ORIGINAL ARTICLE

PEDIATRICS-RELATED SOCIAL MEDIA: IS THERE AN ADVANTAGE IN THEIR USE?

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ABSTRACT

Introduction: Recently, there has been a continuous increase in the use of social media as a tool for discussing medical topics. This study aimed to establish a correlation between the use of Pediatrics- related social media and knowledge about Pediatrics.

Materials and Methods: An observational, transverse study was conducted using an anonymous survey of guardians of children under two years old. The instrument assessed sociodemographic data, social media usage habits, and knowledge levels using 22 statements based on pediatric myths/popular beliefs to be classified as true/false.

Results and Discussion: A total of 102 valid surveys were obtained, with 82.4% answered by mothers and the guardians had a median age of 32 years (IQR seven). In 60.8% of cases, the use of Pediatrics-related social media was reported, but only 14.5% considered them the primary source of information. The mean correct answers were 16 (SD three). Users of Pediatrics-related social media showed a higher-than-expected count of above-average scores ($p<0.001$), however users that considered it the main source of information showed a higher-than-expected count of below-average scores ($p=0.024$). Additionally, in cases where none of the social media were managed by healthcare professionals, a higher-than-expected count of ratings below-average was observed ($p=0.002$).

Conclusions: Based on this sample, it is concluded that the use of Pediatrics-related social media is associated with higher knowledge than expected about Pediatrics. When Pediatrics-related social media are the main sources of information or when none of them are managed by healthcare professionals, knowledge tends to be lower than expected.

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Introduction

In recent years, the use of social networks has consistently and steadily increased worldwide, becoming one of the main channels for communication and access to information. This growth is reflected in the adoption of these platforms by healthcare professionals, who use them not only to disseminate clinical content but also to interact with the public and respond to health-related questions in real time.[1]

Despite this widespread use, scientific literature on the actual impacts and benefits of social media in healthcare remains relatively limited. Studies analyzing the role of social media in health care show that these platforms can improve self-management of chronic conditions, provide peer emotional support, and facilitate the sharing of evidence-based knowledge, contributing to more participatory and informed health practices. At the same time, the online presence of healthcare professionals has been associated with more equitable communication and collaborative relationships with users, although issues related to reliability and misinformation remain significant challenges.[2,3]

In pediatrics, social media related to child health has become an increasingly common source of information for caregivers. Nevertheless, there is a significant gap in studies directly correlating the use of Social Media related to Pediatrics (SMRP) with the literacy levels of pediatric caregivers. Most current investigations focus on general aspects of social media use in healthcare or on adult populations, leaving questions open regarding how these platforms specifically influence the knowledge, decisions, and behavior of those responsible for children. With this study, our goal was to correlate the use of SMRP with the literacy of caregivers in Pediatrics.

Materials and Methods

We conducted an observational, descriptive, transverse study, based on an anonymous and confidential survey. The survey included questions about child and guardians' social and demographic information and 22 statements to be classified as true or false (Appendix 1). The survey was distributed at a level II hospital in

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the consultation and emergency departments, targeting guardians of children under two years old.

Appendix 1.

1-"Babies, during their first year of life, should sleep on their backs."
2-"Babies, during their first year of life, should be bathed every day."
3-"The umbilical stump should be kept dry and clean, and no bands or coins should be placed on it."
4-"Babies who are exclusively breastfed during the first six months of life are less likely to have infections such as gastroenteritis, colds, ear infections, and throat infections."
5-" To prepare formula, we must first add the water and then the powder."
6-"If a breastfeeding mother eats beans, the baby will get colic."
7-"Tea should be given to babies to improve colic."
8-"We must wait for digestion before bathing the baby."
9-"Yogurt is a great dessert."
10-"It is normal for a 7-month-old baby to sleep 14 hours a day."
11-"When the baby is old enough to go to the beach, sunscreen should be applied 30 minutes before and reapplied every 2 hours."
12-"Fluoride toothpaste should be used as soon as the first tooth appears."
13-"A baby walker helps babies learn to walk."
14-"When babies look backwards, they can become cross-eyed."
15-"A baby who develops a fever during the first month of life must have a medical evaluation."
16-"Teeth emerging cause fever."
17-"Hats cause ear infections in small babies."
18-"Cough syrup is not recommended."
19-"Drafts cause colds, ear infections, throat infections, and/or pneumonia."
20-"When nasal secretions are greenish, it means antibiotics need to be started."
21-"Getting sun on the head causes meningitis."
22-"Walking barefoot causes colds."

Data record and statistical analysis were performed in SPSS® version 25 and p-values < 0.05 were considered statistically significant. We used Chi-square and Fisher tests for the analysis of categorical variables.

Three months after the questionnaire distribution, pamphlets containing the correct answers to the survey were distributed.

Results and discussion

From the 108 submitted surveys, 102 were validated and 6 were excluded due to incomplete questionnaires. Both, guardians, and children's sociodemographic variables are characterized in Table 1. Based on the provided information, it is notable that the majority of the sample is represented by the mothers of the children (82.4%), with 59.8% possessing a high school education. Additionally, a majority of the children were female, accounting for 52.0% of the sample.

In 97.1% of the surveys (n=99), guardians reported seeking advice from pediatricians to clarify their doubts. Additionally, 31.4% of the tutors (n=32) reported having read books on Pediatrics, predominantly authored by Pediatricians (38.7%, n= 12) or Pediatric Nurses (35.5%, n= 11).

Table 1. Sociodemographic characteristics (n = 102).

	Total n (%)
Guardian	
Relationship	
Mother	84 (82.4%)
Father	16 (15.7%)
Grandmother	1 (1.0%)
Aunt	1 (1.0%)
Age (years)	
<20	1 (1.0%)
20-29	33 (32.3%)
30-39	61 (59.8%)
40-49	6 (5.9%)
<50	1 (1.0%)
Education	
Elementary education	3 (2.9%)
High school education	61 (59.8%)
Higher education	38 (37.3%)
Number of children	
0-1	50 (49.0%)
2-4	52 (51.0%)
Residential area	
Rural area	57 (55.9%)
Urban area	45 (44.1%)
Children	
Gender	
Female	53 (52.0%)
Male	49 (48.0%)
Age (months)	
0-1	28 (27.5%)
2-12	51 (51.9%)
13-24	23 (20.6%)

n: Number of participants.

More than half of the guardians (60.8%, n=62) uses SMRP but only 14.5% (n=9), had considered it the major source of information. In Table 2, the specific characteristics of social media platforms are outlined.

The mean of correct answers on the survey was 16 questions (SD ±3).

Our analysis revealed that SMRP users and individuals with higher education had higher-than-expected count of above-average scores (p<0.001). This trend persisted in SMRP users, even after excluding those with higher education (p=0.023).

Table 2. Characteristics of social media (n = 62).

	Total n (%)
Type of Social Media	
Facebook®	27 (43.5%)
Instagram®	55 (88.7%)
YouTube®	9 (14.5%)
TikTok®	8 (12.9%)
X®	1 (1.6%)
Others	3 (4.8%)
Responsible for Social Media	
Pediatrician	42 (67.7%)
Pediatric Nurse	23 (37.1%)
Parents	19 (30.6%)
Osteopath	14 (22.6%)
Therapist	9 (14.5%)
Doctor	8 (12.9%)
Nurse	6 (9.7%)
Doula	1 (1.6%)
Others	0 (0.0%)
At least one SMRP managed by a Healthcare Professional	53 (85.5%)

SMRP: Social Media related to Pediatrics; n: Number of participants.

When SMRP was the primary source of information we noticed a higher-than-expected count of below-average scores (p=0.024). Similarly, instances where social media lacked oversight from Healthcare Professionals also resulted in higher-than-expected count of below-average scores (p=0.002). No social media platform demonstrated a statistically significant association with pediatric knowledge.

In this study, we did not find any significant relationships between factors such as the number of children or residential area and knowledge about Pediatrics.

Additionally, reading books on Pediatrics also did not show a significant association with knowledge about Pediatrics.

Thus, healthcare providers are increasingly challenged to find effective ways to communicate with patients, as traditional methods are becoming outdated.[4] To adapt, many are turning to social media as a new platform for engagement. However, despite the high expectations, there is currently little evidence in the academic literature demonstrating the health benefits of patients using these platforms.[4] Besides, while some healthcare professionals use these networks to share scientifically accurate information, others publish content based solely on personal experiences, lacking scientific validation. This fact, combined with the ease of rapid information dissemination on the internet, leads to the widespread circulation of false information, which can confuse and mislead followers,[5] potentially causing them to take actions that cause health risks. A 2021 study conducted in Spain identified that health misinformation on social media was predominantly associated with several key topics, including vaccines, dietary practices and eating disorders, pharmaceuticals and emerging tobacco products, pandemics and communicable diseases, chronic illnesses, and medical treatments.[6] The research also highlighted that Twitter was the platform where health misinformation was most frequently encountered.[6]

Our study, despite being conducted on a small sample, provided valuable insights into this issue. It revealed that users of SMRP demonstrated more knowledge than expected. However, when SMRPs were not managed by any Healthcare Professional or when they served as the primary source of information, there was less knowledge than expected. In our study, no type of social media platform showed a statistically significant relationship with pediatric knowledge.

Additionally, the study highlighted the impact of guardians' education levels. As anticipated, guardians with higher education exhibited more knowledge than expected. To determine if this group influenced the higher knowledge observed in SMRP users, we analyzed a subset of users with only elementary and high school education. Even within this group, SMRP users continued to show higher knowledge levels than expected.

Conclusion

Based on these findings, we advise parents that while following SMRP can be beneficial, it should never be their main source of information. Moreover, any SMRP they use should always be managed by Healthcare Professionals. Additionally, this study concludes that SMRP offer a valuable opportunity for professionals to inform the public, allowing them to raise awareness and disseminate essential health information effectively.

Compliance with Ethical Standards
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