

Description of United States Military Nurses Deployed to Afghanistan & Iraq, 2001-2015

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Abstract

Since 2001, US military forces have been engaged in Afghanistan and in Iraq. During fifteen years of conflict in both operations US troops have incurred a total of 52,022 wounded and 6857 deaths. The aim of this analysis is to describe the characteristics of US military nurses that deployed to these combat theatres. Data for this retrospective analysis were provided by the US Department of Defense, Defense Manpower Data Center and describes characteristics military nurses that deployed to Afghanistan, Iraq, or both between September 1, 2001 and July 31, 2015. A total of 6326 nurses deployed during this period; 3296 nurses deployed to Afghanistan and 2683 nurses deployed to Iraq. Fifty-five percent of deployed nurses were male. The majority of deployed nurses were white (32.9%) followed by Hispanic (22.9%) and black nurses (14.5%). Most deployed nurses had a baccalaureate nursing degree (88.9%) and 9% deployed nurses had an advanced degree. Most deployed nurses were classified as general nurses (66.6%). Further research is needed to examine in detail the impacts of deployments upon nurses.

Keywords

Military, Nursing, Afghanistan, Iraq

1. Introduction

The September 11, 2001 terrorist attacks against the United States sparked the invasion of Afghanistan, by the United States, the Commonwealth of Australia, the United Kingdom and other allied nations. On October 7, 2001, soldiers set out to combat the al-Qaeda organization based in Afghanistan as part of Operation Enduring Freedom (OEF). The overall goal was to eliminate al-Qaeda forces

and install a democratic Afghan government [1]. OEF officially ended December 31, 2014 [2].

The invasion of Iraq in March 2003, named Operation Iraqi Freedom (OIF) was controversial [3]. The United Nations was reluctant to provide a specific endorsement for direct US military action. In order to garner greater support and provide an international flavor to the intervention, President George W. Bush assembled a “coalition of the willing”, that ultimately involved about sixty nations. Although some of these countries supplied little more than nominal assistance, fully 37 of them furnished around 150,000 ground forces. These troops conducted security operations; provided reconstruction assistance; operated command-and-control headquarters; and fought, were wounded, and killed, alongside US soldiers, sailors, airmen, and marines [4]. OIF officially ended December 15, 2011 [5].

OEF and OIF have been the longest American wars fought outside Vietnam. US military nurses left their homes, friends and family to support the war on terrorism and provide care for US soldiers, civilian personnel, allied soldiers, enemy combatants, women and children who were brought to their location for care [6] [7] [8] [9]. Casualty reports from the Department of Defense (DoD) reveal that during fifteen years of conflict in both operations US troops suffered a total of 52,022 wounded and 6857 deaths (see Figure 1) [10]. During this period six Army nurses were killed in Afghanistan (4) and Iraq (2) [11].

Deployed military nurses and other medical personnel have felt the real weight of these statistics beyond the mere number (see Figure 2). Deployment is defined as “the rotation of military forces into and out of an operational area” [12]. Deployment for this study referred to the movement of Air Force, Army and Navy nurses to the operational area of Iraq and/or Afghanistan from 2001 to 2015. Operational area or theaters of operation refer to the specific area the nurses were sent and worked while deployed [12].

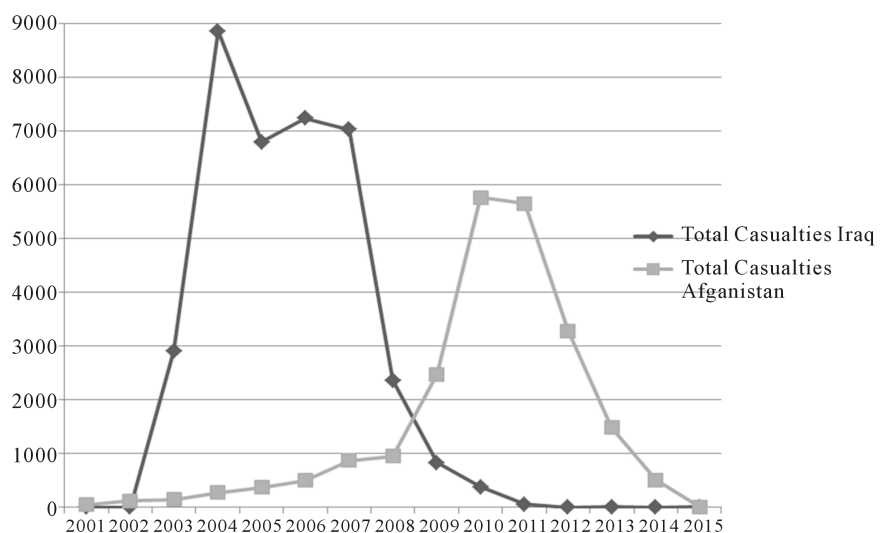


Figure 1. US combat casualties in Operation Enduring Freedom and Operation Iraqi Freedom, 2001-2015.

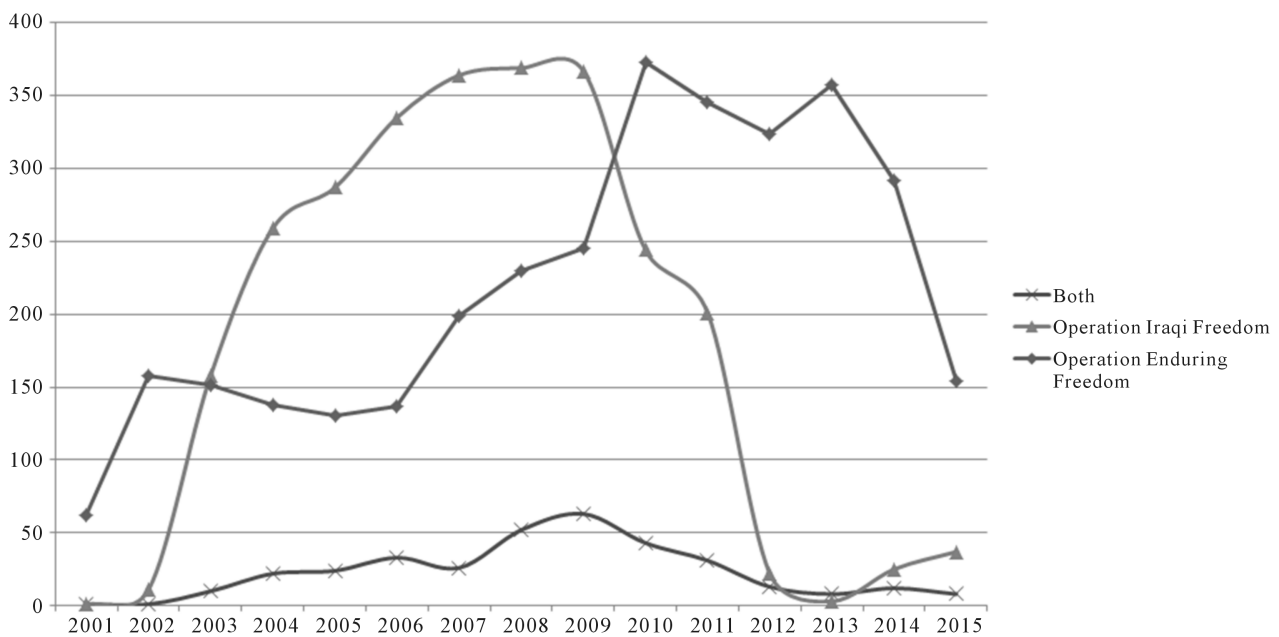


Figure 2. Deployed US military nurses to Afghanistan and Iraq, 2001-2015 by year of deployment.

Active duty personnel are full-time members of the armed forces whereas those who serve in the Reserve and National Guard have jobs that are primarily civilian occupations. When the Reserve and National Guard Nurses are deployed, they are placed on active duty status for the duration of the deployment. These individuals leave behind familiar surroundings, family, friends, communities and sometimes employment to serve. For many of these individuals, deployment has occurred more than once (see [Table 1](#)) [13].

Although several studies on nursing experiences in combat zones have been completed, no study could be identified that describes the nurses that participated in OIF and OEF [8] [9] [14] [15] [16]. The purpose of this retrospective study was to provide a quantitative description of the nurses who have deployed to OEF and OIF zones of operation beginning in 2001 and 2015.

2. Methods

The design for this study employed a descriptive methodology to explore the various characteristics applicable to military nurses who had deployed to OEF and/or OIF from September 2001 through March 2015. The research aim that guided the study was to describe characteristics of all DoD nurses who have deployed to Afghanistan, Iraq, or both.

Data for this descriptive study were provided by the DoD, Defense Manpower Data Center (DMDC). Variables that were examined included: 1) deployment year, 2) medical group, 3) service/component, 4) gender, 5) race and ethnicity, 6) number of deployments; and 7) deployed theater (Afghanistan, Iraq, or both). Data utilized were comprised of Active Duty, Reserve and National Guard component information for the different services. Casualty data were obtained from the DoD, *Casualty Status* [10].

Table 1. Deployed US military nurses to Afghanistan and Iraq, 2001-2015 by deployment location.

Number of Deployments	Deployment Location							
	OEF ¹		OIF ²		Both		Total	
	N	%	N	%	N	%	N	%
1	2932	46.3	2402	38.0	229	3.6	5563	87.9
2	337	5.3	259	4.1	104	1.6	700	11.1
3	27	0.4	22	0.3	13	0.2	62	1.0
4	0	0.0	0	0.0	1	0.0	1	0.0
Total	3296	52.1	2683	42.4	347	5.5	6326	100.0

¹Operation Enduring Freedom; ²Operation Iraqi Freedom.

Statistical analyses were conducted using SPSS Statistics version 22 (IBM Corporation, Armonk, NY). All values were analyzed using frequency distributions and means. The study protocol (#416445) was reviewed by the Womack Army Medical Center Institutional Review Board, Fort Bragg, NC and determined to be Research Not-Involving Human Subjects.

3. Results

A total of 6326 nurses deployed between September 2001 and March 2015—3296 (52.1%) nurses deployed to Afghanistan and 2683 (42.4%) nurses deployed to Iraq; 347 (5.5%) deployed to both countries. A gradual increase of deployed nurses to Afghanistan occurred between 2001 and 2010, peaking at 373 nurses in 2010. This coincides with the highest number of US casualties in Afghanistan (5764) that also occurred in 2010. After 2010, the number of deployed nurses to Afghanistan declined (See **Figure 2**). Between 2003 and 2011, 2584 nurses deployed to Iraq. During 2007, the year of the Surge [17], an additional 364 nurses deployed to assist with over 6000 casualties. The Surge refers to a large influx of troops that provided a shock and awe style of warfare [18]. After 2011, the number of nurses deployed to Iraq began to dwindle coinciding with the War's end. Of note, 229 (3.6%) nurses deployed only once, but served in both Iraq and Afghanistan (see **Table 1**).

Nearly half of all deployed nurses served in the Army (2883, 45.6%); the Air Force deployed 2155 (34.1%) nurses and the Navy deployed 1288 (20.4%) nurses. The majority of deployed nurses were active duty personnel (2591, 56.8%), though, Reserve and National Guard components contributed support to the war efforts. Reserve nurses accounted for 1878 (29.7%); and Guard units accounted for 857 (13.5%) deployed nurses (see **Table 2**).

Thirty-five thousand (55.2%) deployed nurses were male. The majority of nurses were white (2084, 32.9%) followed by Hispanic (1446, 22.9%) and black nurses (919, 14.5%); Asian and American Indian/Alaskan Native and persons multi-racial accounted for the remaining total (1195, 18.9%) (see **Table 2**). Most nurses had a baccalaureate nursing degree (5623, 88.9%) and 571 (9%) deployed nurses had an advanced degree; only 132 (2.1%) deployed nurses had a vocational or practical certificate (see **Table 3**). Many of the nurses that deployed

Table 2. Demographics of deployed US military nurses to Afghanistan and Iraq, 2001-2015.

Gender	N (6326)	%
Male	3489	55.2
Female	2837	44.8
Race/Ethnicity		
White	2084	32.9
Hispanic	1446	22.9
Black/African American	919	14.5
Asian/Pacific Islander	608	9.6
American Indian/Alaskan Native	405	6.4
Multiracial	182	2.9
Unknown	682	10.8
Highest Level of Education		
Vocational/Practical Certificate	132	2.1
Baccalaureate Degree	5623	88.9
Advanced Degree	571	9.0
Service Branch		
Army Total	2883	45.6
Army Active Duty	1515	23.9
Army Reserve	888	14.0
Army National Guard	480	7.6
Navy Total	1288	20.4
Navy Active Duty	866	13.7
Navy Reserve	421	6.7
Coast Guard	1	0.0
Air Force Total	2155	34.1
Air Force Active Duty	1210	19.1
Air Force Reserve	569	9.0
Air National Guard	376	5.9

Table 3. Primary practice setting of deployed US military nurses to Afghanistan and Iraq, 2001-2015.

	N	%
General And Other Nurses	582	8.8
Critical Care Nurse	397	6.3
Medical/Surgical Nurse	397	6.3
Operating Room Nurse	320	5.1
Nurse Anesthetist	279	4.4
Flight Nurse	170	2.7
Emergency/Trauma Nurse	143	2.3
Licensed Practical Nurse	132	2.1
Mental Health Nursing	103	1.6
Family Nurse Practitioner	84	1.3
Nurse Practitioners	62	1.0
Other Nursing Personnel, Unspecified	3657	57.8
Total	6326	100.0

were considered general nurses (582, 8.8%). However, 397 critical care nurses (397, 6.3%), and medical/surgical nurses were also among the top primary practices listed (see [Table 3](#)).

4. Discussion

This study provides an overview of nurses that deployed to Afghanistan and Iraq between September 2001 and March 2015. While this study does not examine the experiences of deployed nurses, there are some similarities to nursing during the Vietnam conflict. During Vietnam, although there was no certainty as to when the war would end, those assigned to Vietnam knew that a tour was one year after which they would return to the United States [19]. Instead of reporting as part of a cohesive unit, the majority of nurses that served in Vietnam went over individually, often as the only nurse on a plane full of combatants.

Today, nurses are sent into conflict in a similar manner. They often are the only individual departing from their unit to join other nurse colleagues at a deployment staging facility or in the actual combat area. The cohesiveness of a unit was non-existent [20].

In contrast to Vietnam and OEF/OIF, nurses who served during World War II and the Korean War were there for the long duration of both conflicts as mobile hospitals were staffed prior to deployment. Nurses were sent out as units in which bonding and cohesion had already taken place, providing a great amount of personal and professional support [19] [21]. Additionally, there was little or no individual rotation, and it was understood that they were there until the entire unit rotated out of the combat zone.

We highlight several differences among the deployed nursing population as compared to the US nursing workforce in general. The majority of nurses deployed were male, while the majority of US non-military nurses (93%) in 2013 were female [22]. Data show that only 132 (2.1%) deployed nurses did not have a bachelor's degree, compared to the 2013 survey of US nurses, which found 12.3% had no degree [22] [23]. However, it must be stated that the required baseline degree for active duty nurses is the bachelor's degree. Additionally about 55% of the nursing workforce in the US had a bachelor's or higher degree, among deployed nurses this was 97.9%. When we examine racial/ethnic diversity nationally 19% of nurses were from a minority population [22]; among deployed nurses this was over 67%.

This study contains several limitations: 1) key demographic data including age and years of service were missing; 2) early in the wars, race and ethnicity information were not captured; therefore, some of that information is lacking. Access to these data would have helped to better describe the deployed nursing population.

5. Conclusions

Military nurses who deployed to OEF/OIF have been greatly affected by their clinical experiences in wartime environments. Nurses from the US Army, Air

Force, Navy, and coalition forces, have treated thousands of friendly forces and enemy insurgents in the Afghanistan and Iraq operations theatre. Military nurses that deployed after September 11, have had mixed training and deployment experiences depending on their location and type of unit they were assigned to. For example, mobile units and units deployed during early stages of the wars experienced more austere conditions [9]. Past research on nurses deployed to Vietnam provided valuable insight into the “intensive and realistic” training that is required to prepare military nurses for war [8] [24]. However, lack of preparation has been a common theme among literature about military nurses deployed during Vietnam and OIF and OEF. Other common themes among US military nurses who deployed to OIF and OEF were their expansion of clinical skills as well as their professional growth, issues with reintegration and leadership [8] [9] [25].

In addition to the aforementioned issues, nurses have been impacted by war-time stress and separation from home. Past research reveals common themes from their post-deployment experience, such as, “working through guilt to move forward”, “facing the reality of multiple losses”, and “looking at life through a new lens” [14]. Length of and multiple deployments have been identified as variables that impact the individual’s behavioral health whether a combat soldier or a nurse. The former British Chief of General Staff recommended that due to operation tempo and the intensiveness of the battlefield of both OEF and OIF, a six-month length of deployment is ideal to support physical and mental stress [26].

Although numerous studies have been completed on nursing experiences in combat, no studies had been identified that specifically described the nurses who have left their homes, families, and friends to go into harm’s way and provide care in the harsh, arduous environment of Afghanistan and Iraq. This study provides that information.

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