

Implementing Injury Prevention in the Military: Soldier Insights on Educational Gaps and Barriers

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Background

Educating service members is a vital strategy for mitigating musculoskeletal injuries in the military, but the effectiveness of these educational interventions and their implementation remain unclear. This study focuses on assessing the value of injury prevention education and potential barriers for implementation among soldiers.

Innovation

This study serves to fill current gaps in literature regarding on-the-ground soldier perspectives. While existing literature has identified various organizational and behavioral factors that predict implementation failure, there is a substantial gap in understanding the barriers as perceived by the soldiers themselves. A deeper qualitative exploration is needed to provide rich insight into soldiers' experiences and perspectives regarding the practical implementation of new injury prevention knowledge at the small unit level.

Purpose

- Overall Objective: To address the gap in understanding soldiers' perspectives by utilizing a qualitative analysis to explore soldiers' perceptions following injury prevention education, assessing both the value of the education and potential barriers for implementation.
- Research Aims:
 - Identify the primary educational gaps in current military physical training perceived by soldiers
 - Analyze the barriers to implementing new injury prevention education within individual and unit training
 - Discuss evidence-based solutions for overcoming these barriers



Methods

Participants and Procedures

- Sampling Method: Soldiers were recruited via purposeful sampling from three distinct educational delivery groups to ensure a homogeneous sample optimized for data saturation.
 - Sample N=85
- Eligibility: Active duty soldiers aged 18-50 years old
- Data Collection:
 - Participants filled out informed consent, received injury prevention education, then filled out an open response survey
 - Follow up interviews performed with 9 participants for more in-depth questioning

Survey

- Participants were provided the survey via a link sent to their email or in-person via paper.
- Each survey contained 5 open-response questions pertaining to implementation strategies and barriers to implementation of the injury prevention material provided.

Qualitative Data Analysis

- Approach: Utilized a grounded theory approach to explore soldiers' perception and implementation of injury prevention knowledge after receiving education.
- Coding Process: Open coding was conducted to identify meaningful units of text related to participants' experiences, perceptions, and implementation challenges.
 - Codes were iteratively refined and organized into broader categories and themes that represented patterns across the dataset.

Results

Findings	Cited Themes	Sub-Themes
Perceived Benefits	Mobility	Proper Warm-Up
		Active Recovery
		Dynamic v. Static Stretching
		Targeted Mobility Drills
	Running Mechanics	Foot Strike
		Cadence
		Stride Length
		Shoe Wear and Longevity
	Coaching	Exercise Form and Technique
		Training Cycles
Periodization		
Structured Workout Plans		
Structural Barriers	Over Exertion Culture	Exhaustion = Efficacy
		Injury Stigma
		Avoiding Profile
		Poor Recovery Routines
	Rigid Leadership	Command Non-Compliance
		Traditional v. Progressive Mindsets
	Organization of Unit PT	Poor Trainer to Personnel Ratio
		Unqualified PT Leaders
		Unplanned Workouts

Soldiers went on to suggest solutions relevant to the barriers they named, some common themes found that offering advanced modules for soldiers in various leadership roles as well as small group training that focused on utilizing non-commanding officers (NCOs) for disseminating injury prevention education.

Conclusions

This study highlights the importance of injury prevention training for soldiers and their leaders. Overcoming organizational barriers requires a shift toward leader-driven education and small-group coaching, ultimately improving buy-in for injury prevention throughout the unit.