-defined terms relative to the total searches conducted on Google. It computes a relative search volume (RSV), which is derived by normalizing the query share of a term for a designated location and time frame against the highest query share of that term during the observed period. The values range from 0 to 100. Each data point in the graphical output from Google Trends is scaled relative to the highest point, conventionally set at 100.^{17,18}

Statistical Analysis

Statistical analyses were conducted using SPSS version 29.0 (IBM Corp., Armonk, NY, USA) and R version 3.5.0 (R Foundation for Statistical Computing, Vienna, Austria), incorporating the “nlme” and “forecast” libraries. Continuous variables were reported as means±standard deviations. A repeated measures analysis was conducted to evaluate changes in measurements over the specified time interval. Correlation analyses employed seasonal decomposition of time series by locally estimated scatterplot smoothing, which decomposes the time series into seasonal components, a trend, and irregular components. We established a generalized least squares model that accounts for autocorrelation among residuals to further determine the significance of trends over time after adjusting for seasonal effects. The residuals’ correlation structure was determined by automatically selecting the parameters of the AutoRegressive Integrated Moving Average Model, guided by Akaike’s information criterion.¹⁶ A p-value of less than 0.05 was considered statistically significant.

Results

A trend analysis, adjusted for seasonal variations, identified a pronounced escalation in RSV for autism during the monitoring period from April 2014 through April 2024 ($\beta=1.55\pm0.62$, $p=0.014$) (Figure 1). Moreover, a detailed examination highlighted a significant peak in RSV for autism in September 2019. Concurrently, the analysis indicated that the mean RSV for autism in 2019 (39.25 ± 25.61) surpassed that of other years (Figure 2). Table 1 shows the mean RSVs by year for autism.

Subsequently, the average monthly values for each year under review were computed. An assessment of monthly search queries over the entire period identified April as the month exhibiting the highest RSV peak for autism, recorded at 38.89 ± 8.57 (Figure 3). Table 2 presents the mean RSVs by month for autism.

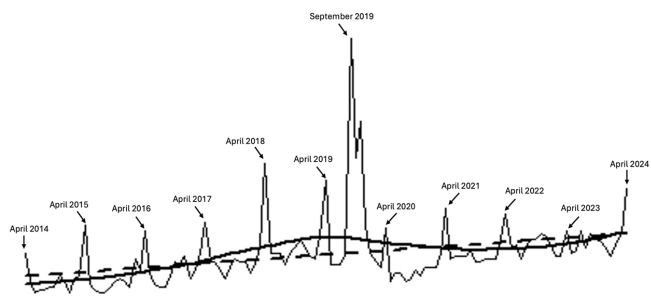


Figure 1. Time series for autism (thin lines), the trends over time using LOESS (local polynomial regression fitting) (thick line), and the linear trends estimated from generalized least squares models (dashed lines)
LOESS: Locally estimated scatterplot smoothing

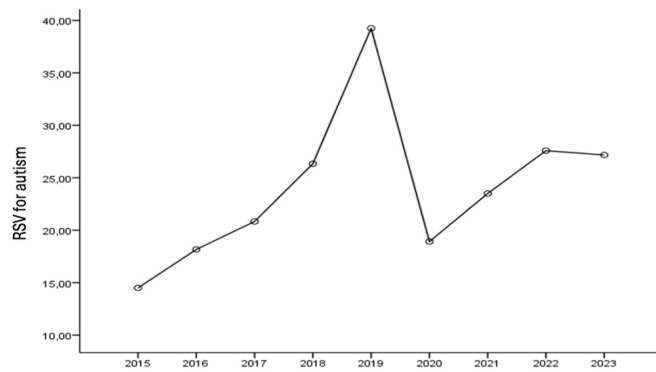


Figure 2. The mean RSVs for autism by year
RSV: Relative search volume

Table 1. The mean RSVs for autism by year	
Year	RSV
2015	14.50±6.50
2016	18.17±5.94
2017	20.83±5.22
2018	26.33±9.89
2019	39.25±25.61
2020	18.92±5.30
2021	23.50±5.50
2022	27.58±4.58
2023	27.17±3.27

RSV: Relative search volume

Discussion

This study investigated public interest in autism by analyzing Google Trends data from April 2014 to April 2024 in Türkiye. The analysis revealed a significant increase in the frequency of search queries related to autism over this decade. Prior research has demonstrated that analyzing Google search queries can serve as an effective tool for monitoring real-time global trends

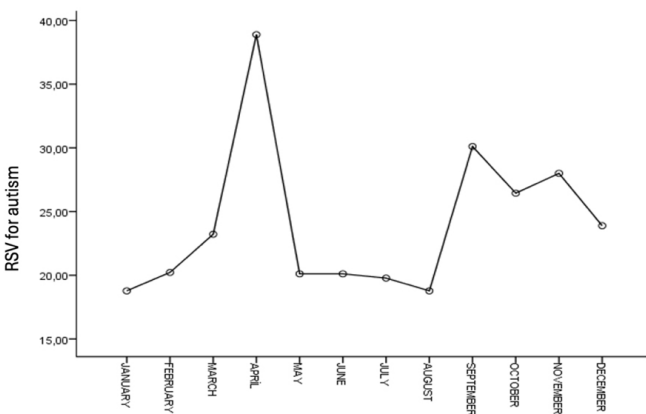


Figure 3. The mean RSVs for autism by month
RSV: Relative search volume

Table 2. The mean RSVs for autism by month	
Month	RSV
January	18.78±5.74
February	20.22±2.54
March	23.22±4.82
April	38.89±8.57
May	20.11±4.57
June	20.11±5.46
July	19.78±6.61
August	18.78±6.14
September	30.11±26.99
October	26.44±12.82
November	28.00±17.08
December	23.89±5.95

and public awareness of diseases.^{19,20} Accordingly, the results indicate a heightened public interest in autism within Türkiye, corroborating previous studies. Indeed, Bayın Donar²¹ indicated that the term “autism” had the greatest rise in RSV among disease concepts, with a significant increase of 372% from 2008 to 2018. However, previous research has shown that public awareness of ASD remains below the desired level in Türkiye. For instance, Rakap et al.⁹ has shown that awareness of ASD is still insufficient among individuals without family members or relatives affected by autism. Neng et al.²² indicated that nearly 10% of mothers applying to a family health center were unaware of autism. Furthermore, studies have indicated that not only the general population but also healthcare professionals lack adequate knowledge and awareness about ASD in Türkiye.^{23,24}

The delayed diagnosis of children with ASD can indirectly indicate a lack of awareness in Türkiye. Indeed, Kul et al.²⁵ reported that the mean age at diagnosis for children with ASD was 36.76 months. Similarly, Kilicaslan and Tufan²⁶ found that the median age at diagnosis for ASD was 36 months, and Bodur et al.²⁷ noted that only 20.1% of children with ASD were

diagnosed before the age of two years. The clinical progression of ASD is closely linked to early diagnosis.²⁸ It is imperative that individuals possess the necessary knowledge and skills to identify signs of autism in children. Therefore, enhancing the knowledge and awareness of the public regarding autism is crucial.

The findings also revealed that April, as the month with the highest RSV for autism, is potentially attributable to autism awareness events. World Autism Awareness Day (WAAD), established by the United Nations General Assembly in 2007, is celebrated annually on 2 April. This global event is dedicated to raising awareness about autism and promoting the acceptance and inclusion of individuals with ASD in society. Organizations and communities worldwide engage in various events, campaigns, and initiatives to educate the public about autism and advocate for the rights and well-being of individuals with ASD. For example, blue, associated with calmness and acceptance, is the primary color designated for autism, and people are encouraged to wear blue to support autism awareness.²⁹ Additionally, Türkiye initiated the “National Action Plan for Individuals with ASDs” in 2016. In this context, a campaign was initiated featuring the slogan “Notice–Accept–Walk with Us.” On April 2, messages were disseminated through social media platforms, alongside public service announcements and radio broadcasts. Correspondence with the Turkish Football, Basketball, and Volleyball Federations facilitated athletes competing under a banner displaying the slogan. Furthermore, the Bosphorus bridges and selected historical and public buildings were illuminated in blue to promote autism awareness.³⁰ Ahmed et al.³¹ demonstrated an observable increase in the volume of tweets and positive sentiment during WAAD, indicating the effectiveness of WAAD in raising awareness on Twitter. Additionally, a recent study has shown an annually repeating pattern, with a peak in the frequency of search queries related to autism in April, Autism Awareness Month.³² This pattern has been consistent between 2008 and 2021, and following the conclusion of Autism Awareness Month, public interest in autism, as measured by Google searches, declined.³² Supporting this, Figure 1 clearly demonstrates that RSV for autism consistently peaked in April, but this increase was not sustained over time. Consequently, there is typically an increase in internet interest in autism during April, likely due to various autism awareness activities. However, this heightened interest is generally short-lived.

The study identified a peak in RSV for autism in September 2019. This observation correlates temporally with the premiere of the Turkish television series “Mucize Doktor” (2019–2021), which portrays a physician with ASD, and garnered substantial viewership and market share during its initial episodes. It is reasonable to suggest that “Mucize Doktor” may have contributed to heightened internet interest in autism during this period. This is supported by Özkent,³³ who has shown that episodes of another Turkish series, “Kırmızı Oda,” which

depicted various mental illnesses, such as paranoid personality disorder, panic disorder, and major depression, caused significant spikes in internet searches immediately following their broadcasts. These findings illustrate that television series can function both as sources of entertainment and as potential educational platforms concerning medical issues.³⁴ However, it is critical to recognize that such portrayals often diverge from actual medical practice and could foster unrealistic expectations about patient care.³⁵

Study Limitations

This study offers important insights into public interest in autism within Türkiye. Nevertheless, several limitations warrant mention. Google Trends data are indicative of relative search interest and may be influenced by concurrent increases in searches for other topics, such as politics or general news. Additionally, the demographic characteristics of the individuals performing these searches remain unidentified. Moreover, while the application of Google Trends in research is on the rise, Google does not disclose detailed methodologies for data compilation.¹⁶

Conclusion

The prevalence of ASD is increasing globally, presenting substantial challenges to affected individuals and their families. Prompt and accurate diagnosis is vital for effective management of ASD symptoms. Therefore, enhancing autism awareness among the public and healthcare professionals is imperative. Strategies to achieve this include conducting autism awareness campaigns and integrating discussions of autism into television narratives and public service announcements. Crucially, these initiatives should be carried out throughout the entire year and not be limited to specific times.

Ethics

Ethics Committee Approval: Not applicable.

Informed Consent: Informed consent is not applicable because this article does not involve any studies with human or animal subjects.

Footnotes

Authorship Contributions

Concept: B.A., S.B.Ç., Design: B.A., S.B.Ç., Analysis or Interpretation: B.A., H.B., E.K., Literature Search: B.A., S.B.Ç., H.B., E.K., Writing: B.A., S.B.Ç., H.B., E.K.

Conflict of Interest: The authors declare no conflicts of interest.

Financial Disclosure: The authors declare that this study received no financial support.

References

1. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th ed. Washington (DC): American Psychiatric Association; 2013.
2. Shaw KA, Williams S, Patrick ME, Valencia-Prado M, Durkin MS, Howerton EM, Ladd-Acosta CM, Pas ET, Bakian AV, Bartholomew P, Nieves-Muñoz N, Sidwell K, Alford A, Bilder DA, DiRienzo M, Fitzgerald RT, Furnier SM, Hudson AE, Pokoski OM, Shea L, Tinker SC, Warren Z, Zahorodny W, Agosto-Rosa H, Anbar J, Chavez KY, Esler A, Forkner A, Grzybowski A, Agib AH, Hallas L, Lopez M, Magaña S, Nguyen RHN, Parker J, Pierce K, Protho T, Torres H, Vanegas SB, Vehorn A, Zhang M, Andrews J, Greer F, Hall-Lande J, McArthur D, Mitamura M, Montes AJ, Pettygrove S, Shenouda J, Skowrya C, Washington A, Maenner MJ. Prevalence and early identification of autism spectrum disorder among children aged 4 and 8 years - autism and developmental disabilities monitoring network, 16 sites, United States, 2022. *MMWR Surveill Summ*. 2025;74:1-22.
3. Neggers YH. Increasing prevalence, changes in diagnostic criteria, and nutritional risk factors for autism spectrum disorders. *ISRN Nutr*. 2014;2014:514026.
4. Shen L, Liu X, Zhang H, Lin J, Feng C, Iqbal J. Biomarkers in autism spectrum disorders: current progress. *Clin Chim Acta*. 2020;502:41-54.
5. Alsehem MA, Abousaadah MM, Sairafi RA, Jan MM. Public awareness of autism spectrum disorder. *Neurosciences (Riyadh)*. 2017;22:213-215.
6. Sukkar O. Level of awareness of autism spectrum disorder among members of Saudi Society: an exploratory study. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Özel Eğitim Dergisi*. 2020;21:227-246.
7. Dillenburger K, Jordan JA, McKerr L, Devine P, Keenan M. Awareness and knowledge of autism and autism interventions: a general population survey. *Res Autism Spectr Disord*. 2013;7:1558-1567.
8. Tipton LA, Blacher J. Brief report: autism awareness: views from a campus community. *J Autism Dev Disord*. 2014;44:477-483.
9. Rakap S, Balıkcı S, Kalkan S, Aydın B. Knowledge of autism spectrum disorder among the general population in Turkey: implications for public training and education. *Intl J Disabil Dev Educ*. 2022;69:565-577.
10. Yu L, Stronach S, Harrison AJ. Public knowledge and stigma of autism spectrum disorder: comparing China with the United States. *Autism*. 2020;24:1531-1545.
11. Chan KKS, Leung DCK, Fung WTW. Longitudinal impact of parents' discrimination experiences on children's internalizing and externalizing symptoms: a 2-year study of families of autistic children. *Autism*. 2023;27:296-308.
12. Turnock A, Langley K, Jones CRG. Understanding stigma in autism: a narrative review and theoretical model. *Autism Adulthood*. 2022;4:76-91.
13. Zeidan J, Fombonne E, Scora J, Ibrahim A, Durkin MS, Saxena S, Yusuf A, Shih A, Elsabbagh M. Global prevalence of autism: a systematic review update. *Autism Res*. 2022;15:778-790.
14. Kars S, Akyürek G. Otizmin basılı medyada temsili: ulusal eylem planından sonraki sürecin incelenmesi. *Ergoterapi ve Rehabilitasyon Dergisi*. 2019;8:187-194.
15. Statcounter Global Stats. Search engine market share worldwide [Internet]. 2023 [cited 2024 Apr 20]. Available from: <https://gs.statcounter.com/search-engine-market-share/all/worldwide/2023>
16. Boehm A, Pizzini A, Sonnweber T, Loeffler-Ragg J, Lamina C, Weiss G, Tancevski I. Assessing global COPD awareness with Google Trends. *Eur Respir J*. 2019;53:1900351.
17. Walker A, Hopkins C, Surda P. Use of Google Trends to investigate loss-of-smell-related searches during the COVID-19 outbreak. *Int Forum Allergy Rhinol*. 2020;10:839-847.
18. Schootman M, Toor A, Cavazos-Rehg P, Jeffe DB, McQueen A, Eberth J, Davidson NO. The utility of Google Trends data to examine interest in cancer screening. *BMJ Open*. 2015;5:e006678.
19. Lippi G, Mattiuzzi C, Cervellin G. Do "disease awareness days" work? A 5-year investigation using Google Trends. *J Epidemiol Glob Health*. 2020;10:245-246.
20. Savelkoel J, Claushuis TAM, van Engelen TSR, Scheres LJJ, Wiersinga WJ. Global impact of World Sepsis Day on digital awareness of sepsis: an evaluation using Google Trends. *Crit Care*. 2018;22:61.
21. Bayın Donar G. Google arama hacmi verileri ile Türkiye'de hastalık farkındalık günlerinin etkinliğinin değerlendirilmesi. *Mersin Üniversitesi Sağlık Bilimleri Dergisi*. 2020;13:177-188.
22. Neng B, Sansaltık A, Hıdroğlu S, Karavuş M. Autism awareness of mothers scale (AAMS): a study of validity and reliability. *TRSPED*. 2023;1-1.
23. Çitil G, Çöp E, Açkel SB, Sarı E, Karacan CD, Şenel S. Assessment of the knowledge and awareness of pediatric residents and pediatricians about autism spectrum disorder at a single center in Turkey. *J Community Psychol*. 2021;49:2264-2275.
24. Akdağ B. Investigation of knowledge about autism spectrum disorder among healthcare professionals in a district. *Ege Üniversitesi Hemşirelik Fakültesi Dergisi*. 2023;39:243-249.
25. Kul M, Dağ P, Akdağ B, Kara MZ. Sociodemographic and social barriers to early detection of autism. *Turk J Pediatr*. 2023;65:778-788.
26. Kilicaslan F, Tufan AE. Autism spectrum disorder: comorbidity and demographics in a clinical sample. *Int J Dev Disabil*. 2022;70:241-250.
27. Bodur S, Taskiran C, Isildar Y, Alan BE, Cetinkaya M, Kara H, Sahin M, Turgut S. Factors affecting burden of psychopharmacological medication in patients with autism spectrum disorder: the importance of early diagnosis. *Klinik Psikofarmakol Bulteni*. 2016;26:273-277.
28. Gabbay-Dizdar N, Ilan M, Meiri G, Faroy M, Michaelovsk A, Flusser H, Menashe I, Koller J, Zachor DA, Dinstein I. Early diagnosis of autism in the community is associated with marked improvement in social symptoms within 1-2 years. *Autism*. 2022;26:1353-1363.
29. World Autism Awareness Day [Internet]. [cited 2024 Dec 22]. Available from: <https://www.sagepub.com/explore-our-content/blogs/posts/asia-pacific-insights/2024/11/22/world-autism-awareness-day>
30. T.C. Aile ve Sosyal Politikalar Bakanlığı. Otizm spektrum bozukluğu olan bireylere yönelik ulusal eylem planı (2016-2019) [Internet]. Ankara: T.C. Aile ve Sosyal Politikalar Bakanlığı; 2016. [cited 2024 Dec 22]. Available from: https://ulusaleyem.aile.gov.tr/media/p0tnjlb3/i-ulusal_otizm_eylem_plani_durum_raporu_2020.pdf
31. Ahmed W, Bath PA, Sbaffi L, Demartini G. Measuring the effect of public health campaigns on Twitter: the case of World Autism Awareness Day. In: Chowdhury G, McLeod J, Gillet V, Willett P, editors. *Transforming digital worlds*. iConference 2018. Lecture Notes in Computer Science. Vol. 10766. Cham: Springer; 2018. p. 10-16.
32. Lang-Ilievich K, Lang J, Szilagyi IS, Ullrich T, Wagner-Skacel J, Repiská G, Bornemann-Cimenti H. The internet's interest in autism peaks in April: a Google Trends analysis. *J Autism Dev Disord*. 2023;53:2915-2918.
33. Özkent Y. The effect of psychological disease portrayals in TV series on internet searches: a Google Trends based analysis. *İletişim Kuram ve Araştırma Dergisi*. 2023;1:36-55.
34. Burzyńska J, Binkowska-Bury M, Januszewicz P. Television as a source of information on health and illness-review of benefits and problems. *Progress in Health Sciences*. 2015;5:174-184.
35. Zago D, Cautero P, Scarpis E, Pompili E, Voglino G, Siliquini R, Brusaferrro S, Brunelli L. TV medical dramas: assessing the portrayal of public health in primetime. *Front Public Health*. 2024;12:1432528.