The Military Health History: An Ongoing Educational Initiative to Improve Veteran Healthcare







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Background

- Due to the unique work of military personnel, veteran patients often have niche health concerns that may easily be overlooked by providers not otherwise educated on the importance of collecting occupational data during patient interviews.
- This can result in a healthcare disparity faced by veterans, initially described in 2012 by Dr. Jefrey Brown.
- In an attempt to address this disparity, "the military health history" was first introduced to LSU MS3's in 2023. As a follow-up project, we reintroduced this educational initiative to MS2s in 2024.

Objectives

- Determine the most impactful period in a medical school curriculum to introduce the art of taking a military history to students.
- Determine the role that this educational intervention serves in supplying the veteran patient population with the most qualified, thorough, and capable physicians possible to ensure outstanding quality of care in the Veterans Healthcare system.

Implications

- The study population of MS2's had a statistically significant rise in all three areas of questioning, assessing the importance, likelihood and confidence subsets over the pre- and post-assessment periods (whereas the initial MS3 study population showed statistically significant rises in likelihood and confidence subsets, over the 6-month assessment period.)
- This initiative has positive impacts on the retention of information presented and suggests the potential for continuance of performing a thorough military health history in clinical settings throughout these students' careers.
- This lecture series is extremely useful in improving a physician's overall ability to adequately care for their veteran patients.

Methods

- A brief presentation highlighting the components of the military health history was presented to a full class MS2's before and after which they were asked to answer five survey questions.
- The prompts evaluated the MS2's perspective on the <u>importance</u> of collecting a military health history, their <u>confidence</u> in doing so, and their <u>likelihood</u> of performing a military health history in practice.

Post-Lecture Survey Questions:

- 1. How important is it to you to take an adequate military history at every visit? (Not at all Extremely)
- 2. How confident do you currently feel taking the history of a veteran or active-duty military member? (Not at all Extremely)
- 3. How likely are you to include military-specific questions in your daily medical history? (Not at all Extremely)
- 4. How helpful did you find the military history pocket card? (Not at all Extremely)
- 5. How effective did you find today's training? (Not at all Extremely)

Pre-Lecture Survey Questions:

- 1. Are you or someone in your immediate family a veteran? (Y/N)
- 2. Have you ever worked with veterans before in any capacity? (Y/N)
- 3. How important is it to you to take an adequate military history at every visit? (Not at all Extremely)
- 4. How confident do you currently feel taking the history of a veteran or active-duty military member? (Not at all Extremely)
- 5. How likely are you to include military-specific questions in your daily medical history? (Not at all Extremely)
- To determine useful retention of lecture contents and comparative effectiveness of presenting information to future physicians while still in didactic years vs. while in clerkships, the same post-lecture survey will be readministered 6 months from the initial presentation
- To observe differences in mean values of reported importance, confidence and likelihood of performing a military health history before and after the lecture, we conducted an unpaired t-test to compare the two data points of pre- and post- values.

Results

- In this comparative study (*population of MS2's*) the results of an unpaired t-test were as follows, with sample 1 representing the pre-lecture data and sample 2 representing the post-lecture data.
- All three results are found to be statistically significant.

Variables	Importance	Confidence	Likelihood	
Sample 1 Values				
Mean	3.5	1.99	2.57	
Standard Dev.	1.07	0.92	1	
Sample Size	156	155	156	
Sample 2 Values				
Mean	4.23	3.17	3.84	
Standard Dev.	1.01	0.98	1.06	
Sample Size	86	86	86	
	Res	ults		

Results				
Difference	0.730	1.180	1.270	
Standard Error	0.141	0.127	0.137	
95% CI	0.4524 to	0.9305 to	0.9997 to	
	1.0076	1.4295	1.5403	
t-statistic:	5.181	9.318	9.256	
DF:	240	239	240	
Significance level	P < 0.0001	P < 0.0001	P < 0.0001	

• In the initial study population of MS3's, significant results of time were associated with values on importance, Wilks' Lambda = 0.74, F (2, 87) = 15.41, P < 0.001; confidence, Wilks' Lambda = 0.61, F (2, 87) = 27.58, P < 0.001; and likelihood of performing a military health history in their future patients, Wilks' Lambda = 0.46, F (2, 88) = 50.58, P < 0.001.

References

- 1. Michael Brands, Caitlin Martin-Klinger, Amanda M Raines, Randolph Roig, The Military Health History: An Educational Initiative to Improve Veteran Healthcare, *Military Medicine*, Volume 189, Issue 7-8, July/August 2024, Pages e1450–e1453, https://doi.org/10.1093/milmed/usad498
- 2. Vespa J: Those who served: America's veterans from world war II to the war on terror. Census.gov, 2021. Available at https://www.census.gov/library/publications/2020/demo/acs-43.html, October 8, 2021; accessed February 2, 2023.
- 3. Brown JL: The unasked question. JAMA 2012; 308(18): 1869–70. 10.1001/jama.2012.14254
- 4. Ahmed ST, Steele L, Richardson P, et al: Association of Gulf War illnessrelated symptoms with military exposures among 1990–1991 Gulf War Veterans evaluated at the War-Related Illness and Injury Study Center (WRIISC). Brain Sci 2022; 12(3): 321. 10.3390/brainsci12030321
- 5. Landgren O, Shim YK, Michalek J, et al: Agent orange exposure and monoclonal gammopathy of undetermined significance: an operation ranch hand veteran cohort study. JAMA Oncol 2015; 1(8): 1061–8. 10.1001/jamaoncol.2015.2938
- 6. Smith B, Wong CA, Smith TC, Boyko EJ, Gackstetter GD, Margaret AK, Ryan for the Millennium Cohort Study Team: Newly reported respiratory symptoms and conditions among military personnel deployed to Iraq and Afghanistan: a prospective populationbased study. Am J Epidemiol 2009; 170(11): 1433–42. 10.1093/aje/kwp287
- 7. 117th United States Congress: Sergeant first class Heath Robinson honoring our promise to address Comprehensive Toxics Act of 2022 or the Honoring our PACT Act of 2022. Pub. L. No. 117-168, 2022. Available at https://www.congress.gov/117/plaws/publ168/ PLAW 117publ168.pdf;