

**OREGON HEALTH & SCIENCE UNIVERSITY**  
**SCHOOL OF MEDICINE – GRADUATE STUDIES**

USING PUBLICLY AVAILABLE REDDIT DATA TO UNDERSTAND  
HOW PARENTS CHOOSE PEDIATRICIANS

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A CAPSTONE PROJECT

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CERTIFICATE OF APPROVAL

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This is to certify that the Master's capstone project of

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*"Using Publicly Available Reddit Data to Understand How Parents Choose Pediatricians"*

has been approved

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v1.0

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## **Acknowledgement**

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## **Abstract**

### **Objective**

Parents are increasingly using online physician rating sites to select a pediatrician. However, no studies have examined the role of social media in influencing parents' choice of a pediatrician. The objective of this study was to qualitatively analyze what factors influence the choice of a pediatrician in an online peer support community.

### **Methods**

We retrieved retrospective data of all threads made to 4 subreddits on the Reddit social media platform between January 1, 2018 and December 31, 2019. We performed qualitative analysis using an inductive approach on threads related to choosing a pediatrician. We identified several codes which were grouped into subcategories/categories and finally abstracted into themes.

### **Results**

We retrieved a total of 179 threads and included 30 for qualitative analysis. Thematic analysis led to identification of four major themes that influence how parents choose pediatricians on a social media platform – pediatrician-specific factors, office-related factors, parent/patient factors, and social factors.

### **Conclusion**

An online peer support community can serve as an important source of information for parents when searching for a pediatrician. Pediatric practices should focus on providing unmet information needs to parents that will ease the burden of the search process.

## Introduction

Parents have to make a plethora of decisions during pregnancy. One of the most important is choosing a pediatrician. The American Academy of Pediatrics (AAP) recommends at least 12 well child visits in the first two years of life where pediatricians provide anticipatory guidance and support the physical, mental, developmental, and social needs of the child.<sup>1</sup> Given the long term relationship and frequency of contact between the parent, child, and pediatrician, it is imperative for parents to identify pediatricians that suit their preferences to promote therapeutic alliance.

As consumerization of healthcare evolves and data becomes ubiquitous on the internet, patients and parents are seeking more information online about providers before choosing a pediatrician or physician.<sup>2,3</sup> A 2014 study by Hanauer et. al. showed that 74% of parents were aware of physician-rating sites and 28% had used such sites to select a primary care provider for their children.<sup>4</sup> Despite the rising trend in online reviews, many parents do not know how to interpret these ratings or what factors to base their choice on. Most clinicians generally receive positive reviews online precluding meaningful interpretation by consumers, and the scientific research in physician rating websites is limited.<sup>5,6</sup>

Knowing what factors influence parents' choice of a pediatrician might drive health care providers to design their practice sites to satisfy parents needs leading to improved parent satisfaction and ultimately quality of care.<sup>7,8</sup> This knowledge also has the potential to increase patient engagement and patient centered care in line with the Institute of Medicine (IOM) dimensions of healthcare quality.<sup>9</sup> Although there are multiple studies on how adult patients choose primary care providers,<sup>10-13</sup> the literature is sparse for pediatric patients. Two pediatric studies focused on specific clinician attributes such as online presence reviews<sup>4</sup> and board certification status<sup>14</sup> while another study examined a broader range of factors but was conducted in a narrow demographic of low income and racial/ethnic minority mothers.<sup>15</sup>

Online peer support communities are another rapidly-growing source of information for patient decision making. In recent years, several studies have revealed how patients and the general population increasingly turn to online communities to seek information about their health, including for issues such as receiving the human papillomavirus vaccine,<sup>16</sup> obesity,<sup>17</sup> urinary incontinence,<sup>18</sup> eating disorders,<sup>19</sup> and rheumatoid arthritis management in pregnancy.<sup>20</sup> However, no studies have explored the role of social media platforms in the decision making process of choosing a pediatrician.

Founded in 2005, Reddit has several features that make it an ideal platform for a qualitative study. It is the 17<sup>th</sup> most visited website globally and 7<sup>th</sup> most visited website in the United States,<sup>21</sup> with over 430 million average monthly active users.<sup>22</sup> Users of the Reddit platform are called redditors and typically join using anonymous usernames. Reddit is composed of many smaller communities called subreddits that are created and used by redditors with shared interests. Posts are initial remarks or questions posted on a subreddit, usually beginning with a

title, and comments are replies made to a post. A thread is a combination of a single post, its title, and all comments made to that post. A unique feature of Reddit compared to other social media platforms is that there is no limit to post or comment character length. This makes it an ideal platform for qualitative analysis because of the richness and depth of the posts. The post context is also generally well understood. Additionally, the anonymity of usernames means that posts can be analyzed in a de-identified manner.

Online platforms such as Reddit can serve as a rich source of information for factors that parents consider when choosing a pediatrician. Gathering and analyzing data on these platforms can add to the small body of knowledge regarding this topic. The objective of this study was therefore to qualitatively analyze what factors influence the choice of a pediatrician in an online peer support community.

## **Methods**

### **Data collection**

We retrieved retrospective data of all threads made to the following subreddits between January 1, 2018 and December 31, 2019: r/BabyBumps, r/beyondthebump, r/pregnant, and r/Parenting. The subreddits are focused on issues related to pregnancy, the postpartum period, and parenting. Threads were retrieved from the Reddit corpus via a publicly-available database, pushshift.io. In order to identify threads related to our study objective, we first performed a keyword search on post titles using the term “pediatrician.” Python software was used to perform the keyword search. For each thread, we retrieved the title, post, and comments. We exported our initial data to an excel file. Given that not all post titles with the keyword were related to choosing a pediatrician, we manually reviewed all posts and titles to include only those threads that were relevant to our study objectives.

### **Data analysis**

We performed qualitative analysis of the posts and comments using an inductive approach. We chose this approach because of the lack of an existing framework for how parents choose pediatricians. We generated codes which were grouped into subcategories/categories and finally abstracted into themes to capture the factors that influence how parents choose pediatricians. Data was analyzed until we reached thematic saturation. Data was analyzed by the first author, CO, under supervision of the senior author, BO. Both authors met monthly to review generated codes. Analysis was performed using NVivo 12, a qualitative analysis software.

### **Consent**

Our Institutional Review Board classified our study as not involving human subjects research and therefore exempt from review since it was conducted using publicly available data. We also

took additional measures to protect the anonymity of redditors by paraphrasing posts and comments. Previous studies have highlighted ethical concerns associated with directly quoting posters in online communities and social media platforms for research purposes.<sup>23,24</sup> Some of the concerns identified include a lack of awareness by online users that their posts may be used for research purposes, thereby betraying the trust of these users, and possibility of reverse-identifying users from published quotes. Paraphrasing techniques such as the use of synonyms, changing the sentence voice, and sentence structure were used to mitigate the possibility of identifying redditors quoted in this study, while retaining the underlying meaning of the comments.

## Results

Across the four subreddits, we identified 179 threads that contained the keyword, “pediatrician”, in the post titles. Upon manual review, we excluded 149 threads because they were not related to finding or choosing a pediatrician. We included 30 threads and 382 posts in our final analysis. However, we only analyzed 24 threads and 293 posts due to thematic saturation. Four major themes emerged from our analysis: (1) Pediatrician-specific factors; (2) Office-related factors; (3) Parent/patient factors; (4) Social factors. Table 1 provides a summary of the themes, categories and representative quotes.

### Theme 1: Pediatrician-specific factors

Users of the Reddit social media platform considered several pediatrician-specific traits when choosing a pediatrician. Redditors specifically focused on the pediatrician beliefs and philosophies regarding important newborn issues like cry it out method for sleep training, breastfeeding, best time to introduce formula/solid foods, antibiotic use, and circumcision. A redditor stated (paraphrased), *“It was vital that my pediatrician would not push formula or cereals before 6 months old. By asking these questions, I found out my pediatrician is a huge advocate for temporarily supplementing formula and her passion is Baby Led weaning! Perfect fit.”*

Expertise in breastfeeding was commonly considered among redditors. Some redditors felt breastfeeding was not extensively taught in medical schools/residencies so chose pediatricians who had some additional training or experience in breastfeeding. Other pediatrician-specific factors considered include if the pediatrician was accepting new patients, was part of the insurance network, or affiliated with a large hospital network or the delivery hospital. In addition, pediatrician demographics e.g. gender, education, and decision making style were considered. Redditors preferred pediatricians who were board certified and up to date with training.



## **Theme 2: Office-related factors**

Several redditors considered office-related factors such as office policies and amenities to be important in choosing a pediatrician. Among the most commonly considered policies were office hours, policies regarding walk-ins and emergency sick visits, and vaccination policies. Parents were positively influenced by offices that had weekend hours, after-work hours, open walk-in policies, and dedicated sick visit slots in the morning. One of the parents found it unacceptable that her daughter was referred to the urgent care when she was sick.

Paraphrasing a parent, *“You might find a practice with an older grandma type pediatrician who knits every baby a hat and can recite a medical dictionary but if she’s only open Monday thru Wednesday 9-3, and you and your spouse both work 9-5 every day, she will not be the right fit for you.”*

Some redditors chose pediatricians based on availability of special health services e.g. presence of a lactation consultant or mental health specialist in the clinic. Amenities such as dedicated waiting areas for sick and well-child visits, and parking availability also influenced the choice of a pediatrician among redditors. Location was another important factor that was mentioned in the threads. Although most redditors chose an office that was conveniently located close to work or home, a few were happy driving a distance if the office provided other specific benefits or they already had a close relationship with the pediatrician. Group vs solo practices, average office wait times, and access to a patient portal were other factors that played a role in how redditors chose pediatricians.

## **Theme 3: Parent/patient factors**

There were a few characteristics specific to the parent or child that redditors considered in choosing a pediatrician. These included gender of the child, diagnosis, and parenting style. A redditor specifically chose a pediatrician because her child was born premature and she thought the pediatrician had great training in premature newborn care.

## **Theme 4: Social factors**

Social factors describe how redditors chose pediatricians based on relationships with other individuals, either physically e.g. recommendations from family and friends, or online through participation in parent groups or reviews from other parents. This category was especially important for parents who did not know what factors to consider and therefore depended on the opinion of other close-knit or trusted individuals. Obstetricians were an important source of recommendation for these parents.

**Table 1: Themes, categories, and representative quotes identified in analysis\***

<b>Themes</b>	<b>Categories</b>	<b>Quotes</b>
<b>Pediatrician-specific factors</b>	Accepting new patients	<i>"A lot of providers in my area aren't taking new patients because they're just overbooked, so I did do my research in advance to find someone who was accepting new patients."</i>
	Beliefs and philosophy	<i>"Philosophy. One of the first things they said at the meet and greet was that they are meticulous of not giving antibiotics to babies unnecessarily and over treating. That was pretty important to me."</i>
	Decision making style	<i>"The other thing I love is that our pediatrician gives it to us directly. We have college degrees, we're not stupid, but this is our first baby."</i>
	Demographics	<i>"Then considered providers based on gender."</i>
	Education	<i>"A pediatrician who has received the right level of training."</i>
	Expertise	<i>"My advice if you're interviewing pediatricians, and if you plan to breastfeed, is to find a pediatrician who is knowledgeable about breastfeeding. Most pediatricians are not properly educated, beyond a cursory encounter in med school. My ped had a lot of experience with it (partly due to his wife being a certified lactation consultant and him having an MPH in addition to an MD), and it was really helpful that he did because we battled a tongue tie, bad latch, low supply, etc."</i>
	Hospital affiliation	<i>"Mine is also part of a large group of hospitals (think multiple locations in a big city), which is great in case of a sick kid. I can always find a pediatrician with an opening when my kid is sick."</i>
	Insurance	<i>"I checked with my insurance to make sure that the doctors I liked were covered."</i>

	Personality	<i>"It was important to get a feel for the personality of the doctor and if we meshed. Good luck!"</i>
<b>Office-related factors</b>		
	Amenities	<i>"Because we live in a big city, the cost of parking can be prohibitive. I ensured I asked about parking fees because I wasn't paying \$20.00 to park every appointment."</i>
	Location	<i>"Next, look for Pediatricians around your neighborhood (it's painful taking a sick kid across town!)"</i>
	Metrics (Wait time)	<i>"I changed pediatricians because of the wait time whenever I had an appointment. I could spend hours waiting which was frustrating."</i>
	Policies	<i>"Do they allow unvaccinated patients, and do they have separate waiting rooms if so. Basically, if someone doesn't get a vaccine then comes in with a life threatening disease, you want to make sure they're not going to be in the same waiting room as your newborn."</i>
	Staff	<i>"You can choose between a solo practice pediatrician or one that is part of a group practice."</i>
	Technology	<i>"We have access to MyChart system to view my child's health information. This is super convenient for me because my son was diagnosed with a minor health issue prenatally so we need to keep following up on it every few months with ultrasounds for a bit. He also required referral for an ultrasound of his hips. It was easy to check out all of his appointments in the system and email his doctors!"</i>
<b>Parent/patient factors</b>		
	Infant factors	<i>"A nurse suggested to think about my child's gender. I never thought about it but my child won't be a baby forever so she might be more comfortable with a pediatrician of the same gender when she's grown up."</i>

		<i>Definitely something to think about but not the most important."</i>
	Newborn diagnosis	<i>"I needed a pediatrician who was highly qualified and who had experience with premature babies because of my son's medical history so I picked a pediatrician down the road who did her residency at a major hospital where they have a level IV NICU. I figured she must have seen many babies like my son."</i>
	Parenting style	<i>"Ensure you pick a pediatrician who has similar parenting styles like you especially in areas such as cosleeping, breastfeeding, baby-led weaning, baby sign language, discipline. You want someone who can provide advice if things aren't going the way you hope."</i>
<b>Social factors</b>		
	Family and friends	<i>"My friend with kids recommended a pediatrician at the last minute and it worked out for me."</i>
	Hospital staff	<i>"Asking your doctor is a good place to start if you are looking for a pediatrician. Our general pediatrician gave us three references similar to the recommendations my OB gave me so we called those offices up."</i>
	Online community	<i>"I joined a Facebook group for Moms because I was new to the city. I got a few recommendations then it was just a matter of calling up the office and booking an appointment!"</i>

\*All quotes were paraphrased as described in the Methods section

## Discussion

The objective of this study was to understand the factors that parents considered in choosing a pediatrician in an online community. We identified four emerging themes in our qualitative analysis: pediatrician-specific factors, office-related factors, patient/infant factors, and social factors. To our knowledge, this is the first study that sought to understand parents' perspectives using this approach. Previous studies have described characteristics of the Reddit

community that make it an excellent platform for qualitative research, including anonymity of users and ability to freely express opinions without word or character limit.<sup>20,25</sup> We chose Reddit as our study platform for these reasons, in addition to being one of the most visited websites globally.

The themes we identified in this study were similar to those from a study by Goff et. al. of factors that matter to low-income and racial/ethnic minority mothers when choosing a pediatric practice.<sup>15</sup> Goff and colleagues surveyed 367 women at a prenatal clinic that served predominantly low-income population in an urban tertiary care center. They asked the women what factors mattered the most in choosing a pediatric practice for their newborn. The study highlighted three themes: physician factors, system/office factors, and patient/relational factors. Insurance acceptance (93%) and ability to contact office by phone (82%) mattered the most to the participants. Those factors were also important in our study population despite the difference in demographics. Redditors are more likely to be white non-Hispanic<sup>26</sup> compared to Goff's study which was mostly Hispanic participants. This suggests that there may be a great deal of overlap in factors influencing pediatrician choice across demographic groups.

The first theme identified in our study was pediatrician-specific factors. Redditors frequently chose pediatricians based on availability within their insurance network which made sense given that insurance companies are responsible for office visit payments for most people. Redditors also preferred board certified pediatricians similar to a 2010 web-based survey where parents reported board certification to be an important factor in choosing a pediatrician.<sup>14</sup> Some redditors mentioned non-modifiable pediatrician attributes such as gender and nationality as influencing their choice. This was also identified in Goff's study and other adult studies,<sup>13,15,27</sup> underlying the importance of demographics in how parents choose pediatricians. In the adult population, racial and gender concordance has been shown to be an important predictor of patient satisfaction<sup>28,29</sup> but the impact on quality of care is lacking.<sup>30</sup>

Office-related factors were common attributes that impacted how redditors chose pediatricians. Surprisingly, vaccination policies were commonly cited by redditors as critical in choosing a pediatrician. Although, issues surrounding vaccination have been popularized in the media, there are limited studies on how it impacts parents' choice of a pediatrician. In 2011, a study was published that showed increased parental vaccine safety concerns and refusals.<sup>31</sup> More pediatricians will have to deal with such parents and therefore have to think about vaccination policies for their practices. Redditors did not appear to be influenced by clinical outcomes such as hospitalization or ambulatory infection rates. It is unclear if this was due to lack of available data, lack of awareness, or redditors did not just consider such outcomes important enough to be discussed. Apparently, there has been an increased push to transparently display these outcomes in the hopes that they may guide patient choice of healthcare providers.<sup>32</sup> However, similar to the study by Goff et. al. and other published studies,<sup>33</sup> we found that parents did not consider quality metrics as critical in choosing a healthcare provider. Perhaps, healthcare systems should consider publishing other metrics and

information that is more meaningful to parents, including average wait time and vaccination policies.

Patient/parent factors was the least discussed theme that influenced redditors on how they chose pediatricians. This may be because it is closely related with pediatrician specific factors. For example, having an infant with a specific diagnosis means looking for a pediatrician with expertise in that disease process. One of the factors discussed was the infant's gender. As shown in the table, one of the parents considered how comfortable her child would be with her pediatrician when she grew older. It may be difficult to predict what a child's preference would be in the future but it is an important consideration as a 2004 study showed that children as young as 9 years expressed a gender preference for their physician but their preference was not met for several years.<sup>34</sup>

Social factors were important influential sources for redditors in choosing a pediatric healthcare provider. Parents, especially those who had no idea what factors to consider, went with recommendations of trusted sources including family, friends, hospital staff, and online communities. Surprisingly, only a few parents discussed using online physician reviews even in an online community. The reason for this finding is not clearly understood. More studies may be needed to explore the trustworthiness of physician online reviews by redditors.

A major strength of this study is that we were the first to adopt a novel method of determining information needs for parents looking for pediatricians using a social media platform. Anonymity of redditors and lack of demographic information limits the applicability of our research outside the online community. It is difficult to know the geographical location of redditors; therefore, we cannot tell if we have a representative sample of the entire United States or any specific location. Still, our findings were similar to previous studies with clearly defined demographic data and lays the foundation for future studies on how parents choose pediatricians.

Our keyword search methodology may have limited the number and types of threads we analyzed. Focusing on pediatricians means we excluded parents who chose other healthcare providers e.g. nurse practitioners and family physicians. However, studies have shown that more children are seen by pediatricians than family physicians.<sup>35</sup> We therefore focused on pediatricians to increase the relevance of the key word search results. Our study has important implications – it informs pediatricians and the healthcare system on what factors matter most to parents when searching for a pediatric healthcare provider. Awareness of this knowledge will allow pediatric practices to best meet the information needs of parents. Future research may focus on quantitatively assessing the factors that influence parents' choice of a pediatrician and determining how these factors interact with each other.

## Conclusion

We identified four emerging themes in our study of how parents choose pediatricians in an online community. Parents focused on specific pediatrician characteristics, office-related factors, attributes of the child/parent, and recommendations from trusted sources. Parents did not focus on clinical outcome measures but rather focused on personal preferences and practical factors that could affect growth/development of the child and access to care. Pediatric practices should focus on providing unmet information needs to parents that will support their choice of a pediatrician.

## References

1. Hagan Judith S. Duncan, Paula M. JFS, ed. *Bright Futures Guidelines for Health Supervision of Infants, Children, and Adolescents, 4th Ed.* American Academy of Pediatrics; 2017. <https://ebooks.aappublications.org/content/9781610020237/9781610020237>.
2. Emmert M, Meier F, Pisch F, Sander U. Physician Choice Making and Characteristics Associated With Using Physician-Rating Websites: Cross-Sectional Study. *J Med Internet Res.* 2013;15(8):e187. doi:10.2196/jmir.2702
3. Han X, Li B, Zhang T, Qu J. Factors Associated With the Actual Behavior and Intention of Rating Physicians on Physician Rating Websites: Cross-Sectional Study. *J Med Internet Res.* 2020;22(6):e14417. doi:10.2196/14417
4. Hanauer DA, Zheng K, Singer DC, Gebremariam A, Davis MM. Parental awareness and use of online physician rating sites. *Pediatrics.* 2014;134(4):e966-e975. doi:10.1542/peds.2014-0681
5. Daskivich T, Luu M, Noah B, Fuller G, Anger J, Spiegel B. Differences in online consumer ratings of health care providers across medical, surgical, and allied health specialties: Observational study of 212,933 providers. *J Med Internet Res.* 2018;20(5):e176. doi:10.2196/jmir.9160
6. Emmert M, Meier F. An Analysis of Online Evaluations on a Physician Rating Website: Evidence From a German Public Reporting Instrument. *J Med Internet Res.* 2013;15(8):e157. doi:10.2196/jmir.2655
7. Emmert M, Meszmer N, Sander U. Do Health Care Providers Use Online Patient Ratings to Improve the Quality of Care? Results From an Online-Based Cross-Sectional Study. *J Med Internet Res.* 2016;18(9):e254. doi:10.2196/jmir.5889
8. Halfon N, Inkelas M, Mistry R, Olson LM. Satisfaction with health care for young children. *Pediatrics.* 2004;113(6 II):1965-1972. <https://pubmed.ncbi.nlm.nih.gov/15173468/>. Accessed September 7, 2020.
9. America I of M (US) C on Q of HC in. Improving the 21st-century Health Care System. 2001. <https://www.ncbi.nlm.nih.gov/books/NBK222265/>. Accessed May 17, 2021.

10. Mercado F, Mercado M, Myers N, Hewit M, Haller NA. Patient Preferences in Choosing a Primary Care Physician. *J Prim Care Community Heal*. 2012;3(2):125-131. doi:10.1177/2150131911421802
11. Victoor A, Delnoij DM, Friele RD, Rademakers JJ. Determinants of patient choice of healthcare providers: A scoping review. *BMC Health Serv Res*. 2012;12(1):1. doi:10.1186/1472-6963-12-272
12. Razzouk N, Seitz V, Webb JM. What's important in choosing a primary care physician: An analysis of consumer response. *Int J Health Care Qual Assur*. 2004;17(4):205-211. doi:10.1108/09526860410541522
13. Bornstein BH, Marcus D, Cassidy W. Choosing a doctor: An exploratory study of factors influencing patients' choice of a primary care doctor. *J Eval Clin Pract*. 2000;6(3):255-262. doi:10.1046/j.1365-2753.2000.00256.x
14. Freed GL, Dunham KM, Clark SJ, Davis MM. Perspectives and Preferences among the General Public Regarding Physician Selection and Board Certification. *J Pediatr*. 2010;156(5). doi:10.1016/j.jpeds.2009.11.055
15. Goff SL, Mazor KM, Guhn-Knight H, et al. Factors That Matter to Low-Income and Racial/Ethnic Minority Mothers When Choosing a Pediatric Practice: a Mixed Methods Analysis. *J Racial Ethn Heal Disparities*. 2017;4(6):1051-1060. doi:10.1007/s40615-016-0309-x
16. Lama Y, Hu D, Jamison A, Quinn SC, Broniatowski DA. Characterizing Trends in Human Papillomavirus Vaccine Discourse on Reddit (2007-2015): An Observational Study. *JMIR Public Heal Surveill*. 2019;5(1):e12480. doi:10.2196/12480
17. Pappa GL, Cunha TO, Bicalho PV, et al. Factors associated with weight change in online weight management communities: A case study in the loseit reddit community. *J Med Internet Res*. 2017;19(1). doi:10.2196/jmir.5816
18. Du C, Lee W, Moskowitz D, Lucioni A, Kobashi KC, Lee UJ. I leaked, then I Reddit: experiences and insight shared on urinary incontinence by Reddit users. *Int Urogynecol J*. 2020;31(2):243-248. doi:10.1007/s00192-019-04165-8
19. Moessner M, Feldhege J, Wolf M, Bauer S. Analyzing big data in social media: Text and network analyses of an eating disorder forum. *Int J Eat Disord*. 2018;51(7):656-667. doi:10.1002/eat.22878
20. Chew C, Rebić N, Baldwin C, Amiri N, Proulx L, De Vera MA. "r/Thritis", Pregnancy, and Parenting: A Qualitative Descriptive Study of Reddit Forums to Explore Information Needs and Concerns of Women With Rheumatoid Arthritis. *ACR Open Rheumatol*. 2019;1(8):485-492. doi:10.1002/acr2.11069
21. Alexa. Top Sites in United States. <https://www.alexa.com/topsites/countries/US>. Published 2013. Accessed September 29, 2020.



22. Reddit. Homepage - Reddit. Reddit. <https://www.redditinc.com/>. Published 2020. Accessed September 29, 2020.
23. Chiauzzi E, Wicks P. Digital trespass: Ethical and terms-of-use violations by researchers accessing data from an online patient community. *J Med Internet Res*. 2019;21(2):e11985. doi:10.2196/11985
24. Ayers JW, Caputi TL, Nebeker C, Dredze M. Don't quote me: reverse identification of research participants in social media studies. *npj Digit Med*. 2018;1(1):30. doi:10.1038/s41746-018-0036-2
25. Pilkington PD, Rominov H. Fathers' Worries During Pregnancy: A Qualitative Content Analysis of Reddit. *J Perinat Educ*. 2017;26(4):208-218. doi:10.1891/1058-1243.26.4.208
26. Sattelberg W. The Demographics of Reddit: Who Uses the Site? *Tech Junkie*. 2019. <https://www.alphr.com/demographics-reddit/>. Accessed April 19, 2021.
27. Saha S, Taggart SH, Komaromy M, Bindman AB. Do patients choose physicians of their own race? *Health Aff*. 2000;19(4):76-83. doi:10.1377/hlthaff.19.4.76
28. LaVeist TA, Carroll T. Race of physician and satisfaction with care among African-American patients. *J Natl Med Assoc*. 2002;94(11):937-943. </pmc/articles/PMC2594189/?report=abstract>. Accessed May 17, 2021.
29. Saha S, Komaromy M, Koepsell TD, Bindman AB. Patient-physician racial concordance and the perceived quality and use of health care. *Arch Intern Med*. 1999;159(9):997-1004. doi:10.1001/archinte.159.9.997
30. Shen MJ, Peterson EB, Costas-Muñiz R, et al. The Effects of Race and Racial Concordance on Patient-Physician Communication: A Systematic Review of the Literature. *J Racial Ethn Heal Disparities*. 2018;5(1):117-140. doi:10.1007/s40615-017-0350-4
31. Leib S, Liberatos P, Edwards K. *Pediatricians' Experience with and Response to Parental Vaccine Safety Concerns and Vaccine Refusals: A Survey of Connecticut Pediatricians*.
32. Lagu T, Lindenauer PK. Putting the public back in public reporting of health care quality. *JAMA - J Am Med Assoc*. 2010;304(15):1711-1712. doi:10.1001/jama.2010.1499
33. Abm Ketelaar N, Faber MJ, Flottorp S, Rygh LH, Ho Deane K, Eccles MP. Public release of performance data in changing the behaviour of healthcare consumers, professionals or organisations. 2011. doi:10.1002/14651858.CD004538.pub2
34. Turow JA, Sterling RC. The role and impact of gender and age on children's preferences for pediatricians. *Ambul Pediatr*. 2004;4(4):340-343. doi:10.1367/A03-110R1.1
35. Wasserman RC, Varni SE, Hollander MC, Harder VS. Change in site of children's primary care: A longitudinal population-based analysis. *Ann Fam Med*. 2019;17(5):390-395. doi:10.1370/afm.2416