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Simulations in Pre-Service Child Welfare Training: Effects of moving from in-person to virtual practice

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Abstract

This paper reports findings from a secondary analysis of child welfare workers' performance on and reaction to participating in the simulation portion of their training, before and after transitioning from an in-person to virtual training environment. Findings show a trend of increased performance on engagement skills in the in-person environment, and increased performance on practice-model questions in the virtual environment. Importantly, one area in which participants performed better in-person was gaining an understanding of the client's cultural identity. We hypothesise this performance difference may be due to the increased efficacy of learning and demonstrating engagement skills in an in-person environment.

Keywords: training; child welfare workforce; simulation; virtual; in-person

Introduction

The effectiveness of worker training is of utmost importance, and has been studied across many fields, including child welfare. In March 2020, a global pandemic shut down in-person training across the U.S., offering a uniquely stressful and demanding set of circumstances for child welfare practice and the preparation of child welfare practitioners. It is understood that during times of stress, child maltreatment cases tend to rise (Schwab-Reese et al., 2020). As such, it is critical that child welfare training systems maintain a high level of training quality and effectiveness, even during an international pandemic when in-person instruction is not safe. Schwab-Reese et al. (2020) examined learning differences between in-person and virtual training in Colorado, and found that there were no differences between Pre- and Post-COVID learners on knowledge assessments, participant reaction evaluations, or simulation behaviors (Schwab-Reese et al., 2020). This study aims to add to the literature on in-person compared to virtual learning in training simulations.

Simulation-based training has been widely studied and adopted in the healthcare field as a way to provide realistic practice experience to medical students (Issenberg et al., 2005; Ziv et al., 2006). Many studies have begun to look at the use of simulation-based training in the social work field, showing preliminary effectiveness as an integrated part of training (Logie et al., 2013; Bogo et al., 2014).

The integration of simulations into training for new child welfare workers has gained traction in recent years. By bridging the gap between theory and practice, simulations provide an active learning environment reminiscent of Kolb's (1984) experiential learning cycle. This includes providing opportunities for concrete experience (i.e. the simulation itself), as well as a chance for reflective observation,

which is offered post-simulation in the form of feedback and self-reflection (Kolb, 1984; Kourgiantakis et al., 2019).

Research demonstrates that simulations cater to adult learning principles and thus are a beneficial tool to implement in social work training settings (Kourgiantakis et al., 2019). “Hands-on” learning and engineered failure as described by Layne et al. (2009) are two of the ways in which simulations cater to adult learners (Steinberg & Vinjamuri, 2014). Hands-on learning, or the process of learning through doing, allows adult learners to practice and apply concepts they learn in the classroom, which in turn allows them to better integrate their new knowledge (Kourgiantakis et al., 2019; Layne et al., 2009). Studies indicate that providing this active learning environment helps participants gain a deeper understanding of the content presented, as well as a stronger grasp on key skills in areas such as assessment and interviewing (Kourgiantakis et al., 2019).

Simulations also provide a space for engineered failure (Layne et al., 2009; Steinberg & Vinjamuri, 2014). This opportunity to “[fail] in a safe, structured, supportive environment,” allows participants to test their new knowledge without the same risks associated with doing so in the field (Steinberg & Vinjamuri, 2014; Kourgiantakis et al., 2019). Using actors provides a sense of authenticity, and therefore a more formal and engaging setting, without putting real clients at risk (Petracchi & Collins, 2006).

Additionally, studies demonstrate that direct feedback provided post-simulation aids in the adult learning process through the development of holistic competence (Kourgiantakis et al. 2019; Drisko, 2015). Drisko (2015) explains that “holistic competence addresses entire professional activities rather than specific elements of these activities” (p.112). For example, Kourgiantakis et al. (2019) found that feedback

not only helped participants develop their knowledge and skills but also helped them to improve their professional judgement and emotional regulation. The opportunity for feedback and reflection allows participants to see, reflect and adjust habits or practices they may not have previously been aware of, allowing for further development and the continuation of Kolb's (1984) experiential learning cycle (Kourgiantakis et al. 2019).

A child welfare worker demonstrating engagement skills is essential to positive outcomes for child welfare interventions. When workers engage effectively with families, there is a higher likelihood of positive case outcomes, such as improved child safety and parenting practices (Trotter, 2002; Damiani-Taraba 2017; Gladstone 2012; Cheng 2016). When workers share power with families by including them in planning and decision making, engagement increases (Bundy- Fazioli, 2009; Damiani-Taraba, 2017). Parents experiencing their worker as authentic and transparent facilitates increased engagement through the ability to have difficult conversations in an open, direct and respectful manner (Bundy-Fazioli, 2009; Altman, 2008a; Altman 2008b; Fylan, 2011). Further, workers' ability to effectively build trust with families has been shown to influence positive case outcomes (Dawson, 2002; Mirick, 2014; Gladstone, 2012).

Another important aspect of child welfare practice is cultural responsiveness. Black, Native American, and Latino families and families of low socioeconomic status are represented in higher proportions in the child welfare system than the general population (Derezotes et al. 2004; Sedlak et al. 2010). Additionally, BIPOC families face worse outcomes at every step (reports of suspected maltreatment, CPS investigations, confirmed maltreatment and out-of-home care) in their interactions with the child welfare system (Krase, 2013; Kim et al., 2017; Yi et al., 2020). Furthermore, structural racism, as defined by Feely and Bosk (2021) as "the intersecting effects of

residential segregation, White political power, inequality in educational opportunities and economic opportunities, and policies and practices designed to restrict access based on race," causes more Black, Native American, and Latino families to experience financial hardship. Financial wellbeing is inversely correlated with child maltreatment (Berger 2017; Bullinger et al. 2019; Conrad-Hiebner and Byram 2020). The higher proportion of BIPOC families in the child welfare system, and in low economic status which is in turn correlated with child welfare system involvement reveal an issue that child welfare research should be studying and addressing in order to create a fair and equitable system. In the face of these issues, it is necessary for child welfare workers to incorporate cultural sensitivity in their practice (Leong & Wagner, 1994).

Times of crisis, like the onset of a global pandemic, are times of increased need for child protective services. Practicing engagement skills in a realistic situation through the use of a training simulation offers valuable preparation aligned with the principles of adult learning. This study looks at the effectiveness of performing these practice simulations virtually compared to in-person .

Methods

Sample

This study examined data previously collected as part of the evaluation of training for new child welfare workers for a state in the northwestern United States. As such the institution's IRB deemed this research exempt (HRPP #217374-18). Included in this study were participant reaction surveys and simulation assessment evaluation data collected for 196 trainees between December 2019 and July 2020. There were five cohorts of in-person training between December 2019 and March 2020 representing 91

trainees, and four cohorts of virtual training between April and July 2020 representing 105 trainees.

Materials

Participant Reaction Survey Participants completed an evaluation form after simulations. The survey included three Likert scale questions rating the helpfulness of the simulations, the clarity of the process, and the adequacy of the support and resources to prepare for simulations. The survey also included three open-ended questions, including what was most helpful, what could be improved, and how the respondent will apply what was learned from simulations. For virtual training participants, the surveys were provided online using the online survey software Qualtrics. In-person class participants completed a paper evaluation. Completion of participant reaction surveys was voluntary but highly encouraged. The last cohort of virtual training included a drawing for a $5 gift card as an incentive for participants to complete evaluations.

Simulation Assessment Tools Data from tools developed to assess participant performance in the parent and child interview simulations was used. The assessments were completed by trainers or other subject matter experts using the video recordings of trainees' simulations. Completed assessments were provided to the worker and their supervisor after training for the purpose of professional development. Each tool consisted of skill ratings and written feedback that coincided with content covered in training prior to the simulations. The tools underwent analysis for inter-rater reliability as they were developed and corrections made by more clearly defining rating definitions and meeting with raters to make needed adjustments.

The parent interview assessment included 21 skills areas organized into three categories: initial contact, interview questions and engagement skills. Initial contact skills included greeting, worker and parent identification, stating the reason for the

contact, asking permission to enter the home, address resistance, and asking if anyone else is present in the home. The interview question skills included explaining the reason for contact, asking questions that gathered information about child safety and the six domains of the state's safety model, asking solution-focused questions, and asking about family strengths or supports. Engagement skills included using active listening skills, responding to non-verbal communication, using language that shows respect, communicating in a clear and understandable way, asking permission to speak to the child, providing and explaining the parent's rights pamphlet, informing the parent about next steps, asking about tribal affiliation and providing explanation, gaining understanding of the family's cultural identity, and providing a closing for the interview.

The child interview assessment included 17 skill areas organized into four categories: introduction and rapport building, interview questions, closing, and engagement skills. The introduction and rapport building category included worker and child identification, asking child permission to interview them, explaining documentation, providing instructions, and building rapport. The interview questions category included encouraging a free narrative, gathering information around the six domains of the state's safety model, gathering information about cultural identity, asking solution-focused questions, and addressing strengths and supports. The closing category included asking the child if they have any questions or concerns, telling the child what the next steps are, and providing a transition out of the interview. The engagement skills category included using active listening skills, having a warm friendly demeanor, and conducting the interview in a developmentally appropriate manner.

Procedure

All simulations were conducted at an off-site dedicated simulation center. Simulations took place in rooms set up to look like a home environment. Each simulation was done individually with the worker, actor and trainer present in the room. All in-person simulations were videotaped and included a few minutes of debrief time afterward. After completing both simulated interviews, participants used the on-site computer lab to watch their own simulation videos and reflect on their performance using a structured self-reflection tool that mirrored the written assessment they would receive later.

In the virtual training environment, Zoom was used for simulations. Actors, an IT professional, and a manager conducted simulations from the same simulation center used for in-person training. Virtual simulations operated similarly to in-person in that they were individual to each worker; however, with virtual there was the addition of a coordinator who could see and hear each simulation in addition to the trainer and actor. Both the trainer and coordinator turned their cameras off and were muted during the interviews. Prior to beginning the simulation, the trainee's screen was set up to hide non-video participants so the only person visible on their screen was the actor.

Analysis

Quantitative Analysis

Quantitative data from the participant reaction survey and the simulation assessments were imported into R. In-person and virtual sections were compared using bar graphs. A chi-squared analysis was used to determine if there were differences between the groups.

Qualitative Analysis

Qualitative data collected from the participant evaluation forms were entered into an Excel spreadsheet. Analysts from the evaluation team used an a priori list of codes to perform the first-round coding of the qualitative data (Miles, Huberman, & Saldana, 2020). Next, the team met to review and revise the coding structure as well as discuss and resolve discrepancies among coders. Finally, themes were identified using frequencies and sub-themes identified (Miles et al., 2020).

Results

Demographics

Two groups were compared in this analysis. The total sample size was 196 trainees. The in-person group consisted of 91 training participants who attended new worker training between December 2019 and March 2020. The virtual group consisted of 105 participants who attended training between April and July 2020. Demographics questions were asked following a knowledge assessment completed on the final day of training.

Respondents comprising the total sample identified primarily as White (74.6%; n=144), Latine (20.7%; n=40), and multiple races (16.6%; n=32%). Five-point two percent of the total sample identified as Black (n=10), and 4.7% of respondents identified as Native American or Alaska Native (n=9) and Asian (n=9). This was representative of the demographic makeup of the state. Some respondents identified as Middle Eastern, Slavic, Native Hawaiian or Pacific Islander, and African Immigrants. The majority of participants reported that their primary language was English (86.0%; n=166).

The mean age of the total sample was 34.7 (SD=9.4). The total sample identified as female or women (66.2%; n=129), male or men (18.4%; n=36), and a portion of

respondents identified as gender neutral or non-binary. Twenty-six respondents did not respond to this question (13.3%).

Race & Ethnicity

The in-person and virtual group were fairly similar in race. The in-person group (n=91) included participants who identified as primarily White (77.0%; n=67) and Latine (21.8%; n=19) and multiple races (17.2%; n=15). The virtual group (n=105) included participants who identified as primarily White (74.8%; n=77) and Latine (20.4%; n=21) and multiple races (16.5%; n=17).

Age

The in person average age was slightly higher than the virtual group. The mean age of the in-person group was 36.3 years old compared to 33.3 years old (SD=9.24) in the virtual group.

Gender Identity

The gender make-up of both groups was also similar. The majority of the in-person group identified as female (65.6%; n=59). Seventeen people identified as male or a man (18.9%), some respondents identified as non-binary or gender neutral. The virtual group identified primarily as female (64.8%; n=68). Twenty-one people identified as male or a man (20.0%), and some respondents identified as non-binary or gender neutral.

Education & Role in Child Welfare

The groups were similar in educational background; however, the in-person group consisted of more Associate's degrees than the virtual group. Differences were also noted in participants' roles in child welfare: while the in-person group was more evenly split between CPS and permanency workers, the virtual group included more CPS workers than permanency workers.

The in-person group primarily included participants with non-social work Bachelor's degrees (51.1%; n=46). Eighteen people held Associate's degrees (20.7%) and ten respondents held non-social work master's degrees (11.5%) The majority of participants were hired as permanency (47.2%; n=42) or CPS (46.1%; n=41) workers.

The virtual group (n=105) primarily included participants with non-social work Bachelor's degrees (59.0%; n=62); thirteen respondents (12.5%) held BSW degrees. Nine-point six percent (n=10) of in-person participants held Associate's degrees, and 11.4% (n=12) reported holding a non-social work Master's degree. Some in the virtual group held MSW degrees (4.8%; n=5). Most participants in the virtual group were CPS workers (63.1%; n=65) and permanency workers (31.1%; n=32).

Table 1

Demographics of in-person and virtual training participants – Race and Primary Language

	Total Sample	In-Person	Virtual
	% (n)	*% (n)*	*% (n)*
Race			
African	*	--	*
Immigrant	4.7% (9)	*	*
Native-American	4.7% (9)	4.4% (4)	4.9% (5)
Asian	5.2% (10)	6.7% (6)	3.9% (4)
Black	20.7% (40)	21.1% (19)	20.4% (21)
Latino	1.6% (3)	--	2.9% (3)
Middle Eastern	*	--	*
Pacific Islander	2.1% (4)	*	*

Slavic	74.6% (144)	74.4% (67)	74.8% (77)
White	16.6% (32)	16.7% (15)	16.5% (17)
Multiple	*	*	*
Not Listed			
Primary Language			
English			
Yes		87.6% (78)	84.6% (88)
No		12.4% (11)	15.4% (16)

*Exact numbers hidden to protect anonymity

Table 2

Demographics of in-person and virtual training participants – Gender Identity & Age

	Total Sample	In-Person	Virtual
	%n	*% (n)*	*% (n)*
Gender Identity			
Male/Man	19.4% (38)	18.9% (17)	20.0% (21)
Female/Woman	65.1% (127)	65.6% (59)	64.8% (68)
Non-Binary or	1.5% (3)	*	*
Gender Neutral			
Age		M (SD)	M (SD)
Mean	34.7 (9.44)	36.3 (9.47)	33.3 (9.24)
Min	21	23	21

Max	65	65	58

Table 3

Demographics of in-person and virtual training participants – Education, Agency Role and Child Welfare Employment History

	Total Sample	In-Person	Virtual
	%n	*% (n)*	*% (n)*
Education			
Some College	2.1% (4)	*	*
Associates	14.7% (28)	20.7% (18)	9.6% (10)
B.A./B.S.	55.4% (108)	51.1% (46)	59.6% (62)
BSW	8.9% (17)	4.6% (4)	12.5% (13)
M.A./M.S.	11.3% (22)	11.1% (10)	11.5% (12)
MSW	4.2% (8)	3.4% (3)	4.8% (5)
Doctorate	2.1% (4)	*	*
Agency Role			
CPS	55.2% (106)	46.1% (41)	63.1% (65)
Permanency	38.5% (74)	47.2% (42)	31.1% (32)
Certification	3.1% (6)	*	*
Screener	*	*	*
Unassigned	*	*	--
Other	*	*	--
CW Employment History			

Yes	9.8% (19)	7.9% (7)	11.5% (12)
No	90.2% (9.8)	92.1% (82)	88.5% (92)
Length of Employment			
< 1 Year	3.2% (6)	*	*
1-2 Years	2.7% (5)		
3-5 Years	2.1% (4)		
6-10 Years	2.1% (4)		
> 10 Years	2.1% (4)		

Participant Reaction Surveys

Participant reaction surveys were received from a total of 107 respondents (in-person n = 51; virtual n = 56). The response rate for in-person and virtual training was 56.0% and 53.3% respectively. Note that the participant evaluations were submitted anonymously and cannot be tied to the demographics presented above. There are possibly differences between the in person and virtual groups that are unknown.

Quantitative Analysis

Participant ratings of the simulation assessments in in-person and virtual contexts were compared in bar graphs (Appendix 1). Groups were combined ("Disagree" with "Somewhat Disagree" with "Neutral") to meet the necessary requirements for chi-square testing. For significant items, Cramer's V was calculated as a measure of effect. Full results can be found in Tables 4 below.

Table 4

Chi-squares for measures on simulation participant feedback forms.

	X^2	df	P	sig	Cramer's V
Helpful	6.9	2	0.032	1	0.25
Clear	2.6	2	0.27	0	
Support	3.1	2	0.21	0	

Qualitative Analysis

Responses from two open ended questions on the participant evaluation form were included in the analysis: 1) What was most helpful about simulations? and 2) How could simulations be improved? Table 1 presents the frequencies of each theme that emerged for both types of simulation.

Table 5

Qualitative themes from in-person and virtual training analysis of participant evaluations.

	In-Person	Virtual
	n	*n*
Most helpful_Application	18	20
Most helpful_Feedback	18	17
Most helpful_Review	11	n/a
Most helpful_Actors	2	13
To improve_Structure	11	5
To improve_Preparation	3	7

In-Person Simulations: Many in-person respondents valued the opportunity simulations provided to apply learning from the classroom training (n=18). Specifically, the practice in a realistic setting was mentioned as helpful (n=3).

> The opportunity to practice the skills we've been learning in a "real life" lower stakes environment.
>
> Practicing what we learned through the week. Interviewing complete strangers in a homelike environment.

Respondents also commented on helpfulness of receiving feedback on their individual simulation (n=18) and the importance of receiving the feedback immediately after their simulation (in-person n=6).

> The immediate feedback given by the instructors.
>
> Feed back! I really liked the fact that I got immediate feedback.

The third strongest theme that emerged from in-person simulations was the usefulness of the video review (n=11). One of the differences between in-person and virtual simulation processes was that in-person participants were able to do a same day review of their videos while virtual simulation participants reviewed their videos in the weeks following.

> I liked seeing myself, to be able to witness my own mistakes helped to solidify how to fix it in myself.
>
> Uncomfortable but really good to see myself- I was able to identify some things I did I felt great about and some things I would like to work on.
>
> I really enjoyed watching myself because I do things I didn't know I do. My voice got high pitched and I said "um" a lot.

In-person respondents provided two primary recommendations for improving simulations, the structure and preparation. Eleven respondents requested various changes to the structure of the simulations including: more time for the interview or feedback (n=5) and holding them at a different point in the training (n=2). Three respondents wanted more preparation time for simulations. They felt more classroom discussion on how to ask interview questions would have been beneficial.

Virtual Simulations: The most commonly reported aspect of virtual simulations that respondents liked was the opportunity to apply what they had learned in class (n=20).

> The actual practice of speaking with a teen and parent. The exposure helps lessen the stress considering you know what to expect.
>
> Just being able to try it out before really doing it was helpful.
>
> That they were realistic and it was nice to see how the full dialogue feels.

The feedback from the trainers was also highly valued by virtual respondents (n=17). Similar to in-person simulations, participants named the immediacy of the feedback as helpful (n=5).

> The immediate feedback from the trainers. It was helpful to have that so quickly because I didn't have to wait in agony to see if there were things I did well or needed to improve on.
>
> Constructive feedback at the end of the simulations. It felt like real life examples.
>
> It was nice to give it a try and get feedback on what I did well and what I needed to work on.

Like in-person respondents, the virtual simulation structure and preparation were the two most commonly mentioned areas to improve. Five respondents made recommendations for changes in the simulation structure. Longer interview times were requested (n=3) as well as more time to prepare (n=1) and moving the simulations to a different day of training (n=1). Eight respondents mentioned a desire for more preparation for simulations. They felt that more time to practice in class would have been beneficial, particularly for the child interview (n=5).

Simulation Assessment

Participant performance on the simulations were compared pre and post virtual learning in bar graphs (Appendix 1). Chi-square tests were conducted on all items in child and parent sims that met, or could be adjusted to meet the necessary requirements for chi-square testing. For some scale items, adjacent categories were combined in order to meet the minimum of n=5 in each category (marked with asterisks). For significant items, Cramer's V was calculated as a measure of effect. Full results can be found in Tables 4 and 5 below.

Table 6. Parent Simulation Chi-Squares

	X-squared	df	P	sig	Cramer's V
Stated Reason for Contact	0.75	1	0.39	0	
Addressed Resistance	2.2	3	0.53	0	
Explained Reason for Contact	9.4	3	0.024	1	0.22
*Six Domains	10	2	0.0043	1	0.24

*Strengths Supports	7.2	1	0.0071	1	0.19
*Active Listening	5.4	2	0.066	0	
Nonverbal Communication	20	2	5.1E-5	1	0.32
*Respect	0.0036	1	0.95	0	
*Clear and Accurate	9.40E-31	1	1	0	
Tribal Ask	0.86	1	0.35	0	
Tribal Explain	3.5	1	0.061	0	
*Cultural ID	6.0	2	0.050	1	0.17

*Adjacent categories were combined to reach n=5

Table 7

Child Simulation Chi-Squares

	X-squared	df	P	sig	Cramer's V
Child ID	0.051	1	0.82	0	
Permission	3.6	1	0.057	0	
Documentation	0.44	1	0.51	0	
Instructions	4.3	3	0.23	0	
Rapport	3.1	3	0.37	0	
Free Narrative	2.2	3	0.53	0	
Six Domains*	3.7	2	0.16	0	
Cultural ID	3.3	1	0.07	0	
Solution-Focused	1.3	1	0.26	0	
Strengths and Supports	1.8	1	0.19	0	
Questions or Concerns	0	1	1	0	
Next Steps	3.6	1	0.57	0	
Active Listening*	8.4	2	0.015	1	0.21

Closing	2.6	1	0.11	0
Warm Demeanor*	1.9	1	0.17	0

*Adjacent categories were combined to reach n=5

In the parent interaction simulation, significant differences between in-person and virtual learning sessions were found in performance of the following skills: "Explained reason for contact at the beginning of the interview" X^2 (3, N = 196) = 9.4, $p = 0.024$; "Asked questions directed toward gathering information in the six domains to assess for child safety" X^2 (2, N = 192) = 10, $p = 0.0043$; "Addressed parent/family strengths or supports" X^2 (1, N = 196) = 7.2, $p = 0.0071$; "Recognized and appropriately responded to nonverbal communication" X^2 (2, N = 195) = 20, $p = 5.1 \times 10^{-5}$; and "Gained an understanding of the family's cultural identity through respectful curiosity" X^2 (2, N = 196) = 6.0, $p = 0.050$. Based on the Cramer's V testing, this was a low strength association.

The only measure that reached significance in the child interview was, "Used active listening skills" X^2 (2, N = 198) = 8.4, $p = 0.015$, indicating a difference between virtual and in-person simulation groups. Based on the Cramer's V testing, this was a low strength association.

Discussion

Participant Reaction Surveys

Chi-square analysis showed a significant difference in distribution of ratings between virtual and in-person learning environments on the question, "The simulations were helpful." Looking at the distribution of results (Appendix 1), we can see a larger percentage of virtual participants responding "Agree" on this measure, with the in-person responses being slightly more evenly dispersed, but still skewed toward "Agree."

This view of virtual learners of the simulation being more helpful than in-person learners could be for a multitude of reasons. It is possible that in the context of virtual learning, an in-class role-play activity is harder to buy into, so the extra authenticity of a simulation provides experience that is otherwise absent in an online setting.

While simulations had to be adapted to meet the demands of a virtual environment, the themes from the participant surveys were consistent across both in-person and virtual modalities. The opportunities simulations provided to apply what they had been learning in training were highly valued in both. Individual feedback provided by trainers immediately after simulations was maintained as part of the structure of in-person and virtual simulations and was a theme across both groups of what was liked best.

In addition, areas participants thought could be improved in the simulations were similar for both in-person and virtual. Primarily there was a desire for longer interview times, which is a function of the amount of time allotted for simulations in the training week and not the simulation environment.

Simulation Assessments

The parent simulation had five measures which were found to be significantly different based on chi-square testing between pre and post virtual learning groups. The first was "Explained the reason for contact at the beginning of the interview." Looking at the distribution of scores for this item in Appendix 1, we can see the normal distribution of in-person scores centering around the "proficient" mark, while the virtual scores are more evenly distributed, with the plurality of scores at the "novice" mark, but also more scores at the "excellent" mark than in-person.

The second significant measure was “Asked questions directed toward gathering information in the six domains to assess for child safety.” In this measure, more virtual participants fell in the “excellent” category, and more in-person participants fell in the “proficient” and “developing” categories. One possible explanation for this finding is that virtual participants are more likely to also have their notes on the screen in front of them in addition to the parent they’re interviewing. On the other hand, in-person participants are more likely to put their notes away to directly engage with the parent, and thus more easily forget to ask questions in each of the six domains.

The third significant measure was “Addressed parent/family strengths or supports.” For this measure, more participants addressed strengths or supports in the in-person environment than the virtual environment. This presents an overarching theme where engagement-centered items (addressing strengths, responding to nonverbal communication, gained an understanding of client’s cultural identity) generally had better performance in-person. This could be because these skills are easier to teach in-person, or these skills are easier to demonstrate in-person.

The fourth significant measure was “Recognized and appropriately responded to nonverbal communication.” In this measure, as well, participants performed better in the in-person simulation when compared to the virtual one. This makes sense, as nonverbal communication styles can be more difficult to observe over a video call than in-person.

Finally, “Gained an understanding of the family’s cultural identity through respectful curiosity” was the last measure in the parent simulations that had significantly different participant performance in virtual and in-person environments. While both environments have majority novice performance, those in the virtual learning environment are less represented in “excellent,” “proficient” and “developing,”

and more represented in “novice,” signifying worse performance of participants in the virtual learning environment. This indicates that participants in the virtual learning environment were less able to express curiosity about the client’s cultural identity. This could be because of the increased person-to-person engagement of the in-person environment, or because an in-person classroom is more conducive to picking up cultural engagement skills.

Based on the harm the child welfare system has done to Black Indigenous and other People of Color (BIPOC) communities in the past, and the potential the system has to perpetuate existing systems of oppression, it is easy that cultural curiosity is an essential skill for child welfare workers to gain competence in, to be able to embrace the lived experiences of families and engage them effectively.

In the child simulations, scores on “Used active listening skills” were found to be significantly different between virtual and in-person groups. In this measure, the virtual group had the majority of their scores in “proficient,” while the in-person group had their plurality in “excellent,” with also more participants at the “developing” mark. It is reasonable to guess that active listening skills are harder to demonstrate and observe on a Zoom call than they would be in person.

Limitations and Future Research

This study provides preliminary evidence that participants in a virtual environment are less able to demonstrate engagement skills in a simulated family visit environment. Further research is needed to identify if this is because of a difference in knowledge acquisition in a virtual learning environment, difference in ability to demonstrate acquired skills in a virtual simulation environment, or difference in educational makeup of the groups. Because of family engagement’s link to positive case outcomes, and because of the disproportionality in the child welfare system, even the

weak associations in engagement skills and ability to identify cultural identity should be taken seriously.

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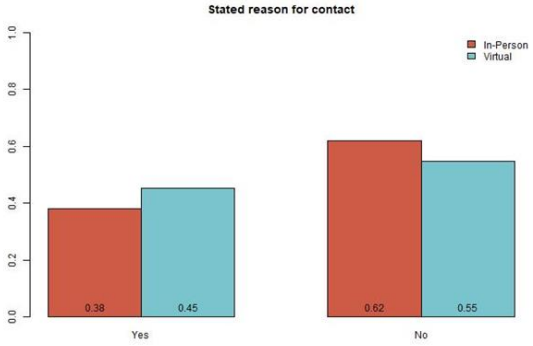
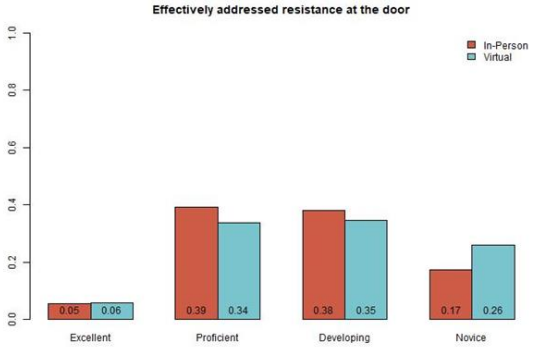
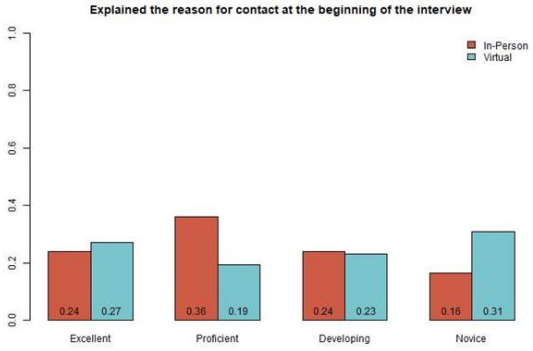
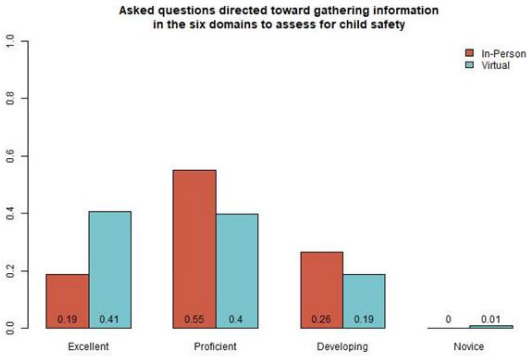
Appendix 1 - Quantitative Data

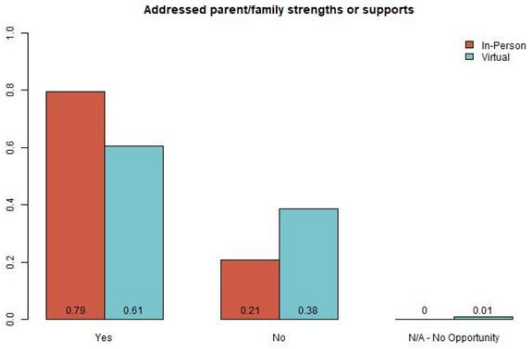
Parent Simulation

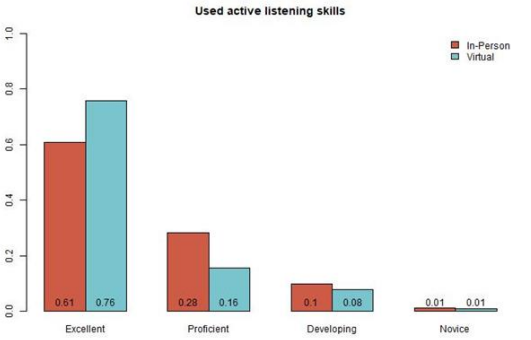


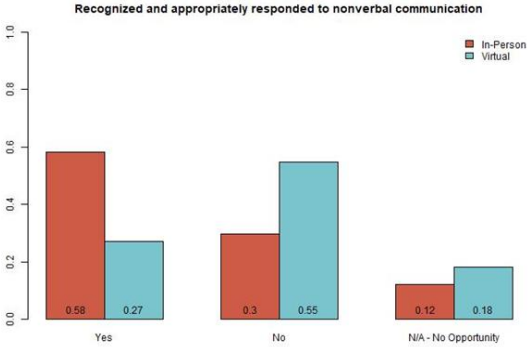


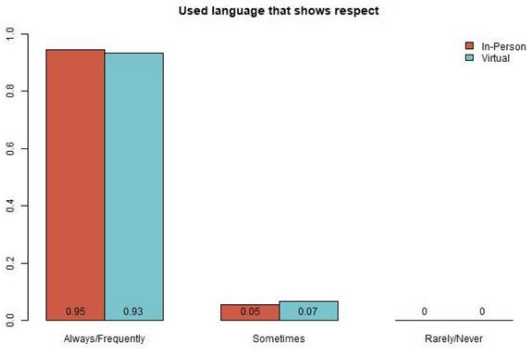


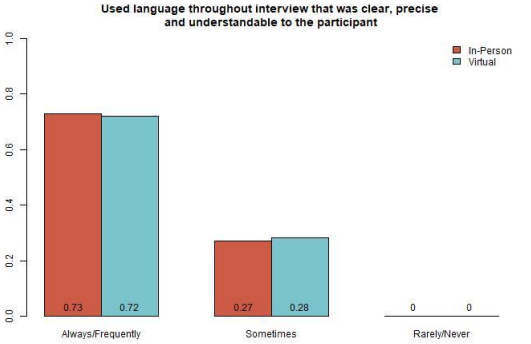

Asked questions directed toward gathering information in the six domains to assess for child safety
In-Person
Virtual
0.0
0.2
0.4
0.6
0.8
1.0
0.19
0.41
0.55
0.4
0.26
0.19
0
0.01
Excellent
Proficient
Developing
Novice

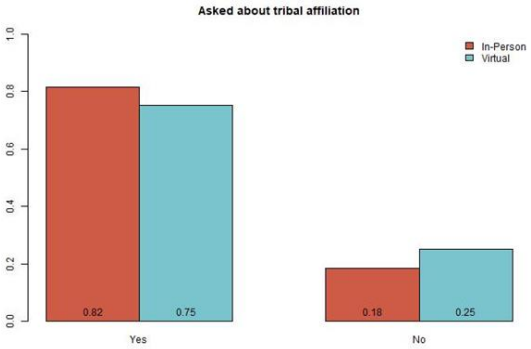

Addressed parent/family strengths or supports
In-Person
Virtual
0.0
0.2
0.4
0.6
0.8
1.0
0.79
0.61
0.21
0.38
0
0.01
Yes
No
N/A - No Opportunity

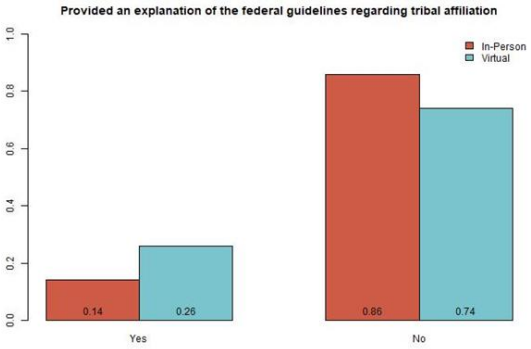

Used active listening skills
In-Person
Virtual
0.0
0.2
0.4
0.6
0.8
1.0
0.61
0.76
0.28
0.16
0.1
0.08
0.01
0.01
Excellent
Proficient
Developing
Novice

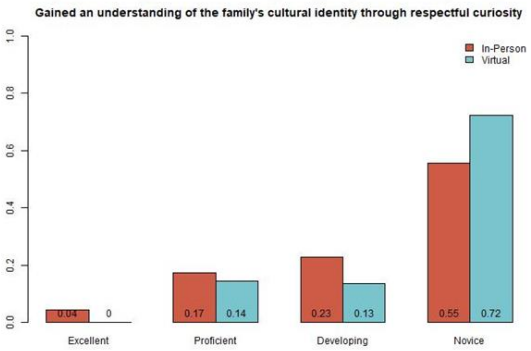

Recognized and appropriately responded to nonverbal communication
In-Person
Virtual
0.0
0.2
0.4
0.6
0.8
1.0
0.58
0.27
0.3
0.55
0.12
0.18
Yes
No
N/A - No Opportunity


Used language that shows respect
In-Person
Virtual
0.0
0.2
0.4
0.6
0.8
1.0
0.95
0.93
0.05
0.07
0
0
Always/Frequently
Sometimes
Rarely/Never

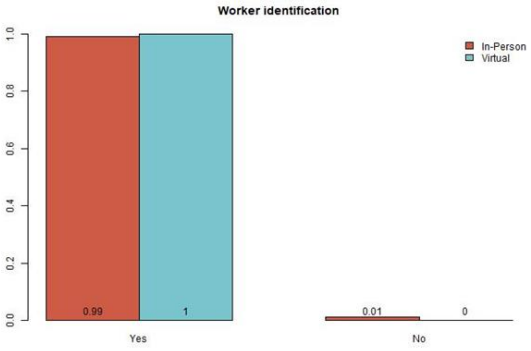

Used language throughout interview that was clear, precise and understandable to the participant
In-Person
Virtual
0.0
0.2
0.4
0.6
0.8
1.0
0.73
0.72
0.27
0.28
0
0
Always/Frequently
Sometimes
Rarely/Never

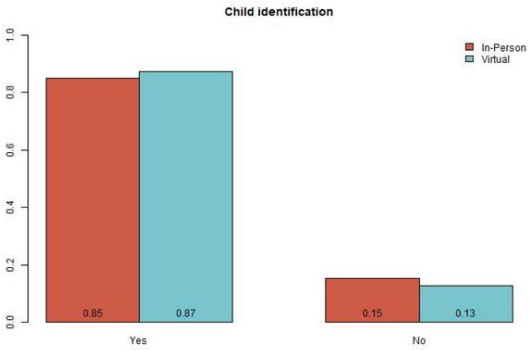

Asked about tribal affiliation
In-Person
Virtual
0.0
0.2
0.4
0.6
0.8
1.0
0.82
0.75
0.18
0.25
Yes
No

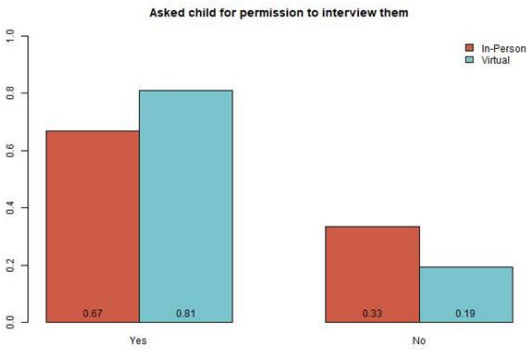

Provided an explanation of the federal guidelines regarding tribal affiliation
In-Person
Virtual
0.0
0.2
0.4
0.6
0.8
1.0
0.14
0.26
0.86
0.74
Yes
No

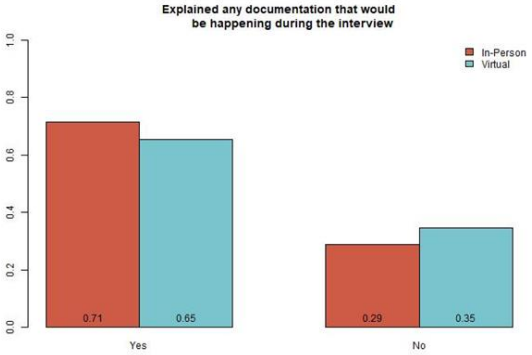


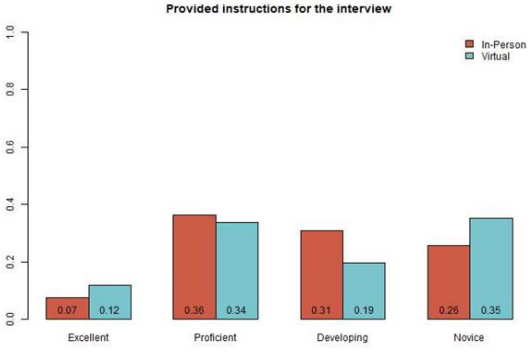
Child Simulation

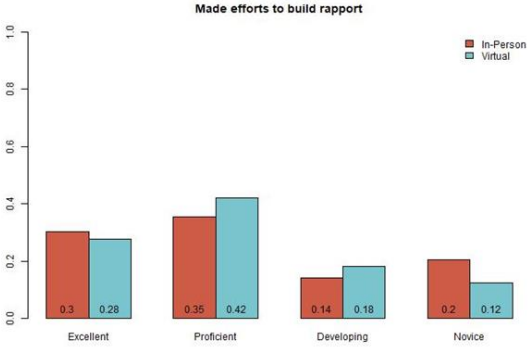


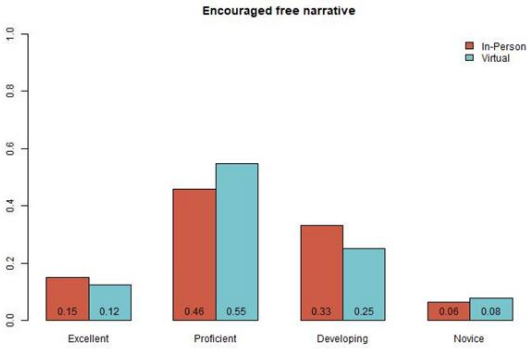


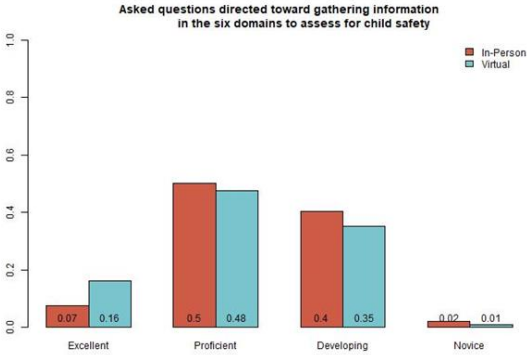

Asked child for permission to interview them
In-Person
Virtual
0.0
0.2
0.4
0.6
0.8
1.0
0.67
0.81
0.33
0.19
Yes
No

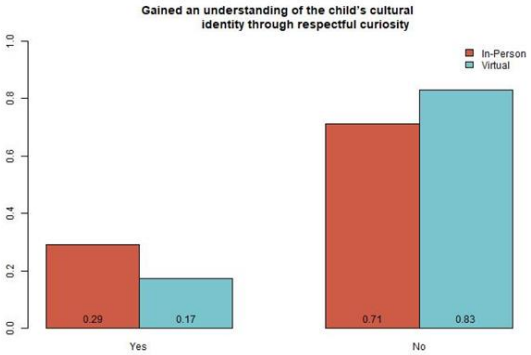

Explained any documentation that would be happening during the interview
In-Person
Virtual
0.0
0.2
0.4
0.6
0.8
1.0
0.71
0.65
0.29
0.35
Yes
No

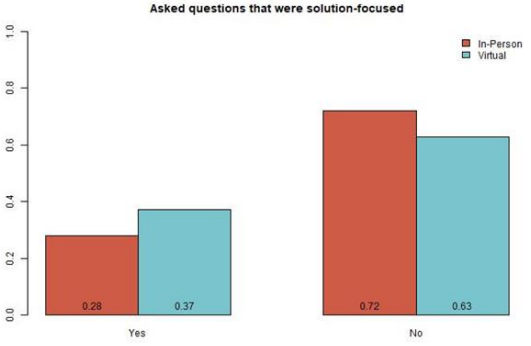

Provided instructions for the interview
In-Person
Virtual
0.0
0.2
0.4
0.6
0.8
1.0
0.07
0.12
0.36
0.34
0.31
0.19
0.26
0.35
Excellent
Proficient
Developing
Novice

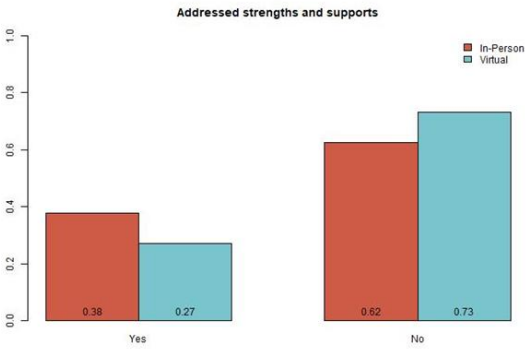

Made efforts to build rapport
In-Person
Virtual
0.0
0.2
0.4
0.6
0.8
1.0
0.3
0.28
0.35
0.42
0.14
0.18
0.2
0.12
Excellent
Proficient
Developing
Novice

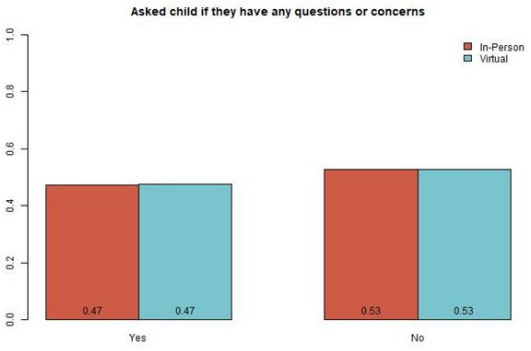

Encouraged free narrative
In-Person
Virtual
0.0
0.2
0.4
0.6
0.8
1.0
0.15
0.12
0.46
0.55
0.33
0.25
0.06
0.08
Excellent
Proficient
Developing
Novice

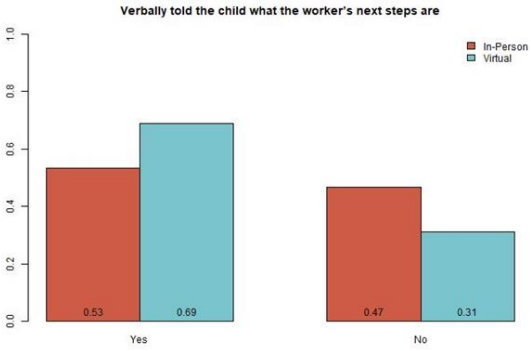

Asked questions directed toward gathering information in the six domains to assess for child safety
In-Person
Virtual
0.0
0.2
0.4
0.6
0.8
1.0
0.07
0.16
0.5
0.48
0.4
0.35
0.02
0.01
Excellent
Proficient
Developing
Novice

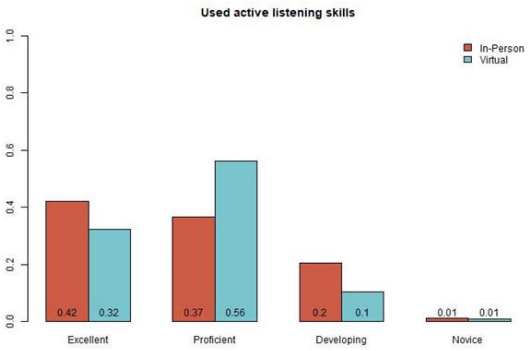

Gained an understanding of the child's cultural identity through respectful curiosity
In-Person
Virtual
0.0
0.2
0.4
0.6
0.8
1.0
0.29
0.17
0.71
0.83
Yes
No

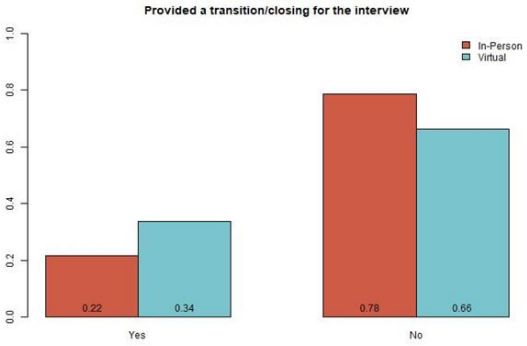

Asked questions that were solution-focused
In-Person
Virtual
0.0
0.2
0.4
0.6
0.8
1.0
0.28
0.37
0.72
0.63
Yes
No

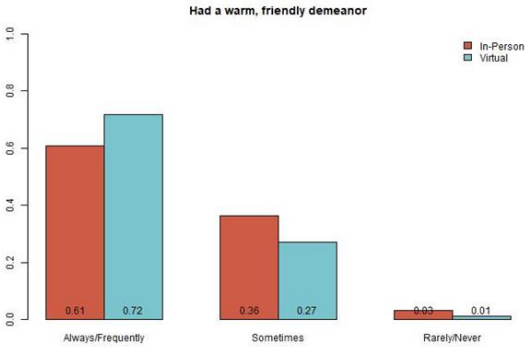

Addressed strengths and supports
In-Person
Virtual
0.0
0.2
0.4
0.6
0.8
1.0
0.38
0.27
0.62
0.73
Yes
No


Asked child if they have any questions or concerns
In-Person
Virtual
0.0
0.2
0.4
0.6
0.8
1.0
0.47
0.47
0.53
0.53
Yes
No

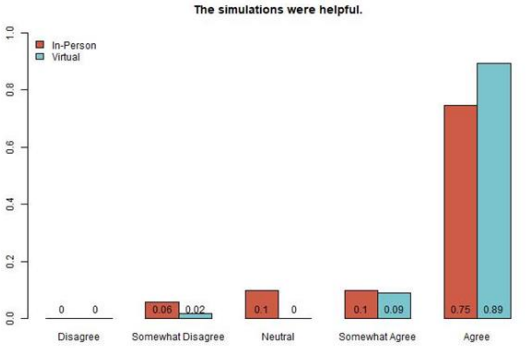

Verbally told the child what the worker's next steps are
In-Person
Virtual
0.0
0.2
0.4
0.6
0.8
1.0
0.53
0.69
0.47
0.31
Yes
No

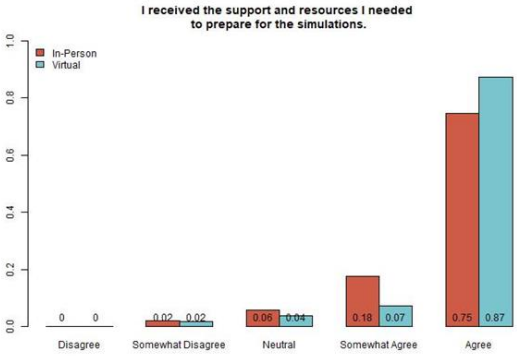

Used active listening skills
In-Person
Virtual
0.0
0.2
0.4
0.6
0.8
1.0
0.42
0.32
0.37
0.56
0.2
0.1
0.01
0.01
Excellent
Proficient
Developing
Novice

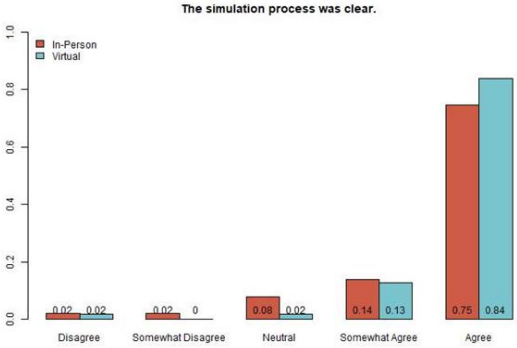




Participant Reaction Survey




I received the support and resources I needed to prepare for the simulations.
In-Person
Virtual
0.0
0.2
0.4
0.6
0.8
1.0
0
0
0.02
0.02
0.06
0.04
0.18
0.07
0.75
0.87
Disagree
Somewhat Disagree
Neutral
Somewhat Agree
Agree


The simulation process was clear.
In-Person
Virtual
0.0
0.2
0.4
0.6
0.8
1.0
0.02
0.02
0.02
0
0.08
0.02
0.14
0.13
0.75
0.84
Disagree
Somewhat Disagree
Neutral
Somewhat Agree
Agree