Development and Pilot of the SMART Care Learning Program

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Simulation on Management, Awareness, & Rehabilitation of Traumatic brain injury

Background:
- Nearly 348,000 US servicemembers sustained a Traumatic Brain Injury (TBI) between 2000-2016
- Veterans Affairs (VA) spends an estimate of $234 for TBI care
- Gap in care practice received by TBI patients noted across VA health settings
- No simulation-based tools are designed for TBI patients and family-caregivers

Goal & Objectives:
- Goal: Design a TBI learning curriculum that can provide veterans and caregivers a personalized, proactive, patient-driven health care through innovation and care practice improvement applicable in varied VA health settings
- Objectives:
  ✓ Appropriately recognize and manage TBI-related emergent conditions
  ✓ Use communication skills in collaborating and timely reporting of TBI-related conditions

Methods:

Process:

1. Create Project Charter/Proposal/Intuitive Approach
2. Pilot SMART Care Program
3. Present Scenarios to SME
4. Formulate Storyboard
5. Finalize storyboard and present to VA SimUCRN

Time Frame:
- 08/2017 to 09/2017
- Step 1-3
- 09/2017 to 10/2017
- Step 4-5
- 10/2017 to 11/2017
- Analysis of Pilot Result

Debriefing:
- 1 hour allotted per session
- 30min prebriefing and prescribed scenario
- 10min every other scenario

SMART Pilot

Simulation
- Chronic headache
- Suicide ideation

Prebriefing
- Clinical setting
- Information expectations

Postbriefing
- Guide questions


Results:
- Mean performance scores on pre-and-post simulation improved for both veterans and caregivers on knowledge, confidence, technology use and overall learning program.
- Post-intervention mean performance scores on the level of confidence is more than doubled from pre-intervention performance, with caregivers change statistically significant \( t(9) = -16.518, \ p < 0.05 \) as compared with the veterans
- Debriefing theme: (a) simulation approach as a learning tool, (b) ease of use, (c) and improved perceptions on timely communication and collaboration with primary provider

Lessons Learned:
- SMART Care Learning Program is a novel learning tool on TBI emergent conditions
- Time as a modifying factor impacts the implementation of the simulation program
- Pre-briefing strengthens the acceptability and use of the simulation tool
- Need for further research to address demographic attributes on performance output measures

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