**Open Science Focus Group Transcript-Non-R1 #2**

**05/15/2023**

**F: So our first question open science refers to a collection of research practices that aim to increase the accessibility, transparency, and replicability of science. What experience have you had using open science practices? If any.**

17: I'll go ahead and start?

**F: Yes, please do.**

17: So I don't know necessarily that I've had any experience with using open science practices. I have attended continuing education sessions on how to access research more easily, and to avoid paying for articles and getting around paywalls. But other than that, I haven't really had much opportunity.

10: I would second that I would say. During my training, and even through, I would say, local continuing education at my university. I have not had much experience with open science practices. However, I, you know, as a scientist myself. I am trying to be more transparent about my work, and like using like posting protocols and trying to publish open access when possible.

And then sharing data is a little more complicated, I would say, from my perspective.

**F: Thank you for sharing. I see X has their hand raised. You wanted to share?**

11: I wanted to add. So I work at a university, and our library, our librarians are very active in increasing...sorry my cat...open access, so they do a lot of training. We have an open access publication fund that was supported by the librarians. And so there's money that researchers can apply for to support open acc...to cover the open access fees for publishing in an open access journal. They also have some. The University has some relationships, I guess, with Elsevier, or other things where we can also publish in certain journals. We can publish in a non- open access journal, but cover the open access fees through that.

And we also have a Scholar Works which is the institutional repository. So when...and I don't know that that's really caught on super widely in the university. But they are trying to do a lot to get the word out that when when researchers, you know whether they be faculty, staff, lecturors at the university publish, they can put them in that repository, and then they're available to people within institution, which, as in, as I understand, is a little more. You know, you can do that before you before the embargo date, since it's not technically public.

**F: Yeah. Thank you for sharing. Does anyone else have anything to add to any of that?**

12: Yeah, i'll go ahead if that's okay. Let's see. I haven't done a whole lot related to open science exactly. I've listened to several different podcasts talking about the various aspects of open science, so I feel like I have a decent understanding of the different components of it. But haven't implemented. Let's see, like I haven't posted data publicly before, code or published anything, paid extra to publish open access, or done any registered reports or anything. Let's see. I tried to put up free, legal versions of previous manuscripts on my department website, but was told that I had to adhere to a particular format that didn't allow for publications to be posted on there. So, as it turns out, I wasn't able to. But I respond quickly to requests on Research Gate. When people do request articles.

13: I'll answer that as well. So, I have tried to post anything I can on my research gate. I don't have a personal website yet, but I have posted preregistrations on OSF and I've posted some R scripts and some stimuli. I haven't shared data yet. But have been paying for open access and things like that as well.

14: Okay, I'll explain. So yeah, I have published in open science journals and uploaded my papers on Bio archive for public accessibility. I have only heard positive responses from people who have downloaded them and had access to the manuscripts. I've also uploaded stimuli and experiment protocols on Github. And I do agree with the statement I see here is that it increases the accessibility, transfer, and replicability of science.

**F: Yeah, thank you for sharing everyone so. And this is like kind of a part to that question. But the next question I have is what training experience have you had, if any, about open science practices?**

15: Can I start?

**F: Sure.**

15: All right. So I did do a CSDisseminate webinar, maybe. But most of my open science practice knowledge was built individually through conversations with other scientists who were working their way through the process. Or recommended like a research gate for sending articles, or walked me through which exact manuscript draft it was the one to save that could be legally shared. Yeah. and you say it. It's a lot of individual instruction at the beginning.

**F: Thank you for sharing. Does anyone have any other experiences or anything else they want to share?**

12: I'll go ahead and add to that. Similarly, I think I did a CSDisseminate something a webinar, whatever it was some time ago, but otherwise I I mean, I've had very little formal instruction on open science. It wasn't really a model that was emphasized in my Phd training. I didn't really see that from my Phd mentors. A little bit of OSF. Posting some stimuli there. But it wasn't really emphasized or not right, encouraged very much. So otherwise. Yeah. What, a Webinar here, there, some podcasts, and then seeing things on Twitter. People encouraging open science practices.

13: I'll also add, so I didn't do a postdoc. I went straight from a Ph.D. right into an assistant professor position, and I feel like the friends that I have that are currently in postdocs or just wrapping up have been able to get that training, so I feel like it's blossoming right now and some of us that have graduated, you know, 4 5 6 years ago. Kind of missed the train a little bit on all that training that's coming out. So, someone that I've recently collaborated with that is a postdoc has actually taught me quite a bit, and that's how I've gotten kind of more exposure and comfort with OSF and pre registrations and posting things like that. So? I would agree with X if I'm pronouncing your name correctly? In that it's been a lot of like one-on-one individualized kind of support from colleagues.

14: Yeah, I added, I attended a training session at a conference. It was a formal training session. Yeah, you know, IHCON at Lake Tahoe. I I attended that conference there was a discussion and the need for open access and all that. So, I I receive formal training during a postdoctal experience.

16: Hmm. Is it? Okay, if I go?

**F: Yeah, of course.**

16: So, I'm: in a slightly different position in that I am in an acting assistant professor role, but also currently completing my PhD. So, I'm doing both at once. And we, in my PhD program, we haven't talked about open science practices, and it was more my experience with it, is more from when I was wrapping up my clinical practice kind of phase of my career, and where I was sort of reading about, and hearing that this was a way that as a consumer I could sort of get that information. And I have not had much about being like much training about being a producer of science, and how to get that out. There was more about like this is how you can access it when you need it. Not how you get it out.

17: Yeah. So similar to another participant, I did not complete a postdoc. I got my EdD which was much more focused on teaching than research, although we did have a research component. And yeah. And then I went straight into a teaching position. So my university library has talked about open education resources, but because my university is not a research focused university, I don't think open access for research is as much of a concern. Especially because our tenure and promotion expectations are going to be lower because we're not a research focused institution.

**F: I see. Thank you for sharing. Just for the sake of time, going on to the next question. What open science topics would you like to learn more about? And I do have some topics listed here just for your reference. Who would like to start?** **Maybe some people who have been a little bit more quiet just to make sure everyone has a chance to speak.**

17: Sorry i'll just. I'll just take a stab here. Nice to meet you, everybody, this is this is great. I'm glad we could pop in together. I really feel that I would like to know the process. You know, so not just here's the practice. But what is the process around preregistering and submitting. And what exactly, step by step, more procedural, I guess. I'm very good about following procedures. You know I have an ORCID ID, and and that was kind of the focus on my PhD program was making sure we had that. But there was no discussion, as somebody else had mentioned, on open science. It was really...I was at an R1 institution, and it was all about grant writing and and submitting for NIH and all that. I was in implementation science courses. And so that was a whole different beast. So yeah, I just think a procedure would be very helpful.

10: I would say, in addition to the procedure. I also like like, step by step, and you know, as a pre- tenure assistant professor, I'm also very conscious of making sure that that I have data to publish, and making sure that I'm not just looking negative in any way to potential publishers. And unfortunately, that's just the reality of it. However, I would say, all of the above in terms of your list here. I would attend a session on any of this. And also yeah, just knowing my limits and what I can do. What's the appropriate step-by-step procedure to follow? And I would love to hear that from a publisher standpoint. I would love to hear from. You know someone who who does work for a peer-reviewed publication to say, this is okay, this is not. Because that's kind of been my limiting factor, and just again making sure I I do it right, and I kind of protect myself pre tenure.

13: I agree with that. I would also say that the self-archiving piece always kind of makes me worry that someone mentioned previously about which version you're going to put out there, and I'm always really nervous unless I have an open access paper that I paid for. I know I can put that anywhere, but if it's not open access like which version can I put up individual independently, because I don't want to like have to go to court because I did something wrong. I'm probably catastrophizing it, but that for me. Procedurally I've learned about it, but it would be really great to have like a step-by-step like this is the version you upload. If you have this kind of level of copyright, etc., so that one I think i'm most hesitant with. The other ones I feel a little bit more comfortable.

15: I'd like to to add that not only would it be helpful to hear it from the publisher's point of view. But I would really, really love a talk through on each of those topics. That's specific to my institution. Because I really do feel often that I am fighting a fight without the support of the librarians that that would be so beneficial to me. Which person do I need to talk to? To talk about the open data processes within my institution. Which person do I need to talk to? For. Yeah. You get the idea.

17: For me, You know. I'm curious about like how to kind of manage the cost of publishing open access. Because typically, just to publish doesn't cost anything but making it open access adds a cost. So, I don't know if my university would be willing to cover that. Additionally, you know, my IRB, sometimes I I perceive them as kind of like worrying about things excessively. So if I were to share data openly, I'm worried that the IRB would shut that down at my university, or I would face backlash from them. Yeah, so I think like just kind of knowing how to navigate those issues would be helpful for me to know, kind of like the best place to start, and then the best way to move forward with it.

**F: Thank you all for sharing. Oh. Did someone have something to add?**

12: Yeah, can I add one more point quickly?

**F: Yeah.**

12: So similarly. Yeah, from the IRB perspective, just knowing if it's okay to post the identified data publicly. If I didn't explicitly, write that in the IRB. And in the consent form. Yeah, is a question of mine, and then in terms of self archiving. So I've done preprints before, but I'm always sort of unclear about okay. Once that actually gets accepted and published. What do I do with the preprint? Do I leave it up? Do I update it? Do I take it down? I don't know. I could probably figure it out. But I don't know at this point. And then, in terms of another topic, open educational resources is something I don't know a whole lot about from this list.

**F: Great. Thank you. So, the next question is, then how would you prefer to learn about open science practices? And there are a couple of examples listed here, but don't feel limited by those options.**

17: Yeah, for me. Just the way, I learn an interactive workshop would be best for me, which I know takes more time. But you know, having something where I get to walk through what that process looks like with someone have a live discussion about it. Which you don't, get that like always good question and answer within a live webinar and you don't have that opportunity within a pre-recorded webinar. Handouts. When i'm writing any kind of research, I go back to textbooks. I go back to the APA website. So, I just like to have a list of resources on hand that I can pull whenever I need them specifically at that time, rather than having to go and talk to someone or go and listen to a webinar. Just having something that I can pull up for myself so it's easy.

**F: Thank you. Does anyone have any other thoughts or opinions?**

11: I would just add Youtube videos, I mean, I know that those are, you know. It's nice to have something where you can jump around pretty easily. So Youtube videos that are tagged with chapters or things like that so you can listen to a little bit at a time. Or find the bit that you need. I think, sometimes pre recorded webinars, it's a little bit more difficult, depending on the format, for me to find the information that I need within the the Webinar. So Youtube videos tend to break things down, and sometimes I don't have more than 5 minutes, you know, between jumping around with different tasks, to be able to find what I need.

17: Yeah. So sorry I'll add my 2 cents that interactive workshop, handouts, and Youtube videos are three avenues that I use regularly to learn from. So, if it was in at least those three formats, it would be helpful to me.

10: I agree. I like that, you know, with with handouts and Youtube videos specifically. You know, you can access those when you're ready for the information, because I think you know, open science as a whole is a very big, broad topic. And so, you know. Being able to target those, like someone you had mentioned like tagged sections. I think it's really helpful to get that information when you need it, and I think that's been a contributing factor to me not attending webinars in the past, just because I wasn't ready for the information.

13: I think also just ease of finding prerecorded webinars is sometimes difficult. And I agree that being able to kind of jump around in a Youtube video is really nice. Or just having them in really short snippet. So here's a 5 minute introduction on X or on Y, and then, having, you know, a handout that's related to it, so that you have, like the step-by-step on a piece of paper that you could potentially follow along with while you're watching the Youtube video or just as a reminder, of after I've watched the YouTube video, this is my step-by-step, for you know, uploading a preregistration or something like that. So yeah, I think the compilation of what other people have said would be incredibly helpful.

**F: Alright. Thank you.**

15: I'm sorry. Can I add one thought? Just off the top of my head as I'm going through this for my purposes and learning to to go through the open science from the beginning of an experiment, research project, whatever, to the end it would be like, it would be beneficial to have like a cohort group of hey, i'm going to start an open science project, and we'll meet once a month between this time and this time. And where are you? What do you need? What's the current problem? Just to to, like an interactive work group, rather than a workshop.

15: Yes, exactly a learning community. Thank you. X.

**F: Yeah, thank you for sharing. So on to the next question. So now we'll discuss 4 different open science practices in more detail. The first is pre registration. Preregistration is the process of posting an outline for a proposed research project on a preregistration, repository, such as the open science framework before data, collection and or analysis preregistrations typically include research questions, hypotheses, methods, and an analysis plan. What do you perceive to be barriers to preregistration, preregistering your own studies? And I just want to remind everyone feel free to contribute as much as you want.**

15: So I I'll I'll. My contribution is really short. It's just honestly my own organizational practices are the biggest barrier for me preregistering.

10: I was just gonna say at the risk of looking ignorant. It's kind of the vulnerability of posting your ideas before you've done this study. And, you know I have been in a situation where we preregistered the protocol, and also published the protocol for something, and I mean a peer viewer should have recused themself but they tried to to deny the article or reject the article because they were doing something similar. So it was kind of a weird situation, and so that kind of left a bad taste in my mouth.

13: I think there's also different stages where you can preregister. So I find it a good time to preregister is when you’ve collected the data, but you haven't analyzed it yet. So you like, kind of have a sense of like what your age group is, and how many kids, I work with kids. How many kids you've already recruited to participate. So, like you haven't done any of like the data cleaning or the data processing or the analyses. So you still have really sound research questions, hypotheses, and methods. But you've already kind of collected the data. So, the most recent preregistration I did, we did it in that format. And so also create the education around. What types of pre registrations out there. When is it a good time to pre register to kind of help with some of those barriers. But I think for me, I actually find it a huge advantage because it really gets you set up to get ready to go. But I agree with the previous comment that just getting yourself organized and put together like even writing the preregistration can take weeks to get yourself set up and ready to go. Sorry. One thing to add there to is like. If there's any changes from your preregistration, and you're writing it in your manuscript, you tend to have to take the space to then explain that the differences between what you preregistered and what actually happened. So, depending on word count and things like that that could potentially be a barrier.

**F: Yeah, thank you for sharing so kind of follow up. Question what factors currently facilitate your ability to preregistration your own studies, or could facilitate your ability to preregister your own studies in the future?**

12: So I think my comment kind of addresses this question and the past one. So I think I would be motivated by, if there is some sort of direct benefit to me of doing this, because right now I feel like I'm I lack the motivation to do right preregistration, because it's not something that is, looked for, say, in my promotion or tenure reviews, and it's not valued by my university. So, if it were something that became an expectation within my department or college or university. That would be motivating because it feels like it's extra work I would need to do that I just don't have to do. And I have a lot of other things I need to get done on the tenure track, as we all know.

17: I do have a question about this process like when I write IRBs, I'm doing all of this. Like, I've taken the time to write the research question and the methods. And you know, then, once it gets approved and all those forms are in place, then I would feel comfortable. I don't know copying, or having IRB send that information to preregister. But having to duplicate that work. You know, I don't have time for that, as some of you've already said, so does anyone know if there's sort of like this once you've been approved by IRB whether that information can be sent as a preregistration for this process?

**F: Yeah, I I guess we don't know. But so regarding the question, though, does anyone have any other comments or thoughts? I'm just looking through the list here, X, you've been quiet. Do you have anything to add? It’s ok if you don’t.**

18: I don't to this particular question. My answers are pretty much aligned with what everyone has said. The only thing different is that I'd say my main source of familiarity with open access is through the talk bank records.

**F: Ok, Thank you for sharing. So with that, we'll move on to the next question. So, the next open science practice we will discuss is self-archiving. Self-archiving involves making a version of a manuscript legally and freely available on a lab website, personal website, or in a repository. What do you perceive to be barriers to self-archiving your work?**

12: It kind of came up earlier, but just keeping track of what versions are allowed for which journal. And every time I look into, you know, dig into the requirements for the journal, and I pull up the page, and I use the site that you can search for requirements. And still, it's really confusing to me. And then, so most of my work has been NIH-funded, which typically allows for open access after a year. So, I've sort of defaulted to, well, I'll just wait a year, and then I can make that version available.

**F: Yes, thank you for sharing. Does anyone have any other thoughts about it?**

11: I think this also came up earlier, but just having the time also to make a personal website. Some like, I think it was X who mentioned that that there's some, you know, formats. The university has a special format of how they want you to have your profile set up on the University website. So there's limitations to perhaps what can be posted there.

So yeah, I I did make myself a personal website, and it does take a lot of time and work, and

kind of wonder if it's really, you know, worth it. But that's that's my main area.

**F: Thank you for sharing. So kind of a follow up to that question. So what factors currently facilitate your ability to self- archive your work for could facilitate your ability to self-archive your work in the future?**

15: My previous institution had a very active librarian and a seamless, like, once a quarter we got a reminder email. Hey? Have you gotten any articles submitted or published? Would you like to archive them? And all I had to do was send them the title and the the journal, and they did all the contacting and figured out which draft needed to be...it was wonderful. I need the idiot proof version.

16: That sounds amazing. I also want that. I started to follow up on X’s comment, like there is. So so I am in year one of this situation here, and I just sometimes feel like the whole process. It's not...like even the traditional publishing process is not wildly transparent, and there's so much variability. And like as a new, like as a clinician turned researcher. I am just like half the time I'm like I don't actually know how to get this done the standard way, let alone this more equitable, open access way which I believe in. I just am still feel like I'm figuring out sort of the rules of the road, like the road more traveled. The other element of this is that I am at a university that is a regional campus of a flagship state school. And so there's department, college, university here and then there is what we jokingly refer to as the mothership downstate. And then there's all of their rules. And so I just need to understand, like for me, facilitating this process would be. I need to figure out what is my hierarchy? Who do I talk to? How do I get this all figured out? Which could be a me problem and it's not something that everyone else deals with. But...it's...there's just a lot out there. Of like layers.

12: Yeah, to kinda to follow up to that comment. In I think my first year of my faculty position I was really motivated to self-archive, and have, you know, really accessible on my website a list of all of my manuscripts that are available. And so, I had a grad student take some time, and you know, figure out the requirements to the best of her knowledge, and tell me which copies of things. And so then I went to the person who manages the faculty websites, and said, hey, I want to do this thing. It's this movement within the field to be more transparent, open. And she said. Oh, well, a lot of faculty end up forgetting to update their manuscript list, so we just don't allow them to be posted at all. So like well, you know. So that was just one example of trying to put in the work and then meeting resistance due to all of these layers, and figuring. Well, you know. This should be a straightforward thing. But there's all these things that make it difficult to actually implement.

**F: Yes, thank you for sharing. So, kind of moving forward. The third open science practice we'll discuss is gold open access. This is the process of paying a fee to publishers to make an article available for others to read for free. What do you perceive to be the barriers of publishing, using gold open access?**

13: I will say that. Sorry. But in my department we're really lucky that we have a clinic that makes a little bit of money, and we're actually able to pay. I think the biggest barrier is, where do you find the funds to be able to pay for open access? I think that's the biggest in smaller departments like ours.

15: I would add that that the funding is a huge issue. Specifically, when you're not in an R rated institution right? Because we don't have research assistance. We don't have lab space. We don't have let alone, just flat out cash to pay for an open access readership.

**F: Thank you for sharing. Oh.**

17: Yeah, really quick. That's what I was gonna share is just the cost associated with it. My university university doesn't have a lot of funding. I have no experience with grant writing, so I don't even really know how to access funding for opportunities like this.

**F: Yeah. So I guess the follow up questions sent to the barriers. What factors currently facilitate your ability to publish using gold open access, or could facilitate your ability to publish using gold open access in the future?**

17: Would you please define the difference between gold access and the other access? I I'm not too clear on the differences between them.

**F: So yeah, just a quick recap gold. Open access refers to when you're paying a fee to the publisher to make your article. Oh, your final published article! Open access! So, oh! Being able to share it freely. Self-archiving. When you're sharing a preprint or post print version of your manuscript on your own website or repository, without involving the publishers to make that freely available. That's difference here.**

10: I would say. A facilitator has been when I have grant funds, and I can pay for it. But you know I I am at an institution that it's an R2, specifically, and the vibe here has always been uou pay for it yourself. So yeah, I mean gold open access, standing for gold in the amount of money that you need to have for it.

13: Also, if you know, the Dean of the college is willing to put his or her money where his or her mouth is, or their money, in terms of having a pot of money for faculty to pull from. I think X had previously mentioned that at her institution their library has some money to pay for open access. I know my library also has that, but the money is distributed equally between authors. So if there's three authors on my paper, my library is only going to pay for the one-third for me, and then the other 2 thirds, even even if I'm first author, then the other 2 thirds need to be covered by someone else. So that makes it a little bit difficult at my institution. So having a pot of money either at the library or within the Dean's office, would be really helpful.

**F: Yeah, X, you raised your hand.**

17: Yeah. maybe this is just me being idealistic, but you know we already don't get any financial kickback from publishing, and so I feel like the cost associated with publishing open access is pretty inequitable. We, I mean, at my university unfortunately, like we are, we we don't get paid like a very high salary and trying to bridge that research to practice gap through open access, then basically punishing us by making us pay for something when we already don't get any monetary gain from publishing it. Personally, it makes no sense to me, so I don't see like, if the idea is open access, then why do we have to pay still for open access? That seems like it doesn't accomplish the spirit of open access science.

**F: Thank you for sharing.**

18: So just add to that, I would also say, I also think it kind of defeats the purpose of open access, and that it's supposed to be for everyone and make this, I would think, a more like transparent and diversified research environment where it, when it's paid for it, kind of limits who can participate in that. And what type of research is even getting published on it.

**F: Yes, thank you for sharing that. So, moving on to our last open science practice, we'll discuss is open data. Open data is the process of publicly sharing research data and/or resources needed for data collection, such as methodology, protocols, or software packages. Open data is typically made available on online repositories. What do you perceive to be barriers to the open data process?**

12: This is similar to an answer I gave on another one, but just it. I don't perceive a lot of benefit to myself, and that sounds selfish because it is, but I have to watch out for my own time. And so yeah, I just don't see a lot of external motivation, and it’s opening up myself up to potential criticism. Not that I think that there's anything wrong with my stimuli. But yeah, just lack of external motivation or incentives.

13: I think also in terms of protocols or more of like my R syntax, or something like that, is taking the time to clean it up. Rather than like the shorthand that it's currently in to be able to make it readable by someone else, just taking the time to to clean it up and make it public facing.

11: I just I. This was kind of something that came up when you were asking about I think one of the previous questions, but I know a lot of grant applications these days do require you to have some kind of data management policy, particularly with the focus on open data and data sharing. So I think just a better maybe understanding of what the...you know, what's required in terms of the the funders and grantors. And what what kind of data they want us to share, and where they'd like us to share it. As as supportive as our library is our ITS is maybe not so much so. We don't have access to some of the the programs like. Of course, now I can't think of it. We have Qualtrics, but we don't have what's it called? Red Cap. Thank you. Because they have some concerns about you know, anyways. So that's been the the bane of my existence recently, but just having access to some of those database programs as well.

**F: Thank you for sharing. Does anyone have anything to add? So, the follow up question again. What factors currently facilitate your ability to use the open data process, or could facilitate your ability to use the open data process in the future.**

15: More knowledge. an existing infrastructure.

**F: I see head nods.**

13: Like what is best practice? I think there is another comment in the chat about that. Like how to best do it. I know some NIH institutes have repositories and have it very clearly spelled out, while other institutes leave you to your own devices to do it. So how do we go about doing it? Because it is required by many grants now.

F: Thank you. Sorry. I advanced to the next question a little bit sooner than I wanted to. But regarding the open data facilitators, is there any other comments about that?

10: I think the you know direction NIH is going is really going to be a benefit as as money growing pains as it gave me at the beginning of this year. You know I do think it's going to encourage our institutions to kind of step up to the plate a little bit in, you know, helping to facilitate open data.

**F: Yeah, Thank you for sharing.** S**o, the next question, since it's already on our screen, what impact do you think open science practices could have on the field of communication sciences and disorders? And you can consider this question from either research or clinical practice standpoint.**

14: I guess it will facilitate a lot of replication studies. You can use the same stimuli, same protocol. Everything is available online. You can use it. Say, like a different population of same population that replicate those results.

15: I think you. I'm sorry. I would hope it would also facilitate research getting to practice more quickly as clinicians could locate things without cost to themselves.

12: That was going to be my comment, too.

16: I think that there's also an element of sharing what the research process is truly like with clinicians. I know as a clinician I didn't completely understand, like, in order to get through IRB or in order to move the publication process along exactly how narrow any given research study needed to be. And I think the more that clinicians, we pull back the veil a little bit on like how the science is produced. Then clinicians can better understand, like how this is being created. And so, then there is mutual understanding on both sides of, we want you to have access to the science. We want you to know how we create the science. Or, you know, discover things. So I just think it makes it just a little bit more. Hmm. Knowledge. There's more knowledge for everyone in in the procedures of it all.

18: I agree with the last comment, and we'll say that I also use it in my teaching. So, getting, introducing all of the things that were just spoken to students, before they're clinicians.

17: That's what I was going to say was getting students interested in and acclimated to research and showing them that it doesn't have to be this big scary process. I think data collection can feeI, I know for me, when I was a student researcher, that data collection was really overwhelming. As well as developing methodology. So, seeing what's out there, and seeing how I can tweak it to my interests, I think would have... I was really interested but I think it might have recruited more of my classmates into research.

**F: Thank you so much for sharing. Just gonna take a beat here. Does anyone have anything else to add to this question?**

11: Also, just to add that you know, in our field we tend to have fairly small N studies just because of accessibility of research participants. And so you know the more that we share things openly, particularly data in that sense, it's easier to combine results from different studies to to sort of answer, maybe different questions than we could answer individually in our little, you know, silos.

**F: Thank you for sharing that. Okay. So what impact do you think open science practices could have on your career, if any?**

18: I think it might be a good way to meet collaborators and maybe expand what you're looking at, and who you're working with.

14: I guess it should have helped me in taking up projects that you know I I didn't have enough technical skills on. If I had the protocol ready stimulus ready from somebody else... in general, it would have helped me in taking up more projects that conceptually make sense to me, but not really have matlab skills or python skills to run the protocols. So yeah...

12: Yeah, I think it could help cut down on redundancy of lots of research groups doing the same sort of work in terms of getting stimuli processed and recorded and edited and cut out all that sort of extra work and allow us to focus more on doing the actual research. And then, additionally, in terms of me, potentially doing more open science practices, I think it could potentially help people to have more faith in the type of research that I'm doing and view me as a stronger researcher if I'm consistently doing more of these open science practices, potentially. If it becomes something that people value more and becomes more common.

13: Also for some it might help with the tenure process. I know some institutions really look at the H index and things like that like how often you're being cited, and so, if more work is open access, then more people can cite your work. And then that kind of boosts those scores for those institutions that are really looking for you to have a really broad reach, rather, whether it's nationally or internationally, to show that your your work is having an impact in your field.

17: For me, I mean it just comes down to my ego. I think the research that I have done, and I'm going to be doing is really cool, and I want other people to read it. I focus a lot more on like implementation science and I'm dipping into scholarship of teaching and learning. And so that's just going to benefit what we do in terms of how we approach our practice, and so getting my name out there and letting people see what I've done. And then just becoming like a name in the field. That's one of my career aspirations.

**F: Thank you all. So much for sharing so the final question, what did we miss. Are there any other comments that you would like to make about using open science practices? So kind of an open floor type question. Yeah. And just giving that moment in case of you want to share something.**

17: I would just be...like, I'm just curious about what open science looks like within other fields. And how our field compares. Because typically, since we're newer, we're a little bit behind. And so I'm curious to see like what other fields of research and what other professions have embraced open science and what that looks like for them.

**F: Yeah, thank you for sharing. Does anyone else have any other comments or thoughts?**

17: Well, I just. I just suggested that if there's any way to get a list of mentors, let's say, maybe in a different category of institutions. Like I'm at an R2 institution. So we're...and I’d done my PhD in an R1, and I found that just that little change in category makes a huge difference in what's available to us, as far as knowledge and process and procedures. So having, maybe somebody who is in our particular institutional category to help step us through maybe some unique procedures and processes that are preventing us from being more involved.

**F: Thank you for sharing that. And again, just giving a moment. If anyone else wants to add anything.**

10: Just to I guess comment on that. Or follow-up on that comment. I'm, thinking in terms of resources for those of us whose institutions are less familiar with open science, it may be helpful just to have a a list or some sort of reference, to be able to give to our institutions, or give to our library, saying why this is important. You know, what are the benefits, and what are the barriers, so that you know, it's not just each of us fighting the fight individually.

**F: Thank you for sharing. Any other comments before we wrap up? Okay? Well, seeing that I want to thank you all very much for participating in this focus group discussion. We hope you found the discussion interesting, and you all have shared some valuable information with us, and we are very appreciative of your time.**