

“r/Thritis”, Pregnancy, and Parenting: A Qualitative Descriptive Study of Reddit Forums to Explore Information Needs and Concerns of Women With Rheumatoid Arthritis

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Objective. Rheumatoid arthritis (RA) disproportionately affects more women than men, often striking during child-bearing years. Because the Internet, particularly social media, is increasingly used by patients with chronic conditions seeking and sharing information, our objective was to conduct a qualitative descriptive study of threads on the social news website, Reddit, to understand the information needs and concerns of women with RA regarding pregnancy and parenting.

Methods. We searched threads (original posts and responses) on three subreddit sites, “r/Thritis,” “r/Rheumatoid,” and “r/BabyBumps,” over a 10-year period between October 27, 2008, and October 27, 2018. All threads were reviewed, and those that specifically mentioned having RA and fertility/family planning, pregnancy/reproduction, and/or parenting/having children were included. We applied a thematic analysis to the threads, which involved initial line-by-line coding, clustering of codes into subcategories and categories, and abstraction into final themes.

Results. We identified 87 threads and included 59 for qualitative analysis. The thematic analysis led to the identification of five themes. Theme one (finding a community) captures motivations for seeking information online. Themes two (making decisions about pregnancy and having children) and three (worrying about the impacts of arthritis on pregnancy and parenting) capture women’s concerns and thought processes. Themes four (information needs for managing arthritis throughout the perinatal period) and five (pregnancy information and resources for women with arthritis) describe the community’s specific informational needs.

Conclusion. A qualitative analysis of publicly available threads about the relationship between RA and issues of pregnancy and parenting identified areas of concern and further information need. These forums also provided an online community where women with RA sought social support and encouragement. Altogether, findings speak to the importance of supporting the information and care needs of women with RA who are pregnant or considering pregnancy.

INTRODUCTION

Arthritis encompasses more than one hundred different inflammatory conditions, which are collectively the leading cause of long-term disability, pain, and health care use (1). There is an important sex gap in the incidence of arthritis because it more commonly presents in women compared with men (2) and often strikes during childbearing years (3). The most prominent is rheumatoid arthritis (RA), which occurs at a prevalence ratio of nearly three women to one man (2). Despite peak onset of RA occurring

during the fourth and fifth decades of life, women between the ages of 16 and 40 are also affected by RA (4,5).

With improved management of RA, including new treatments and treatment paradigms, more women with RA are considering pregnancy (6), highlighting the importance of understanding this patient demographic’s information needs and concerns. A widely studied construct across many diseases, including in RA (7,8), information needs arise in patients when there is a gap in knowledge regarding their condition or when they need further knowledge to achieve an outcome or goal (9). Research on information

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needs among pregnant women with RA has recently emerged. In Australia, a mixed-methods study of 27 women with RA quantitatively showed high educational and informational needs for pregnancy, postnatal care, and early parenting, as measured by the Educational Needs Assessment Tool (ENAT) (10). The qualitative results included themes that captured perceived knowledge gaps, including lack of information about medication safety, pregnancy, and postnatal periods for women with RA (10). Along with the identified knowledge gaps, this study reported that participants sought information from the Internet, including online forums and social media (10).

In Canada, the Canadian Arthritis Patient Alliance, a national arthritis patient advocacy group, conducted a survey of 150 women with inflammatory arthritis (50% with RA) and similarly showed high information needs, particularly with respect to safety of medications and management of arthritis during pregnancy (11). This survey also showed that 90% of participants preferred to access information using the Internet. With the increasing use of social media and online forums by patients to seek accounts of personal experience, advice, and opinions from peers navigating similar issues, these mediums have become a source of health information (12). Consequently, publicly accessible forums form a valuable, naturally generated pool of data for examining patients' information needs that has yet to be fully utilized. Our objective was to conduct a qualitative descriptive study of threads on the social news website, Reddit, to understand the information needs and concerns of women with RA regarding pregnancy and parenting, as shared on this popular online community.

MATERIALS AND METHODS

Study design. We conducted a qualitative descriptive study because the goal of our approach of providing a summarization of questions by and experiences of a group of individuals aligns with our objective to understand the information needs and concerns of women with RA regarding pregnancy and parenting, as shared on online communities. We gathered data from Reddit, a popular social news website, where submitted content is organized according to subject in subreddits ("r/subject") that allow for user subscription. Users ("Redditors") can participate in conversations ("threads") by sharing an original post or by providing a comment in response. On average, Reddit has more than 330 million monthly active users, more than 138 thousand active communities, and 14 billion monthly screen views as of November 2017 (13). Users can share media, follow one another, and share personal anecdotes and information (14). Reddit provides anonymity (through the use of pseudonyms and usernames) and unrestricted word counts. These features allow users to engage in more open and honest discussions than is possible on other social media platforms such as Facebook (12,15–17). Another highly valuable facilitator for the qualitative research applica-

tions of Reddit is the public accessibility of shared content (14).

Search strategy. For our search strategy, we aimed to identify threads over a 10-year period from October 27, 2008, to October 27, 2018. Because there were no specific subreddits on the topic of RA and pregnancy, we searched three relevant subreddits: "r/Thritis," "r/Rheumatoid," and "r/BabyBumps." Given that the subject matter of the r/Thritis and r/Rheumatoid subreddits relates to the maternal disease of interest, we considered threads from these subreddits if the original post referred to pregnancy, parenting, or having children. For the subreddit relating to pregnancy, r/BabyBumps, we considered threads if the original post referred to having RA, which we specified a priori as terms that included "rheumatoid arthritis" and "RA." For each thread, we extracted the title, original post, and corresponding comments. Threads were reviewed by two authors (CC and NR), and those pertaining to arthritis, pregnancy, and parenting were included.

Analysis. We used thematic analysis to analyze the subreddit threads because this is the strategy of choice in qualitative descriptive studies that aim to elucidate and report patterns (themes) within the data (18). We applied an inductive approach to analyzing the data, whereby constructed categories and themes were derived directly from the data as opposed to being assessed with an existing theory or construct. Initially, we applied line-by-line coding, which resulted in an initial codebook that represented the scope of concepts covered by the threads. We identified patterns and similarities between threads and constructed subcategories and categories. Finally, we abstracted categories into final themes. We used NVivo 12 (QSR International) for all analyses. The data sets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

According to the University of British Columbia Behavioural Research Ethics Board, given our use of publicly available information from a social network site (ie, one that does not require a corresponding account or password for access to content) and given that no other nonpublic source was used to obtain data, this research was exempt from review.

RESULTS

Altogether, we downloaded 87 threads across three subreddits, r/Thritis, r/Rheumatoid, and r/BabyBumps, between October 27, 2008, and October 27, 2018. As shown in Table 1, we included 59 threads for qualitative analysis, including 16 threads from r/Thritis, 34 threads from r/Rheumatoid, and 9 threads from r/BabyBumps. All original posts were posted by unique participants, as assessed by their usernames, and the average thread length, defined as the number of comment and replies to original posts, across subreddits was 13.8. The average number of

Table 1. Summary of subreddit threads downloaded and included

Subreddit	Subscribers	Threads Downloaded ^a	Threads Included	Average Thread Length ^b	Average No. of Unique Participants ^c
r/Thritis	3600	17	16	19.8	9.9
r/Rheumatoid	4800	43	34	11.9	6.7
r/BabyBumps	106 000	27	9	14.6	5.9

^aBetween October 27, 2008, and October 27, 2018.

^bAverage thread length is defined as the number of comments/replies to the original post.

^cAverage number of unique participants includes the original poster.

unique thread participants, including the original poster, across subreddits was 7.5.

Thematic analysis resulted in the construction of five themes: 1) finding a community, 2) making decisions about pregnancy and having children, 3) worrying about the impacts of arthritis on pregnancy and parenting, 4) information needs for managing arthritis throughout the perinatal period, and 5) seeking pregnancy information and resources for women with arthritis. These themes, corresponding conceptual categories, and representative quotations are summarized in Table 2.

Theme one: finding a community. The first theme captures the reasons that women with RA had for seeking information online and constitutes four conceptual categories: 1) sharing concerns, 2) asking about other people's experiences, 3) providing and obtaining social support, and, consequently, 4) gaining self-motivation. Some members shared concerns regarding the decision to have children or concerns after the birth of a child. Of these individuals, many described a lack of social support stemming from family members or physicians. Many further appreciated asking about others' experiences with similar situations. Members stated that participating in the online community was a positive way for them to share concern, anxiety, or questions they had about arthritis and pregnancy. These forums facilitated the ability to provide and obtain social support. Many comments made in response to original posts comprised statements of encouragement such as "hang in there" (r/BabyBumps, 2014) and "good luck" (r/Thritis, 2016), and users expressed gratitude for their support network on these forums. Altogether, the conversation, shared experiences, and advice resulted in self-motivation in some individuals. Users conveyed feelings of empowerment, perseverance, and optimism toward themselves and individuals within this community. For example, one individual posted, "[D]on't be afraid to self-advocate if something doesn't feel right!" (r/Rheumatoid, 2016).

Theme two: making decisions about pregnancy and having children. The second theme captures decision-making of women with RA about pregnancy and having children, with categories on 1) making decisions about having children, 2) desiring to have children, and 3) receiving and providing encouragement to have children. The first category captures the decision process

regarding pregnancy and having children. Some users were without children by choice because they believed that disease management and their individual health surpassed their desire to have and raise children. For example, one individual expressed, "I see zero reason why anyone with this disease should go off their meds just to make [a] high risk fetus" (r/Rheumatoid, 2016).

There were also threads about alternatives, such as adoption, because the childbearing itself was the limiting factor in their ability to start a family. Members also shared their decisions to have children despite having RA. For example, one individual stated, "RA had taken so much away from me I didn't want it to take away children as well" (r/BabyBumps, 2014). Generally, members who were posting were looking for comfort and encouragement to have children. Particularly, individuals shared and discussed their medication management plans prior to and during the pregnancy. The majority of posts came from users encouraging other families to have children, expressing that "it was worth it, there is nothing that will replace my children" (r/Thritis, 2013).

Theme three: worrying about the impacts of arthritis on pregnancy and parenting. The third theme describes challenges, including 1) physical, 2) financial, and 3) emotional, anticipated or experienced during pregnancy and parenthood because of RA. With respect to physical challenges, members expressed issues with not being able to carry or lift their children. One individual expressed that as a new parent with arthritis, they felt that they were "struggling to meet their responsibilities" (r/Thritis, 2018). Members also posted about financial challenges, because arthritis can be a debilitating disease, leaving many women unable to work during or after the pregnancy secondary to experiencing flare-ups and other symptoms. One individual stated that the "symptoms made work impossible," implying the difficulties, both physical and financial, that she was facing. The inability to work hinders individuals' ability to provide financially for their families. Finally, many of the posts alluded to emotional challenges while going through pregnancy and dealing with the chronic condition. One user expressed "feeling beaten down" because they were not able to manage their arthritic pain appropriately during pregnancy (r/BabyBumps, 2014). Another user expressed, "I'm miserable," describing the emotional toll of experiencing arthritis flares during pregnancy (r/Rheumatoid, 2016).

Table 2. Illustrative quotes for themes on information needs and concerns posted on Reddit forums about arthritis, pregnancy, and parenting

	Quotes
Theme one: finding a community	
Sharing concerns	"I'm just really worried, it's caused a lot of stress between my husband and I, I don't think he fully understands how it's impacting me, and he's really stressed out picking up the work load that I'm unable to fulfil." (r/Thritis, 2014)
Asking about other people's experiences	"My docs just don't understand my concerns at all." (r/Rheumatoid, 2016) "I'm wondering if anyone has experience with taking prednisone (or anything else for RA) throughout their pregnancy." (r/BabyBumps, 2015) "I was just wondering if anyone has any experience with pregnancy/childbirth and RA that they're willing to share? Any advice?" (r/Rheumatoid, 2016)
Providing and obtaining social support	"Congratulations, I hope your symptoms get better with pregnancy." (r/BabyBumps, 2015) "It can be done, much like everything else it's more challenging for those of us with RA. Best of luck to you." (r/Thritis, 2015)
Gaining self-motivation	"You're right, it's better for both me and baby to get this under control." (r/BabyBumps, 2015) "I need to keep advocating for myself!" (r/Thritis, 2016)
Theme two: making decisions about pregnancy and having children	
Making decisions about having children	"Is it worth having kids when you have arthritis?" (r/Thritis, 2018) "Pregnancy, childbirth, and raising a kid are not a simple, easy, or light thing to get yourself into." (r/Rheumatoid, 2016) "That said, don't have kids if you don't really, really want them, they make life 100x harder in certain ways." (r/Thritis, 2018)
Desiring to have children	"I have wanted to have kids since I was babysitting so I wasn't going to let RA take that from me too." (r/BabyBumps, 2014)
Receiving and providing encouragement to have children	"As for actively parenting while treating your arthritis – it is totally doable. Sure, you have to manage your health and caring for your kid but with planning, self-care, and a helpful co-parent, it is manageable." (r/Thritis, 2018) "Even with the tough times, I'm really glad I have my kids." (r/Thritis, 2016)
Theme three: worrying about the impact of arthritis on pregnancy and parenting	
Physical challenges	"I'm personally a lot more worried about how I'll cope with holding him and [carrying] him after he's born." (r/Thritis, 2018) "I don't know what's going to happen, I'm struggling with looking after my son, can't lift him up without being in pain." (r/Thritis, 2014)
Financial challenges	"I quit my job so that if I'm in pain during this process, I can take it easy." (r/Rheumatoid, 2016) "The maternity leave was another thing I was worried about...I just wonder how women function when they're coming off their meds but still have to work." (r/Thritis, 2015)
Emotional challenges	"This has been very frustrating and has left me in tears a number of times." (r/BabyBumps, 2015) "Caring for an infant is going to be exhausting. I was in tears often from the lack of sleep and crazy schedules." (r/Rheumatoid, 2017)
Theme four: information needs on managing arthritis throughout the perinatal period	
Managing arthritis before pregnancy	"How did you handle the MTX detox between pregnancy and trying to conceive? Did you have any flares? Did you lose your progress? Did you have flares when you came off your medicine?" (r/Rheumatoid, 2017) "I'll need to be off the medication for at least three cycles, but what do I do about my RA during that time?" (r/Thritis, 2015)
Managing arthritis during pregnancy	"I'm just so nervous about taking anything it's like my gut instinct telling me not to. If I do and something goes wrong then I'd never forgive myself you know. At the same time I don't want to end up in so much pain that I can't care for my baby. It's so scary." (r/Rheumatoid, 2016) "My doctor suggested that I take prednisone, but I understand there might be a low risk of oral clefts if taking during the 1st [trimester], and low birth weight and premature labor if taken throughout pregnancy." (r/BabyBumps, 2015)
Managing arthritis after pregnancy	"It came back with a vengeance shortly after giving birth." (r/Rheumatoid, 2017) "After I had the baby, when my hormones shifted back, I had a major RA flare up. Within a week of giving birth, I had to go back on a cocktail of meds." (r/Rheumatoid, 2017)
Theme five: seeking pregnancy information and resources for arthritis	
Information from using the Internet	"This is a subject that is super hard to find info on, and I hope for the best! Keep us updated!" (r/Rheumatoid, 2016) "Do the research on any and all medications you are currently taking (pregnancy categories, do you need extra folic acid or other supplements, what OTC med can you take for pain, etc)." (r/Rheumatoid, 2017)

(Continued)

Table 2. (Cont'd)

	Quotes
Information from a health care provider	<p>"I've already discussed it with my physicians and I'm super lucky to have extremely supportive and honest healthcare workers in my corner." (r/Rheumatoid, 2016)</p> <p>"My [rheumatologist] is great and said that trying to have a baby at some point is fine, as long as I consult my doctors first so that medication can be adjusted 3-6 months ahead of trying to something pregnancy safe." (r/Rheumatoid, 2018)</p>

Abbreviation: MTX, methotrexate; OTC, over-the-counter.

Anxieties over decisions about taking medications during pregnancy also contributed to women's emotional well-being during pregnancy. Figure 1 shows the interrelation between the physical, financial, and emotional impacts of arthritis on pregnancy and parenting.

Theme four: information needs on managing arthritis throughout the perinatal period. A fourth theme captures questions posed by forum members about managing RA across the perinatal period, which spans from pregnancy planning to post delivery. The three conceptual categories that compose this theme touch on unique concerns at specific periods: 1) before, 2) during, and 3) after pregnancy. The first category, managing arthritis before pregnancy, captures individuals' signs and symptoms when changing drug therapy while preparing for conception and pregnancy. For example, individuals described physical challenges when stopping their medications, whereas others asked questions regarding to how to cope with symptoms of arthritis during this pre-pregnancy period. The second category, managing arthritis during pregnancy, pertains to specific questions asked during pregnancy and consisted of two subcategories: 1) making decisions about using medications during pregnancy and 2) arthritis symptoms during pregnancy. Medication safety was an important topic, and members expressed concerns over the use of biologics and prednisone during pregnancy, indicating that they would rather not take medications during the pregnancy if there were even a slight risk to the fetus. Within the second subcategory, arthritis symptoms during pregnancy, members shared experiences of either remission or worsening of arthritis symptoms during pregnancy. Individuals posted questions about reasons for symptom remission and why some experience worsening of symptoms during pregnancy. The final category, managing arthritis after pregnancy, describes individuals' symptoms post partum as well as medication use, particularly restarting medications after delivery.

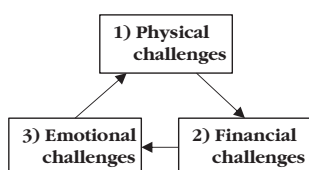


Figure 1. Schematic showing the interrelation between physical, financial, and emotional challenges contributing to worrying about the impacts of arthritis and pregnancy (Theme 3).

Theme five: seeking pregnancy information and resources for arthritis. This fifth theme, seeking pregnancy information and resources for arthritis, discusses the information sources that members used. The first category, information using the Internet, captures how members were interested in knowing and sharing the online resources and literature that have been used by other parents. Specifically, many turned to the Internet, using websites and other online forums to research medication safety and management during pregnancy. Interestingly, several users expressed that there "aren't a ton for resources/info for pregnancy + RA" (r/BabyBumps, 2014). Lastly, users in these communities discussed the relationship with and information from a health care provider. The health care providers discussed the most were physicians, rheumatologists, and obstetricians. Most of the information received from health care providers revolved around medication management during pregnancy, specifically tapering medications, and medication safety. The majority of users shared positive relationships with their health care providers, expressing that "all my docs are very positive" (r/Thritis, 2015). However, some individuals did share negative experiences with health care providers, in which the patients did not feel that their opinions and goals of therapy were met. For example, one individual expressed her frustration when her rheumatologist responded, "you do not have my blessing to be pregnant right now" (r/Thritis, 2016).

Thematic map describing relationships between themes. We have outlined a thematic map of the interrelationships between our five identified themes in Figure 2. The objective of our study was aimed at informing theme five, how women with RA who are considering pregnancy address seeking pregnancy information and resources for arthritis. Within this theme, the subcategory, information from a health care provider, directly impacts a patient's decisions about pregnancy and having children (theme two). Distinctively, within theme five, the subcategory, information using the Internet, captures how using the online platform, Reddit, to seek health information leads not only to theme two but also to theme one (finding a community). Specifically, theme five leads to the development of the subcategories identified in theme one (sharing concerns and asking about other people's experiences). Sharing personal stories is informed by theme three (worrying about the impacts of arthritis on pregnancy and parenting). Additionally, information needs for managing arthritis throughout the

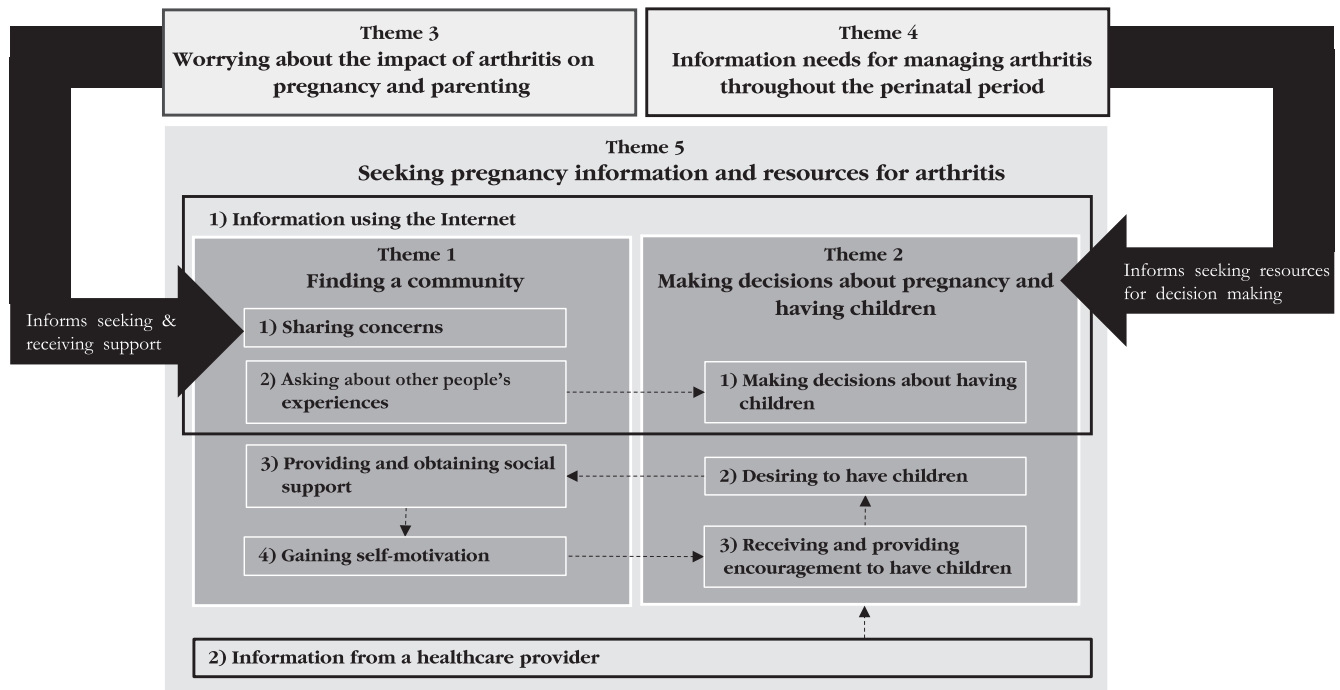


Figure 2. Thematic map of identified themes, showing how seeking pregnancy information and resources for arthritis (Theme 5), particularly using on the internet captures finding a community (Theme 1) and making decisions about pregnancy and having children (Theme 2). Dashed arrows depict relationships between categories across and within themes.

perinatal period (theme four) informs decision-making about pregnancy and having children (theme two). Also, the subcategory within theme one, asking about other people's experiences, feeds into the subcategory within theme two, making decisions about having children. Finally, the process of information-sharing and connecting with others with similar health- and pregnancy-related concerns leads to the construction of dynamic interconnections between the subcategories in theme one, providing and obtaining social support and gaining self-motivation, and the subcategories in theme two, receiving and providing encouragement to have children and desiring to have children.

DISCUSSION

The Internet, particularly online forums where individuals can ask questions and discuss opinions and experiences, provides a potentially rich source of data for research to understand information needs of specific patient groups. By applying thematic analysis to threads on the social news website Reddit, we identified five themes that not only capture the information needs and concerns that women with RA have regarding pregnancy and parenting but also touch on the reasons for joining such forums. In identifying these themes, study findings have implications for informing strategies for supporting women with RA in making family decisions, having healthy pregnancies, and growing families.

To our knowledge, the research on the information needs and concerns of women with RA regarding pregnancy

and parenting is still limited yet growing. In the aforementioned 2015 mixed-methods study of 27 women with RA in Australia, a mean total ENAT score of 97.2 ± 30.8 (out of a highest possible score of 156) reported in the quantitative component of the study suggests high information needs (10). The qualitative component identified six themes: "lack of specific information regarding pregnancy and postnatal periods," "identified information gaps," "information needs being dependent on individual situations," "rheumatologists as primary sources of information," need for "accessible information through electronic formats," and the potential role of "arthritis consumer organizations as information hubs" (10). In 2018, a study from the United Kingdom used a similar mixed-methods approach of administering the ENAT to a larger sample of 128 women with autoimmune rheumatic diseases, including RA as well systemic lupus erythematosus, vasculitis, idiopathic juvenile arthritis, and psoriatic arthritis. This was followed with qualitative interviews with 22 of the participants. In this study, a mean total ENAT score of 104.85 ± 30.18 similarly showed high information needs among women, specifically among women at the preconception stage, indicating higher needs for information on pregnancy planning and giving birth, and among those who had children, indicating higher needs for information on pain and mobility (19). Qualitative findings included three themes: "information needs," "multi-disciplinary management," and "accessing support" (19).

With this study, we add to the body of work on information needs of women with RA about pregnancy and parenting using a novel approach of systematically searching and applying qualitative research methods to publicly available threads on three relevant forums on the popular and widely accessed social news website, Reddit. Specifically, themes four and five in our study, which capture specific information needs and sources of information for pregnancy in RA, echo similar themes reported in the aforementioned Australian (10) and UK (19) studies. We highlight the distinction that "information needs" refers to a gap in knowledge that women with RA may have regarding their condition or refers to the fact that they need further knowledge to achieve an outcome or goal (9), whereas "sources of information" refers to means of addressing this knowledge gap, including through the Internet and health care providers, as captured in theme five of our study.

We additionally identified themes regarding the concerns of women with RA, including making decisions about pregnancy and having children (theme two) and worrying about the impacts of arthritis on pregnancy and parenting (theme three). Findings may be interpreted in two ways: it is possible that addressing information needs of women with RA about pregnancy and parenting may alleviate these concerns or that both information needs and concerns need to be addressed to support healthy pregnancies. Furthermore, theme one (finding a community) highlights the value of social support built from sharing with women with similar experiences online. Indeed, the development of tools and resources to support pregnancy and parenting in RA is an area that needs further work. A 2016 systematic review by Ackerman et al (20) on interventions aimed at improving knowledge and self-management skills regarding contraception, pregnancy, and breastfeeding for women with RA identified a substantial gap: nine studies were identified, but the majority described broader RA education or self-management programs, and only one described a specifically designed decision aid for motherhood in RA (21). To our knowledge, it is unclear whether this decision aid is still available.

Altogether, the themes elucidated in our study, touching on information needs and concerns, capture the patient perspective of the challenges of living with and managing RA during pregnancy and parenting. It is timely to keep the patient perspective in line as the field moves forward in terms of growing guidance for health care providers for managing pregnancies in arthritis (including by use of antirheumatic drugs before, during, and after pregnancy) from the European League Against Rheumatism (EULAR) (22), the British Society for Rheumatology (BSR), and British Health Professionals in Rheumatology (BHPR) on prescribing conventional synthetic disease-modifying anti-rheumatic drugs, biologics, and other drugs during pregnancy and lactation (23,24). Findings of information needs, particularly regarding the management of RA in pregnancy and safety of medications, may suggest that information from these guidelines need to reach patients and not just health care providers. Indeed, a recent review on the manage-

ment of pregnancy in RA has emphasized the importance of communication between patients and their rheumatologists and obstetricians to develop patient-centered approaches that optimize disease management before, during, and after pregnancy (6). Multidisciplinary specialty clinics focused on reproduction and pregnancy in inflammatory arthritides and other novel models of care may also represent approaches to improving management of pregnancy among women with RA and other inflammatory arthritides.

Strengths and limitations of our study have also been identified. We demonstrated a systematic approach to identifying and applying qualitative research methodology to eligible subreddit threads to elucidate themes pertaining to concerns of women with arthritis about pregnancy and parenting. Such an approach (which, to our knowledge, has only been previously reported in rheumatology and has involved content analysis questions about gout that were posted on Reddit) (25) represents a promising way for understanding information needs across different rheumatology patients by using publicly accessible, naturally generated data. Features of Reddit, particularly the fact that it ensures anonymity and an unlimited word count, may contribute to individuals engaging in honest discussions, which may not be applicable in other social media sites such as Facebook (12,15–17). However, the anonymity leads to lack of demographic and disease information about users. With our interest in RA, although we systematically searched relevant subreddits (r/Thritis and r/Rheumatoid) and included only threads relating "rheumatoid arthritis" and "RA" in the pregnancy-related subreddit (r/BabyBumps), we cannot be certain of users' diagnoses or that they truly have RA.

In conclusion, women with RA are among the many patients who consult Internet resources, such as online forums, to ask questions and seek information about pregnancy and parenting. Applying qualitative research methods to the widely popular social news website, Reddit, we identified information needs and concerns of women with RA and highlight the importance of addressing these to support healthy pregnancies in this patient population.

AUTHOR CONTRIBUTIONS

All authors were involved in drafting the article or revising it critically for important intellectual content, and all authors approved the final version to be published and take responsibility for the integrity of the data and the accuracy of the data analysis.

Study conception and design. Chew, Rebić, De Vera.

Acquisition of data. Chew, Rebić.

Analysis and interpretation of data. Chew, Rebić, Baldwin, Amiri, Proulx, De Vera.

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