

Bolstering Mental Health Resources for Large Scale Combat Operations: Is the Virtual Platform an Effective Option for Training?

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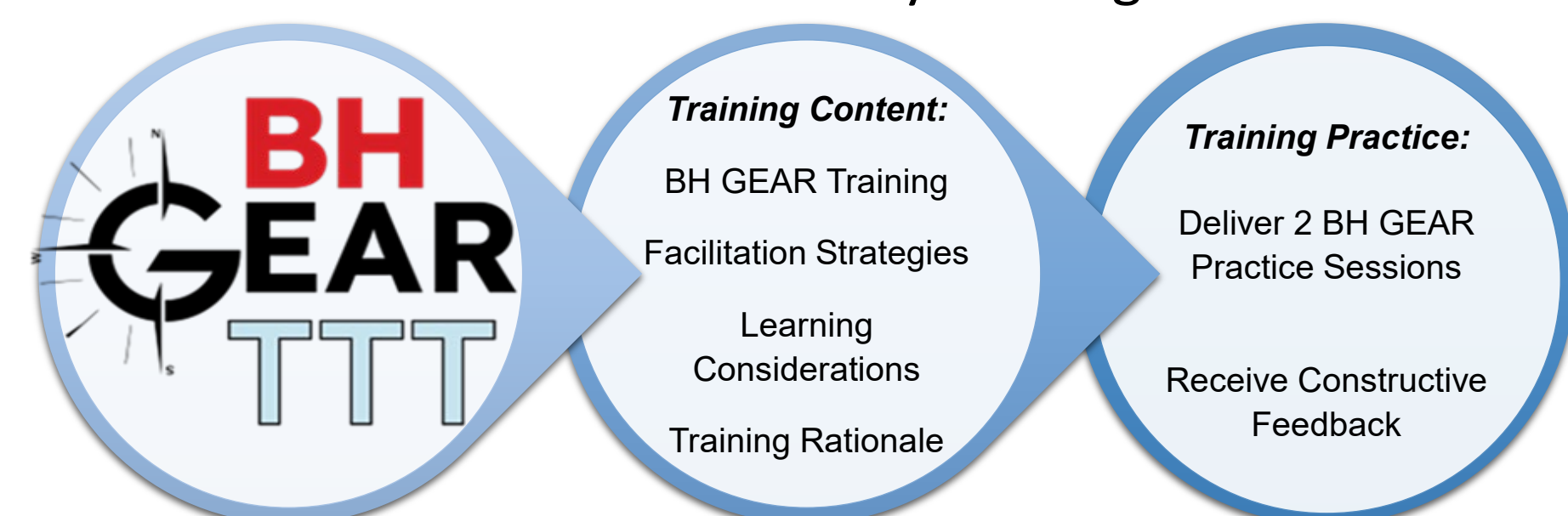
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Background

- The Battlefield Health Guidelines for mEdic Assessment and Response for Mental Health Training (BH GEAR) was developed to train basic mental health (MH) skills to non-specialty medical providers and other unit helpers.
- BH GEAR enables service members to manage the MH readiness of their unit in areas where MH support is limited as in future large scale combat operations (LSCO).
- A train-the-trainer (TTT) model was developed for its widespread dissemination and was eventually adapted to the virtual platform.
- It is unknown whether the TTT for BH GEAR is suitable for a virtual platform and if it is as effective as being taught in person.
- This study aims to determine the efficacy of the virtual TTT program for BH GEAR by assessing trainee changes in knowledge, confidence, scope of work, and ratings of their trainers.

Methods

- The BH GEAR TTT course is a three-day training course.



- Only minor changes were made to the course to adapt it to the virtual platform. Virtual attendees were required to join with a working camera and microphone.
- Trainers were recruited to participate in the evaluation (n=300, of which 97% consented). Of the 291 trainers, 76% were trained in person at 10 sites. Virtual participants joined from all over the world (Figure 1). Within six weeks, trainers (n=94, 31.3%) gave BH GEAR to non-specialty medical providers who completed pre- and post-training surveys (n=589, of which 59% completed follow-up) assessing the trainer, and their own knowledge, confidence and scope of work in performing MH skills. Demographics of trainers and trainees are shown in Table 1 and 2, respectively.
- Bivariate analyses were done using t tests and chi square. Two-way mixed Anova was utilized for the models comparing pre- and post-test scores and training mode.

		In Person (n=81, 86.2%)		Virtual (n=13, 13.8%)	
		n, %			
Service	Army	80	98.8	11	84.6
	Air Force	1	1.2	2	15.4
Status	Military	74	91.4	12	92.3
	Civilian	7	8.6	1	7.7
Role	Licensed MH Provider	42	52.5	6	46.2
	MH Tech	27	33.8	5	38.5
	Other	11	13.8	2	15.3
Sex	Male	49	60.5	5	38.5
	Female	32	39.5	8	61.5

Table 1. Demographics of trainers, n=94

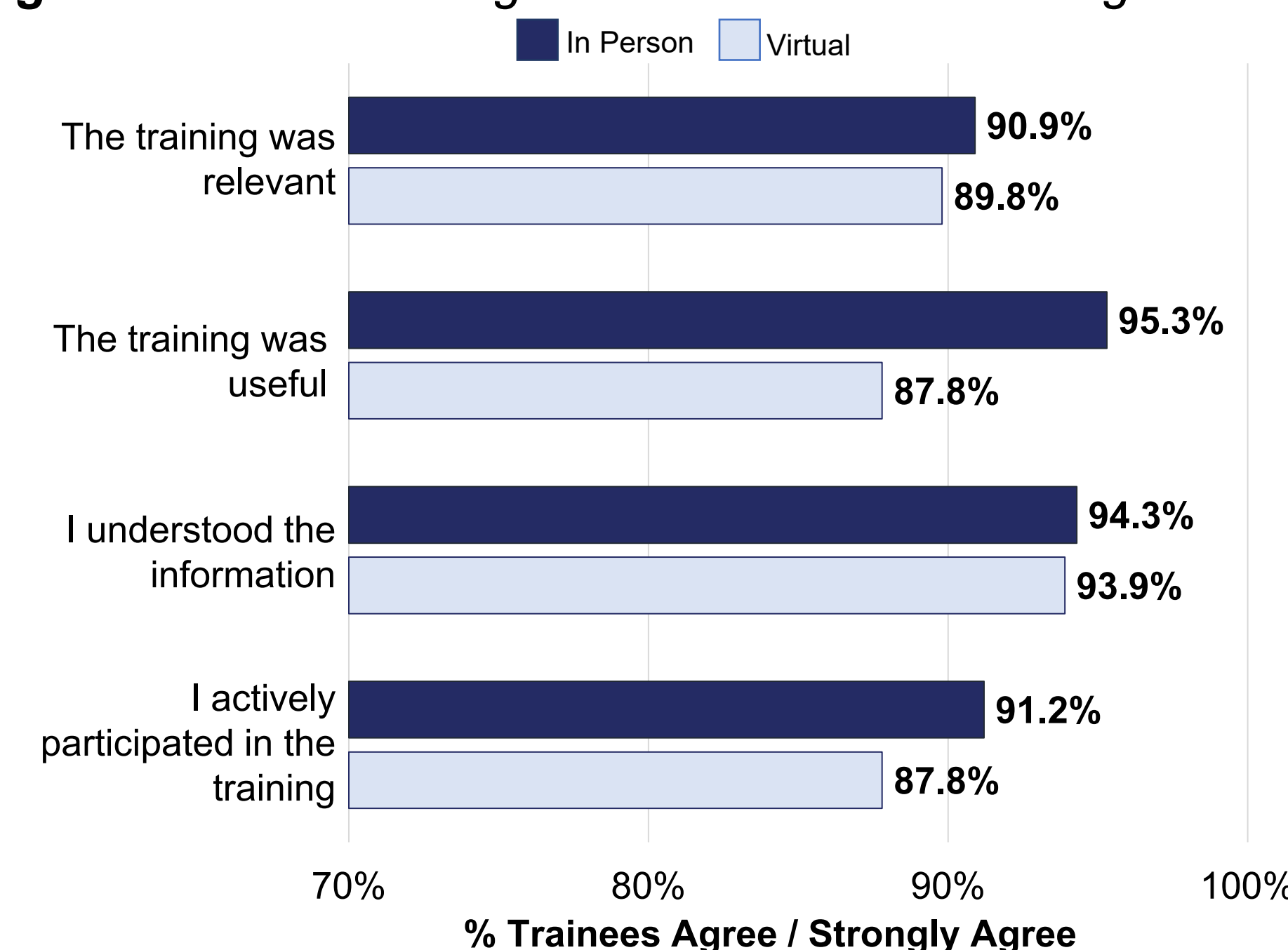
Results

Table 2. Demographics of trainees, n=347

		In Person (n=298, 85.9%)		Virtual (n=49, 14.1%)	
		n, %			
Service	Army	42	84.0	40	85.1
	Air Force	8	16.0	7	14.9
Rank***	E1-E4	152	51.0	25	53.2
	E5-E9	129	43.3	10	21.3
	O1-O6	17	5.7	12	25.5
Role	Medic	225	75.5	34	72.3
	MH Tech	10	3.4	0	0.0
	Other	63	21.1	13	27.7
Sex***	Male	242	81.2	28	58.3
	Female	56	18.8	20	41.7

***p<0.001

Figure 2. Trainee ratings of the BH GEAR training



*All comparisons shown are non-significant

Table 3. Changes in trainee mental health knowledge, confidence, and scope of work in four domains following the BH GEAR training comparing trainers trained in person vs. virtual, n=347

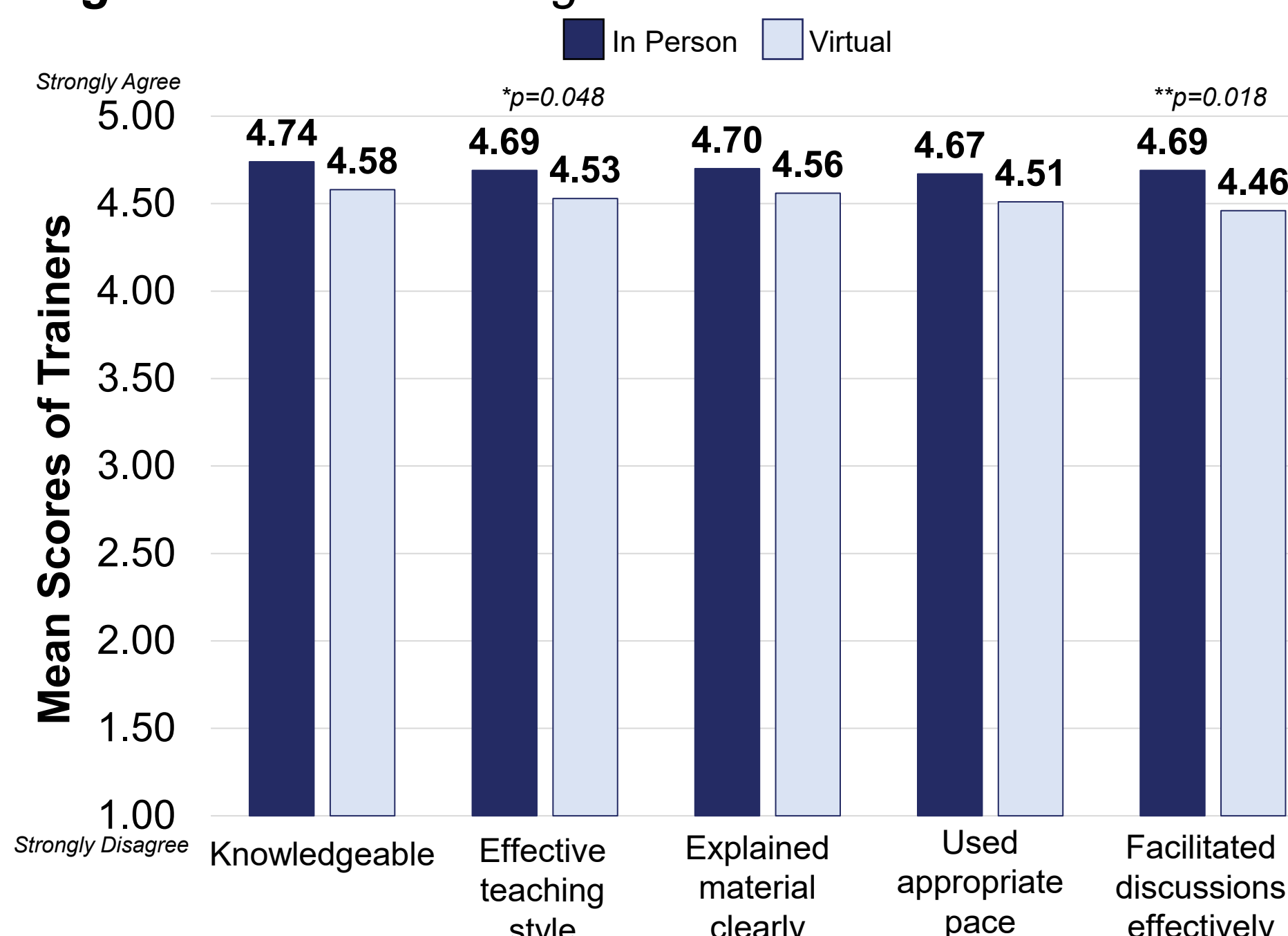
	In-Person Mean (Pre → Post)	Virtual Mean (Pre → Post)	Interaction p value
Knowledge			
Assessment	8.81 → 9.65	8.81 → 9.81	0.751
Intervention	6.85 → 8.09	6.81 → 8.44	0.370
MEDEVAC	1.70 → 1.74	1.74 → 1.86	0.500
Psychopharmacological	0.88 → 1.20	0.93 → 1.53	0.113
Confidence			
Assessment ^b	2.90 → 5.61	2.47 → 5.07	0.841
Intervention ^{a, b}	3.01 → 6.48	2.46 → 5.52	0.486
MEDEVAC	0.87 → 1.88	0.66 → 1.52	0.453
Psychopharmacological ^a	0.19 → 0.81	0.11 → 0.74	0.878
Scope of Work			
Assessment ^a	4.26 → 4.77	4.07 → 4.62	0.908
Intervention ^a	4.08 → 4.73	3.87 → 4.58	0.892
MEDEVAC ^{c, d}	0.74 → 0.90	0.78 → 0.77	0.127
Psychopharmacological	0.43 → 0.75	0.46 → 0.74	0.742

All models control for rank and gender; ^aSignificant interaction for score by rank; ^bSignificant interaction for score by training mode by gender; ^cSignificant interaction for score by sex by rank; ^dSignificant interaction for score by training mode by sex by rank

Figure 1. Distribution of BH GEAR TTT virtual attendees in two courses (black) compared to in person attendees in ten courses (red)



Figure 3. Trainee ratings of the TTT trainer



Results, cont.

- Results showed that overall trainee satisfaction of the BH GEAR training given by both trainers trained in-person as compared to virtual were similar, Figure 2.
- Trainers trained in-person were rated significantly higher in having an effective teaching style and facilitating discussions effectively, Figure 3.
- When assessing scores of knowledge, confidence and scope of work across four domains, among those trained in person versus virtually, no differences were found although rank and gender had some significant effects on scores.

Conclusions

- The BH GEAR Train-the-Trainer (TTT) course prepares trainers to effectively deliver training in both in-person and virtual formats.
- Evaluation data show that regardless of how the TTT trainers themselves were trained, trainees rated the resulting BH GEAR training as highly useful and relevant
- While all trainees rated their trainers highly across all training skills, virtual platforms may present unique challenges; additional work may be required to optimize how trainers demonstrate teaching styles and facilitate discussions virtually.
- Most importantly, trainer training modality did not impact trainee outcomes. Trainees achieved equivalent, significant increases in mental health (MH) knowledge, confidence, and scope of work across all four training domains, whether their trainer was trained virtually or in person.
- Consequently, this provides strong evidence that the BH GEAR TTT course is highly suited for virtual environments, serving as a viable tool for the rapid, large-scale dissemination of vital MH skills to service members worldwide.

Scan to learn more or
request BH GEAR or
the TTT Course!

