

Investigating U.S. Army Unit-Specific Psychological Skills Training Through Soldier and Embedded Performance Expert Perspectives

A Mixed Method Exploratory Evaluation

Amanda L. Adrian¹, John Eric M. Novosel-Lingat², Kelly A. Toner¹, Coleen L. Crouch³, and Susannah K. Knust⁴

¹ TechWerks LLC

² Medical Services Corps

³ Aviation Test Directorate, U.S. Army Operational Test Command

⁴ Walter Reed Army Institute of Research

Abstract

Soldiers are expected to consistently perform at optimal levels to meet mission objectives and prevent mission failure despite facing adversity related to aspects of their professional and personal lives. To empower soldiers to face these challenges effectively, the U.S. Army Directorate of Prevention, Resilience and Readiness (DPRR) provides access to resources, programs, and training related to increasing readiness and resilience. One such program utilizes performance psychology practitioners, or performance experts (PEs), as a primary prevention resource to train and coach skills and concepts to improve soldier readiness and resilience. These professionals are auxiliary resources outside the unit who provide cognitive and behavioral health expertise, complementing soldiers' tactical and technical training. To improve the PEs' impact, DPRR wanted to embed PEs directly into units. A mixed-methods exploratory evaluation was conducted to understand the perceived benefits and challenges of embedment. Data collected across multiple

sites over two years identified the perceptions of the embedment process using an integrated analysis of qualitative leader interviews, quantitative surveys of soldiers, and qualitative interviews and quantitative survey data from embedded PEs (EPEs). Results suggest that soldiers and leaders perceived EPEs to be value-added experts who contributed to soldiers' resilience and readiness, ultimately impacting unit performance and lethality. Despite the positive perceptions, EPEs experienced critical barriers, including misaligned communications and expectations. By identifying these embedment challenges and successes, the evaluation aims to ensure the program can continue effectively and efficiently improving unit readiness and resilience.

Performance psychology practitioners trained in sport psychology or kinesiology, with a focus on cognitive and behavioral optimization, are successfully utilized to facilitate, support, and evaluate cognitive skills training of civilian individuals or organizations (Lochbaum et al., 2022; Partington & Orlick, 1987). Tactical communities that function within uncertain, challenging, and dynamic environments like the U.S. military utilize performance psychology principles to improve readiness and resilience (Raabe et al., 2021). While the use of psychological training within tactical communities is not novel, leveraging performance psychology practitioners and principles as a preventative approach to enhance readiness and resilience before engaging in high-stakes, operational environments is a strategic, contemporary application (Park et al., 2022).

Currently, the U.S. Army utilizes the Directorate of Prevention, Resilience and Readiness (DPRR), formerly known as the Army Resilience Directorate, to emphasize and highlight resources and programs that promote readiness, resilience, and overall well-being (DPRR, n.d.). More than 200 performance psychology practitioners, or performance experts (PEs), at 32 U.S. Army installations deliver resilience, performance, social, and organizational psychology training to improve the overall readiness (or fitness to execute mission essential or combat related tasks) of soldiers. Soldiers who demonstrate readiness are physically capable of accomplishing their tasks and mentally and emotionally fit to tackle the challenges they may face (U.S. Department of the Army, 2024). PEs offer capabilities that include a variety of individual and group psychological skills delivered in different modalities (i.e., didactic, experiential, in vivo, and during performance). PEs teach, coach, and consult on performance psychology concepts and skills related but not limited to resilience, physical and operation readiness, leader development, and bystander intervention. A critical benefit of the PEs and their training is the application of these concepts and skills to real-world examples. This application is necessary for seeing behavior change related to improved readiness and resilience.

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Conceptual Framework

The capabilities PEs offer are grounded in the transtheoretical model (Prochaska & DiClemente, 1982), which explains how awareness and perceptions lead to behavior change. In accordance with this conceptual framework, PEs most effectively deliver their support by recognizing where individuals are on their path to change and how to enhance the environment around them to better support that change. Furthermore, PEs may apply these stages of change to identify soldiers' readiness for change, informing how PEs can tailor interventions to optimize performance, readiness, and resilience. Ideally, the PEs' support of the soldiers' endeavors will result in enduring improvement that can impact performance, readiness, and resilience within individuals and throughout the organization. Considering the transtheoretical model and stages of change enhance the impact of PEs' performance psychology training in this applied setting.

Embedding Performance Experts

Understanding how PEs facilitate enduring performance improvement is critical for the U.S. Army as soldiers train for combat readiness and resilience. Wagstaff et

Amanda L. Adrian, PhD, is a research psychologist with TechWerks LLC. She currently consults with the Walter Reed Army Institute of Research. She has degrees in kinesiology and psychology.

Capt. John Eric M. Novosel-Lingat, PhD, is a research psychologist in the U.S. Army's Medical Services Corps. He is currently serving as a principal investigator and the deputy director of the Research Transition Office in the Center for Military Psychiatry and Neuroscience at the Walter Reed Army Institute of Research.

Kelly A. Toner, MS, is research associate with TechWerks LLC and consults with the Walter Reed Army Institute of Research. She is currently pursuing her PhD in clinical psychology at Drexel University.

Coleen L. Crouch, PhD, is an operations research systems analyst with the Aviation Test Directorate at U.S. Army Operational Test Command, Fort Cavazos, Texas. She has degrees in industrial/organizational psychology.

Susannah K. Knust, PhD, is a research psychologist at the Walter Reed Army Institute of Research. She is the director of the Research Transition Office at the Walter Reed Army Institute of Research and is also a principal investigator. Prior to becoming director, she was the liaison officer to the current Directorate of Prevention, Readiness and Resilience for six years. She has degrees in sport psychology and motor behavior, coach education, and Spanish education.



al. (2017) described the "structured, time-bound, and competency-based nature" (p. 6) as a natural link between the military training environment and performance psychology training. PEs are valued assets in the military training environment (Knust et al., 2022); however, their impact on unit-specific training and ability to affect behavior change are major hurdles, limited due to perceptions of PEs. Specifically, soldiers and leaders are unaware that PEs provide overall readiness training and offer job-related performance optimization support (Novosel-Lingat et al., 2024). For PEs to be effective, soldiers and leaders must know how to connect with PEs, that PEs are available resources, what the PEs' capabilities are, and how to benefit from the PEs. To overcome these hurdles, the U.S. Army and DPRR decided to embed PEs within combat and combat support units, increasing PEs accessibility to soldiers.

PEs embedding directly into units allows them to use their training and expertise to identify situations that would benefit from improved performance. Ideally, this shift in practice would enhance soldier performance, readiness, and resilience. Embedded PEs (EPEs) have the skills to support soldiers in their day-to-day work environment while tailoring their performance psychology training support with the unit's conditions and priorities. Units with EPEs would have access to these professionals more regularly, and EPEs could offer soldiers in-the-moment training, supporting resilience and readiness.

Mixed-Methods Evaluation

The current evaluation explored the perceived impact of embedding PEs directly into selected combat and combat support units. This shift in the assigned location from the installation level to specific units provided EPEs with more direct opportunities to work with soldiers through unit-specific training and day-to-day interactions. To evaluate the embedment process, the Headquarters Department of the Army's DPRR created a pilot program at four installations. Selected PEs embedded into the combat and combat support units for the pilot program, and nonembedded PEs continued to support all other units across the installation from the Ready and Resilient Performance Centers (DPRR, n.d.). EPEs were directed to provide exclusive regular and ongoing training services to soldiers in collaboration with unit commanders. The aim was for embedment to establish rapport, or mutual trust and connection between EPEs and soldiers, and leader buy-in, or leader willingness to understand and promote the EPEs' training and skills, all to facilitate effective psychological skills training.

Ultimately, DPRR was interested in the perceived effectiveness of embedding PEs within brigades and battalions. To assess the effectiveness, the research team evaluated the perceptions of the program from three perspectives: the EPEs, leaders, and soldiers. The following research questions (RQ) guided this mixed-methods evaluation:



- RQ1: Using a semistructured interview process, what were the EPEs' perceptions of the embedment process?
- RQ2: Using a semistructured interview process, what were the leaders' perceptions of having an EPE in their unit?
- RQ3: Using a quantitative survey, what were the soldiers' perceptions of working with the EPEs?

Methods

Using multiple data sources, a mixed-methods approach (Fetters et al., 2013) was utilized to understand the embedment process. Recommended practices for evaluating programs conducted within the military context (Kaimal et al., 2019; Santo et al., 2021) were followed to structure the reported findings. The Walter Reed Army Institute of Research (WRAIR) collected data for the evaluation as part of a larger program evaluation after receiving approval from the Human Subjects Protection Branch. The WRAIR evaluation team partnered with performance centers across four installations, coded for anonymity as Sites 1 to 4, to observe training sessions and collect data from EPEs, soldiers, and leaders from November 2019 to June 2022. As part of the pilot evaluation, EPEs completed surveys, semiannual reflection essays, and in-depth interviews, soldiers completed surveys, and leaders provided feedback via semistructured interviews. For the current evaluation, the evaluation team employed a mixed-methods exploratory evaluation design to collect qualitative data from EPEs and leaders along with selected quantitative survey responses from soldiers to answer the three RQs.

Sample

Participants for this evaluation were from four large U.S. Army installations in the continental United States. First, the evaluation team collected qualitative data by conducting interviews with 81 active-duty leaders and 27 EPEs, who provided consent. Then, the team collected quantitative survey data from soldiers who worked with EPEs. Of the 463 soldiers invited, 426 (92.0%) provided consent. Survey participants were active duty; half (49.3%) of the participants were junior enlisted soldiers (E1–E4), 25.2% were senior enlisted soldiers (E5–E9), and 25.5% were officers. See Table 1 for complete participant demographics.

Qualitative Instruments

The evaluation team employed a semistructured interview protocol with EPEs to facilitate their reflection throughout the pilot. The first qualitative reflection in-



Table 1

Number of Participants by Site

	Overall	Site 1	Site 2	Site 3	Site 4
EPEs Interviewed	27	6	4	8	9
Leaders Interviewed	81	16	28	16	21
Soldiers Surveyed	426	63	140	147	72
Soldiers' Rank					
E1-E4	205 (49.3%)				
E5-E9	105 (25.2%)				
Officers	106 (25.5%)				

Note. 4 soldier surveys were missing site responses. E1–E4 = Junior enlisted soldiers; E5–E9 = Senior enlisted soldiers

terview occurred six months into the embedment period. Due in large part to the COVID-19 restrictions, these initial six-month interviews took place over Microsoft Teams or Zoom. EPEs were subsequently asked to provide responses to the same prompts as a written reflection at 12 and 18 months into their embedment. The evaluation team requested EPEs (n = 25) to complete additional essays or interviews based on special circumstances (e.g., personnel transitions). The combination of interview and written responses over the embedment period allowed the collection of data that would provide insight on the characteristics necessary for successful embedment into assigned units while also allowing the EPEs to share key information that may not have been discovered through the qualitative protocol. Furthermore, this series of opportunities to respond qualitatively allowed for follow-up questions from the evaluation team.

Leaders were also interviewed using a semistructured interview protocol tailored for their experience, designed to elicit feedback about their perceptions of the pilot program. EPEs helped select the leaders from their embedded units, though they were not present during the actual leader interviews. These interviews took place at least eight months into their EPE's embedment. Similarly, most interviews took place over Microsoft Teams or Zoom, and a few interviews were conducted in person as the COVID-19 restrictions started to lift.

For most of the interviews, conducted both online and in person, at least two research team members were present. One team member led by asking the interviewee questions, and the second team member conducted a live transcription. Additional team members joined the interview when available to ask additional follow-up

or clarifying questions. Following the interview, the transcriber conducted quality control on the transcript and a team member removed identifying information from the transcribed interviews. Participants did not validate qualitative products prior to analysis due to the operational tempo of the military units, however the lead interview conducted an intensive quality control review of transcripts and written products.

Quantitative Instruments

Soldiers trained by the EPEs were administered the 21-item Military Coaching Behavior Scale (MCBS) survey consistent with the psychometric recommendations from Wagstaff and colleagues (2017). The MCBS has five subscales: Observation (four items), Questioning (four items), Goal Setting (five items), Developmental Feedback (four items), and Motivational Feedback (four items). Using a 5-point Likert-type response scale, ranging from 1 (*not at all*) to 5 (*all of the time*), soldiers indicated their perceived satisfaction with the support received from their EPE. Mean scores were calculated for each subscale with higher scores indicating greater satisfaction with the EPE.

Data Analysis

The mixed-methods evaluation required both qualitative and quantitative data analyses.

Qualitative Analysis. Pairs of researchers conducted deductive analysis (Levitt, 2018) of the prompted responses, with the principal investigator available to review any discrepancies or disagreements between the paired coders. Using NVivo software (version R1), one team of pairs analyzed the EPE interviews and reflection essays, while the second pair analyzed the leader interviews. Before the qualitative analysis, both coding teams developed agreed-upon priori codes and refined coding as batches of data were received throughout the pilot. Intercoder reliability was established through discussions, consensus building, and ongoing communication throughout the coding process. When the intercoder reliability coefficient fell below 0.70, the predetermined agreed-upon level of acceptable reliability rating (Landis & Koch, 1977; O'Connor & Joffe, 2020), coders convened to address discrepancies and achieve agreement through discussion. The coders then used grounded theory (Glaser & Strauss, 1967) to determine key themes from the qualitative data inductively. Finally, the coders engaged in a reflexive process (Braun & Clark, 2019) during the coding and thematic analysis to mitigate any bias that may impact the process and impede the development of valid interpretations.

Quantitative Analysis. Descriptive statistics were generated from the soldiers' surveys. Data from the soldiers' surveys were analyzed across the four installations using a one-way analysis of variance (ANOVA). Tukey's post-hoc comparisons as-

sessed specific site differences if a significant main effect was identified. All statistical analyses were conducted on R 4.2.2 statistical computing software by a lead quantitative analyst and reviewed with the evaluation team to ensure a valid interpretation of the data.

Integration

Due to the complexity of the pilot program, an approach to intentionally integrate the qualitative and quantitative data was configured during the design phase of the evaluation. Qualitative and quantitative data were integrated through merged results reporting (Fetters et al., 2013). The evaluation team selected this approach to merge interview and survey data for a more complete and valid interpretation after analysis—not during the data collection—to facilitate a more streamlined process to address each guiding research question.

Results

EPE Perceptions of the Embedment Process (RQ1)

To answer RQ1, the 27 EPEs provided feedback via interviews and written essays about their embedment experience. After coding the input, the team determined recurrent themes, including establishing rapport with soldiers and leaders, the importance of buy-in, the impact on mission-essential tasks, and embedment of misunderstandings.

Establish Rapport. To be effective, EPEs needed to establish rapport with their soldiers and leaders. "I think that's a struggle that some PEs may have, the building rapport and being approachable. I think that's a big win, being the approachable PE so troopers feel comfortable talking with us and learning new stuff."

Being present when and where the soldiers were training for a field exercise was another opportunity for EPEs to establish rapport. Some EPEs went to the field and observed the soldiers' training firsthand. This time provided context for the EPEs and a shared experience for the soldiers and EPEs. "Less talking more action, this unit is busy so instead of constantly meeting, just head out to the motor pool or field and attach and be present working with cadre and observing soldiers train."

Finally, walking around the unit and being seen worked to build relationships between EPEs and their soldiers and leaders. "I realized it's just showing up and being available and just talking to people and hanging out at the staff duty desk, talking to people. That's how you build rapport. Having availability."

The EPEs who built relationships with their soldiers experienced success in terms of being sought out for additional training.

My greatest success has been the direct requests for trainings. I had to work pretty hard to be established within the battalion once we redistributed after the first of the year, and now I'm continually getting requests. Feeling established, having literally hundreds of soldiers walk by and greet me by name tells me that I'm doing something right, that I've providing [*sic*] value and them [*sic*] I'm providing a positive contribution to the formation.

Importance of Buy-In. The EPEs selected to embed with units established themselves as qualified PEs who could positively impact performance; however, many leaders and soldiers did not understand the EPEs' role or what they were capable of doing. To counteract this lack of understanding, EPEs needed to build buy-in among leaders and soldiers.

Soldiers love stories and proof. Anytime as an EPE we can provide past success stories or proof such as research suggests, studies show, it buys attention, rapport, and buy-in to listen to the research; especially if the end goal or the why is for us to collect data on improved performance metrics such as qualifications, promotion board, etc.

Having a leader who understood the potential for an EPE to impart change on a unit, a form of meta-coaching, was found to be one of the most effective strategies for increasing buy-in from a unit because of the leader's ability for force multiplication.

I think that the impact that we had with the master gunner is probably the most impactful because he dictates so much of the training that happens. He's the one training people who are giving feedback. At that level, we're having our best impact. So, the success would be developing that relationship with him as key personnel and him being so on board that he's then helping others and is kind of doing our job for us.

One way to improve buy-in within the unit was to work directly with leaders. One EPE acknowledged the benefit of finding coachable moments with leaders. Capitalizing on a moment to work with key leaders increased the EPEs' chances of having that leader then become an advocate for working with the EPE.

It helps with your reputation, and I've generated more business from having coachable moments with Company Commanders—they're (EPE) an asset for me (Company Commander)—and they want you to help their Platoon Leaders. Everything you do is always evaluated. It's always game-time when you're around or in the field. Just take it seriously. **Impact on Mission Essential Tasks.** When asked directly what, if any, mission-essential tasks EPEs supported, many responded with a range of responses. One EPE stated, "The mission essential task list, like I when I come to work with a unit, I take a picture of that list and make it my to-do list." In support of mission readiness, EPEs either supplemented unit training like time at the range or provided standalone training in conjunction with other support resources on the unit to enhance lethality. "Gunnery is like their big thing and there are all the tasks that falls under that. That is our main focus because it's their main focus."

I've been integrated with the rifle range, gunnery ranges, Strykers, platoon and squad live first events, I did some stuff with the medics who were recertifying, team leader academy, platoon leader academy, observed company and platoon training events that were in the field for several days. One day I stayed overnight, buy typically, I would be there really early to really late. I would find teachable moments. I've done some work with individual soldiers before they go to schools—snipers, ALC [Advanced Leader Course], master gunnery school. That is academically rigorous.

The projects that I am currently working on are the BDE [Brigade] Foundational Readiness Training which is for the TOP 15 members at BDE. This is a monthly training. Additionally, I created the BDE counseling course POI [Program of Instruction] which does include R2 [Ready and Resilient], legal, CDRs/1SGs [Commanders/1st Sergeants] (experienced soldiers), MFLC [Military Family Life Counselor], CH [Chaplain], BH [Behavioral Health] and other entities. This is a holistic approach.

Often the EPEs' work supplements unit training, which aims to improve qualification success rates or physical fitness. More soldiers qualified and physically prepared indicates that there are more soldiers ready to tackle the unit's mission. "I helped get all the crews certified at gunnery, everyone has made tape and morale has increased." From another EPE, "We participated in a lot of airborne operations because it is essential and that's what they need."

Finally, EPEs can tailor their training to focus directly on enhancing the unit's lethality.

Yeah, so part of the lethality enhancement training is the sims [simulators]. Part of it includes the mental skills we teach for them to use in the simulation. And running them through trainings, helping them run through the sims better. It helps them be better able to pass the gunnery tables and training licensing and being able to drive the tanks and stuff. They have to go through them so many times. The lethality enhancement training is for mission essential tasks. I've



been out to ACFTs doing hip pocket training & coaching while they're going through the mock ACFT. I haven't been to the range or the gunnery tables.

Embedment Misunderstandings. While many EPEs shared positive feedback and best practices, many shared struggles regarding embedment misunderstandings. Many EPEs felt underutilized and attributed that to a lack of understanding of their role.

We understood that they have no idea who we are and what we do. Maybe one person in the battalion understood, but that's it. One person out of 1100-1200 people—that's just a lot of ground to cover. It's just attending and observing, attending, and observing continually, the more I was there.

Leader Utilization and Perceptions of the Embedded Performance Experts (RQ2)

To answer RQ2, 81 leaders agreed to discuss their experiences working with EPEs within their units. The leaders' feedback informed themes related to successful embedment in terms of recognizing the value of EPEs in units, appreciating proactive and knowledgeable EPEs, highlighting when EPEs built rapport within the unit, and emphasizing the EPEs' participation in unit training. Leader feedback also acknowl-edged challenges with embedment related to EPEs' role confusion.

Leaders Recognized the Value of Having an EPE in the Unit. Leaders understand that they have many resources, but some recognize the specific benefit of having PEs embedded directly in their unit. This recognition made the resource more available and the EPE more approachable for soldiers. "If there's a problem in your unit, why would you NOT use them?"

Once leaders started to see the expertise and training of the EPEs in mental skills and performance outcomes within their unit, many leaders understood the potential impact of EPEs as valuable resources. "[H]is impact has been monumental, huge impact on the battalion, challenges of preventing suicide, depression, and high-risk behaviors. I can't handle all the things on my own. Integral to our success as a battalion."

Leaders Appreciated Proactive and Knowledgeable EPEs. Oftentimes, leaders struggle with having multiple responsibilities and tasks within a day. Having an EPE who understood the unit mission and had the skillset to coach soldiers on performing their duties was a critical resource for leaders. It was even better when those EPEs were confident and knew when to step in and assist soldiers. "He wasn't waiting for us to tell him when he could come out. He was actively seeking opportunities."

Leaders also recognized the value of having outside resources like EPEs who understood how to make training relatable to their soldiers. Too often we see the Army examples that are exaggerated. That was fake and not relatable. Everything she presented was relatable and raw and that's what people connect with. And she'd be talking about something and get emotional and that I that, I think we need to see that it's not some black and white, cookie cutter kind of thing. Her knowledge level on everything is insane.

Leaders Recognized When the EPE Built Rapport with the Unit. Leaders must simultaneously take ownership of their unit's morale and welfare and the successful execution of their unit's mission. While being the primary face of unit morale may not be their role, leaders should ensure that key personnel and resources are readily available for their soldiers. Many leaders acknowledged that their EPEs were crucial in fulfilling that responsibility. "Morale booster, hands-down. Their faces light up when they see her, that's hard, the relationship she built, the presence, they just love her."

Leaders Appreciate When EPEs Participate in Unit Training. Leaders appreciated the EPEs' willingness to participate in unit training. By doing so, EPEs made themselves more available to the soldiers and continued to build relationships within the unit.

He's gone to the field, training, counseling certification in the classroom, he's always there. We've been talking about "threat vs challenge." A lot of my soldiers originally approached training as a threat but now see it as a challenge because of the things [EPE] has taught them.

Leaders Acknowledged the Initial EPE Role Confusion. Leaders admitted that they were initially confused about the role of the EPE. This confusion led to missteps or miscommunication between the EPEs and the leaders. Without a proper understanding of the EPEs' role within the unit, leaders struggled to understand how to utilize that resource. "First, I thought they were like cheesy life coaches, now I understand what their objectives were. I wish I had known earlier so we could have used them earlier to get the best performance out of people."

Soldier Perceptions of Embedded Performance Experts (RQ3)

The MCBS survey given to soldiers in the embedded units assisted the researchers in answering RQ3. Mean scores were computed for each of the subscales: Observation, Effective Questioning, Goal Setting, Developmental Feedback, and Motivational Feedback. The subscale means ranged from 3.86 to 4.09, indicating soldiers perceived their EPEs positively. There were no significant site differences for the Effective Questioning subscale (*F*[3,305] = 1.954, *p* = .121) though there were for the Observation, Goal Setting, Developmental Feedback, and Motivational Feedback.

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Table 2

Military Coaching Behavior Scale (MCBS) Subscale Means Across All Soldiers and by Site

MCBS Subscale	Overall		Site 1		Site 2		Site 3		Site 4				
	М	SD	М	SD	М	SD	М	SD	М	SD	F	df	р
Observation	3.86	1.00	4.21	0.98	3.63ª	0.94	3.94	0.95	3.62°	1.07	5.103	3,305	.002
Effective Questioning	4.09	0.92	4.31	1.00	3.99	0.87	4.11	0.86	3.94	0.98	1.954	3,305	.121
Goal Setting	3.92	1.04	4.39	0.88	3.70ª	1.09	3.97 ^b	0.97	3.62°	1.13	6.923	3,300	< .001
Developmental Feedback	4.06	0.95	4.42	0.87	3.94ª	0.92	4.07	0.88	3.84 ^c	1.13	4.220	3,304	.006
Moticational Feedback	3.89	1.04	4.31	0.96	3.78ª	1.00	3.90	1.02	3.61°	1.12	4.963	3,302	.002

Note. Due to missing data, the sample sizes used for the subscale analyses ranged from 306 to 313. Significant main effects were identified after conducting Tukey's Honest Significant Difference post-hoc comparisons.

^a Site 2 was significantly different from Site 1.

^b Site 3 was significantly different from Site 1.

° Site 4 was significantly different from Site 1.

subscales (*F*[3,305] = 5.103, *p* = .002; *F*[3,300] = 6.923, *p* < .001; *F*[3,304] = 4.220, *p* = .006; *F*[3,302] = 4.963, *p* = .002, respectively). For the Observation subscale, Site 1 (*M* = 4.21, *SD* = 0.98) was rated significantly higher than Site 2 (*M* = 3.63, *SD* = 0.94; *p* = .006, 95% CI = -1.02, -0.13), and Site 4 (*M* = 3.62, *SD* = 1.07; *p* = .008, 95% CI = -1.06, -0.12). For the Goal Setting subscale, Site 1 (*M* = 4.39, *SD* = 0.88) was rated significantly higher than Site 2 (*M* = 3.70, *SD* = 1.09; *p* = .001, 95% CI = -1.16, -0.22), Site 3 (*M* = 3.97, *SD* = 0.97; *p* = .049, 95% CI = -0.84, -0.001), and Site 4 (*M* = 0.62, *SD* = 1.13; *p* < .001, 95% CI = -1.26, -0.28). For the Developmental Feedback subscale, Site 1 (*M* = 4.42, *SD* = 0.87) was rated significantly higher than Site 2 (*M* = 3.84, *SD* = 1.13; *p* = .006, 95% CI = -1.03, -0.13). Finally, for the Motivation Feedback subscale, Site 1 (*M* = 4.31, *SD* = 0.96) was again rated significantly higher than Site 2 (*M* = 3.61, *SD* = 1.12; *p* = .001, 95% CI = -1.20, -0.21). The remaining subscale comparison were not significantly different. See Table 2 for the means of each subscale.

Discussion

The mixed-methods evaluation sought to assess the embedment of PEs into selected units across the U.S. Army. Overall, findings from the data suggest that soldiers and leaders perceived EPEs as positive enablers to soldier performance training and valued leadership team members. EPEs enhanced the operational mission and translated soldier, leader, and mission needs into specific performance skills training, which leaders identified as a critical benefit and resource. EPEs contributed to greater individual soldier readiness and resilience through their efforts to positively impact mission essential tasks and improve morale. Additionally, key leaders perceived their EPEs as effective assets. Furthermore, EPEs enjoyed the opportunity to be a resource within units. They identified ways to increase their effectiveness by ensuring leaders understood their capabilities and leveraging those leaders for strategic, mission-oriented support.

Qualitative data from both EPEs and leaders supported several themes regarding the experience and professional practice of EPEs. First, responses indicated that the EPEs enhanced the units' perceived quality of training and soldiers' personal readiness. Next, leaders and EPEs identified characteristics, such as building rapport with soldiers and being present within the unit, that benefitted the EPEs and strengthened their ability to connect to the unit. By leveraging mission essential tasks lists, EPEs more easily established rapport and buy-in. Soldiers and leaders recognized the importance of their EPEs understanding their job-specific tasks and valued that time and effort. This understanding helped EPEs tailor the performance psychology training to the tactical and technical aspects of their soldiers' mission. As a mission-focused context, the evaluation team developed themes related to service delivery and the type of support EPEs could provide for military tasks and unit initiatives. A final theme highlighted the misunderstanding of the role and the incorrect association of the work of an EPE with more familiar assets (e.g., suicide prevention or behavioral health).

More specifically, the EPEs' feedback during interviews and written essays centered around the unique experience of embedment. Their responses predominately focused on individual characteristics that led to their success in this alternative utilization and common hurdles that challenged the program. Responses from leaders who worked with EPEs in their unit focused mainly on the impact of the EPE on the unit, the characteristics of a successful EPE, and methods used by EPEs to support the soldiers. The predominant theme from the leaders centered around valuing EPEs as a unit-level resource, even considering them as part of the battalion's special staff (e.g., chaplain, behavior health officer). Related, leaders also discussed other unit resources or assets that could serve as collaborators for the EPEs to enhance the impact of the resources, additional ways to utilize EPEs to support training, and improvements to both the EPE program and role within the unit.

Finally, soldiers perceived their EPEs as beneficial and effective for them and their unit, as indicated by high mean subscale scores across all four sites. Though soldier perceptions at Site 1 were significantly higher than the remaining sites, soldiers across sites rated their EPEs favorably. As leaders noted in their interviews, their soldiers "love" working with their EPEs, and leaders observed the morale of their unit change in a positive way after the unit started working with the EPEs. This estab-

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lished relationship enhanced soldier performance and readiness, which ultimately improved the unit's lethality.

From an integrated analysis of the data collected through mixed methods, EPEs appeared to positively impact their units despite experiencing some challenges. Oftentimes, these challenges appeared rooted in leader buy-in or lack thereof. In other words, when the EPEs had the opportunity to work with the soldiers, their impact was noticed, and their contributions were appreciated. Leader buy-in appeared to be a key factor associated with the EPEs' consistent opportunities to work with soldiers as the leaders have some control over the unit calendar. EPEs with leaders who understood their capabilities and who could protect time on the unit calendar for the EPEs to conduct their training appeared to have more soldier engagement. Even with last-minute schedule changes due to the requirements of the unit's mission, supportive leaders still found time to reschedule their soldiers' engagements with the EPEs.

More impactful than protected schedules came when leaders publicly endorsed the EPEs' work with soldiers or discussed their experiences with the EPEs. These leaders led by example and brought awareness of the EPEs and the EPEs' potential impact on performance, readiness, and resilience to their soldiers. Alternatively, when EPEs had challenges with leader buy-in, EPEs tended to struggle to find soldiers willing to work with them. Soldiers who worked with EPEs rated their EPEs positively and felt the interaction was valuable, therefore, developing and maintaining leader buy-in could stand to increase the number of soldiers able to work with EPEs. Moreover, if soldiers see their leaders attend EPE training, personally use the skills learned, and reinforce the principles with the unit, the leaders become a force multiplier for implementing the skills.

Limitations

This mixed-methods evaluation was not without its limitations. First, the COVID-19 lockdown impacted the EPEs' ability to work directly with soldiers. The four sites with EPEs started their embedment process at different times. One site had its EPEs in place and they were already working with soldiers for approximately three months prior to the lockdown. Another site locked down two weeks after their EPEs embedded. All sites felt the lockdown's impact as it hindered the EPEs' ability to connect with leaders and soldiers in conventional in-person observations and interactions. Ultimately, the constrained interactions impacted the EPEs' ability to establish relationships with their soldiers and leaders. The COVID-19 restrictions also impacted the evaluation as the team had reduced in-person interactions with EPEs, leaders, and soldiers; had limited opportunities to observe EPE training with soldiers; and had to conduct most qualitative interviews virtually.

In addition to the COVID-19 lockdown restrictions, one site had a unit tasked with a deployment that started while their EPE was embedded in the unit. The EPE

had limited opportunities to work with those soldiers during deployment training and did not deploy with the unit. Next, EPEs were initially told the pilot program would evaluate one year of embedment; however, due to the limitations related to the COVID-19 restrictions already mentioned, DPRR extended the evaluation. EPEs remained in place, and the evaluation team continued their evaluation for an additional year. While this extension provided more opportunities for the evaluation team to observe the EPEs, the extension also led to turnover among the EPEs, as some left their positions and others were reassigned to additional or different units.

The evaluation team's ability to assess the pilot program from a strict and narrow evaluation framework was also limited. First, the evaluation team did not standardize a performance outcome for all units. This decision allowed the leaders to share their priorities for their unit with their EPEs and then let the EPEs tailor the necessary training to address those priorities. While this flexibility allowed leaders and EPEs to assess the best outcome for their unit, it limited comparisons across sites. The evaluation team also did not conduct any pre-embedment assessments of the units (i.e., unit climate and morale, or physical training performance) before the PEs embedded nor did the evaluation team assess units without EPEs. These decisions limited the evaluation team's ability to quantify the EPEs' impact on their units. Future evaluations should consider preembedment assessments and have comparison units. Finally, the EPEs provided the names of unit leaders for the research team to interview during the evaluation. This decision could have led to potentially biased interviews as the EPEs often selected leaders with greater buy-in to the program. Future evaluations may consider using a random sampling of leaders to prevent selection bias when choosing interviewees.

Future Directions

As a mixed-methods pilot evaluation, the goal was to assess the perceptions of the effectiveness of EPEs to better understand how units received and benefited from the EPEs' expertise to ultimately inform future embedding professionals. While the evaluation team observed and reported several successes with the program, they also observed potential ways to improve the program's perception. To aid leader buy-in and implementation of the training, EPEs should consider using a multifaceted approach in their training. EPEs are uniquely situated to have multiple touchpoints in a variety of settings with their soldiers. For example, EPEs are not limited to classroom instruction and can instead walk around the soldiers' areas of operation. This access allows the EPEs to observe the soldiers' job-specific task and provide on the spot, tailored training along with continual feedback or guidance along the way as needed.

While we found the perception of the EPEs to be primarily positive, EPEs remain a limited training resource. To improve the reach and impact of EPEs, DPRR should promote a multifaceted approach to highlight them as a training and teaching asset. This approach includes allowing EPEs to teach skills in a classroom, coach to



reinforce skill application in the field, and meta-coach leaders to be force multipliers and amplify the EPEs' impact. Coaching and meta-coaching soldiers and leaders empower them to take on more of the direct instruction typically done by EPEs, thereby reaching more soldiers within the unit. This shift also allows EPEs more time to observe soldiers and leaders coaching and offer feedback to enhance those skills.

As embedment continues, further evaluations should assess objective performance outcomes to quantify the EPEs' impact on their units, explore how to effectively use EPEs, and measure how the multifaceted approach implemented in this pilot program could potentially improve a unit's performance, readiness, and resilience. Additionally, future research is needed to better understand how unit factors (e.g., mission set, location, and components), leader qualities, and EPE characteristics impact the effectiveness of embedment.

While not all PEs can embed due to other installation training requirements, it is valuable for the Army and DPRR to consider how to integrate all PEs with the Integrated Primary Prevention Workforce (IPPW), an effort that the Department of Defense recently initiated (Office of the Under Secretary of Defense, 2022). The IPPW is working to decrease risk factors and increase protective factors by using data to inform unit-integrated primary prevention plans. PEs are valuable supplemental assets to engage with leaders and soldiers related to primary prevention.

Conclusion

While the mixed-methods evaluation had limitations, the findings provide compelling evidence that supports the continued embedment of PEs within units to enhance readiness and resilience. After assessing two years of PE embedment within U.S. Army units, perceptions of the program were positive. Soldiers and leaders found the EPEs' ability to coach their soldiers through the understanding and application of various psychological skills to impart lasting change to be beneficial. Ultimately, soldiers, leaders, and EPEs appreciated the opportunity and saw benefits in the program. These results are promising given that the EPE program is not the only resource within the U.S. Army or U.S. military at large that utilizes embedded professionals. In fact, sharing the perceptions of embedded professionals and of those working with embedded professionals may benefit fellow embedded assets. Future research could work to better understand best practices to embody and implement to mitigate embedment challenges and enhance embedment impact.

Disclaimer

Material has been reviewed by the Walter Reed Army Institute of Research. There is no objection to its presentation and/or publication. The opinions or assertions contained herein are the personal views of the authors and are not to be construed as official or as reflecting true views of the Department of the Army or the Department of Defense. The investigators have adhered to the policies for protection of human subjects as prescribed in Army Regulation 70-25, *Use of Volunteers as Subjects of Research*.

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Data Availability Statement

The data and material for this evaluation are not publicly available due to institutional regulations related to human participant protection requirements. However, they can be made available from the corresponding author upon reasonable request (may require data use agreements to be developed).

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