Reviews - Soorej Jose Puthoopparambil

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SPEAKERS

Soorej Jose Puthoopparambil, Jo Vearey

Jo Vearey 00:00

I will, without further ado, hand over to Soorej.

00:07

having a session this morning where we're looking at different kinds of reviews to be done, research to help us understand existing evidence, to assist in identifying evidence gaps. And Soorej has kindly agreed to give us an overview of that process, and we're very fortunate. Soorej has been involved in running and coordinating various reviews at different levels. So Suresh huge Thanks, and I'll hand over to you.

Soorej Jose Puthoopparambil 00:40

Thank you very much Jo.

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things like news articles, maybe those that are not necessarily peer reviewed.

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Okay, anyone else?

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No, I was gonna say the same. It's mostly

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unreviewed articles, like your news articles and so on, right? I

would necessarily put that way. I think news articles, I would never include it in any sort of review, to be honest, unless it's a discourse analysis of how, for example, racism is being described in the South African media. Then you include that, but then that becomes your date and other review method. So I would never use news articles in reviews. So here, Chavi, maybe you have the answer.

Yeah.

Um, yeah, I mostly include like government policy papers and

something like sources from government agencies, right? Great. So exactly so materials like government investigations, government reports, or who reports, or UNHCR reports, all these are reviewed but not reviewed in terms same as as we do for scientific article published in a journal. Right? These are reviewed, but it's a different kind of review process. So these are gray literary so I would never recommend adding anything which is not reviewed at all, so gray literature also reviewed, but not like a typical peer reviewed scientific articles. So for example, the global reports we published for who they are reviewed, but they are not peer reviewed articles, but they are gray literature. So you call on that. And the reason I said non scientific, for example, have a pieces from now she is looking into how health promotion messages are being understood and acted upon by migrants in Germany. And for that, she she is first doing a policy analysis, and for that, she is actually doing a scope and review of all policy documents. So what she does is she actually contacts each and every government agencies in Bavarian region of Germany and the National the Federalist government, and ask them by mail and by phone to get these documents

so that scoping allows that systematic reviews, often doesn't do that. They could, but often they don't do that. But it's more strictly defined scoping review, it's a systematic search, but it gives you more freedom and can include more literature. System. It's bit more narrow and more clearly defined.

Data Extraction, I'll show a table later on. Literature, again, nothing standard. You just read the article and you write your understanding about it, both scoping and systematic review. It's

standardized, like in other attributes we discussed in systematic review, it's bit more standardized, and I'll show an example later on. Data Extraction is basically the process of you read an article and you take the data that you need. So it might be the year of publication, the keywords the main outcomes is it an odds ratio for smoking is.

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It mortality? Is it morbidity? So you have an Excel table, for example, extracting all the data you need or the key results of these things. So that's what I mean by data extraction, and it's often not often it is always standardized for scoping review and systematic review.

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I'll have three or four more attributes Any questions so far.

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All right,

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so

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appraisal of include documents. And I think this is what I was referring to when I was talking to Melissa. So should we just include all the documents we get, or should we try to assess the quality of the articles we are including? So there are various tools looking into how good a quantitative study, how they actually they for example, typically when you do a cross section study, I don't know how familiar you are with it cross section studies. Basically, you're doing a survey at a given point in time, and you're getting results saying that right now, the prevalence of disease X, Y is at this blah, blah, blah, and it's mainly impacted, it's mainly, it mainly impacts women, and then it is what it is, and that what's the cross section study. But I've seen several studies saying that there is an association between or the gender seems to have an influence on, on, on disease wise. And you try to assume a causality. For example, a cross sectional study can never assume causality, because for that, you need to have a longitudinal cohort study. This an example. So if you have a study that says this kind of false statement, it's a poor quality. And this is a generic statement, right? But you have several quality assessment tools for qualitative, for quantitative, for case studies and so on and so on, which you can use. And then, depending on how you do the study, some people actually say that I am using this and this tool to assess the quality of the studies, and if it doesn't meet the cut off criteria, I'm not going to include those articles in my study. But as others would say, that I'm going to include all the articles which I get in the literacy review, but I'm going to have a separate comment on

which articles were of high quality, low quality. So literacy review, you do not do any such kind of approach. You just take what it is in scoping review, ideally. I mean, traditionally, you don't do it, but it is recommended that you also do it in systematic review, you have to do it

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then use, I think we discussed that in our early discussion, where you use these kind of reviews, literacy, introduction to an article, you discuss, scoping review, prior during start of the project, and systematic review when you have a particular question.

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Ideally, like in many of my projects, we use a systematic review to see how to best design a particular intervention for a particular disease or a condition, it's too specific,

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then the this is the golden thing right in in medicine, from a medical point of view, as long as you are not able to replicate what you have done, it's a poor quality, because then the subjectiveness comes into play.

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The reason why systemat review has so many different criterias and so strictly defined saying that if I use the same search strategy with the same inclusion exclusion criteria, I should end up with the same number of articles included as person XY said, then it's not random. It's not by chance because I have a strict protocol, then it is science. Yes, that is true, but just to note that there can also be difference in how we use different database and how we access and so on, but the ability to replicate is much higher for systematic reviews. So by chance, occurrence is reduced, and bias is also reduced in scope and review to great extent, but not always. Like the example I gave my PhD student, when she interact with the ministers or the authorities, the kind of document she get, she might get 10 documents now, but maybe she asked tomorrow to another person, she might get 11 documents. So there is this replication issue in scoping review, but it's still much more reliable than a literacy review.

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And then what it produces, in the end, literature is a general discussion we discussed before a scoping review. It basically says, So, for example, we did this review in 2019

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about migration literature published on migration health in Ireland. So what we did was that we did all the sales criteria and everything. We got the literature what we want, and then there

was a who action plan. And then what we did was that we placed this literature into various action plans. So our conclusion was that in action plan, for example, two and three majority.

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Of the Irish literature is in our action plan two and three, whereas seven and six does not have much. So we are not not doing an analysis, but rather, we are just explaining the layoff the literature with a particular framework, systematically, as I said before, it goes bit more into detail, saying that, okay, the evidence indicates that intervention A is better than intervention B for disease y.

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So it's much more of an advanced synthesis. I'm

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sure there are many other topics we can discuss within the differences, but I thought this might give an initial idea what it might be the differences and similarities questions i

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All right, I hope I haven't lost you guys yet. Um, if you

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want to know more about I don't, they're like 14 different review types, which I didn't know actually existed, but I learned this like in 2016 if you understood more about different types of literature reviews and so on, you can read this article and not discuss it much further, but it's a good, good article, just to get an understanding of why and how and when we use different kinds of reviews.

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Now, just going to give a brief audio scoping review steps, and I think Melissa and tanats and others would actually explain it further. So these are the various steps. You identify research question, and ideally you would do a literate review before that, and then you have a research question. You end of relevant studies. I remember this is where scoping is bit more flexible than systematic. You decide, should I reach out to ministry? Should I reach out to

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some authorities, for example, some of the reviews we did for who? Of course, we reached out

the ministries, but we didn't get much. So then we actually went to the ministry's website in various countries and looked up and they have a search tab, and we searched our keywords there in those sites. So this was not Web of Science. This was not Scopus, but this was individual Minister of Health website, say, in Jordan, for example. So these are the various way how we can identify learning studies, no so not just through the typical academic databases study selection. So ideally, what happens is that you do these searches and you create a reference list using Zotero or EndNote or whatever tool you have, and then you start to see, like a is this relevant? Is this not relevant? So regardless of how good you define your search strategies and keywords, you will still have a lot and lot and lot of irrelevant studies. I think when we did the Irish review, I think we had around and remember now maybe around 8000 articles, and we ended up selecting maybe 200

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300 something like that, because some of the things will be just commentary, some of might be like migration of birds, because there is migration, there is health, right? Even if I select humans and subjects, other things come into play. So here I just want to give a tips on this particular tool.

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I'm not this is not my tool. I'm not paid do any promotion right now, some of my students are doing this review, and actually they're using this tool, Rayyan. It makes the selection process bit more easy. It's partially powered by AI, and there is free version, and you can invite many people come and collaborate. It's quite fast again. Give it a try once more, please.

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I just wanted to check if there is

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maybe that's not going to be answerable, but if there is a standard number of articles that you when you're connecting, conducting a scoping review, some kind of expected to have as the final articles that you will then kind of say, these are the findings, after all, the, what you call it, the the streaming and everything, absolutely, specific number, absolutely. And that is, that is exactly why do scoping, because we don't know what is out there? So absolutely, there is no limit on high or low limit. I mean, I've been part of studies where you had, like, probably 10,000 articles or references. You download and maybe and you end up having only 10 that is relevant.

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It also depends on how broad and small or narrow your research question is. So systematic reviews, you often end up with very small number of articles because it's too narrow. Scope reviews tend to have bit more higher and absolutely there is no

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number. So those of you are working with scoping reviews, try using Ryan. It's bit easier. At least it felt easier for me. You can also collaborate on the same database with many colleagues. So let's say you have 1000 hits, and you're four of you guys, so each of you are going to take 2500

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each, which is still a lot of number. But then you all can work on the same database, and each and everyone can see who is doing what, and all those kind of things. Then you can add tags and names and comments and everything. So try it out if you have time. And then data chart.

45:00

Thing I'll show you later, an example I'm doing right now for who how we what kind of data you want extract, and this also depends on what is the idea you want to give. So you remember, when I did my lecture on Tuesday, I showed you a pie chart showing that

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31 percentage of the global literature on migration health is on refugees.

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I was able to produce that pie chart because of the data chart I created when I did this COVID review. I can show you how I did it later on, and then finally, you collate and summarize reporting results here between four and five, or actually three and four, depending on the setup you have, if possible, also do the appraisal of the document. For the Irish one. What we did was that we did appraise the document, meaning, was it good quality, low quality, based on the tools we used, but we did not exclude because it was of low quality. We included the low quality one, but then we had a recommend saying that x number of documents were of low quality because of unclear results, unclear target groups, and so on and so on. But we included that. As I said before, there are studies who completely exclude because it's of poor quality. That's between you and how you have your project

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population group,

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and then we have the area of the topic we are interested in. This is for scoping review. And then the Jo area, for example, this is something we are doing for the WHO European region. So we have listed the 53

countries in the region, not for example, for Finland. We write Finland or Finnish. So there could be article done in Finland, but they're never used toward Finland, while they say the Finnish population, same for France, French and so on and so on.

If you're doing a Global Review, of course, you don't need this. And depending on if you're doing a particular disease, then you need to write that. But also think how we can actually how these words could be used differently for the example of migrant

and you guys, I assume you all are familiar with Medline, so there is a way how you can see there is a thing known as MeSH terms. So when you go to Medline and type in a keyword, for example, health or cold or anti micro resistance, you type in the word often, I don't exactly where it's now probably on your right hand side. On the lower corner, there is a small box called MeSH terms. What it does is that it will show you all the different variations and how the word micro resistance, for example, has been used in various articles. So then you know, what are the different forms you should have in a search strategy. The same thing goes for M based database there. I think they call the M tree, and so on and so on. So always think, what are the ways people might the researchers might use it for this is a simple version of it, but if you want to use a bit more complicated version, there are various ways how we call it. It's called, for example, one is called pico strategy. It's basically P stands for the population of the patient group. In this it's the migrants.

The I stands for the intervention or the exposure. In this case, it's health. In other case, it could be malaria, it could be work, insurance, it could be anything you want.

C stands for the comparison group. Are you going to compare with the host population? Because then it's a different kind of review here. We are not doing any comparison person, so the c part is not relevant, and O is the outcome. I looking into mortality. How many are more? Yeah, if you are you moving your slides or you're still on the stage, I'm just saying I'm not moving a slide. Okay, because it's getting bit more complicated, I'd want to do it, but just want

to show that there is also other strategies for Pico and lot of others. And I don't think you need to know that for the scoping review part of it. And this was my last slide, but I'll show you the extraction sheet, and then I'm done.

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Let me see if I have it yes,

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you guys should be able to see an Excel, right? I

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Yes, you can see it great. So this is one of the sheets we use for the WHO scoping review. So this is a typical data extraction sheet. So then I put the name of the author where the study was done, because this was for the European region. So for example, the conclusion could be that, you also remember, when I did my first lecture on Tuesday, I showed you a map, and that was not created based on this, but I can do the same thing here, saying that majority of the studies on migrant health seems to have done in Germany. I could do it because I'm extracting that particular country information. So again.

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There might be studies which doesn't say Germany, but it might say German So, meaning it is done in Germany, so so on, so on. When it was published, what kind of study was it? These have to be predefined, otherwise your life will be bit more messy. So you need to say which other studies I can include. Should I include observation study? Should I include cross sectional, longitudinal cohort. Should I include qualitative, not qualitative, and so on and so on? Do should I include randomized control trials and so

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on? Then, which migrant groups? Some places, it's clear. Some places, not clear at all. They just say migrants when we call, not specified what kind of health issue as in health outcomes, not determinants, but health issues.

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We put section on main results this, for example, if you generate a word cloud based on what is over here, you get an idea of what are the main words, what are the things they say, higher mortality, lower mortality, and this and that and so on. And if it's on health status, again,

similar to this, one bit more clear, specific. If it's health system, are we looking to financing, service utilization, governance and so on, and then are we looking to health determinants, then food and nutrition, or work influence, medication and so on.

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So this is one example, and it was based, for example, just based on this column, we could generate the pie chart saying that 31% of the global literature was just on refugees and another 33 was on not specified group.

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All right, I stop here. More than happy to take any questions, if you have any, you

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I see few questions on chat.

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Perford, yes, why we're doing it clear, good.

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Both will. I think we want to discuss charity. Had a question on which part of an article must be focused on when we review literature, I think the extraction sheet gave you an answer to that depending on the question. If you just want to know where the study is conducted or which groups are studied, maybe it's enough to do with the methodology, but usually you don't focus on a particular part of an article. You take all of it, and then you have an extraction sheet. And the extraction sheet is often created based on the research project or the research ID you have so that you get those data

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and then charity. It's a long comment. Do you wanna? Do you wanna speak up? If possible?

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Okay, no, it was not a question. It's rather a comment. Okay, I read it good

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questions from anybody.

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The extraction sheet, yeah, sure.

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I can share it without the data, yeah, I can. I

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Yes, Jo, please ask me a question. Jo, no worries. Thank you.

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Um, Suresh, I wanted to hear from you, what when you're reading, sorry, I've got some issues with

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you're on mute now, so I'm between, yeah,

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between my phone and my laptop. Sorry. Question is, when you're reading a scoping review or a systematic review

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that's been published, what you or if you were sent one to review for a journal. What for you would convince you of the quality and publishability, as it were of that review article? What would you look for? What would make you trust what had been was being published or put into the manuscript?

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It's my I'll first look into the search strategy, because I've had reviews where I reviewed reviews where they won't say migrant health, and they only sort migrant and refuge, and they've felt that they covered everything. And as I showed before, there are many different ways how migrants are being referred to. If you don't have an competency search string, I would not

include, I would think that is of a poor quality. And then also the databases they looked into, if they just looked into one. And I think, you know, we all have to be practical, and if you don't have time and everything, it's fine, but then they have to be explicit about it, and then state as a limitation we only looked into. So right now, I'm developing a research agenda for a particular organization, and I don't have much time. Of course, I would like to do a review covering all of it. I can't so what I do was that I did was that I use search strings in four different main search engines, and I picked the hits from the search engine.

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That gave me the highest number of fits. So then I at least have a justification, saying that there are other search engines which could have been included, but due to lack of XYZ, I'm not doing it, but I'm taking the search engine that gave me the highest number of fits, assuming that it contains most of the literature. The other thing I look into is also

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how they analyze and how they conclude, because often we as human beings have a tendency to conclude more than actually what we should, but primarily through the search strategy and the inclusion exclusion criteria.

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Thank you. Suresh, the reason I mentioned that is, I think it's important for everyone to, you know, Suresh was saying, right, there's different kinds of reviews, and you're not going to get something you claim to be a scoping review, or you claim to be a systematic review published if it's not one of those things, and if it hasn't been done rigorously. And I think sometimes there's a tendency we say, you know, you might write in your in your proposal, or something, oh, I did a systematic review of the literature, but that's not actually what you meant. What you meant is you reviewed the literature. Perhaps you were quite organized in how you did it, but that's not the same as doing a systematic review, the same as scoping reviews. I think yesterday, once more, was it, you? I think it was, I don't know if it was yesterday, sorry, but was talking about, you know, trying to get a scoping review published. And it's, it's true, they're not always the easiest things to get published, because the expectation in terms of the level of rigor is high. I was quite surprised a year or so ago when I was it's what I'll share in a bit. But the number of kind of review articles that were coming up in my scoping review, and when I looked at them, they were these terrible sort of extended literature reviews, sort of commentaries published in poor quality journals, but you see the word review got a quick win on reading some good literature, right? We always see go for the review articles right when we're when we're looking at certain topics, but it's just a warning to not fall into the trap of thinking because someone's calling it a scoping review, that actually that's the work that's gone into it, and that's one of the reasons that I think it can sometimes be frustrating and tricky to get a scoping review published, because if the reviewers are not convinced by the rigor, that won't ever get published. So I just wanted to flag that, thanks Suresh, thank you. And I just want to add that you need to have a methodology behind your approach. So when on the slide I showed you various steps of scoping reviews, there is a reference down there, and that is the methodology article I follow, just like how you do a thematic analysis or a grounded theory. For example,

there are methodology articles on how to do defining each and every step. So always, you know, refer to that. This is the rigor method. And again, think about this story. I have a bias. I come from the medical background, medical faculty. It's always a reproducibility, so that it's nothing by chance. When you say that you have followed this step by step by step, then meaning that anybody else following the same step you have done should be able to get the same results, meaning it's not by chance. It's less subjective. That's an argument. We are all subjective, as we said before, but have a clear methodology and steps on how you do your reviews. Thank you.

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Yes. Chris Wade,

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thank you for your presentation. I just want to ask when you are searching the databases, when you are using different databases for your scoping review. So I need to ask, is there like you have selected the databases that you're going to use, that you're going to search into? So is there still a need to run your

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your search words on Google Google Scholar, or usually, because Google Scholar is a platform, right? So now is there still need for you to run it on Google Scholar, or searching in the database? Is enough?

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Sorry, I cannot give an S on answer. The answer would be depends on what's the time and resource you have. Google Scholar, it's actually a good source. It captures lot of info and lot of other kinds of things, but it's not as systematic as you would do in PubMed or other things, because Google captures it from pretty much anywhere around the world. If it's on the web, it's usually going to end up there, but if you go to certain journals now, they clearly say that this journal is indexed in PubMed, indexed in Scopus and so on, meaning anything from that journal automatically get transferred. So it also means that Scopus does not take stuff from anywhere across the web. So there is an assumption to great.

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And it's also accurate. There is some sort of quality check in this thing. But as I said before, especially if you're doing a scoping review, you might miss on who reports or other reports, if you're just depending on Scopus or PubMed, whereas Google Scholar will pick it up. One more thing when you do literature is that, of course, you do a search and you get the articles you select. Let's say you had 1000 hit, 10,000 hits, and you end up having 1000 and then you find certain articles which are key articles in scoping review. What you also do is that searching

through the reference of the key articles. So take any topic you get and you have a key article, then you actually look through the references of that article and see, did I miss anything in my search strategy that came up of here. So then you can also pick articles from the reference list of the key articles as well. So all these kind of flexibility exist in this kind of search. Another one we do is also, we also have consultations with key researchers, key people and other artists saying that they are doing this review. Are there any key documents that we should be aware of that we can include people? Often don't do that in systematic review, because the idea is that systematic we only want to look into what is published in high quality peer review journal, meeting our inclusion criteria, then we analyze it. Scoping review is bit more broader just to get an understanding about the topic. Broader

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understanding pursuit, yeah, yes, I am answered. Then, ah, the other question that I wanted to ask is

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Ryan. Ryan, does it? Is it also the same as confidence? Like, does it do the same thing when selecting

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confidence is it's also an application that you upload your articles, that you want to, that want to do data extraction in. So Brian doesn't do any data extraction. It only it only makes it so even if it's called AI, it doesn't do anything for you in that part. It just making the selection and remove and adding much more, easier, perfect. We will talk about COVID. Yes, alright, thank you. Great.

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I think I'm done. Jo, the floor.