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How to Provide Sexual and Reproductive Health Care to Patients: Focus Groups With Rheumatologists and Rheumatology Advanced Practice Providers

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ABSTRACT. ***Objective.*** Rheumatologists have identified challenges to providing sexual and reproductive health (SRH) care to patients with gestational capacity. We conducted focus groups with rheumatologists and rheumatology advanced practice providers (APPs) to elicit their solutions to overcoming barriers to SRH care.

Methods. Qualitative focus groups were conducted with rheumatologists (3 groups) and APPs (2 groups) using videoconferencing. Discussions were transcribed and 2 trained research coordinators developed a content-based codebook. The coordinators applied the codebook to transcripts, and discrepancies were adjudicated to full agreement. The codes were synthesized and used to conduct a thematic analysis. Differences in codes were also identified between the clinician groups by provider type.

Results. A total of 22 clinicians were included in the sample, including 12 rheumatologists and 10 APPs. Four themes emerged: (1) clinicians recommended preparing patients to engage in SRH conversations before and during clinic visits; (2) consultation systems are needed to facilitate rapid SRH care with women's health providers; (3) clinicians advised development of training opportunities and easy-to-access resources to address SRH knowledge gaps; and (4) clinicians recommended that educational materials about SRH in the rheumatology context are provided for patients. Although similar ideas were generated between the APP and rheumatologist groups, the rheumatologists were generally more interested in additional training and education, whereas APPs were more interested in electronic health record prompts and tools.

Conclusion. Providers identified many potential solutions and facilitators to enhancing SRH care in rheumatology that might serve as a foundation for intervention development.

Key Indexing Terms: health communication, qualitative research, reproductive health, rheumatic diseases

To support healthy pregnancies among people with rheumatic diseases (RDs), the American College of Rheumatology (ACR) Guideline for the Management of Reproductive Health in Rheumatic and Musculoskeletal Diseases recommends that rheumatology clinicians should provide patients with anticipatory sexual and reproductive health (SRH) care, which may include family planning for a time of disease quiescence, prepregnancy health optimization, contraception care, and adjustment of antirheumatic drugs based on compatibility with pregnancy and lactation.[1,2] However, many rheumatology clinicians do not consistently address SRH with patients with gestational capacity.[3,4] Our prior qualitative work elicited clinicians' perceived barriers and challenges to SRH care, which include time constraints during clinic visits and lack of expertise in SRH

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care and information resources about medication safety and contraception.[3] In contrast, few studies have described rheumatology clinicians' proffered solutions to these challenges. Even fewer studies have explored these perspectives among rheumatology advanced practice providers (APPs), whose training typically includes graduate-level study and supervised clinical practice, and who are certified to independently care for patients with RDs.[5]

The current study engaged rheumatologists and rheumatology APPs in focus group discussions to elicit their strategies and solutions for providing comprehensive SRH care for patients with gestational capacity.

METHODS

Ethics. The University of Pittsburgh institutional review board deemed this study exempt (STUDY20100002).

Study participants. Referral sampling, a time-sensitive and cost-effective approach to identify potential subjects, was used to recruit US-based rheumatologists and rheumatology APPs. A research coordinator sent each potential participant up to 3 email invitations. Rheumatologists and APPs were recruited to separate focus groups, as we expected that their responses might vary because of potential differences in their training, clinical volumes, and length of time allowed for their clinic visits.[5,6] Participants were assigned to a focus group based on their availability.

Interviews and data collection. Semistructured focus group guides were developed based on our original qualitative interviews with rheumatologists, with feedback from a PhD-trained qualitative expert (MH) and the research team. Focus groups were conducted between January and March 2021 using online video conferencing. For privacy, clinicians were allowed to participate without enabling their cameras and/or sharing their names with the group; only 1 clinician chose to use a pseudonym. Participants received $50 honoraria funded by the principal investigator's (MBT) career development award (Robert Wood Johnson Foundation).

Three facilitators (FAC, OMS, and DM) moderated the sessions. At least 2 facilitators were present for each focus group. FAC is a qualitative research specialist with 6 years of qualitative analysis experience. OMS is a master's-level qualitative research coordinator with 5 years of experience conducting focus group and 1-on-1 qualitative interviews. DM is an internal medicine resident who was trained over 9 months to conduct qualitative interviews and analysis by OMS, FAC, and a professor of qualitative research methods at the University of Pittsburgh (MBT). The facilitators had no personal or professional relationships with the study participants.

To provide a common starting point for each focus group session, facilitators briefly shared a list of themes from our earlier study of 1-on-1 interviews with rheumatologists that had elicited their perceived barriers and facilitators to SRH care in the rheumatology context.[3] Participants were queried if they had additional barriers or facilitators to SRH care to add to the list of themes. After approximately 15 minutes of refining the list, participants were asked about their own practices with respect to providing SRH care to patients with gestational potential, including their perceived challenges, successes, potential solutions, and preferred information resources. Finally, participants were guided through an interactive brainstorming exercise, in which each participant was asked to generate solutions to "help the clinician in your practice who you feel is least likely to provide SRH care to patients with childbearing potential." The group discussed the advantages, disadvantages, and implementation potential of each proffered solution.

Focus group discussions lasted 75 minutes, and were recorded and transcribed verbatim. Thematic saturation, the point at which no new themes emerged from the focus groups and consensus across clinicians' viewpoints was achieved, was reached after completion of 4 focus groups (2 for rheumatologists and 2 for APPs); an additional focus group of rheumatologists was conducted, during which no new themes arose, further confirming that thematic saturation had been reached.[7]

Data analysis. Our prior qualitative study, which had generated theory about rheumatologists' experiences providing SRH care, had generated a codebook focused on rheumatologists' perceptions of barriers and facilitators to SRH. These findings provided an organizational framework for the preliminary codebook in the current study.[3] New codes that emerged from the focus groups were added to the preliminary codebook so that additional ideas could be considered. MH, the qualitative research expert, oversaw the analysis. The principal investigator (MBT), who is a rheumatologist with formal training in women's health and qualitative research, reviewed the codebook for completeness with DM and FAC. Two coders (OMS and DM) independently double-coded the transcripts with the preliminary and finalized codebooks, and reached consensus on coding disagreements.[8] The constant comparison method was used by FAC and a PhD-trained APP (LL) to identify different codes between rheumatologists and rheumatology APPs.[9] The coders identified the most commonly occurring codes, reviewed the relevant sections of the transcripts, and wrote themes that captured the rheumatology clinicians' most frequently expressed needs, experiences, and solutions. The full research team discussed the themes as a means of investigator triangulation.

RESULTS

Study participants. Twenty-two rheumatology clinicians participated in the study (12 rheumatologists and 10 APPs), of 39 clinicians who were approached (Table 1). APP participants were all female, as compared to 58% of rheumatologists. Thirteen clinicians worked within academic practice settings (60%), 7 clinicians worked in community practices, and 2 clinicians were employed by the Veterans Affairs (VA) healthcare system. Clinicians had practiced rheumatology for an average of 6 years (range 1-17 yrs). All clinicians cared for patients with gestational capacity.

Themes. Four solutions emerged from the focus groups, described below and in Table 2.

Solution 1. Rheumatology clinicians recommended preparing patients to engage in SRH conversations before and during clinic visits.

Table 1. Demographic characteristics of clinicians.

	Clinician Type		
	Rheumatologists, n = 12	Rheumatology APPs, n = 10	Total
No. of yrs in practice, mean (SD)	7.0 (4.5)	4.7 (2.3)	5.9 (3.8)
Clinician gender			
Female	7 (58)	10 (100)	17 (77)
Male	5 (42)	0 (0)	5 (23)
Practice setting			
Academic	6 (50)	7 (70)	13 (59)
Community	5 (42)	2 (20)	7 (32)
Other (VA)	1 (8)	1 (10)	2 (9)
Practice location, US			
Midwest	5 (42)	0 (0)	5 (23)
Northwest	4 (33)	6 (60)	10 (45)
South	2 (17)	4 (40)	6 (27)
West	1 (8)	0 (0)	1 (5)

Values are n (%) unless otherwise indicated. APP: advanced practice provider; VA: Veterans Affairs.

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Table 2. Clinicians' proffered solutions to enhancing SRH care in rheumatology.

Solution Types	No. of Participants Who Endorsed the Solution With Verbal or Written (In Chat) Feedback
Pre-visit forms or clinic resources	
Patient forms should elicit information about current sexual activity, pregnancy planning, contraception use, and need for OB-GYN referral	5
Patient checklist for contraception use and pregnancy goals	4
Clinic posters, messages on television screens prompting patients to talk to their clinicians about SRH	3
SRH questionnaire provided to all new patients and twice a year for returning patients, with responses autopopulated into clinic note	3
EHR tools	
Alert to remind clinicians to review reproductive health during visit	4
Contraception checklist embedded into the EHR	4
Best practice alerts about medication compatibility with pregnancy and lactation	4
Alert if patient has had a tubal ligation, menopause, or hysterectomy so that family planning does not need to be discussed at the visit	4
Smartphrase for pregnant patients, with orders for relevant testing and handouts to add automatically to discharge paperwork	3
Reproductive history template that can be pulled into the clinic note	3
Alert if patient is of reproductive age	3
Alert if a patient is using a birth control method that is not compatible with their disease and risk factors (eg, patients with increased thrombosis risk)	2
Patient instructions about family planning integrated into discharge paperwork automatically	2
Alert if patient is of reproductive age and using a medication with potential teratogenicity	1
Referrals to reproductive and women's health providers	
Referral system established with dedicated OB-GYN and MFM providers	5
Referral to a multidisciplinary team of OB-GYN or MFM clinicians and pharmacists	5
Automatic referral to high-risk obstetrics if pregnant patient has specific risk factors (Ro/La antibodies, antiphospholipid antibodies)	3
Patient referral to pharmacist who has familiarity with safety and efficacy of contraceptives and can advise selection of safe option	3
Automatic referral to OB-GYN if patient desires contraception	2
Automatic referral to OB-GYN is patient is of reproductive age, has gestational potential, using a potentially teratogenic medication, and is not using contraception	2
Dedicated visit with an APP or nurse to discuss pregnancy planning with follow-up visit coordinated with OB-GYN or MFM	2
Patient resources	
Brochures, pamphlets	8
Links provided to ACR SRH resources, Arthritis Foundation, Lupus Foundation, Lupus HOP-STEP program	4
Provide SRH resources through electronic patient portal	1
Provider resources	
Single website that combines evidence-based SRH resources	7
Quality metric added to rheumatology clinic standards	2
Guidelines for compatibility of radiology imaging modalities with pregnancy	1
Certification in SRH within rheumatology	1
Grand rounds and educational sessions provided by expert speakers	1

ACR: American College of Rheumatology; APP: advanced practice provider; EHR: electronic health record; HOP-STEP: Healthy Outcomes in Pregnancy with SLE through Education of Providers; MFM: maternal fetal medicine; OB-GYN: obstetrician and gynecologist; SLE: systemic lupus erythematosus; SRH: sexual and reproductive health.

Rheumatology clinicians agreed that patients' family planning goals were important to discuss during clinic visits. One rheumatologist said, "You hope for some normalcy for your patients, you want your young, female patients to have great disease control and have the possibility of pregnancy if they desire that." Another rheumatologist reflected, "I'd be more happy with [patients] planning to become pregnant. At least it gives me a little bit back. Like some of that control. You can't prevent every outcome, but at least you sort of know what you're working with… [instead of] after the fact."

However, some clinicians struggled to consistently address SRH with patients. As one rheumatologist stated, "I often ask people around the time that I'm making medication changes or maybe with a new diagnosis, but life often changes over time. And sometimes in the busyness of moving through a clinic day, I may not revisit that after I've already asked that 1 time." A rheumatology APP explained that in a "15-minute appointment," she is "trying to cover a lot of material" and SRH care is not "always first and foremost."

SRH conversations with patients could be lengthy, and several clinicians noted that many patients could not clearly articulate their family planning goals or needs within the limited available time. Clinicians offered solutions to make these conversations more efficient, most of which focused on preparing patients to discuss family planning goals before the clinic visit. Clinicians proposed that previsit forms could query, "are you planning

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pregnancy" or "do you want to discuss fertility or birth control with your doctor?" As 1 rheumatologist explained, "We [clinicians] are also ready, hav[ing] seen that checklist ahead of time. So, it gets the conversation rolling as soon as the appointment starts." Personalized health apps that were available in some healthcare systems were another proposed mechanism by which these forms could be disseminated.

In general, participants felt that patients should complete these forms approximately every 6 months, as family planning goals were likely to change over time.

Some clinicians also suggested creating posters in rheumatology clinics with the message, "Are you planning to become pregnant? Tell your provider." Clinic posters are a "media that a lot of people are used to and comfortable with and it's a quick reminder," explained an APP.

Solution 2. Consultation systems are needed to facilitate rapid SRH care with women's health providers. Rheumatology clinicians acknowledged the importance of collaborative family planning care with traditional SRH providers (eg, obstetricians and gynecologists [OB-GYNs], particularly with respect to contraception prescription. One rheumatologist stated, "I feel comfortable counseling and giving [patients] my advice about what would be the best approach and the best contraception method based on their disease and risk factors. But I would defer prescribing [contraception] to women's health [providers] or to their OB-GYN." Other clinicians expressed less comfort with contraception counseling, as described by a rheumatologist, "I think I can do the general counseling but with more specific counseling from their gynecologist."

However, most of the rheumatologists and APPs did not have professional relationships with OB-GYN colleagues to whom they could refer patients or ask clinical questions. An APP expressed, "We don't have a relationship with [an] OB-GYN... it would just be so helpful because some of our patients also have overlapping antiphospholipid syndrome and it makes it really scary. We want so badly to talk to [OB-GYNs] about birth control but not really having the tools to know what [is] safe to give them... I mean some of our patients have actually had blood clots, and it makes it really scary not having an OB-GYN to kind of talk it through. It's been an ongoing struggle in our department." Other clinicians described patients who had become pregnant while using fetotoxic antirheumatic drugs, and the difficulties they had encountered in trying to facilitate abortion care.

Clinicians felt it would be helpful to establish a relationship with a "designated OB-GYN provider" who "might be used by all of the rheumatologists in the practice." This would ensure that "as a group, we'll know what to do in these scenarios." Several clinicians recommended using the electronic health record (EHR) to refer patients to these designated OB-GYNs. However, clinicians acknowledged that each of these solutions would require relationship-building with OB-GYNs—a potential barrier to implementation.

Solution 3. Rheumatology clinicians advise development of training opportunities and easy-to-access resources to address SRH knowledge gaps. Clinicians consistently endorsed knowledge gaps around contraception. Several APPs described that they were asked to counsel young, female patients about family planning by senior, usually male rheumatologists in their practices, who assumed they were more knowledgeable about contraception and SRH care. However, as 1 APP said, "I don't have enough birth control experience, so I cannot give in-depth counseling to my patients. I don't feel I have enough knowledge to offer a lot of advice [about] which would be the best and most convenient for the patient or possible side effects if they do start birth control. My issue [is] lack of training."

Clinicians also desired more information about medication safety at various reproductive transition points. A rheumatologist expressed, "I think for a lot of our medications, there's just not a lot of data out there, and so that's kind of an area that I always struggle with—what's the best medication for patients who are flaring during pregnancy, postpregnancy, or during the prepregnancy period of time."

Several clinicians used existing SRH educational resources from the ACR and the Organization of Teratology Information Specialists, among others (Table 3).[2,10] Clinicians overwhelmingly desired streamlined resources to access information about SRH management that were located in a single website or app. One rheumatologist mentioned, "It would be good to just have everything in 1 indexed place." An APP also suggested that a helpful online resource would include "quick references for med safety and comparison," "patient education links," and "pregnancy information" that were all specific to rheumatology clinicians. One rheumatologist suggested that webinars or a certification "might make us more confident" to provide SRH care. Other rheumatologists suggested that SRH care education should be "integrated into your [fellowship] curriculum and into your faculty development, like grand rounds or education sessions about contraception, about pregnancy, or reproductive health care and patients with RDs."

Solution 4. Rheumatology clinicians recommend that educational materials about SRH in the rheumatology context are provided for patients. Clinicians felt that patients had key knowledge gaps about SRH that undermined their health care,

Table 3. Clinician-directed SRH care resources used by participants.

Resource	No. of Clinicians
ACR Reproductive Health Guideline	4 rheumatologists 1 APP
OTIS: MotherToBaby	2 rheumatologists 1 APP
UpToDate	2 rheumatologists
Mycophenolate Risks of First Trimester Pregnancy Loss and Congenital Malformations (REMS) Program	3 rheumatologists
Lupus HOP-STEP program	1 rheumatologist

ACR: American College of Rheumatology; APP: advanced practice provider; HOP-STEP: Healthy Outcomes in Pregnancy with SLE through Education of Providers; OTIS: Organization of Teratology Information Specialists; REMS: risk evaluation and mitigation strategy; SLE: systemic lupus erythematosus; SRH: sexual and reproductive health.

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especially about the risks associated with teratogenic medication use. A rheumatologist described, "[I had a] patient who was on cyclophosphamide. Then she got pregnant despite all the education. And even after that, she's still not amenable to contraceptives…I think the barriers are not only physician-related. They could be also related to the patients themselves." Clinicians generally felt that "good, solid educational material" was needed for patients. However, 1 APP expressed a common sentiment: "It's just so hard sometimes to find patient education. If there was just 1 easy place to give a printout like psoriatic arthritis in pregnancy and rheumatoid arthritis and pregnancy—just something for patients that's tangible that they can take with them and have for their own education and teaching. So they understand what we're concerned about too."

Clinicians envisioned that RD foundations or the ACR could develop "information sheets for pregnant patients" that are "easy to read, easy to understand," and "really talk about risk numerically." Clinicians felt that some resources should be digital, "easily accessible, and [in a] nonlogin [website]."

Comparing responses by clinician type. Rheumatologists and APPs differed somewhat in their preferred approaches to optimizing SRH care. The rheumatologists offered more suggestions centered on education and training to expand their competencies in SRH care, whereas APPs expressed more preferences for EHR prompts and consultation pathways to operationalize SRH care within their clinical practices.

DISCUSSION

In focus groups, rheumatology clinicians conceptualized practical strategies that could overcome barriers to SRH care for patients with childbearing potential. Rheumatologists and APPs felt that SRH was an essential component of patients' health and identified similar barriers and solutions for improving SRH care in rheumatology.

Many of the clinicians' solutions were easily implementable, including previsit questionnaires to prepare patients to discuss family planning during the clinic visit, and posters prompting patients to initiate family planning conversations with rheumatologists. However, even if these conversations were initiated, clinicians acknowledged that some of their knowledge gaps around contraception, medication safety during pregnancy and lactation, abortion, and pregnancy management might undermine the effectiveness of these conversations.

Nearly all rheumatology clinicians desired partnerships with OB-GYNs to facilitate SRH care, particularly for contraception, which they were not comfortable prescribing. However, clinicians' proffered solutions for facilitating OB-GYN care, such as electronic consultation systems to OB-GYNs for urgent SRH needs, required relationship-building with OB-GYNs, a potential barrier to implementation. As several clinicians acknowledged, practice leaders may need to help facilitate formal referral partnerships with OB-GYNs at individual institutions and practices. Alternatively, several healthcare systems in the United States and internationally have established multidisciplinary rheumatology and OB-GYN clinics.

Although clinicians in this study were motivated to learn more about SRH care, time constraints because of clinical responsibilities—frequently mentioned throughout this study—limit the time available to do so.[11] As fellowship training may allow time for independent study, several rheumatologists thought it was an ideal period to learn how to provide SRH care. Trainees rarely become competent in contraception and SRH care during their internal medicine residencies,[12] and little corresponding information is known for APP programs; thus, both rheumatology fellows and APP trainees might benefit from learning basic as well as rheumatology-specific information about SRH care. Trainees should also learn how to provide patient-centered SRH care, by supporting patients' reproductive goals and preferences, and providing salient health information to support informed reproductive decision-making.[13]

A strength of this study is that rheumatology clinicians offered their own solutions for providing SRH care; thus, the solutions may be particularly feasible and acceptable. Another strength is our inclusion of rheumatology APPs, whose participation in rheumatology care is growing, but for whom challenges to SRH care have rarely been described.[14]

A potential limitation of this study was that all of the APPs and most of the rheumatologists were female. Future studies should explore SRH challenges that might arise from gender discordance between patients and clinicians, as well as generate potential solutions. Another possible limitation arose from our use of referral sampling for recruitment, as some participants could have practiced at the same institutions and the specific constraints or resources of their shared clinical environment may have influenced their responses. However, focus group members practiced in a variety of academic, private, and VA-associated practices. In addition, clinicians who practice together may still offer different solutions to similar problems, and we did not find that a diversity of clinical environments was critical to the conduct of this study. Finally, we acknowledge that our study is not generalizable to all rheumatology clinicians in the US. However, qualitative studies tend to have small sample sizes and are intended to emphasize in-depth exploration of participant perspectives over generalizability.[15]

In summary, this focus group study of rheumatology clinicians elicited practical solutions about how to advance SRH care in rheumatology. Future studies should focus on how to enhance SRH training for trainees and how to evaluate the implementation potential of these tools and resources so that rheumatology clinicians can optimize high-quality, efficient, and patient-centered SRH care.

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REFERENCES

1. Birru Talabi M, Clowse ME, Schwarz EB, Callegari LS, Moreland L, Borrero S. Family planning counseling for women with rheumatic

Downloaded on October 5, 2024 from www.jrheum.org

diseases. Arthritis Care Res 2018;70:169-74.
2. Sammaritano LR, Bermas BL, Chakravarty EE, et al. 2020 American College of Rheumatology guideline for the management of reproductive health in rheumatic and musculoskeletal diseases. Arthritis Care Res 2020;72:461-88.
3. Birru Talabi M, Clowse ME, Blalock SJ, Hamm M, Borrero S. Perspectives of adult rheumatologists regarding family planning counseling and care: a qualitative study. Arthritis Care Res 2020;72:452-8.
4. Yazdany J, Trupin L, Kaiser R, et al. Contraceptive counseling and use among women with systemic lupus erythematosus: a gap in health care quality? Arthritis Care Res 2011;63:358-65.
5. Solomon DH, Bitton A, Fraenkel L, Brown E, Tsao P, Katz JN. Roles of nurse practitioners and physician assistants in rheumatology practices in the US. Arthritis Care Res 2014;66:1108-13.
6. Ndosi M, Lewis M, Hale C, et al. The outcome and cost-effectiveness of nurse-led care in people with rheumatoid arthritis: a multicentre randomised controlled trial. Ann Rheum Dis 2014;73:1975-82.
7. Guest G, Bunce A, Johnson L. How many interviews are enough? An experiment with data saturation and variability. Field Methods 2006;18:59-82.
8. Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol 2006;3:77-101.
9. Glaser BG, Strauss AL. The discovery of grounded theory: strategies for qualitative research. Aldine-Atherton; 1967.
10. MotherToBaby. Organization of Teratology Information Specialists (OTIS). [Internet. Accessed October 16, 2022.] Available from: https://mothertobaby.org/about-otis/
11. Hassan S, Smith MM, Block JA, Jolly M. Challenges to practicing rheumatology in an academic center. Rheum Dis Clin North Am 2019;45:27-37.
12. Dirksen RR, Shulman B, Teal SB, Huebschmann AG. Contraceptive counseling by general internal medicine faculty and residents. J Womens Health 2014;23:707-13.
13. Birru Talabi M. Callegari LS, Borrero S. Redefining *primum non nocere* to include reproductive autonomy: a new paradigm in subspecialty medicine. Womens Health Rep 2021;2:497-9.
14. Battafarano DF, Ditmyer M, Bolster MB, et al. 2015 American College of Rheumatology workforce study: supply and demand projections of adult rheumatology workforce, 2015-2030. Arthritis Care Res 2018;70:617-26.
15. Carminati L. Generalizability in qualitative research: a tale of two traditions. Qual Health Res 2018;28:2094-101.

Downloaded on October 5, 2024 from www.jrheum.org