

Research Article

Qualitative Insights into Family Physicians' Perceptions of Academic Detailing for Rheumatoid Arthritis

Harpreet Chhina

Arthritis Research Center of Canada, Richmond, BC, University of British Columbia, Canada

Wendy Hall

School of Nursing, University of British Columbia, Canada

Janusz Kaczorowski

Department of Family and Emergency Medicine, Université de Montréal and CRCHUM, Canada

Carlo Marra

School of Pharmacy, Otago University, New Zealand

Diane Lacaille

Division of Rheumatology, Faculty of Medicine, University of British Columbia, Canada

ABSTRACT

Purpose: The message of a paradigm shift in the treatment of rheumatoid arthritis (RA) to early, aggressive and sustained use of Disease Modifying Anti-Rheumatic Drugs and treating to target remission, has not yet reached all Family Physicians (FPs) in Canada. A promising technique to optimize FP practice is Academic Detailing (AD) which involves visits by trained health care professionals to physicians in their offices, providing evidence-based information on a selected topic. The objective of our study was to understand FPs' perceptions about the feasibility, acceptability, and utility of AD to provide information about RA management.

Methods: We conducted one-on-one semi-structured telephone interviews with twelve consecutive FPs who participated in an AD intervention for RA and who agreed to be interviewed. Interview transcripts were analyzed using a qualitative descriptive approach with inductive content analysis.

Results: FPs reported appreciating AD for its educational value, convenience, one-on-one interaction, short duration; subject expert input in content, and practical, evidence-based and focused content. Some FPs identified disadvantages, such as difficulty incorporating AD during work days, lack of dedicated CME time, insufficient time for detailed discussions, lack of time to consult information left behind and standardization of the message delivered. AD was acceptable to most FPs, who reported perceived benefits of the visits, including improved confidence in managing RA, anticipating clinical practice changes and willingness to receive AD in the future.

Conclusion: Participating FPs perceived AD as a feasible, acceptable and useful CME technique to receive information about RA management aimed at optimizing care.

Keywords: Academic detailing; Rheumatoid arthritis; Family physicians; Interviews; DMARDS

Introduction

There has been a paradigm shift in the approach to Rheumatoid arthritis (RA) treatment, with current guidelines recommending early, aggressive and consistent use of disease-modifying anti-rheumatic drugs (DMARDs), with remission as the new target [1-6].

The delivery of care for RA has been shown to be suboptimal [7-14]. In British Columbia (BC), we found low rates of DMARD use and referral to rheumatologists [15]. Similar findings were observed in Quebec, Ontario and United States [8,10,16]. Other researchers have found long delays in receiving care [12,17]. This highlights the importance of addressing the gaps in RA care by informing family physicians (FPs) about recent changes in RA management. Previous studies revealed that many FPs lacked confidence to undertake early diagnoses

of RA, and prescription of DMARDs, as well as the need for a shift in approaching RA care [15,18].

Changing physician's well-established clinical practice patterns can be difficult [19]. Continuing Medical Education (CME) has accounted for one third of clinical practice changes of FPs and consultants [20]. Studies have shown that techniques, such as academic detailing (AD), audit/feedback, and reminders, are more effective than dissemination of guidelines through traditional channels [21-26].

AD is a form of CME where trained health care professionals, such as pharmacists or physicians, visit physicians in their offices to provide unbiased, evidence-based information on a selected topic [27]. AD has been shown to be effective at optimizing clinical practice behaviours [27-32] and has improved care in chronic diseases [33-39]. To date we are aware of only one

abstract reporting on a study delivering AD over the phone to inform FPs of the importance of early detection of RA and rheumatologist referral [40].

We report on results from our qualitative descriptive study conducted with FPs who received AD aimed at optimizing the care of RA. The objectives of our study were to understand FPs' perceptions towards AD, as a way of receiving information about RA management and optimizing RA care. We evaluated FPs' perceptions of its feasibility, acceptability and utility.

Methods

Study design

We conducted one-on-one semi-structured telephone interviews to explore FP's perceptions of feasibility, acceptability, and utility of AD for RA management, concurrently with a study evaluating the effectiveness of the AD at changing RA management.

Recruitment

AD was offered to all FPs (n=419) actively practicing family medicine in the intervention health areas, i.e., Burnaby, North Vancouver, Coquitlam and Port Coquitlam, in BC. FPs was identified using the BC College of Physicians' membership list. Invitation letters were faxed, followed by hand delivery if no response was obtained. FPs was excluded if they were in

full-time specialized practices, administrative roles or retired. Ninety-nine FPs received AD. Two weeks after the AD visit, a brief survey was sent to all participating FPs, with 63% response rate. FPs who completed the survey (n=23) were faxed an invitation for interviews. FPs response indicating willingness to participate in the interview was considered informed consent. Interviewed FPs received an honorarium.

AD was used to inform FPs about recent changes in RA treatment and provide support in implementing recommendations [22,35,41]. A pharmacist trained in AD and RA management visited FPs in their offices, delivered a standardized presentation, and offered the opportunity for one-on-one discussion. A resource kit designed to address barriers to care or enhance facilitators, provided practical tools to support FPs' implementation of recommendations [29]. The principles of AD outlined by Soumerai were followed [27].

Data collection

Telephone interviews lasting 25-30 min were scheduled at a time selected by FPs and were conducted by one interviewer (HC). An interview guide (Table 1) was developed. Interviews were audiotaped and transcribed verbatim. Interviews were conducted until data saturation was reached at 12 interviews [42].

Table 1: Interview guide for semi-structured interviews.

Question No.	Question
1	Did you find academic detailing different from other CME activities to provide information about the management of rheumatoid arthritis?
2	What kind of other CME activity did you have in mind when you compared it to academic detailing?
3	What were the advantages of academic detailing over other types of CME activities?
4	What were any disadvantages of academic detailing compared with other types of CME activities?
5	What features of academic detailing did you find valuable for managing patients with RA?
6	Has it improved your knowledge? Your confidence or comfort with managing RA?
7	What features of academic detailing did you find less useful?
8	Why did you find these features less useful?
9	How did you find having a pharmacist discussing the medical management of RA with you?
10	Were you comfortable with the fact that it was a pharmacist? Why or why not?
11	Would you have preferred to have a different health professional providing the academic detailing?
12	Who would you have preferred and why?
13	Would you be willing to participate again in academic detailing in the future?
14	Why would you be willing to participate again in academic detailing in the future?
15	Why would you not participate again in academic detailing in the future?
16	What was the most important thing you learned about RA management from this experience?
17	Do you think you will change your current practice about the management of RA, as a result of the academic detailing?
18	What do you anticipate this change will be?
19	If not, why not?
20	Is it because the information confirmed what you already knew or and is it because you don't agree with what was recommended? Is it because you don't see RA patients?
21	What are some other reasons?
22	Do you have any suggestions to make academic detailing about rheumatoid arthritis a better experience?
23	Is there anything else you would like to tell me about your experience with academic detailing for the management of rheumatoid arthritis?

Analysis

Interview data were analyzed using inductive content analysis [43,44]. Transcripts were read line-by-line and broken down into distinct ideas classified using codes. Codes were compared and contrasted within and between interviews. Codes were clustered into sub-categories and categories. Themes were identified by grouping categories into related concepts.

Interviews were analyzed independently by two researchers (HC and DL) and were compared at each step. Guba and Lincoln's factors were used to assess criteria of rigor, as suggested by Sandelowski [45]. Ethics approval from University of British Columbia's Research Ethics Board was obtained [46].

Results

Characteristics of the interview participants are described in Table 2. Demographic characteristics and survey responses to questions about AD did not differ between FPs who did or did not participate in interviews (data not shown). Four themes were generated (Table 3).

Features of AD valued by FPs

FPs identified features of AD which they valued.

Convenience of AD: Aspects of AD found convenient by participating FPs included: the flexibility of AD, the ability to incorporate CME into their working hours and plan visits according to their clinic schedules; not having to take time off or cancel their clinics (Quote#1); not having to travel for CME (Quote#2) and the short duration of AD visits compared to other CME events (Quotes#3, 4).

One-on-one interaction of AD visit: The one-on-one approach was appreciated by many FPs because of the opportunities to ask questions (Quote#5) and to discuss challenging cases (Quote#6) with a knowledgeable person. FPs valued controlling the discussions and focusing on their interests (Quote#7).

Table 2: Characteristics of interview participants.

Family Physicians (n=12)	Percent
Female	67%
Previous AD experience	58%
Working full-time in clinical practice	42%
Type of practice	
Group	67%
Solo	25%
Walk-in	8%
With university affiliation	33%
Number of RA patients in their practice	
<10	50%
10 to 20	50%
Age, years	
31 to 40	8%
41 to 50	50%
51 to 60	25%
>60	17%

A few FPs indicated that they missed the opportunities offered by group learning. However, they also recognized that it could be less time efficient when discussions were not relevant to their needs. Other FPs preferred online CME because they could skip familiar information.

Utility of content

Most FPs discussed the utility of the presentation by the detailer and the resource kit provided.

New or reinforcing information: FPs described the content of the AD visit as useful if it was new information to them, reinforced important concepts, or confirmed that their practice was consistent with recommendations (Quotes# 8, 9, 10). They indicated that the visit increased their confidence in managing RA. The FPs described the written material left behind and toolkit as useful because it reinforced their learning or could serve as future reference (Quotes#11, 12).

Topics described useful by FPs included information about the importance of early diagnosis and referral to a rheumatologist, rapidly accessing rheumatologists and a rheumatologist referral tool, recommended blood tests, follow-up assessment checklist, joint involvement diagram, disease activity rating scale, list of community resources and patient education hand-outs. Although many FPs were not planning to prescribe DMARDs themselves, they appreciated receiving this information while co-managing RA patients with rheumatologists.

Practical information: FPs valued practical, as opposed to theoretical, information. The recent changes in RA guidelines were presented as practical "how to" information (Quote#13). Some FPs regarded the resource kit as facilitating information sharing with patients and increasing their involvement in care (Quote#14). A number of FPs found the resource kit useful because it contained everything relevant to RA management, making it practical to use during clinic (Quote#15).

Evidence-based, summarised and synthesised information: Most FPs appreciated the evidence-based information presented during the AD visit. They found the synthesis of literature by subject experts useful, and time efficient (Quotes#16, 17, 18). Some FPs commented on the usefulness of the balanced and targeted information, in contrast to other CMEs where they felt over-loaded with information (Quotes#17, 19).

Relevance of content: FPs discussed the importance of ensuring that the content of the AD visit was relevant to their needs and clinical practice. Most FPs felt the topic was relevant because they had some RA patients, and relatively little knowledge of recent treatment guidelines and hence felt the need for updates (Quotes#20, 21).

Some FPs appreciated the ability of the academic detailer to tailor the AD visit according to their knowledge, needs and interests, improving its relevance and saving their time.

Underlying needs and expectations of the AD visits: Some FPs sought to update their knowledge (Quote#22) while others wanted to confirm that their practice was up to date (Quote#23).

Table 3: Examples of participants' quotations supporting the themes.

Theme 1. Features of AD valued by FPs	
Categories	Quotes
a. Convenience of AD	1) I'm sure my patients like that too because,..., if you have to book a half day off or a full day off, it might not seem like a big deal to us but it's actually a big deal to our patients especially if the office is closed and they can't get in to see someone when they need to be seen (111/78).
Location	2) I don't have to take time off work and drive half way across the, you know, I don't have to drive across the city and take a whole day off of work and all that type of stuff to do it(101/105).
Scheduling	3) It didn't take as much time out of practice or personal time (105/18).
Duration	4) Compared to grand rounds at the hospital, which would be an hour to do a presentation (105/20).
b. One-on-one	
The opportunity to ask questions	5) Well there was a person I could ask questions to if I couldn't understand things and a person who was asking me questions to see if I understood. That's much different than going online or somewhere (116/9).
The opportunity to discuss own examples	6) I guess if you have specific cases and scenarios too, it's nice to be able to ask specific case based or patients specific questions versus all the other types of CME where you don't actually have face-to-face with somebody (113/46).
Ability to focus on your information needs	7) And you're not having to sort of get side tracked by other people's concerns. You can ask very pointed questions and get immediate feedback. (111/61).
Theme 2. Utility of Content	
a. New and reinforcing information	8) Because for some physicians this is new information and we don't have the confidence to start treatment or identify it early or to refer early (105/83)
	9) So the message of the early use of DMARD was not 100% new to me. So that's, it was useful reinforcement but it was not completely new to me because I had heard the message before (102/14).
	10) Well it gives some ..., well you're always wondering what's new and what's happening, and what's evolving. I think it was just a reminder about the whole process and just sort of reinforcing what you remembered from the last time. CME is not just about learning new stuff. It's about being told stuff again and again so that you remember. So I mean in that way it's not a waste of time and it was very well done (109/61).
	11) No I actually thought it was quite good and I just tucked it away in the back of my mind thinking that if I ever needed to get a bit more information I could use that. So I have it sitting in the office now. So if I ever have a patient ...I might go through it quickly while they're here and just, if I have any questions... , because I think it is quite good (111/132).
	12) Because often times when you're working in practice and you get a patient with ...rheumatoid arthritis. It's not hugely common and so you don't have at your fingertips all the resources in one place (109/20)
b. Practical information	13) No I think this one was... perfectly targeted and well balanced etc. with the amount of information and... direction. And... also very practical. So... how do you go about something like this? I mean.. you can sit there and you can tell me that... they need to be referred early. But unless you show me how to do that, I'm dead in the water, you know (101/40).
	14) Well just as I said... I've got a toolkit... I've got pictures I can show the patient. And all of that helps. And then we also have for the follow-up visit because then the patients know that they're not being seen and dumped. I think they get a better sense of being cared for (124/146).
	15) But... this is all in one kit, I don't think I've ever been given something that's quite so well put together actually (101/33)
c. Evidence- based, Summarized and Synthesized information	16) I mean, I think that this particular one had been gone over by a physician who said, okay, what do I really need to get across to the family practitioners (101/85).

d. Relevance of content	<p>17) No, no. I'm not talking specifically about the one I'm having... if I go to something on cardiology, they get talking about all the single trials. They don't just nicely summarize them for me (101/38)</p> <p>18) I think it was very well laid out in the sense of what... I need as a GP. As I said, some of them do get bogged down in the academics of it. And... that's all very well but I cannot read for every topic I need to deal with in medicine. I can't read the top 25 articles [laughs]. To me that's what specialists get to do and summarize it and make a decision of whether or not they're good articles or not (101/110)</p> <p>19) The trouble sometimes with folders... you go to CME a lot and you get all these [sort] of things that you look at and you never look at it again (101/33)</p> <p>20) Well I probably have a handful of RA patients in my practice and it's good to know that, you know, the treatment options that are available right now that are current with what's being done rather than feeling like I'm behind the current information (113/64)</p> <p>21) Well... several things. It's... a topic of interest to me and I think probably to most GPs because just about everybody will probably have a patient with some type of arthritis, particularly of course, the inflammatory ones. These are the kinds of things that your patient might present with. This is what needs to be done (101/42)</p>
e. Underlying needs and expectations of AD visit	<p>22) Well I mean, you know, I've been in practice for almost 25 years now I need constant updates and I can't possibly get, you know, it would be months long of these that I would have to go on to have to keep up on every single topic (101/52).</p> <p>23) My main purpose of doing the academic detailing was more to reassure myself that I was doing everything in an up-to-date fashion. But I actually felt fairly comfortable managing people with rheumatoid arthritis already (111/16).</p> <p>24) Well I didn't really have any underlying expectations. I was curious and it worked well and I think my expectations were exceeded meaning I learned more and I got more out of it than I thought I would.(114/242).</p> <p>25) When you go to CME and... what you're looking for is, when you're very busy is to get pearls. You want clinical pearls. So the pearl here was, don't screw up and refer these people too late because it will damage their joints. If you knew that pearl already ...then you'd like another one. You'd like to go to the next one sort of a thing (109/106)</p>
f. Pharmacist as Academic Detailer	<p>26) Well it doesn't... if you have a knowledgeable pharmacist who has got good information, it's got just the same as everybody else giving you the information (116/101).</p> <p>27). No not particularly if we are dealing primarily about medication. No it was fine. (116/105)</p> <p>28) That's the only.., the drawback is because they don't really see the person in the same way. They don't have to wrestle with a lot of the different kind of diagnostic dilemmas that we sometimes get into. They're more focused on the treatment. But they don't have to, they're not in a position where we have to arrive at the diagnosis in the first place (111/100).</p>

Theme 3. Disadvantages of AD

a. Challenges incorporating CME into clinic time	<p>29) And I have an extremely busy practice where I have no free time. So to have somebody come and spend half an hour when I have no lunch hour to start with, becomes very time consuming (116/51).</p> <p>30) The only disadvantage is trying to find time in your day to schedule and set aside for somebody and then if there's people coming at the last minute, etc., it's not dedicated time, (like) in the event of a Saturday or something (102/28).</p> <p>31) Yeah I'm paid sessional so it was okay in this setting but, if I was paid fee for service, that's a half an hour that I could have seen two patients (120/100).</p> <p>32) Some people might want a bit more detail... I guess. Again, it's also because it is brief....I was okay but some people might say there are issues with it being brief as well. But if you're in the middle of lunch hour... patients are coming in. So there's a hard finality to the session when you have to end. But that would be about the only thing ... as a disadvantage (113/56).</p>
--	---

b. Delivering standardized message	33) I...would have preferred... if somebody had said, 'I want to detail you on rheumatoid,' I would have said, 'you know, can we do these subjects because these are the ones I feel uncomfortable with or my knowledge has decayed (109/46).
c. Providing information that was already known to some FPs	34) So it can fine-tune what the presentation can be like rather than just a package Power Point (105/51). 35) He gave me a ... presentation really on why you should go to DMARDs and I sort of knew that already. And so the stuff he talked about I actually did know. So it was more just a reminder. I mean it's a very important point and maybe some family doctors don't know about early referral of rheumatoid but I didn't find that so useful. It was well done but I just didn't find it useful for me because I already knew it (109/38).
d. Practical issues with using material after AD visit	36) And then most of us are going on the computer now, so what do we do with the results? You know, do we scan them into our computer or what do we do with the paper, right? (114/154). 37) I might look at it if I have time later on in the day for the resources but in ...(area), we have specialists who you can get in to see RA..... I'm familiar with the lab tests and the clinical signs and he reviewed the information on the slides. So we haven't got time to go back to that..., in an office scenario (114/122) 38) Yeah ... and how acceptable to rheumatologists, I guess that would be another issue is what the rheumatologists want us to do. Like, do they want us to start these DMARDs right away or do they want us to refer. I mean, how are they wanting us to handle it? (109/150).
Theme 4. Perceived and anticipated impact of AD visit	
a. Improved Confidence	39) Yes it improved my confidence. It ... put it more on my radar. So if somebody comes in with things that might be suspicious, I may be more inclined to order some more of the tests (116/81). 40) Yes it did. It ..., kind of validated and made me more confident that what I'm doing is up-to-date (111/140).
b. Anticipated Practice Changes	41) I mean it's not like we're in rural BC kind of thing. So if the specialists are readily available like they are in metro Vancouver, it's harder to go out on a limb and say, 'I'll treat the patient myself (113/122). 42) No I don't really expect any change because as it turns out, I think I am providing up-to-date care. And I suppose I can always fine tune it (111/37).
c. Willingness to participate in future AD	43) And the fact that it's credited... it had the opportunity to offer main Pro C credits thereafter and prompt the chart review. I mean to me... you learn from that and you learn how you're doing with your practice, right (114/230).
d. Most valuable messages learnt from this visit	44) Well, like I said before,... the one most important thing I learned was that early aggressive treatment with disease modifying agents is I didn't realize it was so important to treat them that rapidly and to get it going so quickly (129/236) 45) Because early treatment is key to the patient's well being, I guess (109/182).

Some expressed no a priori expectations while others were expecting to get clinical information regarding RA management (Quotes#24, 25).

Pharmacist as the academic detailer: The utility of the information was evaluated based on the presenter. FPs described the pharmacist delivering the AD visits as well prepared, knowledgeable and trustworthy. FPs mentioned generally trusting pharmacists to deliver evidenced-based and unbiased information, especially about medications (Quotes#26, 27). Some FPs remarked that physician input in choosing the take home messages helped ensure the relevance of the content (Quote#16).

When specifically asked about health professional preference, FPs described some limitations. They mentioned that pharmacists lacked a physician's perspective and this limited

questions/discussion they could ask/have around diagnoses or clinical management (Quote#28).

Although a rheumatologist would have been preferred by some, it was acknowledged as impractical. FPs suggested that rheumatologist's input in content development was an acceptable alternative, enhancing the credibility of the material presented by the pharmacist.

Disadvantages of AD

FPs also commented on aspects of AD perceived as disadvantages compared to other CME activities.

Challenges incorporating CME into clinic time: Although most FPs found it convenient to have AD visits during their clinic hours, some found it difficult to find time during working hours (Quote #29). Scheduling CME events during weekends

or time booked off from clinic, provided CME time free of interruptions (Quote#30). One FP also mentioned that AD during clinic time could have negative financial implications for their practice (Quote#31).

Although most FPs liked short AD visits, some indicated a preference for longer visits, so they would not spend time covering material provided after the visit. However, they recognized that finding time for longer visits might be difficult (Quote#32).

Delivering a standardised message: Some FPs found that delivering a standardized message was a drawback of AD because it failed to consider individual information needs. Some recommended a prior needs assessment to tailor the message accordingly (Quotes#3, 34).

Providing information already known to some FPs: Some FPs did not find the AD visit useful because the content was not new to them (Quote#35).

Practical issues using material after the AD visit: Although the content of the toolkit was regarded as useful by most FPs, some found information left in paper format impractical to incorporate into electronic medical records (Quote# 36). They expressed concern about finding time to read educational material and figuring out how to integrate practice support tools into regular clinic. Some were uncertain about how duties should be shared between FPs and rheumatologists (Quotes # 37, 38).

Perceived and anticipated impact of AD visit

FPs perceived important outcomes resulting from the AD visits, which they described as valuable due to low prevalence of RA and difficulty staying up to date with current recommendations.

Improved confidence in managing RA: A number of FPs felt more confident after the AD visit (Quote#39). One FP mentioned using information from the toolkit to correctly diagnose a new RA case. FPs indicated increased confidence due to new information about RA management and the AD visit reassuring them that their practice followed current recommendations (Quote#40).

Anticipated practice changes: FPs anticipated practice changes resulting from this AD visit including: planning to diagnose early, referring to rheumatologists early, facilitating rapid referral, initiating DMARDs in a timely fashion, aiming for remission and changes in management of RA comorbidities. Since their practices had relatively easy access to rheumatologists, they described preferring to focus on early referral and letting the rheumatologists prescribe DMARDs as needed (Quote #41). FPs mentioned that knowledge gained would allow them to inform patients about DMARDs prior to their rheumatologist visit.

Other FPs expected only fine tuning of their practice because the AD visit confirmed that their RA management was already appropriate (Quote#42).

Willingness to participate in future AD: Most FPs indicated willingness to participate in future AD, if the topic was of interest to them and it was easy to schedule visits. CME credits were an incentive for some FPs. Other reasons for considering AD included: convenience; opportunity for new knowledge, staying up-to-date and evaluating their practice patterns and knowledge (Quote#43).

Most valuable messages learnt from this visit: FPs endorsed early diagnosis because they linked early and aggressive treatment of RA to preventing joint damage and comorbidities and improving patients' quality of life. They also appreciated that aggressive treatment and early referral could reduce the cost of RA management to the healthcare system. Some described being unaware of the importance of early and aggressive DMARD therapy (Quotes#44, 45,).

Discussion

To our knowledge, this is the first published qualitative study exploring FPs' perceptions of the feasibility, acceptability, and utility of AD to deliver information about RA management. We found that participating FPs valued the convenience and flexibility of scheduling AD visits. The content of the AD visit was described as useful by FPs if the information was new to them, reinforced concepts or confirmed that their current practice was consistent with recommended guidelines. They appreciated summarised and synthesised information by subject experts. FPs described AD as an acceptable form of CME they would be willing to repeat. FPs' descriptions of improved confidence and anticipation of changes in their management of RA suggest that the AD visits met their CME need and improved knowledge gap.

Our findings add to the limited literature on FPs' perceptions of AD [29,47,48]. Similar to a previous study [44], we found that short AD visits were preferred by most FPs due to easier scheduling. Janssen et al. found that FPs who declined AD visits would consider AD in the future, if the visits were very short. Our study results suggest that convenience of AD in terms of scheduling, in-office location and short duration of the visits contribute to the feasibility and acceptability of delivering AD to FPs.

The appeal of one-on-one interaction during AD visits documented in our study has not previously been reported. Although a few FPs in our study discussed the advantages of group learning they indicated that group learning could also be less time-efficient. These factors should be taken into consideration while deciding between group and individual visits.

Allen et al.'s finding that content and topic relevance to FPs' practice was one of the major reasons for agreeing to receive AD was consistent with our findings [29]. Our finding that pharmacists were well accepted as academic detailers by participating FPs contrasted with two previous studies reporting higher participation when academic detailers were physicians and non-physician academic detailers as a barrier to participation [29,49].

Disadvantages of AD discussed by some FPs in our study were mostly related to personal preferences. While most FPs found that having the AD scheduled during work hours was convenient; others found this challenging. Other studies described similar results wherein spending office time for CME was perceived as a barrier to participation [29,48,49]. Because that barrier was described by non-users but not previous users of AD [29] it suggests attention must be paid to overcoming that constraint, possibly through testimonials from previous AD users.

Some FPs' suggestion that needs assessment would have increased the relevance of the messages to their needs has not previously been described. This is however inconsistent with principles of AD which recommend the delivery of a standardized message [27]. Our finding highlights the need to have some individualized discussion time for FPs, after delivering a standard message.

FPs' views about the resource kit were mixed. While many FPs appreciated having practical resources organized into an easily accessible kit for clinic use, others found the kit time-consuming. Allen et al. found that providing material for patient education was an enabling factor for FPs' participation in AD [29]. While some FPs indicated the resource kit could engage patients more in their care other FPs raised questions about whether learning to use these tools was time efficient when the rheumatologists could do this more effectively. Our findings reflect the need for clarifying respective roles of FPs and rheumatologists in a shared care model for RA. Similar to previous studies, our FP participant's also expressed willingness to participate in AD again. Overall findings suggest that AD is an acceptable CME method for some FPs [29,47].

Our results have implications for planning or implementing AD programs. To enhance utility and credibility, the material should focus on practical information which is evidence-based, and summarised and synthesised by subject experts. Supporting material should be in both paper and electronic format. Tailoring the visit according to individual needs of FPs, after the delivery of a standardised message, would respect the principles of AD while providing FPs with personalized CME. The type of health professional performing the academic detailing should be chosen according to the topic. In our study, FPs was very accepting of a pharmacist as the academic detailer, given the focus on pharmacological management of RA. This has important implications for AD programs, which often rely on pharmacists, and is consistent with the diverse roles of pharmacists within health care [39,50,51].

Limitations

The perceptions described represent those of FPs who agreed to participate in AD and to be interviewed; they are not generalizable to all FPs. FPs accepting AD visits are more likely to have a favourable opinion of AD; may be more interested in CME and more willing to implement practice changes. Our sample has a high proportion of FPs with prior AD experience and university affiliation. In our study, the academic detailer was regarded as knowledgeable, competent and well prepared, which

might have influenced FP's perceptions. Many FPs mentioned that they were already incorporating recent RA guidelines in their practice. These results contrast previous findings from our group that RA patients in BC, at the population-level, were not receiving the recommended care [7]. This discrepancy points to the possibility of social desirability bias influencing the responses of interview participants. However, a number of other factors, unrelated to FPs, could also explain why patients are not receiving recommended treatment.

Conclusion

AD was perceived by participating FPs as a convenient and useful way of receiving information about RA management. The effectiveness of AD intervention at changing actual practice would require evaluation in an effectiveness study. Our results provide evidence that AD is a promising technique for improving the management of chronic diseases such as RA.

Funding

Harpreet Chhina was supported by a stipend from the Canadian Arthritis Network. The research was funded by a peer reviewed grant from the Canadian Arthritis Network (08-SRID-IJD-02). Dr. Lacaille holds the Mary Pack Chair in rheumatology research from the Arthritis Society of Canada and the University of British Columbia.

REFERENCES

1. Smolen JS, Aletaha D, Bijlsma J. Treating rheumatoid arthritis to target: Recommendations of an international task force. *Ann Rheum Dis* 2010; 69: 631-637.
2. Saag KG. American college of rheumatology 2008 recommendations for the use of nonbiologic and biologic disease-modifying antirheumatic drugs in rheumatoid arthritis. *Arthritis Rheum* 2008; 59: 762.
3. Wilske K, Haeley L. Remodeling the pyramid: A concept whose time has come. *J Rheumatol* 1989; 16: 565.
4. Singh JA, Saag KG, Bridges SL, Akl EA, Bannuru RR, et al. American college of rheumatology guideline for the treatment of rheumatoid arthritis. *Arthritis Care Res* 2016; 68: 1-25.
5. Bombardier C, Hazelwood GS, Akhavan P. Canadian rheumatology association recommendations for the pharmacological management of rheumatoid arthritis with traditional and biologic disease-modifying antirheumatic drugs: Part II safety. *J Rheumatol* 2012; 39:1583-1602.
6. Bykerk VP, Akhavan P, Hazlewood GS. Canadian rheumatology association recommendations for pharmacological management of rheumatoid arthritis with traditional and biologic disease-modifying antirheumatic drugs. *J Rheumatol* 2012; 39: 1559-1582.
7. Lacaille D, Anis A, Guh D, Esdaile J. Gaps in care for rheumatoid arthritis: A population based study. *Arthritis Rheum* 2005; 53: 241.
8. Shipton D, Glazier RH, Guan J, Badley EM. Effects of use of

- specialty services on disease-modifying antirheumatic drug use in the treatment of rheumatoid arthritis in an insured elderly population. *Med Care* 2004; 42: 907-913.
9. Hernandez C, Vargas E, Lajas C. The lag time between onset of symptoms and access to rheumatology care and DMARD therapy in a cohort of patients with rheumatoid arthritis. *J Rheumatol* 2000; 27: 2323.
 10. Feldman DE, Bernatsky S, Haggerty J, Leffordre K, Tousignant P, et al. Delay in consultation with specialists for persons with suspected new-onset rheumatoid arthritis: A population-based study. *Arthritis Rheum* 2007; 57: 1419-1425.
 11. Edworthy S, Boir G, Henderson J. The assesment in rheumatology program: What is your clinical practice like? *CRAJ* 2005; 15: 11-13.
 12. Jamal S, Li X, Alibhai S, Badley E, Bombardier C. Rheumatoid arthritis treatment: How are we doing? *Arthritis Rheum* 2006; 54.
 13. Gray M, Nuki J. Audit of delay between symptom onset and commencement of disease modifying anti-rheumatic drugs (DMARDS) in patients with newly diagnosed rheumatoid arthritis referred to a hospital rheumatology unit. *Rheumatology* 40.
 14. MacLean CH, Louie R, Leake B, McCaffrey DF, Paulus HE, et al. Quality of care for patients with rheumatoid arthritis. *JAMA* 2000; 284: 984-992.
 15. Reynolds J, Roger P, White M, Lacaille D. Factors affecting referral and treatment with disease modifying anti-rheumatic drugs (DMARDS) for patients with rheumatoid arthritis in British Columbia: Qualitative interviews with primary care physicians. *J Rheumatol* 2009; 36: S2599.
 16. Chan K, Felson D, Yood R, Walker A. The lag time between onset of symptoms and diagnosis of rheumatoid arthritis. *Arthritis Rheum* 1994; 37: 814.
 17. Tavares R, Pope J, Tremblay JL, Thorne C, Bykerk VP, et al. Early results from the understanding near-term care of very early rheumatoid arthritis (UNCOVER) multi-centre, retrospective, cohort: Lag-times to early rheumatoid arthritis care with disease modifying anti-rheumatic drugs. *Arthritis Rheum* 2006; 54: S415.
 18. Bernatsky S, Feldman D, De Civita M. Optimal care for rheumatoid arthritis: A focus group study. *Clin Rheumatol* 2010; 29: 645-657.
 19. Greco PJ, Eisenberg JM. Changing physicians practices. *N Engl J Med* 1993; 329: 1271-1274.
 20. Allery LA, Owen PA, Robling MR. Why general practitioners and consultants change their clinical practice: A critical incident study. *BMJ* 1997; 314: 870-874.
 21. Hartig JR, Allison J. Physician performance improvement: An overview of methodologies. *Clin Exp Rheumatol* 2007; 25: S50-S54.
 22. Davis DA, Thomson MA, Oxman AD, Haynes RB. Changing physician performance - A systematic review of the effect of continuing medical-education strategies. *JAMA* 1995; 274: 700-705.
 23. Grol R, Grimshaw J. From best evidence to best practice: Effective implementation of change in patients care. *The Lancet* 2003; 362: 1225-1230.
 24. Grimshaw JM, Eccles MP, Walker AE, Thomas RE. Changing physicians' behavior: What works and thoughts on getting more things to work. *J Contin Educ Health Prof* 2002; 22: 237-243.
 25. Bloom BS. Effects of continuing medical education on improving physician clinical care and patient health: A review of systematic reviews. *Int J Technol Assess Health Care* 2005; 21: 380.
 26. Schaffner W, Ray WA, Federspiel CF, Miller WO. Improving antibiotic prescribing in office practice: A controlled trial of three educational methods. *JAMA* 1983; 250: 1728-1732.
 27. Soumerai SB, Avorn J. Principles of educational outreach ('academic detailing') to improve clinical decision making. *JAMA* 1990; 263: 549-556.
 28. Azjen I, Fishbein M, Englewood C. Understanding attitudes and predicting social behaviour. Princeton Hall; New Jersey 1980.
 29. Allen M, Ferrier S, O'Connor N, Fleming I. Family physicians' perceptions of academic detailing: A quantitative and qualitative study. *BMC Med Educ* 2007; 7: 36.
 30. Honda K, Gorin SS. A model of stage of change to recommend colonoscopy among urban primary care physicians. *Health Psychol* 2006; 25: 65-73.
 31. Chhina HK, Bhole VM, Goldsmith C, Hall W, Kaczorowski J, et al. Effectiveness of academic detailing to optimize medication prescribing behaviour of family physicians. *J Pharm Pharm Sci* 2013; 16: 511-529.
 32. Beilby JJ, Silagy CA. Trials of providing costing information to general practitioners: A systematic review. *Med J Aust* 1997; 167: 89-92.
 33. Naunton M, Peterson GM, Jones G, Griffin GM, Bleasel. Multifaceted educational program increases prescribing of preventive medication for corticosteroid induced osteoporosis. *J Rheumatol* 2004; 31: 550-556.
 34. Ray WA, Stein CM, Byrd V, Shorr R, Pichert JW, et al. Educational program for physicians to reduce use of non-steroidal anti-inflammatory drugs among community-dwelling elderly persons: A randomized controlled trial. *Med Care* 2001; 39: 425-435.
 35. Graham SD, Hartzema AG, Sketris IS, Winterstein AG. Effect of an academic detailing intervention on the utilization rate of cyclooxygenase-2 inhibitors in the elderly. *Ann Pharmacother* 2008; 42: 749-756.
 36. Peterson GM, Bergin JK, Nelson BJ, Stanton LA. Improving drug use in rheumatic disorders. *J Clin Pharm Ther* 1996;

- 21: 215-220.
37. Bacovsky R, Maclure M, Nguyen A, Lopatka H. Canadian academic detailing collaboration: Evaluating processes and outcomes of academic detailing. *CPJ* 2006; 139: 54-57.
38. Allen M, Budgen S, Nguyen A. Funding for continuous medical education. *CMAJ* 2008.
39. <http://www2.gov.bc.ca/gov/content/health/practitioner-professional-resources/pad-service/about-provincial-academic-detailing-pad>
40. Fautrel B, Froger P, Gaujoux-Viala C. Early arthritis: Early act. A community-based knowledge transfer program to improve ability of general practitioner to rapidly detect and refer to the rheumatologist patients with early arthritis. *Arthritis Rheum* 2010; 62: 984.
41. American college of rheumatology Ad Hoc committee on clinical guidelines. Guidelines for management of rheumatoid arthritis: 2002 update. *Arthritis Rheum* 2002; 46: 328-346.
42. Bowen GA. Naturalistic inquiry and the saturation concept: a research note. *Qual Res* 2008; 8: 137-152.
43. Cole FL. Content analysis: Process and application. *Clin Nurs Spec* 1988; 2: 53-57.
44. Cavanagh S. Content analysis: Concepts, methods and applications. *Nurs Res* 1997; 4: 5.
45. Sandelowski M. The problem of rigor in qualitative research. *Res Nurs Health* 1986; 8: 27-37.
46. Guba E, Lincoln Y. *Effective evaluation*. Jossey, Bass; San Francisco 1981.
47. Habraken H, Janssens I, Soenen K, van Driel M, Lannoy J, et al. Pilot study on the feasibility and acceptability of academic detailing in general practice. *Eur J Clin Pharmacol* 2003; 59: 253-260.
48. Janssens I, De Meyere M, Habraken H, Soenen K, van Driel M, et al. Barriers to academic detailers: A qualitative study in general practice. *Eur J Gen Pract* 2012; 11: 59-63.
49. Van Eijk ME, Paes AH, Porsius A, Avorn J, de Boer A. Pre-randomization decisions and group stratification in a randomized controlled trial to improve prescribing. *PWS* 2004; 26: 227-231.
50. Silversides A. Academic detailing improving prescribing practices in North Vancouver, conference told. *Can Med Assoc J* 1997; 156: 876-878.
51. An assessment of academic detailing in North Vancouver. Association of Canadian Medical Colleges-Association of Canadian Academic Healthcare Organizations-Canadian Association for Medical Education Annual meeting; 2002.

ADDRESS FOR CORRESPONDENCE:

Harpreet Chhina, 1D18, 4480 Oak Street, Vancouver BC, V6H 3V4, Arthritis Research Center of Canada, Richmond, BC, University of British Columbia, Canada; Tel: 164511529; E-mail: chhina.harpreet@gmail.com

Submitted: April 02, 2016; Accepted: April 21, 2017; Published: April 28, 2017