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Communication training improves patient-centered provider behavior and screening for soldiers' mental health concerns

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ABSTRACT

Objective: To evaluate the effectiveness of patient-centered communication training for military providers who conduct post-deployment health screening. The half-day interactive workshop included simulated Soldier patients using video technology.
Methods: Using a quasi-experimental design, all health care providers at four military treatment facilities were recruited for data collection during a four- to nine-day site visit (23 trained providers, 28 providers in the control group, and one provider declined to participate). All Soldiers were eligible to participate and were blinded to provider training status. Immediately after screening encounters, providers reported on their identification of mental health concerns and Soldiers reported on provider communication behaviors resulting in 1,400 matched pairs. Electronic health records were also available for 26,005 Soldiers.
Results: The workshop was found to increase (1) providers' patient-centered communication behaviors as evaluated by Soldiers; (2) provider identification of Soldier mental health concerns; and (3), related health outcomes including provision of education and referral to a confidential counseling resource.
Conclusion: Results are promising, but with small effect sizes and study limitations, further research is warranted.
Practice implications: A brief intensive workshop on patient-centered communication tailored to the military screening context is feasible and may improve key outcomes.

1. Introduction

Maintaining and enhancing the psychological health of Service members is a top priority of the U.S. Department of Defense, with periodic health screening occurring throughout the deployment cycle. The post-deployment health reassessment (PDHRA) is a standardized self-report and structured provider interview that screens for mental and physical health concerns and occurs three to six months post-deployment, which is a critical window during which Service members may report more mental health concerns compared to immediately following deployment [1]. The PDHRA has been found to increase access to care for most Service members [2,3]. However, Service members who were unwilling to document mental health problems on the self-report were also not identified as in need of care by the provider during the PDHRA encounter. Disclosure of mental health concerns during post-deployment screening is influenced by Service members' beliefs about barriers related to stigma, help-seeking and treatment effectiveness [2,4–8].

Contextual factors, such as the provider–patient relationship and characteristics of the treatment, provider, and setting, can also influence health care encounters and subsequent health outcomes [9–12]. In military settings, unique contextual factors include a lack of consistency in having a single identified provider over time, reduced patient autonomy and perceived concerns with the confidentiality of medical records (i.e., in limited circumstances, command may be provided with minimal information pertaining to Service members' medical issues). These contextual factors have

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been found to impact the development of rapport and provider–patient trust, which in turn affected provider–patient communication and Service member satisfaction with care [13].

A quantitative analysis of provider–patient communication patterns from 272 audiotaped PDHRA encounters coded with the Roter Interaction Analysis System (RIAS) [14–16] found that communication patterns were consistent with a physician-centered encounter where the patient plays a passive role [2,17]. This was indicated by a high prevalence of closed-ended questions and re-statements, and a low incidence of relationship-building statements and provision of health-related psychoeducation. In contrast, provider communication behaviors consistent with a patient-centered approach include asking open-ended questions, developing a therapeutic rapport through legitimizing and empathic statements, providing education on treatment options and effectiveness, and use of activating and partnering statements [18,19]. There is increasing evidence that effective provider-patient communication is associated with improved patient outcomes [20–24]. Importantly, a patient-centered approach has been associated with increased patient psychosocial disclosure and adherence with treatment recommendations [11,23,25,26], two key outcomes of any health risk appraisal system [27,28]. Further, patient-centered communication can be effective even in brief health encounters [12,29,30] and communication training can improve skills for new and experienced medical professionals [18,19,31–33].

Based on these findings and subsequent literature review, a university–government team collaborated to develop and evaluate a workshop that provided training on patient-centered communication skills for health care providers conducting PDHRA screening in the United States Army. Notably, the PDHRA is an atypical medical encounter where the focus is on screening and referral rather than on a physical exam or diagnosis. The encounter is structured, with the provider goals to (1) review self-report responses and provide a brief health assessment, (2) provide education on health issues and health care resources, and (3) make referrals for further evaluation as warranted. It is brief (10 min on average) and typically conducted during a larger deployment readiness event where Soldiers complete multiple requirements. The workshop was contextualized to address these attributes of the PDHRA, resulting in a study that examined the impact of patient-centered communication in an unusual set of circumstances. The study had two aims: (1) to assess the impact of the workshop on provider communication behaviors; and, (2) to evaluate the effectiveness of the workshop on providers' screening of Soldiers' psychosocial concerns

There were three study hypotheses. Compared to pre-workshop baseline data, Soldiers seen by trained providers after the workshop occurred would: (1) rate providers higher on patient-centered communication behaviors; (2) be identified at a higher rate by providers as having mental health concerns for the subgroup of Soldiers who anonymously self-identified with such concerns; and, (3) show a corresponding increase in relevant health outcomes documented in electronic health records including major health concerns, referrals, and provision of health-related education from provider notes on the PDHRA encounter. No changes from before or after the workshop were expected for non-trained providers.

2. Methods

The study was approved by the Institutional Review Boards at Vanderbilt University and the U.S. Army Medical Research and Materiel Command's Office of Research Protections, Human Research Protection Office.

2.1. Study design

A quasi-experimental research design was used, where Army military treatment facilities were recruited based on numbers of Soldiers who were scheduled to complete PDHRAs according to their deployment dates. Four facility site visits occurred between October 2011 and March 2012. At each site, data were collected over multiple (four to ten) days with the workshop occurring at the midpoint. Provider and Soldier surveys were administered immediately after the PDHRA encounter, and were completed separately. Soldiers were blinded to the experimental condition (e.g., whether or not the health care provider who conducted the

Table 1
Participating provider characteristics ($n = 51$).

	Intervention ($n = 23$) % or mean (s.d.)	Control ($n = 28$) % or mean (s.d.)	X^2 (df) or t-value
Gender[a]			
Male	52.2%	57.1%	0.13 (1)
Female	47.8%	42.9%	
Age[a]	47.0 (12.2)	49.9 (10.3)	0.9
Current Military Service[a]			
Currently in military	47.8%	28.6%	2.00 (1)
Not currently in military	52.2%	71.4%	
Degree[a]			
Physician Assistant	73.9%	64.3%	0.54 (1)
Other (Physician or Nurse Practitioner)	26.1%	35.7%	
Provider Experience[b]			
Months of experience in healthcare	198.6 (156.9)	136.5 (116.7)	1.3
Months of experience with PDHRA	37.3 (29.1)	20.0 (15)	2.1*

*$p < 0.05$; **$p < 0.01$; ***$p < 0.001$.
[a] These variables were available from site records and thus are present for all participants.
[b] These variables were collected on a background survey administered to all providers who participated in the workshop. Only 15 (53%) of providers who did not participate in the workshop completed the survey. This was due to a large and unexpected addition to the roster of providers to meet an unusually high workload at one of the study sites. After the change in staff, these new providers did agree to post-encounter data collection but time constraints prevented the collection of the more extensive background survey.

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