

Film Review

Military Medicine: Beyond the Battlefield **A film hosted and reported by Bob Woodruff** **(2016)**

Moni McIntyre, PhD

Assistant Professor
Sociology Department
Duquesne University
600 Forbes Ave.

Pittsburgh, PA 15282

Tel: (412) 396-1740

Fax: (412) 396-4258

Email: mcintyrem@duq.edu

Author Note

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Introduction

No matter who does the calculating, it is indisputable that only a small percent of Americans ever don the uniform of their country. Fewer than one percent of the American population will see combat, and only a tiny percent of them will lose limbs, eyes, or suffer a traumatic brain injury. But when they do, it is most often their brothers and sisters in arms who will come to their aid. While physical wounds can generally be seen and treated, psychological scars may never fully be addressed. *Military Medicine: Beyond the Battlefield* examines what happens from the point of injury until the wounded are well into their rehabilitation experience. With an all-volunteer military force, our national security relies in no small measure upon the reputation of military medicine to care for the troops.

Hosted and reported by ABC News Correspondent Bob Woodruff, *Military Medicine* highlights military medical advances and technology as well as civilian and veteran contributions from the battlefield to the long road of rehabilitation. The personal stories of physicians and other medical personnel, scientists, active duty troops, veterans, and military families wind through this fifty-six-minute documentary to show how these advances are both saving and changing the lives of United States service members and many of those who love them. This carefully researched and informative film invites the 99% of Americans without current active duty military connections to take pride in the positive contributions made by some of their federal tax dollars, even as these same viewers rue the losses of life and limb brought about by catastrophic wars. The 1% who know and live this reality will view this film with deep gratitude and hope.

Reviews

During the Iraq and Afghanistan conflicts, the death toll for service members between 2001 and 2014 topped 5,300. However, unlike other wars and international conflicts, 96% of the severely wounded made it home and continue to come home alive. Many of those who survived recently would have been left for dead on the battlefield in former times. *Military Medicine* describes how that has been made possible.

Correspondent Woodruff has firsthand knowledge of the capabilities of military medicine. While covering the war in Afghanistan in 2006, Woodruff and his cameraman were severely injured and subsequently saved by some of the remarkably complex advances in military medicine that he features in this documentary. Woodruff and his team traveled around the world and visited many US military sites to capture the stories of those who are on the cutting edge of medical and technological advances both in civilian and military settings.

Film Summary

The dual goals of military medicine are to save lives and to make lives better, i.e., “to return service members to the lives they want to live,” according to Woodruff. The film opens with many examples of each goal before featuring several vignettes designed to reveal many of the advances in and hopes for military medicine. While no one would opt for war to make medical advances, in the words of Dr. Jonathan Woodson, former Assistant Secretary of Defense for Health Affairs, “Throughout history, through periods of war, there have always been advances in medical care. So, if war is the dark side of human experience, where humanity fails, medicine has always provided hope and light.” Woodson’s words illustrate the major theme of the film.

One vignette features retired Army Sergeant 1st Class Ramon Padilla, who had lost his arm during an Afghanistan deployment. Padilla’s treatment at both the Walter Reed National Military Medical Center and the Uniformed Services University of the Health Sciences (USUHS) in Bethesda, Maryland led him to participate in a clinical study during which he was fitted with an artificial arm and a hand that he can control through sensors implanted in his muscles. The audience listens to words of gratitude expressed by Padilla as he flexes first one hand and then the other. That he can pick up objects and hold his son’s hand as they walk invites awe and admiration from viewers. Principal investigator and retired Army Colonel Dr. Paul Pasquina, Chief of the Department of Rehabilitation at Walter Reed and USUHS, knows much about the challenges faced by returning soldiers who have lost limbs and works unceasingly to make their lives better.

Severe burns are another hazard of wartime activity featured in the film. Woodward introduces us to Lieutenant Colonel Bryan Forney, USMC, who spent the better part of a year in a wheelchair because of severe burns and muscle damage to his legs and feet that he sustained on the battlefield. Intrepid Dynamic Exoskeletal Orthosis (IDEO) braces, invented at the Intrepid Center of Brooks Army Medical Center in San Antonio, Texas, have enabled Forney to walk. While he cannot compensate entirely for Forney’s lost mobility, John Ferguson, Chief Prosthetist at the Intrepid Center, demonstrates the degree of independence granted to the Marine because of amazing advances in medical technology that allow Forney to use his own momentum as he walks without assistance.

Before injured service members ever get to medical treatment facilities in the United States, they are often transported to the Ramstein Air Base in Germany by Critical Care Air Transport

(CCAT) teams in flying intensive care units aboard such aircraft as specially outfitted C-17s. Getting severely injured personnel from the battlefield to their US destinations often requires a trip to Ramstein, where they can be prepared to make the trip home. Rapid work often finds members injured on one day, in Germany the next, and in a sophisticated military medical center on the third day. What once took weeks or months is now accomplished in record time. This accounts for the 96% survival rate of the severely injured, a statistic unrivaled heretofore. Whereas the speed with which a member can be evacuated has increased substantially over the decades, the severity of wounds remains catastrophic. Many live today who would have died in yesterday's wars, because they never would have made it home to first-rate medical treatment centers. Major General Michael Tiger, a CCAT physician, describes this in some detail.

More than 340,000 military service members have sustained traumatic brain injuries (TBI) since 2000. One of those injuries was sustained by retired Sergeant First Class Elana Duffy following the explosion of an improvised explosive device (IED) while she was a member of a convoy. Advances are being made to help survivors with their physical as well as psychological wounds. Duffy and many other service members so affected are now able to walk in a straight line, where they could not after their injury, and they have recovered many of the memories that they once feared were lost forever.

At the Human Engineering Research Laboratory at the University of Pittsburgh, engineers and designers are working to enhance the mobility and independence of anyone with a disability. Wheelchairs are the focus of the Laboratory, although they also improve prosthetics and cognitive aids as well. Director and disabled veteran Rory Cooper, PhD, explains that their current challenge is making wheelchairs with robotic arms. Viewers watch as the Mobility Enhancement Robotic (MEBot) enables users to climb curbs and stairs as well as traverse irregular terrain and ice. This segment of the film illustrates how the civilian community, working with and in support of military rehabilitation experts, enhances the potential of those with war injuries.

Veterans helping veterans is depicted in the presentation of retired Staff Sergeant Dale Beatty, a former member of the National Guard, who was severely injured in Iraq. He returned home from his year in the hospital to a new house built largely by fellow veterans. In gratitude, he began Purple Heart Homes, a volunteer group who assist veterans with home adaptations, e.g., ramps. Another instance of veterans helping veterans is Wednesdays at Richard's Coffee Shop and Military Museum in Mooresville, South Carolina. Beyond the battlefield, intergenerational groups of those who served in uniform meet to encourage and appreciate one another. "Don't let them disappear" is the motto of this corps of veterans helping veterans.

Reflection

In this post-conscription age, it is not surprising that young persons without the means to attend post-secondary school would choose the military as their best option. The quality of their service and commitment is at least as high as the risks in which they place themselves by enlisting in one of the armed forces. They endanger life and limb as they accept involuntary deployments to war zones and dangerous training missions around the world. Rarely, those assignments lead to their death. Not uncommonly, service members everywhere contract diseases and suffer injuries that threaten their health and well-being. In the face of these choiceless events, troops must rely on the healthcare available to them.

Reviews

Military Medicine: Beyond the Battlefield exposes the viewer to creative and complex solutions to severe battle injuries and other wounds made possible by the men and women in uniform who work to save their lives and make them better. Civilian research institutions working in conjunction with military medical treatment facilities are at least as important because it is here that most physicians and other military health care providers earn their basic qualifications. One of the first conclusions that one may arrive at following a screening of this important documentary is that appropriate funding for military medicine must always be a national priority. Our tax dollars need to go to enhance the lives of those who provide care and those for whom such care is provided.

Another conclusion that may occur to a viewer is that, with the advent of powerful and insidious modern weaponry, the devastating effects on the human body are beyond comparison to any previous conflicts. New simple as well as complex ways to cripple or kill in combat continue to be discovered. This film brings us to the realization that medicine, as well as understanding of the healing processes, must advance at least as rapidly as weapon development. In short, research and development on weapons ought not outstrip our ability to care for those who will be injured by them.

The power of veterans helping veterans cannot be overestimated. The bond that exists among those who served is seemingly unbreakable and, as the film demonstrates, it promotes healing in ways that no medicine could. Those uniformed men and women, who stood in formation while the National Anthem was played as they prepared to meet challenges unknown to most of them and us, have a pride in themselves and those who stood with them that battle injuries cannot destroy. The deep reverence for those who placed themselves in harm's way—and suffered harm—needs to be shared by a grateful nation who values the condition of the battle wounded. Duty, honor, and country are deeply ingrained values, and they stay with service members throughout the healing process. No wonder civilian researchers find such satisfaction in helping veterans.

In various segments of the film, we are informed about advances to date concerning the rapidity with which care can be administered at the point of injury. This speed far surpasses anything that we could have witnessed in previous wars and conflicts. We are reminded of Dr. Woodson's comment that war is a failure of humanity while medicine has always provided hope and light. Advances in robotics, regenerative medicine, wheelchairs, IDEO braces, and traumatic brain injuries represent the glory of military medicine; focusing on them can even disguise some of the horror of war. Lost lives as well as wounds and injuries that cannot be healed or fixed illuminate the absolute horrors of war from which no one will recover.

This film is a most powerful introduction to the wonders of military medicine. Seeing wounded warriors and their families offers many reasons for hope and gratitude. Walter Reed National Military Medical Center, the Uniformed Services University, and the other medical treatment centers take their mission seriously. They stand as beacons of hope for those they serve and live to serve. Cutting edge research and treatment is the least we owe to those who serve in harm's way for the security of this nation.

Addendum

Complementing the information on the PBS documentary reviewed above, a new YouTube series on military medicine and healthcare is being produced and directed by the Henry M. Jackson Foundation for the Advancement of Military Medicine. Information for the first two short episodes that have been completed thus far is found below.

These episodes are immensely powerful. They demonstrate how military medicine/healthcare enriches healthcare for all people across the globe.

For more information or for submitting suggestions regarding future topics, please contact the Creative Design Department at HJF c/o (240) 694 2000.

2018 Heroes of Military Medicine Ambassador Award

The Air Force's 99th Medical Group was awarded the Hero of Military Medicine Ambassador Award for its heroic response to the October 2017 Las Vegas mass casualty shooting.

Web Address: <https://www.youtube.com/watch?v=9O7sL5WPPV0>



The Veterans Metrics Initiatives

TVMI—The Veterans Metrics Initiatives is a novel public-private collaboration that unites multi-disciplinary research experts from the Departments of Defense and Veterans Affairs, academic medicine and social science, and industry to develop an evidence-based

Web Address: <https://www.youtube.com/watch?v=U2PP1QqFFSM>

