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| Dr. Firouzeh Sa...: | I wouldn't necessarily be able to say that we're seeing an Exodus, but I think it's more appropriate to say that there is a worrying trend that if there is a situation such as this rather difficult time that we went through such as the pandemic, our qualitative assessment of the situation is that women tend to be that group in the population that seem to take the biggest hits in terms of the sacrifices that they have to make. |
| Speaker 2: | You're listening to Further Together, the ORAU podcast. Join Michael Holtz and his guests for conversations about all things ORAU. They'll talk about ORAU story history, our impact on an ever-changing world, our innovative, scientific, and technical solutions for our customers and our commitment to the communities where we do business. Welcome to Further Together, the ORAU podcast. |
| Michael Holtz: | Happy Wednesday, and welcome to another episode of Further Together, the ORAU podcast. My name is Michael Holtz, your host. And today we are talking about another one of our ODRD. That is ORAU directed research and development research projects. And this is a project that focuses on the COVID-19 pandemic and how it has magnified barriers to career development for women in science. And I am very excited to have two guests with me today. Laura Davenport from here at ORAU and Dr. Firouzeh Sabri from the University of Memphis. And Laura, I'll have you go first if you'll just tell us a little bit about who you are and then we'll have Dr. Sabri the same things. |
| Laura Davenport: | My name is Laura Davenport, and I'm an evaluation specialist at ORAU. I focus most of my time on the evaluation of stem workforce development programs. I also have a keen interest in research, and I'm grateful for the opportunity to support a research projecting enhancing the diversity of the stem workforce. |
| Michael Holtz: | Dr. Sabri. |
| Dr. Firouzeh Sa...: | Good afternoon. Thank you for this opportunity. My name is Firouzeh Sabri. I'm the chair of the physics and material science department at the University of Memphis. I'm an experimental materials, a condensed matter physicist, and I've been in the chair role since January of 2020. And I really appreciate the opportunity to work with Laura and her team and ORAU as a whole. |
| Michael Holtz: | Thank you, Dr. Sabri, and we're very excited you're here. I always love having our research partners and outside guests to help talk about our project. So thank you so much for taking the time to join Laura and myself for this conversation. So my first question for both of you is really just a level set on what is the question that your research is attempting to answer? |
| Laura Davenport: | Well, our study examines barriers to women in the physical sciences, and it looks at systemic barriers that have been in existence for some time, as well as more acute pandemic related obstacles that might contribute to a lack of diversity in these fields. We're examining letters of recommendation to see if the language used in these letters varies according to gender and field of study. And we're also conducting student and faculty interviews and surveys to look at female and male science behaviors and to what extent these behaviors are valued by faculty and peers. We're looking at whether perceptions of inclusion and belonging and stem identity differ according to student gender and field of study. We're also looking at how the pandemic is influenced student educational progress and whether the impact of the pandemic varies according to student gender and field of study. And finally, we're examining whether faculty perceptions of student engagement during the pandemic differ according to student gender. |
| Michael Holtz: | Wow, that's a lot of [inaudible] so really [inaudible] deep dive in your language and perception all of those things. |
| Laura Davenport: | Our study uses a mixed methods, multiple source approach in order to examine barriers to women in science, because we wanted our study to be a little bit more robust than just taking one type of data or sampling from one type of audience. |
| Michael Holtz: | Dr. Sabri and Laura as well, we're hearing a lot about women in the workplace in general, leaving in part because of the pandemic and home life and that sort of thing. Are we seeing the same kind of Exodus in the sciences as well? And is it all of the things sort of family and home life and perception and language and the things that you all are studying? |
| Dr. Firouzeh Sa...: | So Laura did an excellent job of capturing the essence of what we are trying to accomplish. And this started based on my observations, my experiences, and then when we compared notes, Laura's observations as well, that women in general, as I'm sure it's not a new topic of conversation, have struggled both to reach certain positions in science and then sustain their position and grow professionally in their certain disciplines. So the question is not a new question, but the impact of this period that we've been through, through non quantitative observations that I made as chair, as an educator in this role for a long, we had noticed that the women, especially those who I was teaching to, I had started to see a trend emerge. And this was noticeable further when we started the pandemic period. |
|  | So I wouldn't necessarily be able to say that we're seeing an Exodus, but I think it's more appropriate to say that there is a worrying trend that if there is a situation such as this modern difficult time that we went through such as the pandemic, our qualitative assessment of the situation is that women tend to be that group in the population that seem to take the biggest hits in terms of the sacrifices that they have to make. And it's not possible to make a very number oriented assessment of the situation at the moment. That's why we're doing this study, but we want to make sure that not only we prevent any Exodus, but we also address and learn from this period, the measures that have to go in into place preemptively to prevent women from being the ones who have to give up more. Any future crises that we face, we're trying to learn from this experience so that we can keep them, we can retain them and recruit. |
| Michael Holtz: | Okay, so ultimately getting to solutions and keeping that Exodus or sacrifice, as you said women taking the brunt of the hit as it were from happening. Dr. Sabri, you mentioned you and Dr. Davenport comparing notes. How did you get connected to each other to do this research? |
| Dr. Firouzeh Sa...: | Oh, that's a really interesting story. A really good one also that I look forward to the opportunity to share. I was a graduate student and I was perhaps one of the subject matters of this study. If this study had happened X number of years ago, I might have been the one who was participating in the surveys and responding to the interview calls. At the time, these types of things were not part of the interests at all of any particular community. So as I worked my way through the different layers, going from being a graduate student to a postdoc, to then having the opportunity to be a professional, a mentor, an educator, and then the department chair, I kept thinking along the way that ought to be an opportunity where I can go back and make some corrections and make some improvements so that the next generation perhaps has a smoother time transitioning into physicians such ones that I have had the privilege to serve in. |
|  | So I reached out to, I believe a couple of folks at ORAU. Kathy [Wei] was my point of contact. And then there was a phase one submission opportunity that I applied to. And I was absolutely delighted to see the number of "Oh, yes, we're interested. Oh yes. We want to talk to her." The sponsor that I got and it was very heartwarming because I was initially concerned that this may not fall in the areas of priority and interest. It's a matter that's close to my heart. And I was so encouraged to get those positive responses. And among that team, Laura really just helped my hand and walked me through the different steps. And she came back more committed and more passionate than I would've expected. And I have appreciated her partnership and all of her input this entire time. So I think we were just destined to work together. We, I think, had similar experiences and this was the perfect opportunity to bring our expertise together. |
| Michael Holtz: | It sounds like Laura and you both had similar experiences, similar knowledge. So when the opportunity came about, it sounds like [inaudible], like this was meant to be. |
| Laura Davenport: | Yeah, I would agree with that. I was so ex excited when Firouzeh came to us and there was an opportunity to look at diversity in physics and the other sciences, and to look at not only trying to increase diversity and like the number of females that are represented in science, but also to look at the inclusion side of it, which gets more at not just having more females in the seats and not having more females assimilate and try to act like they're male peers in order to get good grades and get good ratings and launch their careers. But also to really accept the unique and diverse behaviors that they contribute to the field. And so it seemed like such a unique opportunity to launch a study that would really help us get some insight into what's going on and how the pipeline issue might be resolved, not only through trying to increase the number of females, but also in valuing behaviors and contributions that they make. |
| Michael Holtz: | It's really exciting. It sounds like there are some great things to come from this project. In the short term, are there plans for publication, presentations, poster sessions, all of that? I assume your research is still underway. |
| Laura Davenport: | Yes, our research is still ongoing. And at the end, we do plan to publish our results or present that the meta conference, depending on what journals or other conferences that we can find as unique and audiences who would welcome the subject matter. |
| Michael Holtz: | Awesome. And then in terms of your research continuing beyond the life of your ODRD grant, do you see that happening as well? |
| Laura Davenport: | Oh, we definitely do. We consider this to be a pilot study and we're so grateful for the support that we've had from ORAU's research and university partnerships office to conduct this research, but our plan is definitely to build on it and to take it further and to seek some federal funding to perform a wider study. |
| Michael Holtz: | Excellent. |
| Dr. Firouzeh Sa...: | Definitely. I echo what Laura said. We recognize that this is a small scale study and there's a lot more work to be done once this initial phase has been completed. We definitely do appreciate the investment that ORAU has made in us so that we could launch this project and launch this collaboration. And the results of this research will form a solid foundation for federal funding applications, so that we can dig a bit deeper and reach a bit wider and really conclusively start monitoring trends and outcomes and see what we can offer the community outside once we have done a thorough assessment of parameters and factors and make recommendations in terms of what should be put in place in advance to prevent barriers for women enter science. |
| Michael Holtz: | Okay. I know your research is ongoing. Is there at this point, a key takeaway, something that you've at this point that your research has pointed to you, or is it still a little bit early in the process? |
| Laura Davenport: | I think right now it's still a little bit too early to share our results. We'll have to stay tuned for some additional information. |
| Michael Holtz: | Excellent. More to come. And we can always have you back to talk about key findings and those sorts of things when you're on the other side of your research. So would love to have you back. Is there anything Laura and Dr. Sabri that I haven't asked you, or that you want to make sure that you discuss or share about your project before we let you go? |
| Dr. Firouzeh Sa...: | I think just... Yeah, look for the publications. Look for the conference abstracts that we will be submitting. And I think we would be more than happy to come back and update you on the results of our investigation once that we've had the opportunity to re-look at the data. And we're just so excited that we're able to ask these questions and we appreciate all of those who participate in surveys and give us the data that we need so that we can complete the study. And thanks again for this market opportunity. I think it's an important question. And I think everyone in any community that they are, should recognize that one size does not fit all, and it is important to recognize the differences and embrace those and allow for growth professionally for all members of our community. |
| Michael Holtz: | Awesome. Thank you, Dr. Sabri. Laura, anything from you? |
| Laura Davenport: | Well, I would like to recognize what a team effort that this has been. I know Firouzeh has given me a lot of credit for taking the reins and helping to form this partnership with her, but the team that we've worked with at ORAU and the team that's worked behind at the University of Memphis have also been so valuable to furthering this project and taking it each step of the way. And the support that we've gotten from OARU itself is also to be recognized. And we're very grateful for that. |
| Michael Holtz: | Awesome. Thank you both so much. Dr. Laura Davenport and Dr. Firouzeh Sabri, thank you so much for sharing more about your research project with me today. I really appreciate it. Yes, ma'am. |
| Dr. Firouzeh Sa...: | I would also like to explicitly mention, I definitely want to emphasize the team effort. I recognize that Laura and I have been the names that have come up the most often in this conversation, but yes, I do also, as Laura quite rightfully pointed out, we have a team that is working on this. On my end, Dr. Jaime Sabel and Dr. Helen Sabel, no relation to one another. On my team here at the U of M, I could not have completed it without their support and their expertise. And yes, I definitely want to acknowledge that we are a team, and I'm sure that sooner or later the whole team will be recognized for the work that they are doing and contributing, hopefully in the form of publications. |
| Michael Holtz: | And rightfully so. Absolutely. Thank you both so much. I appreciate your time. |
| Dr. Firouzeh Sa...: | Thank you. |
| Laura Davenport: | Thank you, Michael. |
| Speaker 2: | Thank you for listening to Further Together, the ORAU podcast to learn more about any of the topics discussed by our experts, visit www.orau.org. You can also find us on Facebook, Twitter, and LinkedIn, @ORAU, and on Instagram @orautogether. If you like Further Together, the ORAU podcast, we would appreciate you giving us a review on your favorite podcast platform. Your reviews will help more people find the podcast. |