Nursing by Another Name: Nursing Science Impact on Special Forces Clinicians in Prolonged Evacuation Situations

Kate Rocklein Kemplin, DNP, RN
Assistant Professor of Nursing Research, The University of Tennessee at Chattanooga
PhD Student, Rush University College of Nursing, Chicago, IL
## Faculty Disclosure

<table>
<thead>
<tr>
<th>Faculty Name:</th>
<th>Kate Rocklein Kemplin, DNP, RN, MSN, BNSc, CCEMTP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conflicts of Interest:</td>
<td>Served as research &amp; development advisor for remote critical care monitoring device acquisitioned by the United States Special Operations Command (US SOCOM)</td>
</tr>
<tr>
<td>Employer:</td>
<td>The University of Tennessee at Chattanooga</td>
</tr>
<tr>
<td>Sponsorship/Commercial Support:</td>
<td>Funding received from Sigma Theta Tau - Zeta Alpha Chapter (143) &amp; The University of Tennessee at Chattanooga Faculty Development Grant</td>
</tr>
</tbody>
</table>
Goals and Objectives

• Session Goal:
  - Stimulate discourse on nursing science influences on Special Forces (SF) medics’ care delivery for critical care in prolonged care contexts

• Session Objectives:
  - Contextualize geopolitical factors contributing to prolonged field care, SF medics’ practice, & outcomes conundrums
  - Present the development of prolonged field care (PFC) as based in nursing science translation & application
Caveats

- Images & photos used are from my own collection, with expressed written permission of the owner, and/or are in public domain for open use without copyright infringement.

- Views are my own, presentation does not imply representation of or endorsement by:

  Rush University College of Nursing
  Special Operations Medical Association
  The Journal of Special Operations Medicine
  The United States Government or its subordinate agencies
  The University of Tennessee at Chattanooga
The Archetypes

- “Special Operations”
  - United States (US) Army Special Forces (SF) ['The Green Berets']
  - Special Forces Operational Detachment – Delta ('Delta Force')
  - Naval Special Warfare (Sea, Air, Land ‘SEALs’)
  - US Army Rangers
  - US Air Force Pararescue Jumpers ('PJs')
  - Marine Special Operations (‘MARSOC’)

- All teams have an assigned medic
The Reality

- Practice at level of advanced critical care RN (Rocklein, 2014) or 1st-year surgical resident (Graham, 1994)
- Medics’ school: lower acceptance & higher attrition than Harvard
- 8+ years military medical experience
- Fluent in host-nation language (Pashto, Arabic, Tagalog, French, Spanish, Russian, etc)

SF medic students in advanced airway & ventilation
SF medic applies junctional tourniquet to abdominal trauma
SEAL medic provides veterinary care
Special Operations Rescue Team (SORT) medics
SF medic who really wanted to be included in this presentation

SF medic practices diagnostic ultrasound
SF medic preps to perform surgery w/nerve block
PJ medics prepare for rotary-wing evacuation
SF medics provide pediatric care (and reassurance) in village stability operations
Geopolitical Context

Photos provided by COL M Givens, MD, US Army Special Forces Command
The Problem

- Evacuation platforms assume the “Golden Hour” exists (Blackbourne et al., 2012; Hetzler & Risk, 2009; Risk & Hetzler, 2009)
- “Survivability” poorly operationalized
- Without evacuation, medics de facto nurses
  - Nursing care without nursing science
- SF operate in “special” areas & are excellent resuscitators
  - Liberators of the oppressed, not purveyors of aggression (Bank, 1986; Prados, 2015)
The Solution

- Canadians & North Atlantic Treaty Organization (NATO)
  - Field medical care, applied beyond ‘doctrinal planning time-lines’ by an NSOCM (NATO Special Operations Combat Medic), in order to decrease patient mortality and morbidity.
  - Utilizes limited resources, and is sustained until the patient arrives at the next appropriate level of care

- Nursing: 90.4% female (Budden et al., 2013)

- Reexamine extant knowledge, assumptions, and concepts

- Discard all environmental “knowns” about critical care resources

- Give profound thanks for nursing science
The Obstacles

- Command structure: all physicians
- Special Forces: all male & alpha male – and enlisted soldiers
  - Sexism?
- Cure vs care dichotomy: physicians cure, nurses care (Weaver, 2013)
  - Fix vs maintain
- Exited entrenchment from under physicians & sought academic nursing
The Approach

- **Philosophical: Critical pedagogy - Constructivist epistemology**
  - Medics’ knowledge acquisition not empirical: is contextual & practice is complex (Rocklein, 2011)
  - Kuhn (1962): scientific [clinical] problems instigate revolutions in scientific practice & paradigm shifts

- **Foucault: ‘pouvoir-savoir’** (Springer & Clinton, 2015)– medics powerless to maintain life due to lack of knowledge
  - Foucauldian discourse methods to translate nursing knowledge to affect survivability
  - Nursing has patterns of knowing foreign to other professions (Carper, 1978 as cited by Springer & Clinton, 2015)

- **Theoretical**
  - Approach includes Vygotskian theory: zone of proximal development & scaffolded curriculum (Pea, 2004), substracts technology
  - Disruptions in health via catastrophic events (Newman, 1997)
  - Care of systems constantly changing from baseline (Neuman, 2011b as cited in Fawcett & DeSanto-Medeya, 2013)
  - Care emphasizing nutrition, hygiene, comfort, and sanitation (Davies, 2012; Nightingale, 1858; Nightingale, 1860)

- **Clinical Evidence Translation**
  - Systematic & Integrative review methodology (Whittemore & Knafl, 2005) – fresh whole blood transfusions, fluid resuscitation, hemodynamic stabilization, critical care transport (Galvagno et al., 2014), monitoring
  - Collaborative model to promote knowledge translation (Baumbusch et al., 2008) & care along a continuum: ruck – truck – house – plane → hospital
The Product: Prolonged Field Care (PFC)

And Now, to Teach It: A Model for Prolonged Field Care (PFC)
Curriculum Design & Training Pathways

**Background**
- 10+ years of combat revealed need for improved medical care in austere environments
- Critical to realize survival time (24+ h for tourniquet wounds)
- Prior experience, working on site & respond
- Benefits: Continuous medical care, reduce mortality & morbidity
- Recommendations: SF medic curricular changes

**CRAWL Stage & Critical Skills**
- **C**ritical Thinking: Problem Solving & Decision Making
- **R**esource Limitations
- **A**ccess: Assistive devices, medical supplies, etc.
- **W**orkplace: Environment, time, experience, etc.
- **L**earning: Training, education, etc.

**Walk Stage: Solidify & Apply**
- Apply skills through extended exercises, scenarios, role-plays, etc.
- Focus on patient care, team training, and advanced trauma skills.

**Run Stage: Optimal Conditions**
- General readiness, operational, tactical environment

**Run Again:**
Culmination of Critical Skills Acquisition - Austere PFC
- Resource-limited, no electricity, no sanitation
- Fenestration, tourniquet use, etc.
- Familiar in varied environment to extend skills

**References**
- Rocklein, Harris, Mohr, Loos, Keenan, & Riesberg, 2014
- Mohr, Loos, Keenan, Rocklein, & Riesberg, 2014
- Ball & Keenan, 2015

Images courtesy Kate Rocklein Kemplin & SF Medic Paul Loos, Joint Special Operations Medical Training Center

PFC Posters – International Military Medical Conference
(Rocklein, Harris, Mohr, Loos, Keenan, & Riesberg, 2014; Mohr, Loos, Keenan, Rocklein, & Riesberg, 2014).
The Care Plans

“This concept has completely changed and revolutionized the way I think about medicine and treating casualties” (Loos, 2016, para 1).

Images & Photos provided by Sergeant First Class Paul Loos, US Army SF Medic
Prolongedfieldcare.org, “Create a Prioritized Care Plan”
The Future

- Joint Special Operations Medical Training Center [Medics’ school] (faculty previously physicians, physician assistants, medics) has new billet for military nurse corps officer

- $48 million (USD) 2017 funding announcement from Congress to research PFC; $3 million (USD) in funding to research medics’ performance in delivering combat casualty care

- In 2016, PhD RN (LTC Elizabeth Mann-Salinas, US Army) presented at Special Operations Medical Association Scientific Assembly

- Refugee & Non-governmental organizations (NGOs): resource-devoid care delivery, caring for & transporting critically ill in oppressed areas

- Translating innovations from Special Operations medics to civilian trauma/critical care nursing & medicine is unprecedented
  - Nasal core temp, capnography, freeze-dried plasma (accelerated IND), RFID monitoring to handhelds


Thank you very much!