



The Effect of Social Media on Treatment Awareness in Health Care: Chiropractic

Semina Saridede,¹ Hasan Kerem Alptekin,² Berkay Eren Pehlivanoglu,² Sefa Haktan Hatik³

¹Department of Chiropractic, Bahcesehir University, Graduate School, Istanbul, Türkiye

²Department of Physiotherapy and Rehabilitation, Bahcesehir University Faculty of Health Sciences, Istanbul, Türkiye

³Department of Home Care Services, Sinop University, Turkeli Vocational School, Sinop, Türkiye

Abstract

Objectives: With the rise of social media platforms, people have increasingly turned to the Internet to learn about disease causes, treatments, and alternative therapies. The aim of this study was to examine how clinicians and clinics can effectively utilize social media applications with proper planning. In addition, it aims to identify the influence of advertising on people's social media use and clinical choices. Finally, the rates at which patients share their clinical experiences online were investigated.

Methods: In this study, the survey method, one of the quantitative research models, was used and the participants were determined by purposive sampling method. The sample size of the study consists of 300 people who know chiropractic. A questionnaire form consisting of 21 questions was used as a data collection tool and the data were collected online with Google Forms. The statistical significance value was set at $p < 0.05$ in the study.

Results: The study found significant differences between the responses to the question "Where did you hear about chiropractic?" and various factors. 82.1% of those who heard about chiropractic from health professionals received chiropractic treatment, compared to 62.8% of those who heard about it from social media ($p < 0.001$). 84.8% of those who heard about it from health professionals thought chiropractic treatment would be relieving, whereas 68.6% of those who heard about it from social media shared this belief ($p = 0.004$). In addition, 88.4% of those who heard about it from health professionals were not afraid of chiropractic, compared to 67.2% of those who heard about it from social media ($p < 0.001$). There was also a significant difference in chiropractic treatment rates between genders, with 74.1% of men and 63.8% of women having received treatment ($p = 0.042$).

Conclusion: It was concluded that the participants' opinions about chiropractic treatment were positive. A significant portion of the participants, especially those who learned about chiropractic from health professionals, showed a high level of interest in seeking and undergoing chiropractic treatment. In addition, most participants believed that chiropractic care would be effective and was not afraid of the treatment, indicating a generally favorable perception of chiropractic methods.

Keywords: Chiropractic, health-care systems, social media.

Cite This Article: Saridede S, Alptekin HK, Pehlivanoglu BE, Hatik SH. The Effect of Social Media on Treatment Awareness in Health Care: Chiropractic. BAU Health Innov 2023;1(3):122–129.

Social media has replaced traditional one-sided information broadcasts such as television and radio with a platform where information is exchanged interactively. The rapid access to and sharing of information, ease of use, and the way social media connects people have led

to its widespread adoption and growth.^[1] Social media use has been steadily increasing worldwide over the years. According to the 2019 "Household Information Technology Usage Survey," social media usage in Türkiye has doubled compared to a decade ago, reaching 75%.

Address for correspondence: Berkay Eren Pehlivanoglu, MD. Department of Physiotherapy and Rehabilitation, Bahcesehir University Faculty of Health Sciences, Istanbul, Türkiye

Phone: +90 507 333 79 72 **E-mail:** berkayeren.pehlivanoglu@bau.edu.tr

Submitted: July 10, 2024 **Revised:** August 06, 2024 **Accepted:** August 16, 2024 **Available Online:** September 03, 2024

BAU Health and Innovation - Available online at www.bauhealth.org

OPEN ACCESS This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License.



This increase clearly indicates a shift in consumer attitudes and behaviors. Nowadays, individuals looking to purchase a product compare its value with reviews from those who have already bought it.^[2]

Driven by technological advancements, heightened competition, and ever-evolving markets, social media users have little choice but to keep up with constant updates. Businesses must adapt to consumer behavior and stay abreast of the latest innovations. Reviews, whether positive or negative, significantly impact people's perceptions of products.^[3] Social media allows potential buyers to make informed decisions by exploring reviews from previous users and sharing their own experiences, thus influencing the marketing strategies of businesses.^[4]

Health services must be considered in terms of what they offer, their financial aspects, the procurement process, and their partners, due to their complex nature and the multifaceted process involved. Compared to other businesses, health services face several unique challenges. These challenges include the distinct nature of the service provided, the difficulty in making clear decisions, a lack of information, and the historical demand placed on patients. In addition, the way patients share their experiences with others after receiving treatment can also have a negative impact.^[5] Therefore, it is crucial to accurately understand and address patient demand.

The distinction between public and private hospitals has diminished, as public hospitals now allow patients with health insurance and others to choose any hospital they prefer. With rising education levels, the number of hospitals has increased, and terms such as competition, demand, and customer satisfaction have become relevant in the health-care sector.^[6]

This article reveals how social media impacts the health-care sector and shapes patient preferences. It also highlights the growing significance of social media in health care.

Materials and Methods

In this study, the survey method, one of the quantitative research models, was preferred. The participants were determined using the purposive sampling method. According to the Gürbüz and Şahin,^[7] purposive sampling involves selecting participants who are deemed appropriate for the research problem based on the researcher's personal observations and who are thought to have certain characteristics suitable for the study. Thus, the population of this study consists of individuals who are knowledgeable about chiropractic, whereas the sample consists of 300 people selected from this population. The sample size was determined based on similar survey studies, which were used as a guide.^[8,9]

Participants

Participants were found through calls made through chiropractic groups. The participants ranged in age from 18 to 65 years, and the study was open to participants of both genders. The sample comprises 300 individuals who meet these criteria. The sample size was determined with reference to information and results from similar survey studies.

Participant Recruitment and Communication

Participants were invited to complete the survey through Google Forms. They were asked to fill out the survey online. Participants were provided with detailed information about the study and were asked to voluntarily participate. After indicating their willingness, participants completed the survey online.

Before data collection, approval was obtained from the Bahçeşehir Scientific Research and Publication Ethics Committee with the ethics committee decision dated October 26, 2022, and numbered 2022/09. Participants were informed that their participation was voluntary and that the data would be collected anonymously. The responses and questions from the participants are shared in the findings section.

Statistical Analysis

SPSS 22.0 quantitative analysis program, developed by IBM Corporation in the United States, was used to determine the statistical results of the data collected. The program is compatible with both Windows and Mac operating systems. Frequency analysis was performed to determine the distribution of demographic variables and closed-ended responses in the interview form. The data obtained from the research were evaluated using descriptive analysis methods. Quantitative data were entered into the SPSS 22.0 package program, and their frequency and percentage distributions were provided.

Results

The demographic information of the study participants is as follows: 188 (62.66%) are female and 112 (37.33%) are male. Age distribution includes 91 (30.33%) participants aged 18–27, 75 (25%) aged 28–37, 59 (19.66%) aged 38–47, 67 (22.33%) aged 48–57, and 8 (2.66%) aged 58 and above. Regarding education levels, 5 (1.66%) participants have completed middle school, 24 (8%) have completed high school, 9 (3%) hold an associate degree, 232 (77.33%) have a bachelor's degree, 29 (9.66%) hold a master's degree, and 1 (0.33%) has a doctoral degree. In terms of marital status, 127 (42.33%) participants are married and 173 (56.66%) are single (Table 1).

Table 1. Demographic information table

	Frequency (n)	%
Gender		
Female	188	62.7
Male	112	37.3
Age		
From 18–27	91	30.3
From 28–37	75	25.0
From 38–47	59	19.7
From 48–57	67	22.3
58 and above	8	2.7
Level of education		
Secondary school	5	1.7
High school	24	8.0
Associate degree	9	3.0
License	232	77.3
Master	29	9.7
PhD	1	.3
Marital status		
Married	127	42.3
Single	173	57.7

Statistical analysis revealed several significant differences:

- **Seeking a Specialist:** There was a statistically significant difference between the sources of information about chiropractic and the likelihood of seeking a specialist ($p=0.008$). Specifically, 70.5% of those who learned about chiropractic from health professionals searched for a specialist, compared to 62% of those who learned about it from social media.
- **Chiropractic Treatment:** A significant difference was observed between the sources of information and having received chiropractic treatment ($p<0.001$). 82.1% of those who heard about chiropractic from health professionals pursued treatment, whereas 62.8% of those informed through social media did so.
- **Manipulation for Pain:** There was a significant difference between the sources of information and the application of manipulation for pain ($p<0.001$). 76.8% of those who heard about chiropractic from health-care professionals practiced manipulation, compared to 62% of those who learned about it from social media.
- **Fear of Chiropractic:** Significant differences were found regarding fear of chiropractic ($p<0.001$). 88.4% of those who heard about it from health professionals were not afraid of chiropractic treatment, whereas 67.2% of those who learned about it from social media felt the same.
- **Prejudice Against Chiropractic:** There was a significant difference in prejudice against chiropractic ($p<0.001$).

9.8% of those who heard about it from health professionals and 32.1% of those informed through social media reported having a prejudice against chiropractic.

- **Intention to Pursue Chiropractic Treatment:** There was a significant difference between the sources of information and the intention to pursue chiropractic treatment ($p<0.001$). Specifically, 82.1% of individuals who learned about chiropractic from health professionals expressed an intention to seek treatment, whereas 68.6% of those who learned about it from social media indicated the same intention.
 - **Perception of Relief:** There was a significant difference regarding the belief that chiropractic treatment would provide relief ($p=0.004$). 84.8% of those who learned about chiropractic from health professionals believed it would help, compared to 68.6% of those who heard about it from social media.
 - **Knowledge of Methods:** A significant difference was observed in knowledge about chiropractic methods ($p<0.001$). 28.6% of those informed by health professionals had knowledge about the methods, whereas only 10.2% of those informed by social media did.
 - **Specific Methods:** There was a significant difference regarding knowledge of specific methods ($p=0.002$). The activator method was known to 25.9% of those who learned about chiropractic from health professionals, compared to 9.5% of those informed by social media (Table 2).
- In contrast, no statistically significant differences were found for the following:
- **Gender:** There was no significant difference between gender and how participants heard about chiropractic ($p=0.099$), seeking a specialist ($p=0.124$), satisfaction with treatment ($p=0.521$), belief in effectiveness ($p=0.385$), the first place to go for pain ($p=0.421$), and fear of chiropractic ($p=0.167$). However, there was a significant difference between gender and receiving chiropractic treatment ($p=0.042$). 63.8% of women and 74.1% of men received chiropractic treatment, with a higher treatment rate among men. There was also a significant difference between gender and manipulation for pain ($p=0.046$) (Table 3).
 - **Marital Status:** No statistically significant differences were found between marital status and where they heard about chiropractic ($p=0.239$), seeking a specialist ($p=0.374$), having chiropractic treatment ($p=0.187$), satisfaction with treatment ($p=0.114$), belief in effectiveness ($p=0.083$), the first place to go for pain ($p=0.054$), applying manipulation for pain ($p=0.506$), fear of chiropractic ($p=0.789$), prejudice

Table 2. Analysis of the difference between the answers to the question “where did you hear about chiropractic?” and the answers to the chiropractic content questions

	Where did you hear about chiropractic?						p
	Health-care worker		Social media		Other		
	n	%	n	%	n	%	
Expert search							
Yes	79	70.5	85	62.0	23	45.1	0.008
No	33	29.5	52	38.0	28	54.9	
Getting chiropractic treatment							
Yes	92	82.1	86	62.8	25	49.0	<0.001
No	20	17.9	51	37.2	26	51.0	
Satisfaction with the treatment							
Yes	83	90.2	76	88.4	21	84.0	0.681
No	9	9.8	10	11.6	4	16.0	
Thinking it might work							
Yes	96	85.7	102	74.5	39	76.5	0.084
No	16	14.3	35	25.5	12	23.5	
The first place of reference when there is pain							
Doctor	107	95.5	135	98.5	51	100	0.146
Physiotherapist	0	0.0	1	0.7	0	0.0	
Chiropractor	5	4.5	1	0.7	0	0.0	
Applying manipulation for pain							
Yes	86	76.8	85	62.0	24	47.1	<0.001
No	26	23.2	52	38.0	27	52.9	
Knowing chiropractic							
Yes	112	100	137	100	51	100	–
No	–	–	–	–	–	–	
The cause of chiropractic intimidation							
Sound after adjustment	6	5.4	27	19.7	14	27.5	<0.001
It is a painful situation	0	0.0	3	2.2	2	3.9	
I am not afraid of chiropractic treatment	99	88.4	92	67.2	33	64.7	
Risk of injury	7	6.3	15	10.9	2	3.9	
Prejudice against chiropractic							
Yes	11	9.8	44	32.1	19	37.3	<0.001
No	101	90.2	93	67.9	32	62.7	
Willingness to have chiropractic treatment							
Yes	92	82.1	84	61.3	30	58.8	<0.001
No	20	17.9	53	38.7	21	41.2	
Thinking it will relax							
Yes	95	84.8	94	68.6	33	64.7	0.004
No	17	15.2	43	31.4	18	35.5	
Information about methods							
Yes	32	28.6	14	10.2	6	11.8	<0.001
No	80	71.4	123	89.8	45	88.2	
Which of the methods do they hear?							
None	82	73.2	127	90.5	45	88.2	0.002
Activator Metot	29	25.9	13	9.5	5	9.8	
Drop-table	1	0.9	0	0.0	1	2.0	

Table 3. Analysis of the difference between gender and marital status, demographic data, and answers to chiropractic content questions

	Gender				p	Marital status				p
	Female		Male			Married		Single		
	n	%	n	%		n	%	n	%	
Where did you hear about chiropractic										
Healthcare worker	62	33.0	50	44.6	0.099	53	41.7	59	34.1	0.239
Social media	94	50.0	43	38.4		57	44.9	80	46.2	
Other	32	17.0	19	17.0		17	13.4	34	19.7	
Expert search										
Yes	112	59.6	75	67.0	0.124	81	63.8	106	61.3	0.374
No	76	40.4	37	33.0		46	36.2	67	38.7	
Getting chiropractic treatment										
Yes	120	63.8	83	74.1	0.042	90	70.9	113	65.3	0.187
No	68	36.2	29	25.9		37	29.1	60	34.7	
Satisfaction with the treatment										
Yes	106	88.3	74	89.2	0.521	83	92.2	97	85.8	0.114
No	14	11.7	9	10.8		7	7.8	16	14.2	
Thinking it might work										
Yes	150	79.8	87	77.7	0.385	95	74.8	142	82.1	0.083
No	38	20.2	25	22.3		32	25.5	31	17.9	
The first place of reference when there is pain										
Doctor	182	96.8	111	99.1	0.421	126	99.2	167	96.5	0.054
Physiotherapist	1	0.5	0	0.0		1	0.8	0	0.0	
Chiropractor	5	2.7	1	0.9		0	0.0	6	3.5	
Applying manipulation for pain										
Yes	115	61.2	80	71.4	0.046	83	65.4	112	64.7	0.506
No	73	38.8	32	28.6		44	34.6	61	35.3	
Knowing chiropractic										
Yes	188	100	112	100	-	127	100	173	100	-
No	-	-	-	-		0	-	0	-	
The cause of chiropractic intimidation										
Sound after adjustment	32	17.0	15	13.4	0.167	20	15.7	27	15.6	0.789
It is a painful situation	4	2.1	1	0.9		1	0.8	4	2.3	
I am not afraid of chiropractic treatment	133	70.7	91	81.3		96	75.6	128	74.0	
Risk of injury	19	10.1	5	4.5		10	7.9	14	8.1	
Prejudice against chiropractic										
Yes	52	27.7	22	19.6	0.077	30	23.6	44	25.4	0.413
No	136	72.3	90	80.4		97	76.4	129	74.6	
Willingness to have chiropractic treatment										
Yes	123	65.4	83	74.1	0.074	90	70.9	116	67.1	0.282
No	65	34.6	29	25.9		37	29.1	57	32.9	
Thinking it will relax										
Yes	135	71.8	87	77.7	0.162	96	75.6	126	72.8	0.344
No	53	28.2	25	22.3		31	24.4	47	27.2	
Information about methods										
Yes	30	16.0	22	19.6	0.254	23	18.1	29	16.8	0.438
No	158	84.0	90	80.4		104	81.9	144	83.2	
Which of the methods do they hear?										
None	160	85.1	91	81.3	0.301	104	81.9	147	85.0	0.303
Activator Metot	26	13.8	21	18.8		23	18.1	24	13.9	
Drop-table	2	1.1	0	0.0		0	0.0	2	1.2	

against chiropractic ($p=0.413$), desire for chiropractic treatment ($p=0.282$), belief in relief ($p=0.344$), knowledge about methods ($p=0.438$), and specific methods heard of ($p=0.303$) (Table 3).

Discussion

The aim of this study was to examine how clinicians and clinics can effectively utilize social media applications with proper planning. In addition, it was aimed to identify the influence of advertising on people's social media use and clinical choices. Finally, the rates at which patients share their clinical experiences online were investigated.

The sociodemographic characteristics of the participants are detailed in Table 1. It was observed that both the rates of seeking chiropractic treatment and consulting a specialist increased with higher income levels. Participants with higher income levels tended to obtain more information from health professionals and were more likely to be referred to chiropractic care. Regarding gender, men were more likely to seek chiropractic care (74.1%) compared to women (63.8%). However, no statistically significant relationships were found between gender and other variables.

Chiropractic was developed by David Daniel Palmer in 1895.^[10] At that time, his training included metaphysics, magnetic therapy, cranial examination, fascial examination, hydrotherapy, electropathy, and osteopathy. Palmer referred to the effects of manipulations on the human body as "Innate Intelligence," which can be understood as the body's self-renewal and healing mechanism. This philosophical view guided the development of chiropractic within its philosophical framework. The chiropractic treatment method aims to diagnose, treat, and prevent disorders of the nervous and musculoskeletal systems.^[11]

Technological advancements have significantly impacted the health-care sector, improving access to medical information for both patients and doctors. In our study, most participants first encountered chiropractic treatment through social media. While this highlights the importance of social media for the profession, it also underscores the need for specialists to be mindful of their online presence. Presenting chiropractic treatment as a quick fix for discomfort might undermine trust in the profession. A March 2020 study revealed that some chiropractors claimed that manipulation could prevent or affect COVID-19, despite lacking scientific evidence to support this claim.^[12-14]

Social media, a prominent communication tool, has become essential for hospitals and other organizations to maintain engagement and communicate with people. It allows for active presence through regular posts and interactions,

which can enhance the brand's visibility and identity. Social media facilitates direct communication between brands and consumers, allowing brands to shape their identity and stance in collaboration with their audience. As communication technologies continue to evolve, social media has become indispensable for individuals and organizations. It has also positively impacted the ability of public figures and leaders to engage with their audience in various ways.^[13-15]

Examining chiropractic, as discussed extensively in the second part of our research, reveals that it is a treatment whose application in daily life has been increasing over time. Chiropractic aims to correct disorders caused by disruptions in the nervous and musculoskeletal systems. Despite its growing use, research and studies on chiropractic treatment remain limited. Although it is not well-known, particularly in Türkiye, understanding the procedure is important for informing those with pain issues about non-surgical chiropractic treatment and its contributions to scientific knowledge.^[16,17]

Chiropractic should be administered by trained and qualified experts. Bahçeşehir University Institute of Health Sciences has made significant strides in this area by launching the first chiropractic master's program in Türkiye in September 2015, thereby beginning the formal education of chiropractic specialists. Among the study participants, those who learned about chiropractic from health-care professionals were more likely to seek a specialist, highlighting the importance of trust and professional awareness in chiropractic care. Yüksel et al. noted that chiropractic is the least known traditional complementary medicine technique in Türkiye. In contrast, chiropractic, alongside osteopathy, is more recognized in North America due to the osteopathy education provided at universities in the USA.^[17-20]

The research covers various aspects of health service marketing on social media, including concepts and tools, brand communications in health services, and the role of social media in marketing health services. Under the topic of chiropractic treatment, which is a central focus of our study, the research delves into the origins of chiropractic care, fundamental concepts, indications, diagnostics, the World Health Organization's chiropractic guidelines, effects, and related research in Türkiye. The information is presented in a structured framework.^[21]

Chiropractic treatment, which began in America in the 19th century, is now widely known and practiced in many countries. In Türkiye, awareness of chiropractic care has increased significantly in recent years. Ateş and Güngör described chiropractic as a traditional complementary medicine technique involving manual manipulation of the spine, bones, and muscles to regulate the nervous

system. Their study found that participants had minimal knowledge of chiropractic and primarily used the Internet and social media for information. They also noted that the limited awareness among doctors and the general public is due to insufficient coverage and explanation of these techniques in education and media.^[17–23]

Limitations

There were some limitations in the present study. First limitation, the sample was limited to 300 individuals who have knowledge about chiropractic, which may hinder the generalizability of the results to the broader population. In addition, the use of the purposive sampling method may limit the representativeness of the sample. The data collection tool was Google Forms, an online platform, which may affect the accuracy of the responses and could lead to potential response errors. While differences between genders were noted, the impact of other demographic factors was not analyzed. Furthermore, there is no data on the quality of information from social media and health-care professionals, which could impact the accuracy of the findings. Finally, participants might have responded in a way that conforms to social expectations, which could affect the objectivity of the results.

Conclusion

Social media and health professionals are identified as the most crucial sources of information in our study and others. Those who received information from health professionals were more likely to be referred to chiropractic care and to seek it compared to other groups. The study suggests that higher income levels are associated with a greater tendency to seek chiropractic treatment and specialists, potentially reflecting differences in access to health services. These findings highlight the significant role of sociodemographic factors in the dissemination and preference for chiropractic care. The results can inform the assessment of alternative treatment modalities such as chiropractic and their effectiveness in health policies and service planning.

Disclosures

Ethics Committee Approval: The study was approved by the Bahçeşehir University Scientific Research and Publication Ethics Committee (no: 2022/09, date: 26/10/2022).

Authorship Contributions: Concept – S.S., H.K.A.; Design – S.S., H.K.A.; Supervision – S.S., H.K.A.; Funding – S.S., H.K.A.; Materials – S.S., H.K.A.; Data collection and/or processing – S.S., H.K.A.; Data analysis and/or interpretation – S.S., H.K.A.; Literature search – S.S., H.K.A.; Writing – S.S., H.K.A., B.E.P., S.H.H.; Critical review – S.S., H.K.A., B.E.P., S.H.H.

Conflict of Interest: All authors declared no conflict of interest.

Use of AI for Writing Assistance: The translation and text editing were assisted by artificial intelligence.

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

Peer-review: Externally peer-reviewed.

References

- Solmaz B, Tekin G, Herzem Z, Demir M. An application on the use of internet and social media. *Selçuk İlet* 2013;7(4):23–32.
- Yıldırım F, Boztepe A. A research about relationship between fashion purchase behavior and social media behaviour. *Istanbul Ticaret Univ Sos Bilim Derg* 2019;18(35):325–49.
- Keskin S, Baş M. Determining the impact of social media on consumer behavior. *Gazi Univ İktisadi İdari Bilim Fak Derg* 2015;17(3):51–69.
- Çimen M, Çizmeci E, Deniz S, Erkoç B. Usage of social media for hospital choice. *Int J Soc Res* 2015;8(37):1203–10.
- Mutlu B, Bazarıcı S. A new area for brands collaborations: a netnographic study on youtube content creators and channel communities. *Akdeniz Univ İlet Fak Derg* 2017; 27:28–45.
- Şantaş F, Kurşun A, Kar A. Factors affecting hospital preference: field research from the perspective of health services marketing. *Hacettepe Sag İda Derg* 2016;19(1):17–33.
- Gürbüz S, Şahin F. *Sosyal Bilimlerde Araştırma Yöntemleri*. 2. Baskı. Ankara: Seçkin Yayıncılık; 2014.
- Ayraler A, Yavuz E, Oruç MA, Öztürk O. The knowledge level and opinions of medical faculty students about traditional and complementary medicine. *Türk Aile Hek Derg* 2020;24(4):196–202.
- Koçaş M, Erdem R. Individuals knowledge of traditional and complementary medicine practices and a review on them. *SDÜ Sağlık Yön Derg* 2019;1(2):64–81.
- Kaptchuk TJ, Eisenberg DM. Chiropractic: Origins, controversies, and contributions. *Arch Intern Med* 1998;158:2215–24.
- Mangan MG. *Kayropraktik Tarihi, Felsefesi ve Etiği*. İstanbul: Yükkünç Yayınları; 2017. p. 150.
- Tasnım S, Hossain MM, Mazumder H. Impact of rumors and misinformation on COVID-19 in social media. *J Prev Med Public Health* 2020;53(3):171–4.
- Şener E, Samur M. Social media as a factor health promoting: health on facebook. *Gümüşhane Üniv Sağlık Bilim Derg* 2013;2(4):508–23.
- Dari AB. Social media and health. *21 Yüzyılda Eğitim Toplum* 2017;6(18):731–58.
- Erkek S. Kamu kurumlarında sosyal medya kullanımı: Sağlık bakanlığı örneği. *Selçuk Üniv Sos Bilim Enst Derg* 2016;35:141–50.
- Globe G, Farabaugh RJ, Hawk C, Morris CE, Baker G, Whalen WM, et al. Clinical practice guideline: Chiropractic care for low back pain. *J Manipulative Physiol Ther* 2016;39(1):1–22.

17. Pehlivanođlu BE, Hatik SH. The Status of Chiropractic Profession in Republic of Turkey. In: 4th International New York Conference On Evolving Trends in Interdisciplinary Research and Practices. Manhattan, New York; 2021.
18. Ađaođlu MH, Salik E, Mangan GM, Donat A. The place and importance of chiropractic science that got started on "innate intelligence" philosophy of D.D. Palmer in the world and in Turkey. *J Tradit Med Complement Ther* 2018;1(2):93–8.
19. Yüksel NA, Açıkgöz B, Yüksel C, Ayođlu FN, Tuđçe ER. Physicians' point of view of traditional and complementary medical practices. *Estudam Halk Sađlığı Derg* 2019;4(3):276–86.
20. Axén I, Bergström C, Bronson M, Côté P, Nim CG, Goncalves G, et al. Misinformation, chiropractic, and the COVID-19 pandemic. *Chiropr Man Therap* 2020;28:65.
21. Mrozek JP, Till H, Taylor-Vaisey AL, Wickes D. Research in chiropractic education: An update. *J Manipulative Physiol Ther* 2016;29(9):762–73.
22. Prasad B. Social media, health care, and social networking. *Gastrointest Endosc* 2013;77(3):492–5.
23. Ateş S, Güngör A. Evaluation of knowledge and attitudes of pediatricians on traditional and complementary medicine treatment practices. *Saglik Bilim Derg* 2021;14(1):7–18.