

LEARNING UNDER FIRE

Embedded Organizational Learning During Wartime: Real-Time Data-Driven Improvement in Military Medical Readiness and Care Delivery

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TAKE-HOME MESSAGE

Real-time organizational learning enabled continuous adaptation of military healthcare, sustaining readiness and high-quality care throughout wartime operations.



FROM REAL-TIME DATA TO IMPROVEMENT



LISTEN

Patients, medical personnel, commanders and incident debriefings



MEASURE

9 sequential surveys feeding live KPI dashboards



INTEGRATE

Quantitative metrics plus 14 interviews and workshops



DECIDE

Dashboard evidence informed 100% of daily situational assessments (Frequency – twice a day, February 28 - June 17)



IMPROVE

Readiness and care delivery adapted in real time

Embedded organizational learning during wartime

This study demonstrates the feasibility of embedding a continuous, data-driven learning cycle within active wartime medical operations

Satisfaction & Engagement in Wartime Care

Survey-based outcomes over the first 20 days

Survey Reach & Command Impact

1,522 responses in the first 20 days informed every senior-leadership situational assessment

WHO RESPONDED
1,522 total responses

1,311
PATIENTS
86.1%

211
MEDICAL PERSONNEL
13.9%

Medical personnel
13.9%

Survey-based Outcomes



Medical personnel – very high satisfaction

94.3%



Patients – high to very high satisfaction

86.7%



Scheduled-appointment attendance

76.4%

Six Qualitative Themes

THEME 1

Learning in Real Time

Learning as a built-in part of the operation

THEME 3

Leadership, Roles and Structure

of the learning system

THEME 5

Meetings as Learning Platforms

Situation assessments and thinking forums

THEME 2

From Lessons to Change

Learning translated into preparedness and service adaptations

THEME 4

Data-Driven Learning

Dashboards and surveys

THEME 6

Barriers and Conditions

for sustainable organizational learning



WHY IS THIS IMPORTANT?

LEARNING MUST NOT STOP

Operational and combat events evolve too quickly for learning to wait until after action. Militaries need embedded, real-time learning to identify gaps, adapt readiness, and improve care while operations are still underway.

SCIENTIFIC CAUTION

This operational evaluation demonstrates feasibility and association within a wartime organizational-learning framework. It does not establish causality and does not compare the framework with an external control system.

From Findings to the Field: What Actually Changed

24 HOURS

Round-the-clock service centres were established via WhatsApp, operational for the first time.

2 DAYS

The number of dermatologists and orthopaedic specialists at the frontline level was doubled.

4 DAYS

Shelter capacity across medical bases was expanded.

5 DAYS

Patients began to be received within civilian infrastructure, among other adaptations.

Rapid operational adaptation informed by real-time evidence

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At the moment of truth,
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