

## PR EPISODE SCRIPT

### Organizing a Journal Club for your PR Program Team

Hi everyone, and welcome to this episode. Today I want to talk with you about organizing a journal club for your pulmonary rehabilitation program team. As you might be aware, we have had a couple of journal club episodes, which I will link to in the show notes, on this podcast, and they have been quite popular, so far. This may be because journal clubs support clinician professional development in a number of different ways.

1. The most obvious way that a journal club can be helpful for you is that they can promote your reading of the literature. Just the expectation that you have to attend a club meeting, having read the paper ahead of time, is sometimes the encouragement we need to read a paper thoroughly.
2. Journal clubs also provide another way to strengthen collegial relationships with your fellow clinicians. They should be safe spaces for discussion, where we can identify aspects of the paper that we don't understand, or discuss our current practice patterns, or maybe the highlight gaps and strengths in our collective knowledge.
3. Journal clubs also give you some perspective as to what is happening in the research in your field. Of course, 1 paper won't be a comprehensive view- you are not going to learn everything about what is happening research wise in your field with just reading a few paper , but you may find, if you don't already know them, that as you look for papers that you might want to read, you'll see some universities, countries, and researchers names appearing again and again. And just understanding who is doing the research and the kinds of the questions they are asking I find it to be quite helpful.
4. They spark your own curiosity. You might not choose, or have the capacity to do research yourself, but you may find that reading research papers and looking at them in the context of your own clinical practice actually sparks some questions of your own. Sometimes that can lead to your own small projects – for example, if you use the 6MWT in your program, and you read a paper that reports changes in six minute walk test differences between men and women with COPD, you might want to calculate your average improvements over the last year and look at differences between men and women, and see if they look similar or different to what you read about in the paper. If they don't look the same, you might wonder why, and that can lead to a deeper understanding of both the literature, and your own clinical context.

But of course, journal clubs also have their challenges. These may be some of the things you've thought about when you think about whether or not a journal club might be interesting about and so some of the concerns you may have are:

1. How do I organize the logistics, such as the size, the setting, who has to lead them, how to organize...
2. There is so much literature out there, how do I even select a paper that would make a good paper for the journal club?
3. I'm not a statistician, how will I feel confident in interpreting the stats section of these papers we will be reading?
4. How do I know that the paper is good? And that I can trust the methods and results and know that things were done accurately?

5. And then another common question you may have would be how do I take what I found in this paper and what we talked about in this paper, and then decide should it go into my clinical practice and how would I do that?

All of those are good questions and I think we probably we have all felt them at some time when we have considered a journal club in our setting. But luckily, these are questions that have been posed by clinicians, and so there are some good resources out there to help guide us. I'll provide a few links to these in the show notes. But allow me now to give you a few of my thoughts on how to organize your own journal club.

1. So the first question: How do I organize the logistics, such as the size, the setting, who leads...?

Think about the size. You can have a club with as few as 2 people, but you'll probably find the discussion is better if it is more than that. But I think less than 10 would be best, as if it gets too big, then you get a lot of 'passengers' – people who think basically listen in but don't contribute to the discussion. You may have a larger list that you send an invite too, and then accept the first 10 people that are available, or you may work to establish a small group that commit to regular participation.

Who should come to the journal club? Depends on your program, of course, but I think the idea of an interdisciplinary journal club would be great, since we all have such varied backgrounds those of us working in pulmonary rehab and with that we come with our own unique knowledge base. I also think in addition to inviting the regular team members you should think about widening your circle a little bit and maybe include students – they bring a lot of knowledge to the table, but will also really benefit from hearing the discussion amongst clinicians about the clinical application of the papers that you are reading. You might want to have an invited guest – especially if you know researchers, policy people, or other experts that you might not normally get to speak with or maybe even clinicians that are not working in pulmonary rehab that might be using different tools or different interventions or have a different perspective of the literature in their area that might have some relevance to pulmonary rehab. So I think you can think quite broadly about who can attend – really you want commitment, you want enthusiasm and want enough people to have a good discussion.

Do you need a leader? Personally, I think it is helpful to establish some sort of leadership system right away. If you have a small group of committed people right now that want to do this journal club, you may decide amongst you to rotate the leadership of the meeting. That person confirms the room, distributes the paper, sends reminders, really just handles the organization of the club. However, if this is something you want to start, but you are the main champion of the journal club, you might find it easier to just be leader for all sessions until the club is well-established.

But I want to reinforce that leading the club DOES NOT mean that you will be the one to decide on and present the paper. This is something that should be shared. Some clubs decide as a group what their slate of papers will be, and then take turns with the presenting role. Others decide that whoever will present, gets to pick the paper. The nice thing about the latter approach is that if the person who presents gets to pick the paper, they will pick a topic of interest to them, and that might end up introducing something quite novel and unexpected to the other members who might not normally have read a paper like that.

Other logistics to consider – how long? You typically need an hour. You can probably go a little bit over but much less than an hour its really difficult to talk about the paper and have the discussion you want. Where? Well in COVID times this may mean in online spaces like ZOOM, which is actually quite interesting because that might give you the opportunity if you don't have a large enough team amongst your own pulmonary rehabilitation program maybe you can reach out to another pulmonary rehabilitation program in another city and see if you can do a journal club in partnership with them. If you can meet in person in safe ways, then its nice to have your room set up in a way that you are in a circle in some sort, so that everyone has equal viewing to each other, allows for an easier discussion. How often? I would say that it should be at least once per month, and preferably more frequently, just to keep the momentum going. But once a month at a minimum I think is best.

Now there are different types of formats to journal club and I suggest having this be one of the first decisions of the group. A more formal approach is for one person to summarize the paper and present that summary in a series of slides. It doesn't have to be too complicated – it can be fairly easy to cut and paste sections from the PDF and put it into a slide. Sometimes the website the paper is on has downloadable slides to facilitate teaching that you are allowed to use. The person presents the paper in 10-15 minutes, given a brief overview of the intro, more detail on the methods, more detail as well on the results, then an overview of the discussion, limitations of the study that the author presented, and then possible next steps for further research that again the author laid out in the discussion section. The presenter can then provide some of their own commentary, such as why they picked the paper, the questions they had (about all aspects) as they read the paper, and their thoughts about the clinical application. Then the other members could pose questions to each other, weigh in with their own thoughts, and generate a discussion.

Or, the format could be more informal, with no presentation, and just a quick verbal summary of the paper, followed by a general discussion. So its really up to you.

I do want to say though one potential problem I've seen with journal clubs is that questions are posed by group members that no one has the answer for, and it isn't followed up for next time. So the learning potential is limited. One way to address this, is for some system or responsibility to identify some questions ahead of time, then to take the responsibility as the individual with the question to see if you can find what the answer is. For example, you might be reading a paper that describes a randomized clinical trial in pulmonary rehabilitation, and they talk about a single-blind study. If you don't understand what that is, then do a bit of investigation to see if you can find the answer, prior to the journal club. Then at the club, you discuss both your question and the answer you found and you can have a bit more learning amongst the group that way.

2. There is so much literature out there, how do I select a paper that would make a good paper for the journal club?

This is a challenge, to be sure. There is so much literature being published everyday – there is no way to keep up to the all! I suggest that you focus on actual research papers, and not so much on narrative reviews, brief summaries, etc. You need some meat in the paper, something that will foster some discussion. It doesn't have to be experimental clinical trials though, you might find a paper that discusses the validity of a new test, or an observational study that looks at the characteristics of responders versus non-responders to rehab, for example. So I think as long as it is a research study that was done that gives you a chance to have a good discussion I think that's important.

The next thing is, pick reputable journals. I'll provide some links to some typical ones where you will see pulmonary rehabilitation research in the show notes. If you are just starting out, you want to read research that has gone through very vigorous and rigorous peer review, and therefore it's better to pick articles that come from the best journals. This isn't to say that good research can't be found in smaller, more niche journals, but I think for new journal clubs that are getting started, it is better to go with the larger studies in high quality journals.

But you know you can think quite broadly about the topic. Pulmonary rehab as a practice area is enormous, so there are a lot of papers that are relevant to us. You might be interested in something related to physiology, or social determinants of health, or assessment, or psychological issues, or health literacy, or muscle adaptation, I mean we have such a broad range of topics that are relevant the list is endless. Let your curiosity take you wherever you like.

3. I'm not a statistician, how will I feel confident in interpreting the stats section of the paper? How do I know that the paper is good? And that I can trust the methods and results?

And I think that these can be answered together. If you start your journal club journey reading papers from high quality journals, you can have some faith that the studies have undergone some pretty rigorous peer review before they were published. Of course, nothing is perfect and there can still be errors and study limitations and weaknesses, but you don't need to feel like you have to judge the statistical method, for example, if you have no expertise in that area. You have a little faith in the process that you are picking papers from a good journal and that journal in their review has done their due diligence.

As you read more, you're going to start seeing some patterns in methods, and that will increase your confidence in understanding the methods section. So you'll see some consistent ways in which participants were recruited, or randomized, or ways in which errors in measurement were minimized, or the same stats methods used depending on the question. And with that, you'll improve your own self-efficacy in reading and interpreting those sections.

4. How do I take what I found in this paper, and put it into clinical practice?

This is probably the trickiest question of the bunch, and really relies on your critical thinking, and clinical decision-making. In general, for most things, you shouldn't be too reactive, and make drastic changes based on one paper. There is a caveat to that though:

- If the paper discusses something like an outcome measure that has been around for a long time, and you've seen it in multiple papers, and guidelines, and you're not using it, probably this is something to consider. For example, using a shuttle walk test or a 6MWT as a measure of physical function has been used extensively in research, and is commonplace in clinical practice. If you haven't incorporated a pre- and post-exercise test such as one of these two, then that is a clinical change you should consider making right away.

But if the paper talks about a novel exercise intervention that is complex to implement, and hasn't been described before, you could certainly wait until more evidence is created and presented from other studies before you make changes to your program. Some of the other questions you might want to ask are: 1. Is the patient population in this paper similar to the patient population I see in my program? Can

I imagine the results that they found would be something similar that I may find? 2) Was the size of the difference between the groups after the intervention clinically important? So there maybe a statistical difference that they talk about but if you look at the change in 6MWT and they have a huge sample and the overall change was only 10m, that's probably not clinically important and there is also research to say that needs to be more than that. So you really do want to look at was the size of the difference between the groups that was attributed to the intervention actually quite sizable and worthy for us to consider 3) Does the effect of the intervention make sense from a physiological, or other system, view? I.e. is the change plausible? You want to be able to put your clinical judgement onto what they attributed happening makes sense to you clinically 4) Was the environment an extremely controlled research laboratory, with a lot of resources, and can I imagine providing this intervention or making that change in my current clinical setting? 5) Do I have the skills myself to provide this intervention, or use this new measure, or do I need further training? And where can I get that? 6) Will this change make a difference for enough patients that it is worthwhile? If it's a small niche group that was investigated and those patients are not represented in your program, then this is something to consider 7) And you may be reading a few papers and it feels like we have so many changes to make- if I think there are numerous changes to be made, what is my priority and what is feasible?

If your answers to these questions show you that it would be quite difficult to implement something different in your setting, that doesn't mean you shouldn't continue to explore the idea. It just means that more thought and planning is required and maybe more reading of other papers to have an understanding about that context.

Which of course, is also the point of the journal club – to see how your pulmonary rehab program can improve, be evidence-based, to improve your own professional development, and work to improve the health outcomes of your patients.

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I hope that this episode has given you some inspiration to start a journal club with your team. Really, its just fun to get it going and build on the enthusiasm. Oh, and one thing I didn't mention – make sure you have food and drink – even if people bring their own. Conversation is always improved with a little sustenance 😊

Thanks for listening to this episode, and until next time, stay safe and keep moving.