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Clinical Reflections of Social Media Use: A Review in Pediatric Nurses

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ABSTRACT

Objective: This study analyzed, social media usage status, purpose of use, and epistemological approaches of nurses working in pediatric clinics. **Materials and Methods:** The current study is a cross-sectional and descriptive study. The study group was composed of nurses who worked for pediatric services and were literate in Turkish. A total of 210 nurses who satisfied the above inclusion criteria and volunteered to participate in the study were included. The Socio-Demographic Information Form and Social Media-Specific Epistemological Beliefs Scale were used as the data collection tools in the study. The data were analyzed using independent t tests, χ^2 test, Fisher's exact tests, repeated measures analysis of variance, paired t tests and logistic regression. **Results:** The current study has ascertained that nurses working in pediatric clinics actively use social media platforms, frequently use social media at work, and obtain information; their epistemological beliefs specific to social media are above the average. **Conclusion:** The current study has ascertained that nurses working in pediatric clinics actively use social media platforms, frequently use social media at work, and obtain information; their epistemological beliefs specific to social media are above the average.

Key Words: Epistemological Beliefs, Pediatric Nurses, Social Media, Internet.

Sosyal Medya Kullanımının Klinik Yansımaları: Pediatri Hemşirelerinde Bir İnceleme

ÖZ

Amaç: Bu çalışmada, çocuk kliniklerinde çalışan hemşirelerin sosyal medya kullanım durumları, kullanım amaçları ve epistemolojik yaklaşımları incelenmiştir. **Gereç ve Yöntem:** Mevcut çalışma kesitsel ve tanımlayıcı bir çalışmadır. Çalışma grubunu çocuk kliniklerinde çalışan ve Türkçe okuryazarlığı olan hemşireler oluşturmuştur. Araştırmaya katılım kriterlerini sağlayan ve katılmaya gönüllü olan 210 hemşire dahil edilmiştir. Araştırmada veri toplama aracı olarak Sosyodemografik Bilgi Formu ve Sosyal Medyaya Özgü Epistemolojik İnançlar Ölçeği kullanılmıştır. **Bulgular:** Mevcut çalışma, çocuk kliniklerinde çalışan hemşirelerin sosyal medya platformlarını aktif olarak kullandıklarını, iş yerinde sosyal medyayı sıklıkla kullandıklarını ve bilgi edindiklerini; sosyal medyaya özgü epistemolojik inançları ortalamanın üzerinde olduğu tespit edilmiştir. **Sonuç:** Araştırmada, çocuk kliniklerinde çalışan hemşirelerin sosyal medya platformlarını aktif olarak kullandıklarını, sosyal medyayı iş yerinde sıklıkla kullandıklarını ve bilgi edindiklerini; sosyal medyaya özgü epistemolojik inançları ortalamanın üzerinde olduğu bulunmuştur.

Anahtar Kelimeler: Epistemolojik İnançlar, Pediatri Hemşireleri, Sosyal Medya, İnternet.

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INTRODUCTION

Although different numerical values are given about nurses' social media usage rate today, it is observed that this rate is generally over 90 percent (Kung and Oh, 2014; TuckettandTurner, 2016; Wang et al., 2019). The rapid spread of social media use in nursing brings together many opportunities and challenges in the profession. The use of social media in the nursing profession offers opportunities to obtain information, follow and discuss issues related to health practices, follow professional nursing communities, communicate easily with patients, and provide information to patients and students. In addition to these opportunities, it can cause various difficulties due to its adverse effects on mental health, difficulties in providing privacy, and problems in information reliability (Farsaci, 2017; Carrington et al., 2017; Watson et al., 2016; De Sousa et al., 2018; Gage-Bouchard et al., 2016; Giustini ve ark., 2018; Bernhardt et al., 2014; Fogelson et al., 2013; Moorhead et al., 2013).

Nurses and nursing students are well-known for using social media to gather professional information. Notwithstanding, there is limited literature on the effects of epistemological beliefs on nurses' behavior in seeking and acquiring information about their profession in social media. Epistemological beliefs, which have a multidimensional structure, express personal perceptions about knowledge and learning (Cathala et al., 2021; Wahila et al., 2018; Chiu et al., 2021). Still, it clarifies certainty, simplicity, source of knowledge, and personal knowledge. Considering the rapid developments in technology and the rate of use of technology, the use of social media is inevitable in obtaining health information. Personal epistemological beliefs may change specific to the internet and social media due to the internet use as a new source of information (Hofer and Pintrich, 2016; Schommer 1990; Hofer 2004; Braten et al., 2005).

As social media becomes widespread among nurses, sharing pictures of both patients and the institutions they work with or making comments on social media that do not comply with professional ethics are often the subject of news (Yeniçağ gazetesi 2022; Onedio 2016; BBC 2016). Sharing photos and information of patients, units, or colleagues can negatively affect nurses. Further, inappropriate social media usage behaviors such as being friends with patients and making unethical comments about their profession or the hospital they work for also spread unfavorable effects (Ryan, 2016; Watson, 2018; Nyangeni et al., 2015). Due to such problems that arise from unethical social media usage behavior, it is aimed to create social media usage guides for nurses by institutions such as nursing professional organizations and hospitals in many countries. As far as is known, there is no social media usage guide specific to nurses in Turkey. However, it was published by the Public Officials Ethics Committee in 2021 as "Ethical principles that public officials should consider in the

social media use". The ethical principles that must be followed by public officials working in all public institutions in social media have been determined.

The present study aims to ascertain the social media usage status, purpose of use, and epistemological approaches of nurses working in pediatric clinics.

MATERIALS AND METHODS

Participations

The current study is a cross-sectional and descriptive study. The data of the research were collected between February and May 2022. The study group was composed of nurses who worked for pediatric and neonatal intensive care unit services and were literate in Turkish. In the first part of the survey form, information and explanations about the study were introduced. Further, the criteria designated for the study were presented in detail. A total of 210 nurses who satisfied the above inclusion criteria and volunteered to participate in the study were included. As the participants were required to answer all questions in the survey form, no data were lost in the study.

Data collection tools

The Socio-Demographic Information Form and Social Media-Specific Epistemological Beliefs Scale were used as the data collection tools in the study.

Socio-demographic Information Form: The form contains questions about the nurses' socio-demographic data and social media usage for nursing. *Social Media-Specific Epistemological Beliefs Scale:* The Social Media-Specific Epistemological Beliefs Scale, developed by Çelik, is a 5-point Likert-type scale consisting of 15 items. The scale consists of three sub-dimensions: simplicity and precision of social media-based information, source of information, and proof of knowledge. As a result of the Kaiser Meyer-Olkin (KMO=0.83) and Bartlett test ($X^2=1169,560$; $sd=105$ ($p=0.000$)) analysis, the scale's construct validity was appropriate. In the current study, Cronbach's alpha coefficient was calculated as 0.89 for the scale.

Data collections

Before starting to collect the study data, a pilot study was performed to test the comprehensibility of the survey form. A total of 20 nurses joined the pilot study and answered all survey questions in 10-20 minutes on average. In the aftermath of the pilot study, the nurses made no recommendation, and hence, no change was made in the survey questions. The nurses who took part in the pilot study were not included.

Statistical analysis

The study data were analyzed using the Statistical Package for Social Science (SPSS) version 21.0. The arithmetic means, standard deviations, numbers, and percentages were calculated for the survey questions. When the assumptions for parametric tests were verified, the Significance Test for the Difference

Between Two Means was utilized to compare the differences between independent groups. On the other hand, when the assumptions for parametric tests did not hold, the Mann-Whitney U test was used for comparing the differences between independent groups. When there were more than two groups, the One-Way Analysis of Variance (ANOVA) or the Kruskal-Wallis H test was used. Moreover, the relationship between continuous variables was analyzed using Spearman's rank correlation coefficient or Pearson correlation coefficient. Cronbach's alpha coefficient was calculated for the scales used in the study. At the end of the study, G*Power 3.1.9.2 was used to measure the statistical power. The study results were evaluated at a 95%

confidence interval and 5% significance level ($p < 0.05$).

Ethical considerations

Ethical approval was obtained from the Non-Invasive Clinical Research Ethics Committee of University (E-60116787-020-168716) to perform the study. Before the study, the nurses were informed about the research topic and its content. The study was carried out with the consent of the nurses and nurses who agreed to participate voluntarily.

RESULTS

The descriptive characteristics of the nurses participating in the study are given in Table 1.

Table 1. Participant nurses' descriptive characteristics.

Socio-Demographic Characteristics	Mean	SD
Age	37.21	6.80
	n	%
Gender		
Female	210	100.0
Male	0	0.0
Marital status		
Married	135	64.3
Single	75	35.7
Education level		
High school	20	9.5
Associate program	25	11.9
Bachelor program	165	78.6
TOTAL	210	100.0

It was observed that 76.2% of the nurses participating in the study use social media occasionally and 21.4% frequently. 16.7% of them became friends with their patients on social media, and 4.8% shared photos. The rate of those who shared photos on social media from work was 31%. The rate of those who shared information about their workplace was 9.5%. The

rate of those who follow professional organizations on social media and get information about their profession is 78.6%. Only 26.2% of the nurses asserted that they knew the ethical principles of social media published by the public officials ethics committee. 31% of the nurses reported that they shared the information about the disease and treatment they obtained from social media with their patients (Table 2).

Table 2. Social media usage status of nurses.

Information about social media	Mean	SD
Using social media at work		
Never	0	0
Sometimes	160	76.2
Frequently	45	21.4
Always	5	2.4
Being friends with patients on social media		
Yes	35	16.7
No	175	83.3
Sharing photos from work on social media		
Yes	65	31.0
No	145	69.0
Sharing photos with patients on social media		
Yes	10	4.8
No	200	95.1
Sharing information about the workplace on social media		
Yes	20	9.5
No	190	90.5

Table 2 (Continued). Social media usage status of nurses.

	Mean	SD
Obtaining information about the profession from social media		
Yes	165	78.6
No	45	21.4
Following professional organizations on social media		
Yes	165	78.6
No	45	21.4
Knowing the ethical principles of social media published by the public officials ethics committee		
Yes	55	26.2
No	155	73.8
Sharing information about the disease, treatment, or alternative medicine obtained from social media with the patient		
Yes	64	31.0
No	146	69.0
Social media usage purposes of nurses (more than one option ticked)		
Communicating with people	208	99.0
Getting to know and following people	208	99.0
Obtaining information	175	83.3
Following the agenda	181	86.1
Spare time activity	201	95.7
TOTAL	210	100.0

SD=Standard deviation.

The participants got 46.78 ± 4.75 points from the social media epistemological beliefs scale. From the sub-dimensions of the scale, they got 21.97 ± 2.97 points from the Justification for knowing sub-dimension, 13.54 ± 2.73 points from the simplicity and certainty of social media-based knowledge sub-dimension, and 13.54 ± 2.73 points from the source of knowledge sub-dimension (Table 3).

Although not included in the tables, as a result of the logistic regression analysis, there is a significant relationship between the scores of nurses from the social media epistemological beliefs scale and being

friends with their patients on social media (Wald=19.031, $p=0.000$). The average score obtained from the epistemological beliefs scale can increase nurses' probability of being friends with their patients by 1.1 times (Exp(B)/OR=1.167, CI=1.08-1.26).

In the analysis of Table 4, it is deduced that the mean scores of the nurses participating in the study from the Social Media-Specific Epistemological Beliefs scale are affected by the type of school they graduated from, the frequency of using social media in the workplace, obtaining information from social media and the purposes of using social media.

Table 3. Mean social media-specific epistemological beliefs score of nurses.

Scale	Mean±SD
Social Media-Specific Epistemological Beliefs	46.78±4.75
Subdimensions	
Simplicity and certainty of social media-based knowledge	13.54±2.73
Source of knowledge	11.21±3.29
Justification for knowing	21.97±2.97

SD=Standard deviation.

Table 4. Comparison of social media-specific epistemological beliefstotal mean scores of the nurses according to their various characteristics.

	Mean±SD	Test value p*
Education level		
High school	43.6±5.30	F=11.408 p=0.000
Associate program	44.25±6.42	
Bachelor program	47.51±4.13	
Using social media at work		
Sometimes	46.62±4.44	F=4.616 p=0.011
Frequently	46.74±5.36	
Always	46.85±5.64	
Sharing information about the workplace on social media		
Yes	46.00±7.21	t=0.729 p=0.625
No	46.81±4.41	
Obtaining information about the profession from social media		
Yes	46.6±5.20	t=13.134 p=0.000
No	49.2±2.51	
Sharing information about the disease, treatment, or alternative medicine obtained from social media with the patient		
Yes	46.36±5.25	t=0.679 p=0.527
No	46.87±4.57	
Social media usage purposes of nurses		
Communicating with people	46.01±5.12	F=5.312 t=0.032
Getting to know and following people	46.41±4.29	
Obtaining information	49.12±6.21	
Following the agenda	47.36±3.25	
Spare time activity	46.78±4.85	

t=independent sample t testi; F= One-way ANOVA, SD=Standard Deviation.

DISCUSSION

As far as is known, the present study is the first study in which the social media usage status, the behaviors they display in social media, and the epistemological beliefs specific to social media of nurses working in pediatric clinics are determined. It was observed that approximately four out of every five nurses participating in the study occasionally used social media at work, and the remaining one frequently used it. In a study examining nurses' social media use, more than half reported that they spend 1-3 hours a day on social media (Wang et al., 2019). According to another study, more than three-quarters of nurses spend 1-2 hours a day on social media platforms (Mariano et al., 2018). Besides that, the rate of nurses participating in the study who are social media friends with their patients is low. The rate of nurses participating in a similar study to be friends with their patients was twice as high in this study (Wang et al., 2019). Another study by Lefebvre et al. (2020) emphasized that 25% of nurses can interact with patients and their families on social media. In this study, there are hardly any nurses who share photos with their patients on social media. Another study reported that with the increase in social media use, the social media accounts of nurses being public to patients and being friends with their patients increased (Mariano et al., 2018). In this study, only five nurses constantly use social media at work. Therefore, it is thought that the low number of people

using social media reduces the rate of nurses being friends with their patients and sharing pictures on social media. Further, the fact that the nurses in this study work in pediatric clinics and the patient population do not use social media may cause a decrease in the rate of nurses being friends with their patients. Since the nurses in this study work in pediatric clinics and the patients do not use social media, the rate of nurses becoming friends with their patients may be low. No mechanism in Turkey ethically directs, limits, and evaluates nurses' social media use. There is a social media use ethical policy published only for public officials. Three-quarters of the nurses participating in the current study did not know the ethical principles of social media published by the public officials ethics committee. It is assumed that the determined ethical principles do not cover nurse-specific situations and are not binding for nurses working in the private sector. Hence, it is a fact that there is a need for more comprehensive rules that include separate ethical principles for all occupational groups and also cover all professional principles. There are debates about the accuracy and reliability of the information on websites and social media. Incorrect information in social media inevitably spreads to more people much faster than factual information (from correct and verified information). People in their health behaviors use this information (Hong et al., 2021; Turan and Erdoğan, 2018; Ceylan, 2021; Niu et al., 2021). In a study by Wang et al.

(2019), it was reported that 98% of nurses searched for medical information on social media. One of the most important findings of this study is that about three-quarters of the nurses try to obtain information through social media. What is more, the rate of those who shared the information obtained from social media with their patients was 31%. Determining the accuracy and reliability of the information obtained from social media varies depending on the epistemological characteristics of the individual. The nurses in this study scored above the average on the social media epistemological beliefs scale. Notably, their social media-specific epistemological beliefs were above the average. Considering that individuals with advanced epistemological beliefs are successful and their learning strategies are developed, it is possible to say that the nurses' rate of obtaining information and learning from social media in the current study is above the average. Hofer and Pintrich, 1997, Brownlee et al., 2001, Cano, 2005, Tolhurst, 2007, Phan, 2008). Further, people with advanced epistemic beliefs are more likely to control and use other sources to evaluate the quality of information contained on websites (Ulyshen et al., 2015). Thus, due to the firm epistemic beliefs of the nurses participating in this study, it is seen that they used other sources for confirmation before sharing the information they obtained from social media and shared the information in that way. As the education level of the nurses participating in the study increases, their epistemological beliefs specific to social media increase. For this reason, the level of education contributes to the development of individuals' epistemic beliefs specific to social media. Additionally, it was noticed that those who do not obtain information from social media have firmer social media-specific epistemic beliefs. It was interpreted that the reason for this is that as people mature epistemologically, their confidence in the information on social media decreases.

Limitations of study

Since only nurses working from pediatric clinics were included, the data obtained from the study cannot be generalized to all nurses. The situations of nurses regarding the use of social media were evaluated with their expressions, and methods such as observation and examination could not be used.

CONCLUSION

The current study has ascertained that nurses working in pediatric clinics actively use social media platforms, frequently use social media at work, and obtain information; their epistemological beliefs specific to social media are above the average. However, the absence of a study in the literature examining nurses' epistemological beliefs specific to social media makes it difficult to compare and evaluate the data obtained from the current study. For this reason, it is suggested that new studies be

conducted to determine nurses' social media usage status, their epistemological beliefs specific to social media, and support the maturation of their epistemic beliefs.

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Conflict of Interest

The author declares no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

Author Contributions

Plan, design: ÇE, ZÇ; **Material, methods and data collection:** ÇE, ZÇ; **Data analysis and comments:** ÇE, ZÇ; **Writing and corrections:** ÇE.

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