

NAVAL AND MILITARY NURSING IN THE BRITISH EMPIRE C. 1763-1830

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By

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ABSTRACT

This dissertation analyses the work of female nurses in military and naval hospitals from the mid eighteenth century until the aftermath of the Napoleonic Wars in the early nineteenth century. Nursing history has primarily forgotten these women, or when they do enter into historical narratives, it is often as a foil when compared to the medical practitioner. Pre-Nightingale nurses are often framed by nursing historians as ineffective, ignorant drunkards, the embodiment of the Dickensian Sairey Gamp stereotype. By examining why medical practitioners and naval and military administrators decided to hire female nurses, it is possible to explore two frameworks of investigation in this dissertation. First, the importance of nurses to eighteenth-and early nineteenth-century military and naval clinical hospitals, was shown in official correspondence, regulations, and medical treatises. Examining the crucial role of nurses in maintaining a healthy healing environment through cleanliness and ventilation reintegrates nurses into a previously male medical practitioner dominated narrative. In Britain, both patient care and domestic duties were viewed, societally, in the eighteenth and early nineteenth centuries as distinctly female skills. At West Indian stations, the ideal nurses were also female. Yet, the additional layer of race and accompanying theories of racialized immunity to tropical diseases, combined with the stratified labour market of the islands, meant that Black women were considered by medical practitioners to be the best nurses. These considerations resulted in the employment of enslaved women at the Bermuda Naval Hospital. Second, I counter historiographical preconceptions about pre-Nightingale nursing through a detailed prosopographical analysis of the nursing workforce at Plymouth Naval Hospitals, in conjunction with the nursing regulations for military and naval medical systems of care. As the experiences of nurses of Plymouth Naval Hospital show, the physical stability of naval hospitals allowed for nurses to develop healing and care

skills over a period of longstanding employment. These nurses were not, as the historiographical prejudice contends, primarily thieves and drunkards. Furthermore, a comparison of military and naval regulations demonstrates that the regulatory structure of naval hospitals, and the position of nurses in them, cannot be explained merely by the permanence of their institutions. Nursing and nurses were part of a broader professionalization of healing practices in the second half of the eighteenth century. As complex institutions, naval hospitals only functioned when everyone's role in the hospital was clear. In the army, by contrast, the role of nurses was less explicit and not carefully delineated. When recollecting the pre-Nightingale period of nursing, it is often the military nurses who are recalled by nursing historians – women seen even at the time as replaceable, untrained, and unnecessary. Reconfiguring our view to include the naval nurse – valued, crucial to hospital operation, and with a defined role – complicates the long-standing progressivist account of nursing after Nightingale to illustrate continuity between the two periods.

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DEDICATION

To my family by blood and by marriage and
Horatio a great and well-loved cat

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NOTE ON SPELLING, GRAMMAR, AND THE CALENDAR YEAR

The original spelling and grammar has been maintained in all quotations unless the meaning of the word was impaired. Additionally, the calendar year has been reckoned to start on 1 January, although this was not the case in all source material.

INTRODUCTION

On 22 October 1795, nurses Honor Palmer and Margaret Rogers were granted Half Pay and continued residence in Plymouth Naval Hospital.¹ Dr. Farr, physician to the hospital, recommended them for Half Pay based on their “constant services in this Hospital for 15 years and upwards and in his opinion deserving of superannuation.”² Palmer, Rogers, and hundreds of women like them represent a part of military and naval medicine that historians have largely overlooked. My dissertation inserts women back into a traditionally male-dominated historiographical narrative and explores how and why military and naval nursing became a female-dominated occupation. At a time when military and naval medical practitioners tried to remove themselves from patients’ everyday care, with the distance from mundane medical tasks helping to enforce the professionalism of medical officers, nurses asserted their suitability to perform bodywork based on their skills in household-based medicine.³ Military and especially naval hospitals of the eighteenth century were large-scale household-families tied together not by

¹ In this instance, Half Pay was essentially retirement from service. “Evan Nepean to Sick and Hurt,” 22 October 1795, NMM, “Sick and Hurt Board, In-Letters and Orders, 1794-1796,” ADM/E/45.

² “Private minute and memoranda book kept by Captain Richard Creyke, Governor of the Royal Hospital at Plymouth, covering the period 1795-1799. Typed transcript from Captain T.P. Gillespie,” NMM, TRN/3, 8.

³ For surgeons moving away from the bedside see: Robert Jackson, *A View of the Formation, Discipline and Economy of Armies* (Stockton: William Robinson, 1824), 539; Marcus Ackroyd, Laurence Brockliss, Michael Moss, Kate Retford, and John Stevenson, *Advancing with the Army: Medicine, the Professions, and Social Mobility in the British Isles 1790-1850*, (Oxford: Oxford University Press, 2006), 100; Catherine Kelly, *War and the Militarization of British Army medicine, 1793-1830* (London and New York: Routledge, 2015), 124. Mary Fissel, “Introduction: Women, Health, and Healing in Early Modern Europe,” *Bulletin of the History of Medicine* 82(1) (2008), 10-11.

kinship relations, but by contractual agreements.⁴ Furthermore, these medical institutions would have been readily recognised by eighteenth-century contemporaries as big households.⁵ Framing military and naval hospitals as households helps underscore the connection between medical care and the perceptions, skills, and expectations of women in society.⁶ By examining the difference between the nurse and the soldier orderly, I show that the nurse, in the view of medical officers, was both distinctly female and seen as more effective at providing care. As William Fergusson (1773-1846), the inspector-general of army hospitals stated: “It is perversion, in some degree, of a man's nature, to make him a sick nurse; and the worst woman will generally make a better one, as being more handy and compassionate than an awkward clumsy man.”⁷ I argue that in the late eighteenth and early nineteenth centuries, medical practitioners and nurses constructed military and naval nursing as a distinctly female domain.

This dissertation considers two interconnected phenomena: the decision of medical officers and military and naval administrators to hire women as nurses, and the work that nurses did within hospital settings. Specifically, I examine how medical practitioners understood late-eighteenth and early-nineteenth century military and naval nursing. The first three chapters examine the reasons for hiring female nurses and the importance of domestic skills to medical practice. These skills include cleanliness and the perceived innate capacity of women to perform care work, analysed in Chapter One, and ventilation and nurses’ role in maintaining a healthy

⁴ Tadmor, *Family and Friends in Eighteenth-Century England: Household, Kinship, and Patronage* (Cambridge: Cambridge University Press, 2001), 27. For a definition, examples, and boundaries of the household-family see Naomi Tadmor, *Family and Friends*, 21-25. See also Naomi Tadmor, “The Concept of the Household-Family in Eighteenth-Century England,” *Past & Present* 151(1) (1996): 116-117.

⁵ Tadmor, *Family and Friends*, 9-10.

⁶ Jennifer K. Stine, “Opening Closets: The Discovery of Household Medicine in Early Modern England,” (PhD Dissertation: Stanford University, 1996), 100-102; R. Michael James, “Health Care in the Georgian household of Sir William and Lady Hannah East,” *Historical Research* 82(218) (2009), 699-700.

⁷ William Fergusson, *Notes and recollections of a professional life* (London: Longman, Brown, Green, and Longman, 1846), 63.

healing environment examined in Chapter Two. In Chapter Three, I analyse the transferability of these domestic skills to the seemingly immune bodies of Black nurses in the West Indian environment.⁸ The second half of this dissertation focuses on the work of nurses and the role that military and naval regulators stipulated for nurses. To illustrate the effect of nurses and nursing in Plymouth Naval Hospital, and the connection between this work and the needs of the state at war, I employed a prosopographical analysis of the nursing workforce at Plymouth in Chapter Four. Prosopography, in this case, refers to a collective biography of female employees in Plymouth Naval Hospital, with particular reference to nurses. Chapter Five demonstrates how military and naval medical practitioners and administrators envisioned the role of nurses, as it was constituted within regulations and writings about institutional regulations, for clinical hospitals in the navy, and general and regimental hospitals in the army. The exclusion of these women from prevailing historical narratives has distorted interpretations of nursing in the armed forces. The first histories of medicine of the Napoleonic wars were written by former military officers writing in the mid-nineteenth century, while late-nineteenth and early-twentieth century nurses, driven by professional considerations to emphasize the superiority of modern nursing, ignored their eighteenth-century predecessors. Only through the examination of each of these diverse parts of nursing care and medical practice is it possible to fully understand the importance of late-eighteenth and early-nineteenth century military and naval nurses to British war efforts.

⁸ I have used the terms Black and White throughout my discussion of nursing in the West Indies. These terms categorise ‘race’ in the broadest possible terms of division between European/Settler socio-cultural and Afro-Caribbean socio-cultural experiences. Karen Flynn, “Beyond the Glass Wall: Black Canadian Nurses, 1940-1970,” *Nursing History Review*, 130.

Methodology and Sources

For the period under study (c.1763-1830), there are several types of documents that inform our understanding of military and naval medicine, the role of nurses in military and naval settings (both idealised and real), and individual nurses. These sorts of sources can be grouped into two broad categories: official documents produced by the state – regulation books, pay ledgers, slavery registers, hospital plans, and official correspondence – and personal papers – medical treatises, journals, and private papers. Due to the nature of these sources most, including those that deal with the colonies, are held in centralised repositories in London, including the National Archives at Kew, and the National Maritime Museum. Private papers for medical officers are also held at the Wellcome Library, as in the case of hospital inspector William Fergusson and others, within the Royal Army Medical Corps collection. This study has drawn on the many digitised medical treatises and regulation books for civilian hospitals available through *Historical Texts* database.

Nurses and their activities appear in these kinds of sources, demonstrating the importance of nursing care to military and naval medicine. For instance, many treatises written by military and medical officers during the Revolutionary and Napoleonic period reference the work of nurses.⁹ Nurses were responsible for the majority of daily patient care in military hospitals: dispensing medicines, washing patients, cleaning wards and bedding, and preparing and distributing meals. Medical officers reinforced the centrality of these activities in their writings. Regimental surgeon, Robert Hamilton (1749-1830), for example, believed that nurses were

⁹ These include: William Fordyce, *A New Inquiry into the Causes, Symptoms, and Cure, of Putrid and Inflammatory Fevers* (London, 1773), 114, 139-140, 150-151; Gilbert Blane, *Select dissertations on several subjects of medical science* (London: Thomas and George Underwood, 1822), 137-138, 309-311; John Bell, *An inquiry into the causes which produce, and the means of preventing diseases among British officers, soldiers, and others in the West Indies* (London, 1791), 44; Fergusson, *Notes and recollections*, 63-64, 89, 147; Elliot Arthy, *The seaman's medical advocate* (London, 1798), 41-43.

“indispensably necessary,” to the functioning of hospitals.¹⁰ A nurse, Hamilton suggested, “ought to be with the patient on all occasions, and almost constantly; since it is her duty to administer both drink and medicine with care and punctuality.”¹¹ Male soldier-orderlies were still employed in military hospitals, but medical officers often presented them in a much more negative light than the nurses described in regulations and medical treatises.¹² Hamilton was especially critical of male orderlies, asking: “What attention can in general be expected from a clumsy, heedless soldier, ordered on a duty he greatly dislikes from its nature, as well as from the confinement to which it subjects him?”¹³ Medical practitioners in their writings conceived of military and naval nursing as a mostly female sphere.

While many official sources include discussions of nurses and their activities, we have few diaries and letters written by nurses themselves. To compensate for this imbalance and in an attempt to get closer to a nurse’s point of view, I employ a prosopographical approach to analyse nurses and nursing in naval hospitals. This methodology, also known as collective biography, first gained popularity in the 1970s when the use of computers generated a boom in quantitative historical methods.¹⁴ Prosopography allows for the study of the common characteristics of a particular group, in this case nurses. Specifically, I created a database of over 1200 female nurses employed at Plymouth Naval Hospital from 1777-1799 using pay list ledgers. I limited my analysis to naval hospitals, since the Royal Navy, unlike the army, carefully recorded its hospital personnel and their pay at either monthly or quarterly intervals. Naval pay lists indicate

¹⁰ Robert Hamilton, *The Duties of a Regimental Surgeon Considered, volume I* (London, 1787), 7.

¹¹ Hamilton, *The Duties of a Regimental Surgeon Considered, volume I*, 28.

¹² Donald Monro, *Observations on the Means of Preserving the Health of Soldiers, Second Edition, Volume I* (London, 1780), 146; William Lempriere, *Practical observations on the diseases of the army in Jamaica, as they occurred between the years 1792 and 1797* London: T. N. Longman and O. Rees, 1799), 310-312.

¹³ Hamilton, *The Duties of a Regimental Surgeon Considered, volume I*, 38-39.

¹⁴ Lawrence Stone, “Prosopography,” *Daedalus* 100(1) (1971), 46.

start and end dates for employment, sick leave, and other biographical information, of all individuals employed at the hospital. Using Structured Query Language (SQL) queries I analysed the career of specific nurses, periods of paid and unpaid leave from service, including sick days, for the entire nursing staff, and the effect of increases and decreases in staffing levels as the hospital responded to military needs.

This study considers the hospital within the model of a household. There were many parallels between households and hospitals: gendered employment, organizational structure, staff, and defined use of space. Although today we see the military and civilian worlds as strictly delineated, I am looking at the careers of nurses who were both civilians and naval employees. Significantly, the blurred boundaries between household and naval hospitals opened up opportunities for women, as well as civilian men. In an approach, similar to that used by Sue Hawkins in *Nursing and Women's Labour in the Nineteenth Century*, I merged conceptions of nursing practice found in regulations and medical treatises with case studies on individual nurses.¹⁵ This approach allowed me to dispel common perceptions of eighteenth-century nurses as drunkards, to highlight the long-term employment of nurses, and to illustrate how nurses were valued or remunerated for specific skills.

Military and naval nurses are a particularly useful lens through which to study the intersections of race, class, and gender identities in the eighteenth century, as these elements were all closely connected and indeed, overlapped in nursing practice. Historians have examined these elements separately in British military and colonial society. For example, Peter Voelz and Roger Buckley argue that race justified the formation of the West Indian Regiments in the 1790s, while Brooke Newman has studied the domestic racial hierarchy in Jamaican households from a

¹⁵ Sue Hawkins, *Nursing and Women's Labour in the Nineteenth Century: The quest for independence* (London and New York: Routledge, 2010), 9-10.

gendered perspective.¹⁶ These works provide a useful framework for understanding of the preference for choosing Black women as military nurses in the West Indies. In particular, I show that the use of Black nurses conformed to societal expectations in the colonies and was driven by medical beliefs about the unsuitability of white European bodies in the hot climate.¹⁷

Like naval pay list legers, other sources created by male medical or military and naval officials help to illustrate the work of women. I use hospital plans to show both changing understandings of medicine in the eighteenth century, the domestic space of hospital wards, and to discuss the role of nurses in mediating the interaction of the built and unbuilt environments through ventilation. While researchers can locate information about naval nurses in various archival sources, such as correspondence, prescriptive regulatory literature, hospital inspection reports, and pay list legers, it is only when this information is combined that a truer story of nurses emerges. For instance, pay lists are crucial to identifying individual nurses in naval hospitals, but the combination of the information found in pay list records with slavery registers and the memoranda book of Plymouth naval hospital Governor Richard Creyke contextualise the nurses' activities. This combination of material allows for some previously unnamed nurses to be identified and then connected to their individual nursing careers. Similarly, the discussion of nursing and individual nurses in official correspondence and hospital inspection reports, when read alongside prescriptive regulatory literature, illuminated both when regulations were followed to the letter, and when situational flexibility was required. In some cases, as when

¹⁶ Roger Buckley, *Slaves in Red Coats: The British West Indian Regiments, 1795-1815* (New Haven: Yale University Press, 1979), 2; Buckley, *The British Army in the West Indies: Society and the Military in the Revolutionary Age* (Gainesville, Florida: University of Florida Press, 1998); Peter Voelz, *Slave and Soldier: The Military Impact of Blacks in the Colonial Americas* (New York: Garland Publishing, 1993), vi; Brooke Newman, "Gender, Sexuality and the Formation of Racial Identities in the Eighteenth-Century Anglo-Caribbean World," *Gender & History* 22(3) (2010), 585.

¹⁷ For preference of Black nurses in the West Indies see, "William Fergusson to John Weir, Basseterre Guadeloupe 13 October 1815," RAMC 210/2; Fergusson, *Notes and recollections*, 63-64; Blane, *Select Dissertations*, 310-311; Arthy, *The Seaman's Medical Advocate*, 41-43.

more nurses were employed in naval hospitals than strictly permitted in official nurse-patient ratios, or when individual nurses were granted compassionate leave to care for family members, these deviations from official regulations reinforce the importance of nurses' role to the proper function of naval medicine. Employing more nurses than the officially mandated ratios was a financial burden for the navy, but one deemed necessary by physicians, surgeons, and hospital administrators for the quick recovery of the sick and injured. Meanwhile compassionate leave when necessary could help retain an experienced nurse in naval service.

Historical Context

The period from 1750s to 1815 represents a time of transition between two systems of medical care in the British military and naval forces. The Royal Navy had recently decided to move away from contract hospitals to large clinical institutions – Haslar and Plymouth in Britain – as well as smaller hospitals throughout the Atlantic World (Figure 1).¹⁸ For the British Army, this period also was one of transition; it aspired to develop a global reach for military medicine while debating the best methods of delivering medical care.¹⁹ Most medical practitioners advocated the superiority of the regimental hospitals system where soldiers would be treated by the medical services of their individual regiments. Yet, the realities of large casualty rates following battles

¹⁸ For an explanation of the quartering system see: Kathleen Harland, "Saving the Seamen: Naval Medical Care in the Pre-Nelson era, 1620-1770," *Journal of the Royal Naval Medical Service* 91(2) (2005), 70-73; Matthew Neufeld, "The Framework of Casualty Care during the Anglo-Dutch Wars," *War in History* 19(4) (2012), 427-444; For contract hospitals see: Matthew Neufeld and Blaine Wickham, "The State, the People and the Care of Sick and Injured Sailors in Late Stuart England," *Social History of Medicine* 28(1) (2014), 46-47, 58-62; Matthew Neufeld, "Neither private contractors nor productive partners: The English fiscal-naval state and London hospitals, 1660-1715," *The International Journal of Maritime History* 28(2) (2016), 228. For more on the early development of eighteenth century naval hospitals see: Kathleen Harland, "The establishment and administration of the first hospitals in the Royal Navy, 1650-1745," (PhD Dissertation, University of Exeter, 2003); Harland, "Saving the Seamen," 73-79.

¹⁹ Erica Charters, *Disease, War, and the Imperial State: The Welfare of the British Armed Forces during the Seven Years' War* (Chicago and London: University of Chicago Press, 2014), 9-11.

Mahon (Minorca) in the Mediterranean and St. Lucia in the Caribbean are not considered in detail because of the scarcity of surviving records. Yet, the activities of these hospitals, particularly their regulations, inform the more general discussion of naval medicine. Similarly, short-term hospitals established to deal with the influx of patients during the Napoleonic period, such as Paignton in Devon, Deal in Kent, and Great Yarmouth in Norfolk, are not considered in depth.

Historiography

The creation of a professional military medical system in Britain was a key development of the eighteenth century, one which placed military and naval medical practitioners at the core of the story. During the Seven Years War (1756-1763), military medical officers recognized that the current medical system was inadequate to handle the requirements of large-scale imperial warfare. Although most military medical practitioners still privileged the regimental hospital as the ideal medical arrangement, the decision of the Army Medical Board to construct standing general hospitals in Britain provided more opportunities for nurses to work in a large institutional setting.²¹ Medical historians – military, naval, and civilian – have marked out the half-century from the end of the Seven Years War to the end of the Napoleonic Wars (1799-1815) as a period of transition.²² The realities of fighting global imperial wars, including the extended reach of

²¹ James McGrigor, "Sketch of the Medical History of the British Armies in the Peninsula of Spain and Portugal, During the Late Campaigns," *Medico-Chirurgical Transactions* (1815), 465.

²² Guenter B. Risse, "Enlightenment: Medicalization of the Hospital," in *Mending Bodies, Saving Souls: A History of Hospitals* (Oxford: Oxford University Press, 1999), 231-251; Roy Porter, "The gift relation: philanthropy and provincial hospitals in eighteenth-century England," in *The Hospital in History*, Lindsay Gransaw and Roy Porter eds. (London and New York: Routledge, 1989), 149-178; Susan C. Lawrence, *Charitable knowledge: Hospital pupils and practitioners in eighteenth-century London* (Cambridge: Cambridge University Press, 1996); Richard Gabriel and Karen Metz, *A History of Military Medicine, Volume II: From the Renaissance Through Modern Times* (New York: Greenwood Press, 1992). Vern L. Bullough and Bonnie Bullough, *The Emergence of Modern Nursing*, Second Edition (London: The Macmillan Company, 1969), 82.

naval forces and employment of more sailors, resulted in the construction of the first clinical naval hospitals in the British Isles beginning in the 1750s, though they had been proposed by the Sick and Hurt Board in the early eighteenth century.²³ Scholars since the 1970s have provided a more nuanced picture of military medicine than the grim tales of gore, death, and despair designed to play upon the reader's morbid curiosity, which had previously characterised this historiography.²⁴ Some military and medical historians have contextualised eighteenth-century military medicine through biographical studies of key figures such as James McGrigor (1771-1858) and William Beatty (d. 1842).²⁵ Other historians, such as Catherine Kelly and all the contributors to *Advancing with the Army*, have examined how military medicine transformed from an occupation into a profession.²⁶ The focus on the professionalization has contributed to the continued attention on military medical officers and their importance to the military medical system.

Historians tend to analyse naval-military and civilian medical hospitals and practices as separate and impermeable medical systems.²⁷ By studying these systems together we begin to see how they interacted and examine the flow of medical ideas and theories of hospital organization

²³ Christine Stevenson, *Medicine and Magnificence: British Hospital and Asylum Architecture 1660-1815* (New Haven and London: Yale University Press, 2000), 184.

²⁴ Scott McGaugh, *Battlefield Angels: Saving Lives Under Enemy Fire from Valley Forge to Afghanistan* (Oxford: Osprey Publishing, 2011), iv-v; Kelly, *War and the militarization of British Army Medicine*, 1.

²⁵ Richard Blanco, *Wellington's Surgeon General: Sir James McGrigor* (Durham, N.C.: Duke University Press, 1974); Laurence Brockliss, John Cardwell, and Michael S. Moss, *Nelson's Surgeon: William Beatty, Naval Medicine, and the Battle of Trafalgar* (Oxford: Oxford University Press, 2005).

²⁶ Kelly, *War and the Militarization of British Army Medicine*; Ackroyd, Brockliss, Moss, Retford, and Stevenson, *Advancing with the Army*.

²⁷ Shauna Devine, *Learning from the Wounded: The Civil War and the Rise of American Medical Science* (Chapel Hill: University of North Carolina Press, 2014), 5-6. An exception to this was the work of Sir James Watt, however Watt primarily traces the influence of specific naval surgeons in naval and civilian medicine. James Watt, "Naval and Civilian Influences on Eighteenth- and Nineteenth-Century Medical Practice," *The Mariner's Mirror* 97(1) (2011): 148-166. Margarette Lincoln has examined the perception of naval medicine by the late-eighteenth century British public. Margarette Lincoln, "The Medical Profession and Representation of the Navy, 1750-1815," in *British Military and Naval Medicine, 1600-1830*, ed. Geoffrey Hudson (Amsterdam and New York: Todopi, 2007), 201-204.

between the two systems. I consider naval, military, and civilian hospitals as interactive systems in order to argue that, particularly in the naval case, facets of reformed Nightingale nursing were present in the late-eighteenth century, fifty years before others have claimed.²⁸ Additionally, the gendered division of labour that emerged in military medicine during the late-eighteenth century formed the basis of civilian and military hospital medicine throughout the nineteenth century.

Furthermore, the fragmented study of early modern nursing history means that these nurses' stories can be clearly shown only by drawing together multiple frameworks. Military, naval, nursing, and medical historiographies have largely overlooked the contributions of late-eighteenth and early-nineteenth-century military nurses. This dissertation integrates these sometimes-divergent historiographies in order to better understand the women who worked as military nurses, and their role in the medical system. The focus of nursing historians on the post-1850 period means that pre-Crimean nurses do not have the place in nursing history they deserve. There have been recent studies of military nursing before Nightingale, but they are far fewer in number. For example, Eric Gruber von Arni has examined nursing care during the British Civil Wars of the mid-seventeenth century, and the late Stuart period.²⁹ From a naval perspective, Matthew Neufeld has studied the role of landladies in caring for sick and wounded seamen, while Geoffrey Hudson has examined the work of nurses at Greenwich Naval Hospital.³⁰ Of the three historians, only Gruber von Arni directly situates his work within the

²⁸ Celia Davies ed. *Rewriting Nursing History* (London: Croom Helm, 1980), 15; Patricia D'Antonio, "Introduction," in *Nurses' Work: Issues Across Time and Place*, eds. Patricia D'Antonio et al (New York: Springer Publishing Company, 2007), 3.

²⁹ Eric Gruber von Arni, "Who Cared? Military Nursing during the English Civil Wars and Interregnum, 1642-60," in *British Military and Naval Medicine, 1600-1830*, Geoffrey Hudson ed. (Amsterdam, Rodopi, 2007), 121-148; Eric Gruber von Arni, *Justice to the Maimed Soldier: Nursing, Medical Care and Welfare for Sick and Wounded Soldiers and their Families during the English Civil Wars and Interregnum, 1642-1660* (Aldershot, Hampstead: Ashgate, 2001). Eric Gruber von Arni, *Hospital Care and the British Standing Army, 1660-1714* (Aldershot, Hampstead: Ashgate, 2006).

³⁰ Neufeld and Wickham, "The State, the People and the Care of Sick"; Matthew Neufeld, "The Framework of Casualty Care"; Geoffrey Hudson, "Internal Influences in the making of the English Military Hospital: The Early-

pre- and post-Nightingale narrative, through stating that his work provides a “balanced assessment” of nursing care at the time of the formation of the British standing army.³¹ Neufeld highlights the social role of female and male carers for the sick and wounded, and the relationship of these carers with the state in the Anglo-Dutch Wars.³² However, Neufeld and his co-author Blaine Wickham argue that naval medical care post-1700 was centralised “because medical professionals on the Commission for Sick and Wounded did not trust unsupervised women to provide adequate medical care.”³³ In this way, the 1703 fifth Commission for the Sick and Hurt represents a divide similar to that in the Nightingale narrative, although in this case it was physicians rather than nursing leaders passing judgement on nursing care. Hudson uses the minutes of the Greenwich Hospital Council to explore the “inner life” of the institution.³⁴ Furthermore he details how hospital rules for patients and nursing staff were enforced and how the medicalisation of Greenwich meant that access to alcohol was restricted for patients and staff.³⁵ On the American side of the American Revolution, there has also been some work done to examine how female nurses contributed to the cause of the patriots. However, how these women fit in with the characterisation of pre-Nightingale nurses as unsavoury drunkards does not feature.³⁶

Eighteenth-Century Greenwich,” in *British Military and Naval Medicine, 1600-1830* (Amsterdam: Rodopi, 2007), 253-271.

³¹ Gruber von Arni, *Justice to the Maimed Soldier*, 16.

³² Neufeld, “The Framework of Casualty Care,” 434.

³³ Neufeld and Wickham, “The State, the People and the Care of the Sick,” 46.

³⁴ Hudson, “Internal Influences,” 253.

³⁵ Hudson, “Internal Influences,” 259-262.

³⁶ Holly A. Mayer, “Bearing Arms, Bearing Burdens: Women Warriors, Camp Followers and Home-Front Heroines of the American Revolution,” *Gender, War and Politics: Transatlantic Perspectives, 1775-1830*, Karen Hagemann and Gisela Mettele eds. (London: Palgrave Macmillan, 2010), 169-187; Mary Sarnecky also has outlined the reliance of the American Army on female nurses in the Revolution. Mary T. Sarnecky, “Nursing in the American Army from the Revolution to the Spanish-American War,” *Nursing History Review* 5 (1997): 49-69.

The records of military medical care in the Revolutionary and Napoleonic Wars are widely available, yet the nurses who made up the majority of the staff, particularly at large military hospitals, are conspicuously absent from discussions of military medicine. Matthew Kaufman, for instance, offered a detailed study of surgical operations throughout the British Empire in the late-eighteenth century and nineteenth centuries, while Martin Howard's work examines the medical systems used in the Peninsular Campaign (1807-1814).³⁷ Because studies of military medicine, are often organized by conflict or geographical location, they rarely engage in comparative analysis.³⁸ Works that cover longer time frames, such as that by Richard Gabriel and Karen Metz the authors of *A History of Military Medicine*, provide some comparisons, but they say little about pre-Nightingale nursing.³⁹ Historians of naval medicine have been more attentive to nursing work, but still do not represent the extent of nursing labour in naval hospitals. Christopher Lloyd and Jack Coulter's *Medicine and the Navy*, which also covers a large time span (1200-1900) has more to say about nursing than most, referencing the disorderly conduct of nurses at Plymouth Naval Hospital.⁴⁰ Most studies of military and naval medicine focus on the work done by male medical practitioners, especially surgeons in military hospitals, whether regimental or general.⁴¹ Inserting nurses back into the history of pre-Nightingale

³⁷ Howard, *Wellington's Doctors*; Matthew Kaufman, *Surgeons at War: Medical Arrangements for the Treatment of the Sick and Wounded in the British Army during the Late Eighteenth and Nineteenth Centuries* (London: Greenwood Press, 2001).

³⁸ Erica Charters, "Disease, Wilderness Warfare, and Imperial Relations: The Battle for Quebec, 1759-1760," *War in History* 16(1) (2009); Geoffrey Hudson ed., *British Military and Naval Medicine, 1600-1830* (New York: Rodopi, 2007); Tabitha Marshall, "The Health of the British Soldier in America, 1775-1781," PhD Diss., McMaster University 2006.

³⁹ Christopher Lloyd and Jack Coulter, *Medicine and the Navy 1200-1900, 4 volumes, volume III: 1714-1815* (Edinburgh: E & S Livingstone Ltd., 1961); Neil Cantile, *A History of the Army Medical Department, Volume I* (Edinburgh: Churchill Livingstone, 1974); Gabriel and Metz, *A History of Military Medicine*.

⁴⁰ Lloyd and Coulter, *Medicine and the Navy*, 271-275.

⁴¹ Howard, *Wellington's Doctors*, 10.

military and naval medicine does more than just broaden the field of analysis; it gives scholars a more accurate picture of both eighteenth and nineteenth century developments.

Both military historians and nursing historians have chronicled the professional development and improvement of their subjects. For example, retired military officers or medical doctors frequently wrote military medical history before the opening up of the field in the 1980s. The interests of these professional men tended to reside with those most similar to themselves: the medical officers. The ties between nursing history and nursing practice are also strong. Nurses have tended to write nursing history with the intention that it will be read primarily by nurses. Originally, nursing history was designed by nursing educators to inspire student nurses to understand the foundation of their profession and its importance in modern medical practice.⁴² When nurses attempted to assert their rights for professional identity in the 1890s, they did so using the story of the most famous nurse of the time – Florence Nightingale (1820-1910). To the nineteenth-century public, Nightingale was seen not only as the saviour of countless British sick and wounded in the Crimean War, but also as the woman who single-handedly changed for the better the practice of nursing through her nursing schools.⁴³

⁴² Siobhan Nelson, “The Fork in the Road: Nursing History Versus the History of Nursing,” *Nursing History Review* 10 (2002), 176; Cynthia Toman and Marie-Claude Thifault, “Historical Thinking and the Shaping of Nursing Identity,” *Nursing History Review* 20 (2012), 184-185. This use of history mirrored the theories of William Osler regarding the use of medical history to excite medical students, and had its origins in the work of early nursing leaders. Frank Huisman and John Harley Warner, “Medical Histories,” in *Locating Medical History: The Stories and Their Meanings*, eds. Frank Huisman and John Harley Warner (Baltimore: Johns Hopkins University Press, 2004), 15

⁴³ Beatrice J. Kalisch and Philip A. Kalisch, “Anatomy of the Image of the Nurse: Dissonant and Ideal Models,” in *Image-Making in Nursing*, Carolyn A. Williams (Washington, D.C.: American Academy of Nursing, 1983), 6-9; Carol Helmstadter, “Robert Bentley Todd, Saint John’s House, and the Origins of the Modern Trained Nurse,” *Bulletin of the History of Medicine* 67(2) (1993), 282; Janet Wilson James, “Writing and Rewriting Nursing History: A Review Essay,” *Bulletin of the History of Medicine* 58(4) (1984), 568; Jane Schultz, “Nurse as Icon: Florence Nightingale’s Impact on Women in the American Civil War,” in *The Civil War as Global Conflict: Transnational Meanings of the American Civil War*, David T. Gleeson and Simon Lewis eds. (Columbia, SC: University of South Carolina, 2014), 235-252. There has been some attempt to complicate this narrative. See: Patricia D’Antonio, *American Nursing: A History of Knowledge, Authority, and the Meaning of Work* (Baltimore, MD: Johns Hopkins University Press, 2010), 2; Angela Cushing, “Method and theory in the practice of nursing history,” *International History of Nursing Journal* 2(2) (1996), 27-28; Christine E. Hallett, “Century of Transformation? Historical Perspectives on Nineteenth-Century Nursing,” *Women’s History Magazine* 65 (2011), 4

Another professionalization narrative, that of the Nightingale Nurse envisioned as a trained, disciplined, and chaste young woman, symbolized the 'new' face of nineteenth-century nursing by the 1880s. She offered a sharp contrast to the drunken, irresponsible, old woman associated with pre-Nightingale nursing.⁴⁴ Characterizations of the 'old' nurses are often synonymous with the figure of Sairey Gamp in Charles Dickens' novel *Martin Chuzzlewit*. Gamp, an overweight drunkard, with an androgynous appearance, and a “total lack of what we now call professional ethics,” has been used by many generations of nursing historians to illustrate the evolution of nineteenth century nursing.⁴⁵ For example, American nursing leaders Lavinia Dock and Adelaide Nutting capitalised on this image when they published the first volume of *A History of Nursing* (1907). Nightingale, according to Dock and Nutting, was the woman who saved nursing from “the darkest known period in the history of nursing” the seventeenth to mid-nineteenth centuries; a time when nursing “sank to an indescribable level of degradation.”⁴⁶ Such a teleological narrative within nursing history was most blatant in the 1960s and 1970s.⁴⁷ Josephine Dolan, in the eleventh edition of *Goodnow's History of Nursing* quotes Dock and Nutting at length to explain the general regression of nursing and hospital organization that was believed to have occurred in the eighteenth century.⁴⁸ Dolan then described eighteenth-century nurses as: “on a low level socially; [they] were unable to read or write; and were given to drunkenness and, consequently, to drowsiness.”⁴⁹ In Dolan's view,

⁴⁴ Sue Hawkins, *Nursing and Women's Labour in the Nineteenth Century*, 5.

⁴⁵ Carol Helmstadter, “A Third Look at Sarah Gamp,” *Canadian Bulletin of Medical History* 30(2) (2013), 142.

⁴⁶ Lavinia Dock and Adelaide Nutting, *A History of Nursing: The Evolution of Nursing Systems from the Earliest Times to the Foundation of the First English and American Training Schools for Nurses*, Volume I (New York and London: G. P. Putnam's Sons, 1907), 499.

⁴⁷ Abel-Smith; Bullough and Bullough, *The Emergence of Modern Nursing*; Christopher J. Maggs, *The Origins of General Nursing* (London & Canberra: Croom Helm, 1983); Josephine A. Dolan, *Goodnow's History of Nursing, Eleventh Edition* (Philadelphia and London: W. B. Saunders Company, 1963); M. Patricia Donahue, *Nursing The Finest Art: An Illustrated History, Third Edition* (Toronto: Elsevier Press, 2010).

⁴⁸ Dolan, *Goodnow's History of Nursing*, 181.

⁴⁹ Dolan, *Goodnow's History of Nursing*, 183.

“these women were more to be pitied than criticized. They had no desire for their job, nor did they have preparation for it, for they lacked the ability to comprehend it if an education were given to them.”⁵⁰ Mid-twentieth century nursing students were thus taught that not only were eighteenth-century nurses completely inept, but they did not even have the ability to understand instructions.

Some scholars have criticized this depiction by suggesting that the lack of pay and gendered assumptions contributed to these characterizations in the past. Vern Bullough and Bonnie Bullough offer a more nuanced assessment of eighteenth-century nursing, stating that “undoubtedly many of the nurses of the time left much to be desired,” but this is blamed upon the lack of pay for nurses, the “tendency to degrade the position of nurse,” and the reliance on untrained women to save money.⁵¹ Meanwhile, for Christopher Maggs, eighteenth-century nurses were “characterised, if not caricatured, as being little more than domestic servants of a rather rough and coarse type.”⁵² The portrayal of eighteenth-century nurses as undesirable, unskilled, and often drunk continues to dominate in nursing history. In the 2011 third edition of *Nursing the Finest Art*, M. Patricia Donahue, describes nursing between 1500 and 1860 as “The Dark Period of Nursing.”⁵³ She goes on to depict nurses as “illiterate, rough, and inconsiderate, oftentimes immoral or alcoholic.”⁵⁴ According to Donahue: “when a woman could no longer earn a living from gambling or vice, she might become a nurse. Nurses were drawn from among discharged patients and prisoners and from the lowest strata of society.”⁵⁵ These depictions, by Donahue, preceded a detailed discussion on the Sairey Gamp character.⁵⁶ The figure of

⁵⁰ Dolan, *Goodnow's History of Nursing*, 183.

⁵¹ Bullough and Bullough, *The Emergence of Modern Nursing*, Second Edition, 82.

⁵² Maggs, *The Origins of General Nursing*, 6.

⁵³ Donahue, *Nursing the Finest Art*, 112.

⁵⁴ Donahue, *Nursing the Finest Art*, 112.

⁵⁵ Donahue, *Nursing the Finest Art*, 112.

⁵⁶ Donahue, *Nursing the Finest Art*, 112-113.

Nightingale provided both a professional model and an important turning point for nursing reform and the birth of modern nursing.⁵⁷

This dissertation expands upon the traditional narrative of nursing history by considering proto-professionalised nurses, especially in the naval case, who were recognized for their abilities by the state. Many historians, following in the footsteps of Anne Summers, still assume that military nursing was solely a male occupation before the Crimean War.⁵⁸ Carol Helmstadter's recent work is an exception to this. She acknowledges the similarities between working-class nurses in the Crimean and Napoleonic War nurses, but highlights how the new intensive post-operative nursing care, required following the introduction of anaesthesia, meant that a different sort of nursing and nurses were needed.⁵⁹ There have been attempts in recent years to expand the purview of nursing history and to tackle the Nightingale myth. Nursing historian Monica Baly launched a revisionist assessment of Nightingale's work in 1986. According to Baly, the influence of Nightingale on nineteenth-century nursing had been distorted by late-nineteenth century nursing leaders "anxious to portray nursing as a homogeneous, education profession, [and] to be publicised as such."⁶⁰ In order to highlight Nightingale's

⁵⁷ Karen A. Wolf, "The Slow March to Professional Practice," in *A History of Nursing Ideas* eds. Linda C. Andrist, Patrice K. Nicholas, and Karen A. Wolf (Sudbury, Mass.: Jones and Bartlett Publishers, 2006), 308; Patricia D'Antonio, "The Legacy of Domesticity: Nursing in Early Nineteenth-Century America," in *Nurses' Work: Issues Across Time and Place* ed. Patricia D'Antonio et al. (New York: Springer Publishing Company, 2007), 34; Susan M. Reverby, *Ordered to Care: The Dilemma of American Nursing, 1850-1945* (Cambridge: Cambridge University Press, 1987); Helen Sweet, "Establishing Connections, Restoring Relationships: Exploring the Historiography of Nursing in Britain," *Gender & History* 19(3) (2007), 570.

⁵⁸ Anne Summers, *Angels and Citizens: British Women As Military Nurses 1854-1914* (London and New York: Routledge, 1988), 1. Kara Dixon Vuic, "Wartime Nursing and Power," in *Routledge Handbook on the Global History of Nursing*, Patricia D'Antonio, Julie A. Fairman, and Jean C. Whelan eds. (London and New York: Routledge, 2016), 23; Barbara Malin, "American Nightingales: The influence of Florence Nightingale on Southern nurses during the American Civil War," in *One Hundred Years of Wartime Nursing Practices, 1854-1953*, Jane Brooks and Christine E. Hallett, eds. (Manchester: University of Manchester Press, 2015), 42.

⁵⁹ Carol Helmstadter, "Class, gender and professional expertise: British military nursing in the Crimean War," in *One Hundred Years of Wartime Nursing Practices, 1854-1953*, Jane Brooks and Christine E. Hallett eds. (Manchester: University of Manchester Press, 2015), 30-31.

⁶⁰ Monica Baly, *Florence Nightingale and the Nursing Legacy* (London: Croom Helm, 1986), 4.

influence these late-nineteenth century nursing leaders “portray[ed] the Nightingale reforms as a dramatic break with the past.”⁶¹ For Baly “there was no sudden beam from Miss Nightingale’s lamp; reform came slowly and painfully and what became known as the Nightingale system was not an ideal scheme of Miss Nightingale’s devising but pragmatic experiment and the result of enforced compromise.”⁶² This critique was continued by Mark Bostrige who found that Nightingale herself “had no patience with her legend, or with anyone seeking to promote it.”⁶³ However, there has also been a reaction to anti-progressivist arguments from some nursing historians, such as Lynn McDonald. She criticised historians for their revisionist approaches to Nightingale and the scholarly work that has been produced: “[t]his negative secondary literature has become for many authors a new canon, quoted as if reliable.”⁶⁴ Instead, McDonald urges nursing historians to return to the original primary source material concerning Nightingale rather than engaging with revisionist historians.⁶⁵ Recently, Carol Helmstadter and Judith Godden have presented a more nuanced analysis of nineteenth-century nursing reforms, with an extended discussion of the influence of military thought in London hospitals following the Napoleonic Wars and nursing’s connection to the new medicine.⁶⁶ Whereas Helmstadter and Godden expand the period associated with nursing reform to consider the St. John’s House nursing sisters in the 1840s, they adhere to a traditional nursing history narrative.⁶⁷ In contrast, this dissertation situates nursing in a broader discussion of continuity and change within the medical systems of

⁶¹ Baly, *Florence Nightingale and the Nursing Legacy*, 4.

⁶² Baly, *Florence Nightingale and the Nursing Legacy*, 4.

⁶³ Mark Bostrige, *Florence Nightingale: The Woman and Her Legend* (New York: Viking, 2008), 515.

⁶⁴ Lynn McDonald, “Mythologizing and De-Mythologizing,” in *Notes on Nightingale: The Influence and Legacy of a Nursing Icon* Sioban Nelson and Anne Marie Rafferty, eds. (Ithaca and London: ILR Press and Imprint of Cornell University Press, 2010), 91.

⁶⁵ Lynn McDonald, “Mythologizing and De-Mythologizing,” 92.

⁶⁶ Carol Helmstadter and Judith Godden *Nursing before Nightingale, 1815-1899* (Farnham, Surrey: Ashgate, 2011), 2.

⁶⁷ Helmstadter and Godden, *Nursing Before Nightingale*, 126.

the late-eighteenth and early-nineteenth centuries. Highlighting the continuity between the two periods demonstrates how some aspects of mid-nineteenth century nursing reforms can be connected to the Napoleonic Era. These connections are particularly evident in naval hospitals as both the role of the nurse and the organisational framework of the hospitals were similar to reformed hospitals in the later nineteenth century.

By complicating the picture of nursing before Nightingale with a detailed investigation of pre-Crimean military and naval nursing, this thesis extends back into the eighteenth century what Siobhan Nelson has characterized as the “progressive” narrative of nursing history, which links modern nursing practice to the Nightingale reforms.⁶⁸ Military and naval nursing during the Revolutionary and Napoleonic Wars was an important component of the new hospital medicine as many of the physicians and surgeons who ultimately implemented these changes in the civilian system were former medical officers.⁶⁹

As a field, since the 1960s, military history has gradually distanced itself from its traditional foundations of battle narratives and officer biographies.⁷⁰ Drawing on social history approaches, military historians consider war’s relationship to society.⁷¹ Early modern military studies have not yet incorporated women’s roles in military matters to any great extent. Two notable exceptions are John Lynn's *Women, Armies, and Warfare in Early Modern Europe* and Linda Grant De Pauw's *Battle Cries and Lullabies*.⁷² These works underscore the importance of women to the functioning of an early modern army of which nursing was but one part. This

⁶⁸ Siobhan Nelson, “Reading Nursing History,” *Nursing Inquiry* 4 (1997), 234.

⁶⁹ Nelson, “Reading Nursing History”; Kelly, *War and the Militarization of British Army Medicine*, 13.

⁷⁰ Michael Howard, “The Use and Abuse of Military History,” *Royal United Services Institute Journal* (1962), 1.

⁷¹ Paul Kennedy, “The Fall and Rise of Military History,” *MHQ: The Quarterly Journal of Military History* 3(2) (1991), 4; John A. Lynn, “The Embattled Future of Academic Military History,” *The Journal of Military History* 61(4) (1997), 777; John Keegan, *The Face of Battle* (New York: Viking Press, 1976).

⁷² John A. Lynn, *Women, Armies, and Warfare in Early Modern Europe* (Cambridge: Cambridge University Press, 2008); Linda Grant De Pauw, *Battle Cries and Lullabies: Women in War from Prehistory to the Present* (Norman: University of Oklahoma Press, 1998).

dissertation shows how the work of women was legitimised in eighteenth-century military installation, which helped remove the stigma attached to women who were previously designated as unprofessional and morally questionable “camp followers.”

Medical historians have paid more attention to gender in the medical marketplace than their scholarly counterparts in nursing history. Margaret Pelling, for example, argues that by the seventeenth century male surgeons and physicians were involved in occupations that “compromised them in gender terms because [their work] carried associations belonging, or seen as belonging, to the world of women.”⁷³ However, the relationship between gender and medical practice in the eighteenth century was complex; male and female medical practitioners could not be easily categorized due to their gender alone. Male midwives encroached on territory once reserved for women and not only succeeded in the medicalisation of childbirth, but also ensured that “men's obstetric authority seemed no longer oxymoronic, but rather, simply assumed as enabling the master over nature and the world.”⁷⁴ Lianne McTavish tracks a similar change in France as male midwives went from being “identified with death” in the sixteenth century to “attending even the uncomplicated deliveries of wealthy, urban clients in the late eighteenth century.”⁷⁵ As with midwifery, both men and women engaged in nursing activities. However, within the framework of eighteenth and early-nineteenth century naval hospitals women exclusively performed nursing roles.

⁷³ Margaret Pelling, “Compromised by gender: the role of the male medical practitioners in early modern England,” in *The task of healing: Medicine, religion and gender in England and the Netherlands, 1450-1800*, eds. Hilary Marland and Margaret Pelling (Rotterdam: Erasmus Publishing, 1996), 101.

⁷⁴ Lisa Forman Cody, *Birth of the Nation: Sex, Science, and the Conception of Eighteenth-Century Britons* (Oxford: Oxford University Press, 2005), 30.

⁷⁵ Lianne McTavish, *Childbirth and the Display of Authority in Early Modern France* (Aldershot: Ashgate, 2005), 1.

Dissertation Organization

Investigating the connection between nursing, gender, and race necessitates a strict examination of nursing work. Chapter One illustrates the importance of nurses for maintaining a clean hospital environment. The very definition of cleanliness changed throughout the late-eighteenth and early-nineteenth centuries, especially as more households were able to acquire soap and heat sufficient quantities of water. The human body became a new object of hygiene and cleanliness. Homes were also subjected to scrutiny about cleanliness. Women disproportionately became responsible for maintaining new levels of cleanliness through body washing and laundering. Within the space of the hospital, the ability of female nurses to maintain clean, and therefore healthy, environments was essential. Additionally, medical practitioners and others in positions of authority believed that cleaning was innate to women, and the ability to clean was one of the reasons why these men chose to hire women for nursing work.

Ventilation, the second key component of the nurses' role in creating an environment conducive to healing, is considered in Chapter Two. Eighteenth-century medical practitioners believed that environmental factors either promoted or hindered recovery through a direct relationship between the environment and a patient's constitution. These ideas continued to be influential into the nineteenth century, when medical practitioners discussed best practices to prevent the build-up of noxious effluvia (vapours given off by the sick body) in their enclosed institutions. In some hospitals, mechanical ventilators were installed to circulate the air, but for most open windows enabled fresh breezes to enter wards. Medical practitioners have often been credited, in their own writings and by medical historians, with improving hospital ventilation. But in fact, the everyday work of ventilation and air purification through fumigation was in the hands of nurses as an extension of maintaining the domestic space.

The stratified and racialised labour market of the West Indies magnified the associations between naval and military nursing and domestic skills. In a tropical climate, enslaved women were the ideal women to perform nursing labour because of their apparent immunity to tropical diseases and their domestic labour experience. Chapter Three demonstrates the influence of eighteenth-century medical theory on West Indian societal and labour expectations, and the economic opportunities of slave owners and hospitals. Like the previous chapters, this section also examines the role nurses played in everyday medical care and in ensuring that sick and wounded servicemen could re-join the British war effort. The torrid environment of the West Indies was believed in the eighteenth and early-nineteenth centuries to be the unhealthiest and deadly region in the world due to malaria and yellow fever. Adequate nursing care was recognized by medical practitioners to be one of the most beneficial medical practices when dealing with fevers where other medical interventions yielded little benefit.⁷⁶ Therefore, the selection of nurses in the West Indies was of great importance. The near universal British belief that Blacks were immune to tropical diseases ensured their employment in the British military forces by the 1790s, but Black nurses had been, and would continue to be employed, by the British state throughout the eighteenth and early-nineteenth centuries. A case study of Bermuda Naval Hospital illustrates the close relationship that the Royal Navy had with local slave owners through the employment of enslaved women, either as nurses or in other domestic roles in the hospital.

⁷⁶ Henry Warren, *A Treatise Concerning the Malignant Fever in Barbados, and the Neighbouring Islands* (London: Fletcher Gyles, 1740), 54; Thomas Dickson Reide, *A view of the diseases of the army in Great Britain, America, the West Indies, and on board of King's ships and transports* (London: J. Johnson, 1793), 238-239; John Hunter, *Observations on the Diseases of the Army in Jamaica*, Second Edition (London: J. Johnson, 1796).

The analysis underpinning my first three chapters embraces the twentieth-first century historiographical ‘practice turn’ in nursing history.⁷⁷ Considering the work that was done by nurses – cleaning, ward management, ventilation, preventing contagion – was also domestic and often seen as servant’s labour. As Patricia D’Antonio argues, historians should take “historical women’s house work, care work, and neighborhood work, every bit as seriously as their professional work.”⁷⁸ Skills learned in the domestic realm were prerequisites to becoming a nurse in military and naval institutions, in the same way that these skills were of importance in civilian institutions. Yet, in the military and naval setting the domestic skills of nurses in cleanliness, ventilation, and patient care, were deployed by the state. State recognition for nursing work, so necessary for nursing history and the push for nurse registration in the late-nineteenth century, was already present, if less explicit, in the late-eighteenth and early-nineteenth century.⁷⁹

Chapter Four considers Plymouth Naval Hospital as a large and complex household in order to consider the nursing workforce. Applying a domestic framework to a big military institution might seem counterintuitive due to their inherently martial (and masculine) nature, but contemporaries explicitly referred to military hospitals in household terms. Hospital regulation

⁷⁷ Jane Brooks, “Wartime Nursing: Feeding as Forgotten Practice,” in *Nursing History for Contemporary Role Development*, Sandra B. Lewenson, Annemarie McAllister, Kylie M. Smith eds. (New York: Springer Publishing Company, 2017), 71; Christine E. Hallett, *Containing Trauma: Nursing Work In The First World War* (Manchester: Manchester University Press, 2009), 1; Jane Brooks and Christine E. Hallett, “Introduction: The practice of nursing and the exigencies of war” in *One Hundred Years of Wartime Nursing, 1854-1953*, Jane Brooks and Christine E. Hallett eds. (Manchester: University of Manchester Press, 2015), 3. Patricia D’Antonio, Julie A. Fairman and Jean C. Whelan, “Introduction,” in *Routledge Handbook on the Global History of Nursing*, Patricia D’Antonio, Julie Fairman and Jean C. Whelan eds. (London and New York: Routledge, 2017), 5-6; Karen Nolte, “Protestant Nursing Care in Germany in the 19th Century: Concepts and social practice,” in *Routledge Handbook on the Global History of Nursing*, Patricia D’Antonio, Julie Fairman and Jean C. Whelan eds. (London and New York: Routledge, 2017), 167-168; Julie Fairman and Patricia D’Antonio, “Reimagining Nursing’s Place in the History of Clinical Practice,” *Journal of the History of Medicine and Allied Sciences* 63(4) (2008) 436.

⁷⁸ Patricia D’Antonio, “History for a practice profession,” *Nursing Inquiry* 13(4) (2006), 245.

⁷⁹ Sioban Nelson, “The Fork in the Road: Nursing History Versus the History of Nursing?,” *Nursing History Review* 10(1) (2002): 176-177; Sweet, “Establishing Connections, Restoring Relationships,” 570-571.

books and medical treatises, for example, classed nurses, orderlies, porters, washerwomen and others as “servants” of the hospital.⁸⁰ Most employees were civilians, although the physicians and surgeons in charge were military officers. These professional men fulfilled the roles of heads of the households. Nursing historian Susan Reverby used a similar approach to examine nursing in Victorian hospitals. Considering the eighteenth-century hospital as a household helps to underscore the importance of nurses to successful hospital operation. Nurses' cleaning responsibilities might appear menial to medical historians and not especially ‘medical’, but they were painstakingly outlined in hospital regulations as crucial for hygienic medical practice.⁸¹ For example, writing in 1814, naval surgeon Gilbert Blane credited the “sudden decrease of sickness in the first years of this century” to preventative measures such as “improvement in the method of promoting ventilation and cleanliness.”⁸² That hospital administrators entrusted nurses with these increasingly important duties suggests nurses' enhanced importance after the turn of the nineteenth century. Sociologist and historian Eva Gamarnikow asserted that nurses' cleaning tasks were redefined after 1860 (i.e. after Nightingale's reforms) to become “the nurse's contribution to hygiene and patient welfare.”⁸³ The ideological shift seen by Gamarnikow in the civilian context had already happened in military and naval medicine, since cleanliness was seen as a preventative measure in late-eighteenth-century military and naval medicine. This reconfigured chronology of cleanliness demonstrates the continuity between late-eighteenth-century military nursing and nineteenth-century civilian nursing.

⁸⁰ W. Clowes, *Regulations for the Management of the General Hospitals in Great Britain* (London, 1813), 9; *Instructions from the Army Medical Board of Ireland, to Regimental Surgeons Serving on That Establishment, For Regulating the Concerns of the Sick and The Hospital* (Dublin, 1806), 37-42; *Instructions for the Royal Naval Hospitals at Haslar & Plymouth* (St. George's Fields: The Philanthropic Society, 1808), 7.

⁸¹ *Instructions from the Army Medical Board of Ireland*, 6-7.

⁸² Gilbert Blane, “Statements of the Comparative Health of the British Navy, From the Year 1779 to the Year 1814, With Proposals for its Farther Improvement,” *Medico-Chirurgical Transactions* (1815), 503.

⁸³ Eva Gamarnikow, “Nurse or Woman: Gender and Professionalism in Reformed Nursing 1860-1923,” in *Anthropology and Nursing* Pat Holden and Jenny Littlewood eds. (London and New York: Routledge, 1991), 115.

Through an analysis of alterations within these regulations over time, in Chapter Five I show the evolution of nurses' positions in the military and naval hospital system before the nineteenth century. Specifically, I examine how the two services utilised the work of nurses in distinct ways. Both services had a preference to employ female nurses, due to the perceived gendered suitability of women to carry out nursing labour. However, the permanent physical medical buildings of the Royal Navy, and the continued operation of these hospitals in peace and war, meant that the role of nurses was integrated into all facets of the successful running of these institutions. In comparison, each new war required a rebuilding of the military medical hospital system and redeploying women as nurses. The role of nurses in the army was only standardized in regimental hospitals in 1799 and changed very little during the Revolutionary and Napoleonic Wars. A comparison of military and naval nursing regulations with those in force for civilian institutions shows how the naval view of nurses and their role foreshadowed later nineteenth-century hospital organization under the Nightingale reforms. The contrast between the army and navy is further illustrated by the growing expectations of nurses' work in naval institutions and the stagnant nature of nursing duties in the army case.

By considering military and naval nursing from several interconnected angles, my dissertation makes historiographical contributions in the fields of nursing and medical history, military and naval history, British history, environmental history, gender history, and Caribbean history. Within the framework of nursing and medical history, I extend ideas of nursing reform back into the eighteenth-century clinical setting of naval hospitals and demonstrate the importance of female nurses in military and naval healthcare contexts. The work of these women in the day-to-day application of medical treatments shows the late-eighteenth and early-nineteenth century relationship between medical practitioners and nurses in military and naval

medicine, and though some medical treatments had evolved by the mid-nineteenth century nursing reforms, the role of nurses in patient care was similar in each time period.

The work of nurses in regimental and general hospitals shows how nurses and nursing care were important for ensuring that sick and injured soldiers returned to the battlefield, thereby helping to combat the British Army's manpower problems. This work gave the so-called 'camp followers' of the eighteenth and early-nineteenth centuries a legitimate paid place in the military framework. Yet, as a comparison of the army and the navy reveals, the lack of integration of individual nurses, or other care workers in the military medical system, helped to foster the *ad hoc* nature of military reform in the Napoleonic Era. Nursing care in the navy also contributed to the return of sailors to their ships and therefore to the British war effort. However, the mechanism of recording pay for nurses shows the more established framework of logistical care in the naval service. This is also seen through the standardisation of regulatory practices throughout the Atlantic World, which I utilise to demonstrate the reciprocal relationship between the colonial hinterland and the metropole.

Within the broader framework of British history, the employment of civilian female nurses highlights the contribution of civilians from the lower social orders to the British war effort and British imperial history. These women were put to work for either the military or naval service through the desire of military and naval authorities to employ the wives and widows of non-commissioned officers or ordinary seamen. These women were civilians working within martial settings in part from a primitive 'duty to care' shown by the state. Official hiring practices for widows and wives are indicative of the state's perceived obligation to care for these women not through a pension but through the opportunity for employment. These practices help

to illustrate that eighteenth-century military and naval nursing is not a just a military story, but part of a wider British history of relations between the state and the people.

In the West Indies, ideas of immunity and societal conditions, necessitated the employment of enslaved labour in naval hospitals. These women were believed by medical practitioners to be immune to the tropical diseases that had proven to be so deadly to European soldiers and sailors. The employment of Black nurses and the practice of paying their owners for their labour reveals the uncomfortable relationship between the British state, colonialism, and human bondage. Within this ‘contract labour’ framework, the state was able to never directly employ slave labour at the same time that British naval forces were actively policing the slave trade. The decision to employ Black nurses in the West Indies also demonstrates the importance of environmental theories of disease to medical practice; environmental understandings of disease and racialized immunity were not merely theoretical. Environmental understandings of medicine and a healthy healing environment, whether through hospital design or location, have long been studied by medical and environmental historians. However, the examination of nurses and nursing work in this dissertation extends these ideas to the everyday workings of military and naval institutions.⁸⁴ The pre-modern importance of the interactions between the built and unbuilt environments can be seen in the design of these institutions and the attempt to ventilate them.

From the perspective of labour in the Caribbean, most historical work focuses on enslaved labour on plantations. The case of the Bermuda Naval Hospital, and the enslaved nurses who worked there, adds to the story of urban labour networks in the West Indies.

⁸⁴ Christine Stevenson examines the importance of architecture in ensuring ventilation and the function of naval hospitals at Haslar and Plymouth. Stevenson, *Medicine and Magnificence*, 162-163, 176-185; Stevenson, “From Palace to Hut,” 233-238.

Furthermore, this case study sheds light on the relationship of smaller-scale slave owners with the imperial state. Although the decision to hire enslaved nurses to work in naval institutions is quite remarkable in many ways, if stripped of the racial and environmental components, these women were employed due to the universality of ideas of women's innate aptitude for cleanliness, ventilation, and the domestic abilities, which underpinned the employment of nurses at Haslar and Plymouth in Britain.

Conclusion

This dissertation brings eighteenth-century military and naval nurses out of obscurity. It also delineates the creation of the gendered division of labour in military and naval hospitals. The late-eighteenth and early-nineteenth century represents a period of transition in the history of nursing, as the military medical system evolved in order to deal with increased imperial responsibilities. Unprecedented numbers of sick and injured servicemen to take care of at various posts around the world necessitated a more complex and more standardised military and naval medical system. The construction of clinical military hospitals in this period was crucial to linking military nurses to civilian nurses who later operated under the new medical understandings in clinical institutions of the nineteenth century. A clearer picture of these relations, changes, and continuities dispels the perception of military nursing as ineffective or indeed non-existent in the dark ages of the pre-Reform era.

CHAPTER ONE: Care and Cleanliness: Female Nurses in Naval and Military Hospitals

Introduction

Large numbers of female nurses were employed in eighteenth and early-nineteenth century military and naval hospitals. Yet nursing historians have largely overlooked their contributions in the context of either the military or health care. It was a commonly held belief in the eighteenth century that women had an especial capacity to care for the sick and wounded.¹ It was after all, quotidian and close body care that distinguished the role of the nurse from that of the formally trained military or naval medical practitioner. Yet, this was more than just a theoretical construct of eighteenth-century life women indeed had the practical skills necessary for nursing care. Examining the work of nurses in providing a clean, and therefore more effective, healing environment illuminates the importance of gendered labour in this healing context. Without nurses to provide patient care (everyday nursing encompassing the administration of medicines, dressing of wounds, and other care work) within a clean environment, the military and naval hospital was not able to function in its primary mission: to cure patients and control the further spread of diseases.²

¹ Deborah Simonton, *A History of European Women's Work: 1700 to the Present* (London and New York, 1998), 18.

² Building on this foundation it is possible to consider ward space as a built environment in chapter 2 and as a domestic space in chapter 4. The underlying belief, that women were suited to nursing work, also underpins the decision to use female Black nurses in the West Indies as discussed in chapter 3.

Historiography

The late-eighteenth and early-nineteenth century saw a change in how cleanliness and what it meant to be clean were perceived. Most homes in the lower and middling orders did not have the money to purchase soap or the capacity to collect fuel to heat enough hot water to wash their bodies, clothes, and homes.³ Despite these realities, as historian Deborah Simonton has shown, the period witnessed the start of a new understanding of the relationship between cleanliness, domestic work, and morality.⁴ Between the late-seventeenth and late-eighteenth centuries, the virtue that Britons credited white linen with producing went beyond clothing to the previously-hidden human body itself and visible spaces of the home.⁵ Within these spaces, like the space of the hospital, women were responsible for ensuring cleanliness.⁶ Some cleaning practices utilised in military and naval hospitals, such as dry-rubbing (scrubbing with a dry brush and sand), would have been particularly familiar to women from the lower orders of society.⁷ Historian Bridget Hill even argues that familiarity with such methods of cleaning would have been an assumed skill set of young women before marriage.⁸ Perceptions of cleanliness and how to clean changed between the mid-eighteenth and early-nineteenth century as bodily and environmental cleanliness became more attainable and desirable for ordinary people.

³ Bridget Hill, *Women, Work and Sexual Politics in Eighteenth-Century England*, (London and New York: Routledge, 1994), 109-111.

⁴ Simonton, *A History of European Women's Work*, 93-94.

⁵ Kathleen Brown, *Foul Bodies: Cleanliness in Early America* (London and New Haven: Yale University Press, 2009), 40-41. Hill, *Women, Work and Sexual Politics*, 118.

⁶ Suellen Hoy, *Chasing dirt: The American Pursuit of Cleanliness* (New York and Oxford: Oxford University Press, 1995), xiv, 4, 7, 15-19; Marie-Clair Rouyer-Daney, "The Representation of Housework in the Eighteenth-Century Women's Press," in *The Invisible Woman: Aspects of Women's Work in Eighteenth-Century Britain*, Isabelle Baudino, Jacques Carré, and Cécile Révauger eds. (Aldershot, Hampshire: Ashgate, 2005), 28-29, 35; Katherine Ashenburg, *The Dirt on Clean: The Unsanitized History* (Toronto: Alfred A. Knopf Canada, 2007), 134; Brown, *Foul Bodies*, 61-66, 109-114; Victoria Kelley, *Soap and Water: Cleanliness, Dirt and the Working Classes in Victorian and Edwardian Britain* (London and New York: I. B. Tauris, 2010), 1;

⁷ For more on the process of dry-rubbing see Hannah Glasse, *The servant's directory, or house-keeper's companion* (London: W. Johnston, 1760), 31.

⁸ Hill, *Women, Work and Sexual Politics*, 115.

Commercially produced soap from vegetable oils meant that soap was cheaper, while new manufacturing processes made hard bar-soap more readily available.⁹

Cleanliness of the home, the body, and body linen was associated with women inside the home, the hospital, and in urban and rural areas. While it is true that early modern women “spent a good deal of time cooking, cleaning, washing, and looking after young children,” this did not mean that they were confined within the four walls of the home.¹⁰ Urban and rural women shared the responsibilities of women’s domestic management, socialised while labouring, and spent a fair bit of time outside the home at wells and shops.¹¹

Women were also responsible for bodily cleanliness. Kathleen Brown characterised this responsibility as “essentially delegating to women the labour of producing the civilized bodies through which imperial power would be articulated” in eighteenth and early nineteenth century America.¹² In the view of many medical practitioners, the same associations of women and cleanliness transferred to nurses, simply because nurses were women.

However, for some historians, the ties between nurses and cleanliness were also associations with menial labour. Nursing historians, particularly Carol Helmstadter, have reinforced the importance of cleanliness to the work of pre-Nightingale nurses by highlighting the ties between early nineteenth-century nursing work, charwomen, and domestic servants.¹³

⁹ Woodruff Smith, *Consumption and the Making of Respectability, 1600-1800* (London and New York: Routledge, 2002), 135-136; Brown, *Foul Bodies*, 221.

¹⁰ Amanda Flather, “Space, Place, and Gender: The Sexual and Spatial Division of Labor in the Early Modern Household,” *History and Theory* 52(3) (2013), 348.

¹¹ Flather, “Space, Place, and Gender,” 348-349; Virginia Smith, “Cleanliness: idea and practice in Britain, 1770-1850,” (PhD Dissertation: London School of Economics and Political Science (University of London), 1985), 151.

¹² Brown, *Foul Bodies*, 7.

¹³ Jacques Carré, “Hospital Nurses in Eighteenth-Century Britain: Service without Responsibility,” in *The Invisible Woman: Aspects of Women's Work in Eighteenth-Century Britain*, Isabelle Baudino, Jacques Carré, and Cécile Révauger, eds. (Aldershot, Hampstead: Ashgate, 2005), 89; Carol Helmstadter, “Early Nursing Reform in Nineteenth-Century London: A Doctor-Driven Phenomenon,” *Medical History* 46(3) (2002), 328; Carol Helmstadter, “Nurse recruitment and retention in the 19th century London teaching hospitals,” *International History of Nursing Journal* 2(1) (1996), 59-60; Carol Helmstadter, “Old Nurses and New: Nursing in the London Teaching Hospitals Before and After the Mid-Nineteenth-Century Reforms,” *Nursing History Review* 1(1993), 64; Carol

However, the association of nursing work with the activities of charwomen obscures the medical nature and understanding of cleaning in the late-eighteenth and early nineteenth centuries.

Methodology

The contemporary association between women's domestic work, women's cleaning labour, and women's roles in the provision of a clean environment was one of the essential elements of a healing institution. This association must be explored and contextualized to understand the broader significance of nurses' work in military and naval hospitals. How medical practitioners and others in positions of authority perceived the role of nurses in clinical naval and military institutions demonstrates both the importance of nursing care and nurses' involvement in the provision of cleanliness. Medical practitioners viewed women as possessing an innate capacity to care and an ability to clean; these two seemingly unique abilities had been granted to their gender by God.¹⁴ Connecting these ideas to those of British society at large situates the work of nurses as part of a broader socially and culturally formed ideal surrounding the role of women, both practically and morally. Regarding practical skills, the task of cleaning, at first glance, may seem to reinforce the definition of nurses as menial labourers.¹⁵ However, while such work was hard and intensive, it was a crucial necessity to the proper function of military and naval

Helmstadter, "Shifting boundaries: religion, medicine, nursing, and domestic service in mid-nineteenth-century Britain," *Nursing Inquiry* 16(2) (2009), 136; Carol Helmstadter, "Class, gender and professional expertise: British military nursing in the Crimean War," in *One Hundred Years of Wartime Nursing Practices, 1854-1953*, Jane Brooks and Christine E. Hallett, eds. (Manchester: Manchester University Press, 2015), 25. Carol Helmstadter and Judith Godden, *Nursing Before Nightingale, 1815-1899* (Farham, Surrey: Ashgate, 2011), 8-11.

¹⁴ Robert Hamilton, *The Duties of a Regimental Surgeon Considered* (London, 1787), 7, 30-32, 53; For natural and divine distribution of labour see Deborah Simonton, "Schooling the poor: gender and class in eighteenth-century England," *Journal for Eighteenth Century Studies* 23(2) (2000): 186.

¹⁵ It is the dominate historiographical trend in nursing history to view pre-Nightingale nurses as menial labourers in need of reform. Sue Hawkins, "From Maid to Matron: nursing as a route to social advancement in nineteenth-century England," *Women's History Review* 19(1) (2010), 125.

hospitals, which will be shown through an examination of medical literature concerning cleanliness and preventative medicine.

Capacity to Care: Women as Nurses

Military and naval forces had long relied on women to provide basic nursing work, including patient care and the maintenance of cleanliness.¹⁶ In the early eighteenth century there were two options for naval nursing care: town quarters wherein sick and injured seamen were lodged and nursed in private homes (also known as sick quarters), and after 1703 hired hospitals established on a contract-by-contract basis.¹⁷ However, in the army such services were normally acquired on an informal basis. By the middle of the eighteenth century, nursing arrangements became more formalized. While it was generally understood that nurses should be found for tending to the sick, there were no specific requirements, or clear instructions on who should be hired to provide care until after the Seven Years' War (1754-1763).¹⁸

The labour market of port towns, especially in wartime, meant that many medical practitioners who sought nurses could take the best candidates who were available, whether they be female or male.¹⁹ For example, in a 1741 letter the commander of the *Sutherland* hospital ship in Portsmouth harbour asked the Sick and Hurt Board:

¹⁶ Eric Gruber von Arni, *Hospital Care and the British Standing Army, 1660-1714* (Aldershot: Ashgate, 2006); John A. Lynn, *Women, Armies, and Warfare in Early Modern Europe* (Cambridge: Cambridge University Press, 2008); Linda Grant De Pauw, *Battle Cries and Lullabies: Women in War from Prehistory to the Present* (Norman, OK: University of Oklahoma Press, 1998), 17-18.

¹⁷ The Matthew Neufeld and Blaine Wickham, "The State, the People and the Care of Sick and Injured Sailors in Late Stuart England," *Social History of Medicine* 28(1) (2014), 46; Patricia K Crimmin, "The Sick and Hurt Board and the health of seamen c. 1700-1806," *Journal of Maritime Research* 1(1) (1999), 55-56.

¹⁸ Erica Charters, *Disease War and the Imperial State: The Welfare of the British Armed Forces during the Seven Years' War* (Chicago and London: University of Chicago Press, 2014), 99.

¹⁹ Laurence Fontaine, "Makeshift, Women and Capability in Preindustrial European Towns," in *Female Agency in the Urban Economy: Gender in European Towns, 1640-1830*, eds. Deborah Simonton and Anne Montenach, (London and New York: Routledge, 2013), 61.

As this ship is going to Spithead to take on Board Sick men, I beg you will send down the Compliment of Nurses or give me directions to procure them my self, and upon what Conditions, and if they are to be men or Women, Commissr. Heughes with whome I was last night says it will be impossible for me to get Men Nurses in this place, and I hear the Surgeon of the Slemham hospital Ship found difficulty to get the Women he has now, but if you please to Give me your dirrectiones, Shall do my best to furnish my self with those I can find are best Qualified, for this purposes, and should be glad to know if there is a washerwoman or man to be allowed besides the Nurses.²⁰

Rogue was successful in finding female nurses for his hospital ship, mentioning in a hastily scrawled postscript: “Just now there is come to me three women Nurses Offering their Service to go abroad in the Ship, I have Examin'd them, and find they have been all used to Nursing; and appear to be Sober discret women but I could say nothing to them till I have yr. Commands only desired them to Call again in three days.”²¹ Rogue's preference to employ women as nurses on the *Sutherland* was linked to their skills as laundresses, but in a pinch, he would employ whoever was available to do the work.

During the eighteenth and early nineteenth century, women were viewed as primarily responsible for the “drudgery” of domestic labour, including keeping domestic spaces clean.²² Lower-level female domestic servants were primarily employed in cleaning work.²³ Most female servants were employed in “the house-work that is not usually seen,” as François de la Rouchefoucauld described during his visit to Suffolk in 1784.²⁴ However, medical practitioners,

²⁰ “George Rogue to Navy Board,” 20 July 1741, TNA, ADM 106/945/148, “Miscellaneous in-letters to the Navy Board from S correspondents.”

²¹ “George Rogue to Navy Board,” 20 July 1741, TNA, ADM 106/945/148.

²² Bridget Hill, *Servants: English Domestic in the Eighteenth Century* (Oxford: Clarendon Press, 1996), 39. See also: R. C. Richardson, *Household Servants in Early Modern England* (Manchester: Manchester University Press, 2010), 189-190; Tim Meldrum, *Domestic Service and Gender 1660-1750: Life and Work in the London Household* (London: Longman, 2000), 41-42; Rouyer-Daney, “The Representation of Housework,” 30.

²³ Richardson, *Household Servants in Early Modern England*, 42-45. Richard L. Bushman and Claudia L. Bushman, “The Early History of Cleanliness in America,” *The Journal of American History* 74(4) (1988, 1214. Amanda Vickery, *Behind Closed Doors: At Home in Georgian England* (New Haven and London: Yale University Press, 2009), 164.

²⁴ Jean Marchand, ed., *A Frenchman in England 1784: Being the Mélanges sur l'Angletere of François de la Rouchefoucauld* (Cambridge: Cambridge University Press, 1993), 25.

like William Buchan in his popular household manual, berated both individual men and women who failed to live up to societal standards of personal cleanliness: “The want of cleanliness is a fault which admits no excuse. Where water can be had for nothing, it is surely in the power of every person to be clean.”²⁵ The societal requirement for household cleanliness did not extend to male servants. Rather men servants tended to be employed in public positions (butlers, coachmen) meant to demonstrate the status of the family they served.²⁶ During the 1790s, girls were taught the importance of having clean homes through Sunday School literature: “A good Girl loves to be neat and clean. It is a sad sight to see dirt on the skin.”²⁷ The early integration of a cleanliness narrative into Sunday School literature demonstrates how these charitable institutions saw cleanliness as a worthwhile pursuit for the working class, and the role of these activities in creating proper servants and “useful members of society.”²⁸ Another example from prescriptive literature is *The Charity School Spelling Book*, which recounts the story of Polly Dun, a former beggar, who was rescued from her parentless plight by a kind farmer, who enrolled her in school. At school Polly, “learnt to spin and knit, and sew and work, and clean a house; and in time she was a neat tight girl, and got a good [job].”²⁹ English women were often praised by foreign visitors for their ability to keep their homes clean, even if they lived otherwise in a deplorable state.³⁰ Peter Kalm, a German traveller passing through London on his way to

²⁵ William Buchan, *Domestic Medicine* (London, 1784), 95.

²⁶ Susan E. Brown, “Assessing Men and Maids: The Female Servant Tax and Meanings of Productive Labour in Late-Eighteenth-Century Britain,” *Left History* 12(2) (2007): 12-13.

²⁷ First published in 1798. Sarah Trimmer, *The Charity School Spelling Book. Part I Containing the Alphabet, Spelling Lessons, and Short Stories of Good and Bad Girls, in Words of One Syllable Only* (London: P. C and J. Rivington, 1812), 16.

²⁸ Sarah Trimmer, *The Oeconomy of Charity; or an Address to Ladies Concerning Sunday-Schools* (London: T. Bensley, 1787), 119. See also Dorice Williams Elliott, “The Gift of an Education: Sarah Trimmer’s *Oeconomy of Charity* and the Sunday School Movement,” in *The Culture of the Gift in Eighteenth-Century England*, Linda Zionkowski and Cynthia Klekar eds. (New York: Palgrave Macmillan, 2009), 113-114.

²⁹ Trimmer, *The Charity School Spelling Book*, 34.

³⁰ In comparison, Tobias Smollett and other British travellers saw the “Italian and French standards of hygiene ... as laughably inadequate.” Ashenburg, *The Dirt on Clean*, 137, 150.

the American colonies, remarked on 18 March 1748 that “English women generally have the character of keeping floors, steps, and such things very clean. They are not particularly pleased if anyone comes in with dirty shoes, and soils their clean floors.”³¹ Pierre Grosley in his *A Tour of London* remarked how the “plate, hearth-stones, moveables, apartments, doors, stairs, the very street-doors, their locks, and the large brass knockers, are every day washed, scoured, or rubbed.”³² While Kalm explicitly assigned the work of cleaning to women, clearly articulating conventional opinion, many male writers, like Grosley, did not feel that such a comment was necessary. Not only do these sources demonstrate how women were responsible for cleaning in Georgian and Regency Britain (1714-1830), either as wives or servants, but that some foreigners believed them to be proficient at the work.

i. Gendered Labour in Army Hospitals

Just because women were seen as naturally suited to cleaning house did not mean that they were seen by all medical practitioners as suited to perform care work in a military hospital environment. The suitability of men in contrast to women to perform nursing work is particularly important in assessing the difference between nurses and orderlies in the writings of eighteenth-century military medical practitioners. John Gideon V. Millingen, a military surgeon, viewed the role of female nurses as under-utilised due to the potential trouble that they would cause in the wards of regimental hospitals: “their personal attendance upon the sick is seldom if ever of use, and their presence in the wards, which such an attendance would require, is always a source of altercation and confusion both amongst the patients and the orderlies.”³³ In

³¹ Peter Kalm translated by Joseph Lucas, *Kalm's Account of his visit to England on his way to America in 1748* (London: Macmillian and Co., 1892), 12.

³² Pierre Grosley, *A tour of London: or, new observations on England, and its inhabitants, Volume I* (Dublin, 1772), 79.

³³ J. G. V. Millingen, *The Army Officer's Manual Upon Active Service; or, Precepts for His Guidance in the Various Situations in Which He May be Placed; With Observations on the Preservation of the Health of Armies Upon Foreign Service* (London: Burgess and Hill, 1819), 112.

Millingen's view, bodywork,³⁴ was best left to male orderlies with female nurses as "being better able, carefully to prepare any comfort that may be wanted, and which cannot be so easily and regularly made and served out in the kitchen hospital."³⁵ In order to prevent contamination of patients' comforts, nurses were not to handle or collect foul linen from the wards as "such an office is irreconcilable with the ideas of cleanliness in the preparation of food," and should instead be left to the washerwomen.³⁶ As will be discussed in greater detail in chapter five, Millingen capitalized on the overlapping and interchangeable tasks assigned to both orderlies and nurses in the military hospitals to privilege the care work of orderlies even though most medical practitioners viewed women as more suitable for cleaning work due to their gender.³⁷

Robert Jackson, in his 1805 *System of Arrangement and Discipline, for the Medical Department of Armies*, divided the roles of nurses and orderlies along gendered lines.

The female nurse, as intelligent of the circumstances of the sick condition, is constituted the superior; the male, or orderly assists with his power of labour, where occasions call for the exertions of strength. Intelligence and tenderness are conspicuous in the female character; and, on this account, female nurses are selected for the chief care of the sick in hospitals. Males possess bodily power in a more eminent degree than females; and, on that account, males are provided as orderlies to assist in moving those who are helpless, or in coercing those who are unruly.³⁸

Jackson's view on the division of labour between male orderlies and female nurses within army hospitals indicates how medical practitioners saw the tasks of nursing as gendered. Female

³⁴ Bodywork entailed all work relating to the "broader category of attending to the human body," which in includes nursing care. Mary Fissell, "Women, Health, and Healing in Early Modern Europe," *Bulletin of the History of Medicine* 82(1) (2008): 10.

³⁵ Millingen, *The Army Officer's Manual Upon Active Service*, 112.

³⁶ Millingen, 112. Regulations for Fort William in India also stressed the cleanliness of provisions. *Code of Regulations for the Medical Department of the Army Under the Presidency of Fort William: to Have Effect From The 1st Day of August 1816* (Calcutta: Government Gazette Press, 1816), 3. British Library.

³⁷ Millingen, *The Army Officer's Manual Upon Active Service*, 109-110; Hamilton, *The Duties of Regimental Surgeon Considered*, 32-33.

³⁸ Jackson, *A System of Arrangement and Discipline, for the Medical Department of Armies* (London: John Murray, 1805), 253.

intelligence in Jackson's view denoted their familiarity with the care of sick persons, a virtue of their gendered character.³⁹ Such knowledge of the sick bodies of their patients, coupled with the female quality of tenderness – meaning gentleness, kindness, compassion, and mercy – made nurses on the wards superior to male orderlies in providing care work to patients.⁴⁰ Yet, while nurses had a superior placement within hospital wards and a better understanding of the care required for the sick, they could not perform their duties alone. The same gendered differentiation described by Jackson meant that male orderlies were needed to perform heavy lifting, such as the transfer of patients from one ward to another, and the lifting of the infirm to allow for dressings and bedding to be changed. Jackson's belief that male orderlies would also be useful in coercing the unruly can be taken in two ways. First, coercing the unruly could refer to preventing disorder in the hospital, for example, physical or verbal disruption that could be better contained by a male military presence owing to concepts of military discipline. Second, the physical strength required by orderlies was necessary to restrain patients physically undergoing painful procedures. Jackson's decision to illustrate physical strength as the primary characteristic for the use of male orderlies is a bit surprising, given the capacities of the men often employed as orderlies in military hospitals. Orderlies were often former soldiers ill-suited to fighting primarily due to age or infirmity.⁴¹ Jackson's distinctions between the role and characteristics of orderlies and nurses did not clearly make their way into the official regulatory

³⁹ *Oxford English Dictionary*; Patricia A'Antonio, "Introduction," in *Nurses' Work: Issues Across Time and Place*, Patricia D'Antonio, Ellen Baer, Sylvia Rinker, and Joan Lynaugh, eds. (New York: Springer Publishing Company, 2007), 3; Mary Fissell, *Patients, Power and the Poor in Eighteenth-Century Bristol* (Cambridge: Cambridge University Press, 1991), 68; Samantha Williams, "Caring for the Sick Poor: Poor law nurses in Bedfordshire, c. 1770-1834," in *Women, Work and Wages in England, 1600-1850*, Penelope Lane, Neil Rave and K. D. M. Snell eds. (Woodbridge, Suffolk: The Boydell Press, 2004), 143-144.

⁴⁰ *OED*. The treatment of patients with tenderness was also a provision of naval hospital regulations. *Instructions for Royal Naval Hospitals at Haslar & Plymouth* (St. George's Fields: Philanthropic Society, 1808), TNA, ADM 106/3091, 37.

⁴¹ Martin Howard, *Wellington's Doctors: The British Army Medical Services in the Napoleonic Wars*, (Staplehurst: Spellmount, 2008), 80-81.

literature surrounding how regimental or general hospitals should be governed. Nonetheless they provide a glimpse into the gendered division of labour present in the minds of military medical practitioners. Female nurses in the minds of military medical practitioners were carers, while male orderlies were useful for their physical strength and the maintenance of order and discipline.

Semi-permanent army general hospitals offer the best comparison to naval hospitals when considering the role and importance of nurses in permanent clinical institutions such as Haslar and Plymouth because of their size and function. General hospitals for the British Army were designed to be stationary institutions either within the British Isles or abroad while the army was on campaign. They could handle the influx of patients from larger battles that had overwhelmed the regimental hospital system.⁴² Although some of these hospitals and their medical officers were moved to other locations following the conclusion of a campaign, others such as the general hospitals at Lisbon, Elvas, Abrantes, Coimbra, and Oporto, operated for prolonged periods between 1807 and 1814.⁴³ Such permanence and continued use ensured that these hospitals operated similarly to naval hospitals, which were also continually in operation.

The permanent structure of general hospitals was one reason why the smaller and transitory regimental hospitals were favoured by most medical practitioners during the French Revolutionary and Napoleonic Wars. Francis Knight, one member of the three-person Army

⁴² This practice did not always work as many general hospitals became just as overwhelmed with casualties as the regimental system. In July 1809 both the General Hospital at Lisbon and the regimental hospitals were swamped with patients from a malaria outbreak wherein 3000 men were hospitalised, and the battle of Talavera, which had wounded 1500 men. As a result, 6000 sick and wounded were sent to the general hospital and 3000 were cared for within the regimental system. By November 1809, urgently wrote to the Secretary of State and the commander-in-chief decrying the lack of surgeon's mates to dress the wounded and staff regimental hospitals, as the regimental surgeons and their assistants had been pulled into duty at the general hospital. Matthew Kaufman, *Surgeons at War: Medical Arrangements for the Treatment of the Sick and Wounded in the British Army during the Late 18th and 19th Centuries* (Westport, Connecticut: Greenwood Press, 2001), 64-65.

⁴³ Martin Howard, *Wellington's Doctors*, 116.

Medical Board, closed most general hospitals in Britain following the recommendations of the Parliamentary Fifth Report of the Commission of Military Enquiry in 1808.⁴⁴ However, this decision resulted in a serious shortage of hospital beds for sick and wounded soldiers who were evacuated from the Peninsular campaign in 1809.⁴⁵ James McGrigor, then inspector of hospitals for the South West District of England, found beds in naval hospitals and civilian institutions for the returning soldiers.⁴⁶ The Fifth Report of the Commission for Military Enquiry, remarks upon the favourability of the Eling hospital as it:

[I]s a singularity in the establishment of Servants at Eling, as given in the Statement, that no Matron, head Nurse, Nurses, or Sempstresses, are employed in this General Hospital. This has been a saving to the Public, as Doctor Versturme calculates, from December 1796 to December 1806, of above thousand four hundred Pounds.... the Establishment at Eling consisted of only a Deputy Purveyor, and Apothecary doing the duty of a Staff Surgeon, an Hospital Mate, and a Clerk or Storekeeper.⁴⁷

Although public money was certainly saved it was not held up as a model general hospital because of the inherent problems of lack of ventilation, overcrowding, and lack of nursing care. Rather some general hospitals in Britain, particularly Maidstone and Lymington, were reorganized “on the regimental plan.”⁴⁸

The decision to close most general hospitals in Britain in 1808 was hasty and not in the best interests of the service. When the pressures of invalided⁴⁹ soldiers returning from the Peninsular Campaign became too great and new general hospitals opened, the *Regulations for the Management of the General Hospitals in Great Britain* were issued by Prince Frederick,

⁴⁴ *The Fifth Report of the Commissioners of Military Enquiry: appointed by act of 45 Geo. III. cap. 47. Army Medical Department*, U.K. Parliamentary Papers, 1808, 24.

⁴⁵ Catherine Kelly, *War and the Militarization of British Army Medicine*, 44.

⁴⁶ Kelly, *War and the Militarization of British Army Medicine, 1793-1830*, (London: Pickering & Chatto, 2011), 44.

⁴⁷ *The Fifth Report of the Commissioners of Military Enquiry*, 27.

⁴⁸ *Papers relating to the Army Medical Board*, U.K. Parliamentary Papers, 1810, 31.

⁴⁹ In this case ‘invalided’ was a military term describing battle casualties well enough to travel back to Britain for continued treatment in military hospitals. The action of sending invalids back to Britain freed up space in regimental and general hospitals on the front lines for more sick and injured soldiers.

Duke of York, the commander-in-chief of the British Army in 1813. These regulations had a place for both Matron and nurses. The regulations stipulated that nurses were under the authority of the hospital Matron.⁵⁰ Defined responsibilities of the Matron and the nurses further demonstrate the organizational similarities between general hospitals, naval hospitals, and voluntary hospitals; female nurses managed wards in the capacity as cleaners of wards and patients. It was the Matron's responsibility to oversee the exchange of dirty linen for clean, wherein the nurses would bring dirty linen to the Matron's storeroom, and receive the required amount of clean linen in return.⁵¹ It was also the role of the Matron to visit the wards to ensure that they were clean and comfortable, "and that the Nurses are attentive, assiduous, and humane, in their care of the sick."⁵² This directive highlights how women acting as nurses rather than men acting as orderlies were believed to provide better care to the sick due to their attentive and humane nature.

The role of nurses in caring for patients' needs, such as through the provision of food and personal cleanliness, and to some degree the roles of other medical personnel were clarified in the regulations.⁵³ Male orderlies were also at work in general hospitals; however there is no clear description of what they would do. The Ward-Master – a position like the Sergeant in Regimental hospitals – not the Matron was responsible for maintaining cleanliness in the hospital wards. This meant that male authority figures were responsible for regulating cleanliness in both regimental and general hospitals. According to the *Regulations for the Management of General Hospitals in Great Britain*:

⁵⁰ *Regulations for the Management of the General Hospitals in Great Britain* (London: W. Clowes, 24th June 1813), 29.

⁵¹ The Matron herself was issued the linen by the Purveyor of the hospital. *Regulations for the Management of the General Hospitals in Great Britain*, 19.

⁵² *Regulations for the Management of the General Hospitals in Great Britain*, 30.

⁵³ *Regulations for the Management of the General Hospitals in Great Britain*, 33-34.

It will be his business to enforce the utmost attention to cleanliness in the Wards, to see that the floors are swept every morning, and after every meal, that they are dry rubbed as often as circumstances require, and ventilated in strict conformity to the directions of the medical Officer; that foul linen, or garments of any description, are not permitted to remain in the Ward, nor any cooking or washing to be carried out therein; that wet clothes are not hung up in the Wards, or out of the windows, to dry; that filth and nuisances are immediately removed; that bones, rags, or other articles, are not thrown out the windows; and that provisions are not placed upon, or concealed about, the beds.⁵⁴

Provisions for cleanliness, and methods of cleaning were in this instance meant to create a healing environment for patients. Nurses were to perform both cleaning duties and oversee their patients' personal cleanliness, although the work of the nurses themselves – such as dry rubbing floors, washing bedding, and bathing patients unable to bath themselves – would then be supervised by the Ward-Master. Familiarity with the scrubbing brush, lime wash, and other such domestic skills were not seen as innate qualities for male orderlies (even if they were able to perform such tasks admirably). Nor did orderlies possess the theoretical ability of women innately to be unobtrusive, or at least to not harm the recovery of the sick. “The Floors are to be dry-rubbed every day, by means of the scrubbing-brush mounted on the heavy block: the washing of floors, when Patients are in the Wards, being a pernicious custom, is positively forbidden, except in cases of absolute necessity.”⁵⁵ This cleaning method was necessary to prevent the build-up of humidity and potential rot or bad smells in the hospital. Dry-rubbing, a common method of cleaning among the lower and middling orders in the eighteenth century, would have likely been a method more familiar to women than men.⁵⁶ Clarifying the mechanisms of cleanliness, and the role of nurses within the provision of cleanliness, general

⁵⁴ *Regulations for the Management of the General Hospitals in Great Britain*, 33-34.

⁵⁵ *Regulations for the Management of the General Hospitals in Great Britain*, 39.

⁵⁶ Hill, *Women, work & sexual politics*, 115.

hospital regulations seemed to indicate that only women had the required skills in domestic labour to allow them to work as nurses.

While female nurses were seen to have the requisite skills to work in general hospitals, some medical practitioners, such as John Hennen, believed that the women caused a disruptive presence. Hennen, who had worked as both a regimental and a staff surgeon in the Napoleonic Wars, wrote that “The employment of females is one of the greatest sources of irregularity in an hospital; every species of excess, idleness, and plunder, is carried on under their auspices.”⁵⁷ Hennen's concerns with the employment of women stemmed from his perceptions of their behaviour. Improper behaviour in part stemmed from their social status and gender; women, regardless of class, were seen as disruptive in military situations. Poverty, dress which consisted of “such a mass of rags,” and drunkenness meant that nurses in “appearance and behaviour are more those of an infuriated bacchanal than a nurse.”⁵⁸ Hennen also viewed women as more dangerous than importers of contagion into the hospital space, due to their lack of personal cleanliness as shown through their dress. This sort of failure in terms of cleanliness of dress was similar to the Wesleyan view of cleanliness linked to morality, described in the adage “Cleanliness is next to Godliness.”⁵⁹ Yet, Hennen also recognized that the women employed as military nurses were often the wives of soldiers whom out of the “humanity of our Government” were permitted to accompany the army on campaign.⁶⁰ As such, military medical practitioners could not stop women acting as nurses even if the nurses were as ill-suited to their positions as Hennen described. Hennen sought to remedy these failings through the “rigorous examination

⁵⁷ John Hennen, *Observations on Some Important Points in the Practice of Military Surgery, and the Arrangement and Police of Hospitals Illustrated by Cases and Dissections* (Edinburgh: Archibald Constable and Company, 1818), 61. Wellcome Library.

⁵⁸ Hennen, *Observations on Some Important Points in the Practice of Military Surgery*, 216-217.

⁵⁹ Ashenburg, *The Dirt on Clean*, 131.

⁶⁰ Hennen, *Observations on Some Important Points in the Practice of Military Surgery*, 217.

and purification of their persons and their baggage” before any nurse or orderly entered the hospital.⁶¹ Even when railing against the employment of female nurses, it was still their cleaning skills that allowed them entry to the ward space, as such tasks were not performed by male orderlies.

Hennen also saw the sexuality of female nurses as a threat. “The employment also of female servants is a measure, the utility of which is very questionable, particularly of that class that usually follows camps and hospitals. These persons are not only far less efficient than men, and less amenable to the rule of police, but sexually they are often extremely hurtful.”⁶² In referring to the hurtful nature of women, Hennen cited the case of a young man with an almost healed skull wound described by Wilhelm Fabricius Hildanus (William Fabry), in 1606.⁶³ While still in the care of Hildanus, this young man engaged in sexual intercourse, then developed a fever, and died.⁶⁴ The presence of women was then seen by Hennen as a hindrance to successful recovery following surgery. Hennen's belief in the danger of female sexuality likely grew from his perception of the women who accompanied eighteenth-century armies, poor women who answered to the sexual needs of men.⁶⁵ Historian John A. Lynn has linked the reduction in the number of women allowed to accompany the army to the diffusion of Protestant social norms in military commanders.⁶⁶ Hennen's critique was therefore, both moral and medical. His views could also have reflected his class bias against poor women working as nurses. Women of lower

⁶¹ Hennen, *Observations on Some Important Points in the Practice of Military Surgery*, 217.

⁶² Hennen, *Observations on Some Important Points in the Practice of Military Surgery*, 355.

⁶³ Hennen, *Observations on Some Important Points in the Practice of Military Surgery*, 355. Observation 19 Wilhelm Fabricius Hildanus, *Observationum et curationum chirurgicarum centuriae prima* (Basileae: sumptibus Ludovici Regis, 1606), 84

⁶⁴ Hildanus, *Observationum*, 84.

⁶⁵ John A. Lynn, “Essential Women, Necessary Wives, and Exemplary Soldiers: The Military Representation of Women's Military Participation (1600-1815),” in *A Companion to Women's Military History*, eds. Barton C. Hacker and Margaret Vining (Leiden: Brill, 2012), 103.

⁶⁶ Lynn, “Essential Women, Necessary Wives, and Exemplary Soldiers,” 103-104.

social standing in important medical roles did not reflect the increased professionalization of the military medicine that began in the 1790s.⁶⁷ Increased discipline was tied to these professionalization efforts, with greater discipline extended into the medical services.⁶⁸ Medical practitioners did not view women from lower social orders as capable of controlling themselves in the same way as those of a slightly higher social standing. Regulations specified that whenever possible medical officers were to hire the wives of non-commissioned officers to work as nurses. The Army Medical Board wanted these women to act as nurses in part because of their social class.

Post-Napoleonic War accounts by medical officers, informed by the biases of military writers such as Hennen, shaped interpretations of pre-Nightingale nursing and contributed to myth. The view of female nurses as drunkards and thieves was a dominant enduring stereotype of pre-1850 female nurses, a stereotype that had resulted in the belief that all medical care in hospitals before the Crimean War was performed by orderlies, not nurses. There was some conflation of the role of nurse and orderly by medical practitioners, perhaps best demonstrated in general hospital regulations like the ones issued in 1813. For example, “The Nurses and Orderlies are to take care to have always in their respective Wards, gruel and panado, with such other drinks as may be ordered for the Patients, ready during both day and night.”⁶⁹ It is unclear here what exactly the division of labour between nurses and orderlies was, which therefore

⁶⁷ Howard *Wellington's Doctor's*, 23; Kelly, *War and the Militarization of British Army Medicine* 1-3. Due to labour shortages, naval officers came from more varied backgrounds during the Napoleonic Wars. While those of lower social orders were less likely to be promoted to the highest of ranks competence was the most important determining factor to promotion. Evan Wilson, “Social Background and Promotion Prospects in the Royal Navy, 1775-1815,” *English Historical Review* 131(550) (2016), 595.

⁶⁸ Peter Way, “Militarizing the Atlantic World: Army discipline, coerced labor, and Britain’s commercial empire,” *Atlantic Studies* 13(3) (2016), 350; Marcus Ackroyd, Laurence Brockliss, Michael Moss, Kate Retford, and John Stevenson, *Advancing with the Army: Medicine, the Professions and Social Mobility in the British Isles 1790-1850* (Oxford: Oxford University Press, 2006), 56-57.

⁶⁹ *Regulations for the Management of the General Hospitals in Great Britain*, 42.

generated two possibilities for future chroniclers of hospital histories. First, the unlikely prospect, based on other accounts, that there was no division in tasks between nurses and orderlies. Second, that the division in labour between nurses and orderlies would have been assumed by late-eighteenth and early-nineteenth century readers based on prevailing gendered understandings of labour.

While there were military medical practitioners who saw no difference between the role of the nurse and the orderly, or sought to use male orderlies rather than female nurses at the hospitals, there were also those who believed that female nurses were superior to orderlies. Regimental surgeon and later Inspector-General of Army Hospitals, William Fergusson (1773-1846), for example believed “It is a perversion, in some degree, of a man's nature, to make him a sick nurse; and the worst woman will generally make a better one, as being more handy and compassionate than an awkward clumsy man.”⁷⁰ Fergusson's views seemed to be more aligned with the on-the-ground realities of military life in the Napoleonic Wars, where medical practitioners, especially in regimental hospitals, believed that military commanders were accused of transferring ineffective or aged soldiers to work in the hospitals as orderlies.⁷¹

ii. *Gendered Labour in Naval Hospitals*

The role of hospital labourer and that of nurse was not usually conflated within naval hospitals. Naval hospital labourers are never referred to in official regulations as hospital orderlies, though they did perform similar tasks to military hospital orderlies such as lifting invalids and

⁷⁰ William Fergusson, *Notes and recollections of a professional life* (London: Longman, Brown, Green, and Longman, 1846), 63.

⁷¹ Martin Howard, *Wellington's Doctors: The British Army Medical Services During the Napoleonic Wars* (Staplehurst: Spellmount, 2002), 111.

transporting patients between wards.⁷² Hospital administrators, whether Physician and Council or hospital Governors, recognized that the role of keeping a large institution like a naval hospital clean could not be the work of nurses alone. The division of labour within the walls of naval hospitals mirrored that within most British households. Nurses were responsible for the interior of the wards, while male labourers cleaned the stairwells, walkways, and outdoor spaces.⁷³ The 1808 printed instructions for Haslar and Plymouth hospitals mandated that the Overseer of the Labourers: “take care that the drains, necessaries, staircases, colonades, gravel walks, and all parts of the airing-ground, be kept in good repair, and perfectly clean.”⁷⁴ Male labourers were also employed by hospital administrators, with the permission of the Sick and Hurt Board, in painting the outside of Haslar.⁷⁵ The work of the labourers, such as cleaning drains and toilets meant that nurses more easily maintained cleanliness within the wards.⁷⁶ It is also important to note that such exterior cleanliness measures by hospital labourers did not come cheap; for example painting the exterior of the hospital cost £181 4s 11d, while fixing the “bad state of the Drains and Water Closets,” was estimated to cost £46 10s 4d.⁷⁷ For comparison the average annual wage for an agricultural labourer was less than £40 at the end of the eighteenth century.⁷⁸

⁷² *Instructions for the Royal Hospitals at Haslar & Plymouth*, 221-223.

⁷³ “Report of the Commissioners for Sick and Wounded Seamen &ca. Upon Remarks made upon a Visitation of the Royal Hospital at Haslar the 13th May 1780,” TNA ADM 98/13; *Instructions for the Royal Naval Hospital at Haslar & Plymouth* (St. George's Fields: Philanthropic Society, 1808), 220-223. In his commentary on the 1780 report Charles Middleton, the Comptroller of the Navy agreed that “Labourers under the Agent to sweep the Passages &c.” “Observations by Charles Middleton, as Comptroller of the Navy, on two reports on conditions at Haslar Hospital, Gosport.” Wellcome Library, MS.5992 Middleton, 1.

⁷⁴ *Instructions for the Royal Naval Hospitals at Haslar & Plymouth*, 221.

⁷⁵ “Admiralty to the Commissioners for taking Care of Sick & Hurt Seamen,” 29 August 1777, NMM, ADM/E/42 “Sick and Hurt Board, In-Letters and Orders January 1, 1775-December 31, 1780.”

⁷⁶ “Admiralty to Commissioners for taking care of Sick and Hurt Seamen,” 13 October 1775, NMM, ADM/E/45.

⁷⁷ “Admiralty to Commissioners for taking care of Sick and Hurt Seamen,” 13 October 1775, NMM, ADM/E/45 and “Admiralty to Commissioners for taking Care of Sick & Hurt Seamen,” 29 August 1777, NMM, ADM/E/42.

⁷⁸ Robert C. Allen, “The high wage economy and the industrial revolution: a restatement,” *Economic History Review* 68(1) (2015), 2-3.

Although the Navy's official regulations stipulated that nurses and other servants should not be privately employed, the cleaning skills of the nurses could be used elsewhere. For instance, the medical assistants of the Plymouth naval hospital wanted to hire a nurse to clean their apartments. The prohibition against private employment covered employment within the hospital and without. Medical and administrative officers within the hospital were not to hire hospital servants for their private residences on hospital grounds. Nor were hospital servants to be employed in private homes outside of the hospital. Hospital servants were viewed as "public servants," working for the good of the Royal Navy not private gain.⁷⁹ The assistants petitioned newly installed Governor Creyke, who wrote to the Admiralty for guidance on the matter:

You will be pleased to inform the Lords Commissioners of the Admiralty that the Physician of this Hospital had represented to me that permission has been hitherto given for one of the Nurses, least wanted in the care of the Patients, to make the beds and do other offices in the Apartments assigned to the Medical Assistants which they cannot with propriety do for themselves, and which would take up much of their time devoted to more valuable purposes.⁸⁰

Creyke reiterated in his letter, that "this indulgence necessary as it seems, being directly contrary to their Lordships Instructions given to me," and as a consequence of his regulations he only offered conditional permission for a nurse to clean the apartments of the medical assistants.⁸¹ Not wanting to miss out on the chance for free cleaning labour for their rooms, Matron Mary Parke also petitioned for a nurse to be allowed to clean her room. According to Creyke, "[Parke's] request is that she may be also indulged in the occasional assistance of one of the Nurses promising faithfully that she will divert the Nurse from her other duties no longer than is absolutely requisite to make her bed and put her apartment in order, which if she is obliged to do

⁷⁹ *Instructions to the Royal Naval Hospitals at Haslar & Plymouth*, 117.

⁸⁰ "Richard Creyke to Evan Nepean," 1 September 1795, NMM, ADM/E/45.

⁸¹ "Richard Creyke to Evan Nepean," 1 September 1795, NMM, ADM/E/45.

herself will take up much of her time now more usefully employed in the active duties of her station.”⁸² Practices such as hiring-out nurses to clean and organise private apartments, while underlining the believed capabilities of nurses to clean better than others, also directly tied their labour to menial tasks, less important than even the work of other female labourers like the hospital Matron. It was perhaps the case that ties between nursing and menial non-medical labour was one reason why the printed instructions from 1808 tried to distance the labour of nurses and other servants from any appearance of disposable labour. The 1808 regulations asserted that the hospital Governor was to make sure: “You are not yourself, nor are you to permit any Officer, or other person, to employ, on private business, the Labourers, Nurses, Washerwomen, Artificers, or others belonging to, or employed in, the Hospital.”⁸³ By the early nineteenth century, it was clear to the naval administrators that the work of all members of the hospital staff, not just that of the nurses, was important to the adequate running of the institution, so important that nurses could not be spared to sweep the floor or make the beds of the officers. The transition from nurses’ dual gendered capacities to care and clean to nursing as a distinct form of ‘skilled’ medical care integrated cleaning into preventative medicine and medical care.

Cleanliness and Preventative Medicine in the Navy

By the late-eighteenth century, hygiene regulations were commonplace in the Royal Navy. Hygiene regulations had been present in the Royal Navy since the return of George Anson from his circumnavigation of the world in 1740-44.⁸⁴ Anson’s four-year circumnavigation of the globe resulted in the death of 1415 of his men, “consequences of dirt, disease and

⁸² “Richard Creyke to Evan Nepean,” 1 September 1795, NMM, ADM/E/45.

⁸³ *Instructions for the Royal Naval Hospital at Haslar & Plymouth*, 10.

⁸⁴ Jane Bowden-Dan, “Diet, Dirt and Discipline: Medical Developments in Nelson's Navy. Dr. John Snipe's Contribution,” *Mariner's Mirror* 90(3) (2004), 262.

malnutrition.”⁸⁵ The poor results of Anson’s voyage likely contributed to subsequent cleanliness regulations for ships. Historians and contemporaries remarking on the cleanliness of British ships often compared the situation favourably to the situation on French ships.⁸⁶ British captains stationed in Kingston Jamaica in 1802 called French ships “infamously dirty.”⁸⁷ Despite the long-standing regulations on cleanliness, infectious diseases continued to spread on naval ships.⁸⁸ One such case was the *Foudroyant* in March 1804. Medical officers from Plymouth naval hospital were directed to examine the ship after 116 patients were admitted to the hospital between 26-28 March.⁸⁹ The ship was “in a filthy state,” and medical officers recommended that:

every possible precaution might be speedily taken to destroy any latent infection on board, We strongly recommended Whitewashing, the washing of the people's clothes, Blankets &c, in warm water and Soap, fumigation with Charcoal and Brimstone, to be generally and frequently used, and the Decks to be kept as dry as possible.⁹⁰

Naval officials clearly believed that cleanliness was essential to preventative medicine.

Cleanliness was believed necessary for the health of sailors on board ship for the same reason that it was held to be important in naval hospitals; clean air and clean bodies meant healthier sailors. Hygiene was also a question of ship board discipline in the same way that it

⁸⁵ Bowden-Dan, “Diet, Dirt and Discipline,” 262.

⁸⁶ Jonathan R. Dull, *The Age of the Ship of the Line: The British and French Navies, 1650-1815* (Lincoln, NE: University of Nebraska Press, 2009), 18; James Watt, “Surgery At Trafalgar,” *Mariner's Mirror* 91(2) (2005): 266-267; “John Snipe to Evan Nepean,” 22 March 1797, NMM, ADM/E/46; “Thomas Trotter to Evan Nepean,” 30 August 1797, NMM, ADM/E/46; “Evan Nepean to Sick and Hurt Board,” 30 March 1799, NMM, ADM/E/47.

⁸⁷ “Captain McNamara to Duckworth,” 26 April 1802, TNA, ADM 1/252, as quoted in Philippe R. Girard, “The Ugly Duckling: The French Navy and the Saint-Domingue Expedition, 1801-1803,” *International Journal of Naval History* 9(1-3) (2010). <http://www.ijnhonline.org/2010/12/01/the-ugly-duckling-the-french-navy-and-the-saint-domingue-expedition1801-1803/>

⁸⁸ Lloyd and Coulter, *Medicine in the Navy, Volume III*, 77; N.A.M. Rodger, *The Wooden World: An Anatomy of the Georgian Navy* (London: Collins, 1986), 108.

⁸⁹ “Richard Creyke to Admiralty,” 30 March 1804, TNA, ADM 1/3533.

⁹⁰ “Richard Creyke to Admiralty,” 30 March 1804, TNA, ADM 1/3533.

was in army regiments.⁹¹ Clean bodies and clean spaces required strict discipline and oversight by commanding officers. In other words, repetitive and necessary regular cleaning activities promoted order and regularity. Anthropologist Mary Douglas suggested that notions of order and disorder are necessary for our understandings of dirt.⁹² However, many naval officers believed that seamen were not adequately suited to cleaning their ships; decks were left too wet and dry rubbing was not performed as suggested. The wet environment created by traditional cleaning methods created cold and damp living conditions that fostered disease, so while the means of cleaning had to be modified, the importance of cleanliness to preventing illness remained.⁹³

Following an outbreak of disease on board his ship in 1797, the commander of the *Sandwich* requested that a separate slop ship might be dispatched to house sick men “as the feverish Patients daily increase notwithstanding the care that is taken to keep the Ship clean and well ventilated.”⁹⁴ The Admiralty approved the fitting of a slop ship and directed the Sick and Hurt Board to outfit such a vessel to “lay near the Sandwich,” at the Nore.⁹⁵ The additional ship would fix the problem of the original contagion generated by the close quarters and overcrowding, and allow cleanliness and ventilation to safeguard the rest of the crew of the *Sandwich* from illness. A similar situation occurred on the *Janus*, in October 1797, where sailors

⁹¹ Erica Charters, *Disease, War, and the Imperial State: The Welfare of the British Armed Forces During the Seven Years' War* (Chicago: University of Chicago Press, 2014), 12, 171.

⁹² “If we can abstract pathogenicity and hygiene from our notion of dirt, we are left with the old definition of dirt as matter out of place. This is a very suggestive approach. It implies two conditions: a set of ordered relations and a contravention of that order. Dirt then, is never a unique, isolated event. Where there is dirt there is system. Dirt is the by-product of a systematic ordering and classification of matter, in so far as ordering involves rejecting inappropriate elements. This idea of dirt takes us straight into the field of symbolism and promises a link-up with more obviously symbolic systems of purity.” Mary Douglas, *Purity and Danger: An Analysis of Concepts of Pollution and Taboo*, reprint (London and New York: Routledge, 2003), 36.

⁹³ “Remarks made on an Examination of the Royal Hospital at Haslar from the 28th March to the 4th April 1794,” received in “Admiralty to Sick and Hurt Board,” 17 June 1794, NMM, ADM/E/45; Rodger, *The Wooden World*, 62, 68.

⁹⁴ “John Snipe to Admiralty,” 22 March 1797, received in “Evan Nepean to Commissioners for Sick and Hurt,” 27 March 1797, NMM, ADM/E/46.

⁹⁵ “Evan Nepean to Commissioners for Sick and Hurt,” 27 March 1797, NMM, ADM/E/46.

discharged from hospital at St. Domingo were accused of bringing a fever on board.⁹⁶

According to Captain Bissett, the ship's surgeon, Dr. Smith, stopped the progression of the sickness through a cleanliness regime, thereby proving that cleaning had the power to stop even tropical diseases.⁹⁷

Both commanders and ship board surgeons had long seen shore hospitals as a source of filth and infection, which could then be transferred on board a ship through the return of patients from hospital.⁹⁸ One such case of malignant ulcers on board the *Cacrapous* illustrates the intersection of ship board cleanliness and hospital cleanliness. The surgeon of the *Cacrapous* sent fourteen cases to Barbados naval hospital in the summer of 1803, before sending thirty-eight more patients to Haslar in the autumn. Hospital inspector Andrew Baird was sent to investigate these cases specifically “the opinion of contagion being imported by an Ulcer received from Plymouth Hospital as the cause of this very Contagious and Malignant Ulcer.”⁹⁹ Baird found no proof of this claim, stating that the former hospital patients who came on board the *Cacrapous* had ulcers “clean and nearly healed.”¹⁰⁰ The clean healing of the wound, for Baird, represented a lack of contagion, and had such contagion existed “it must have spread its effects in Plymouth Hospital, a circumstance I know was not the case as I visited the Hospital at that time.”¹⁰¹ Instead, Baird, blamed the actions of the commanding officer of the *Cacrapous* for failing to ensure a clean atmosphere on board his ship.¹⁰²

⁹⁶ “Captain Bissett to Evan Nepean,” 3 October 1797, NMM, ADM/E/46.

⁹⁷ “Evan Nepean to Sick and Hurt Board,” 14 October 1797, NMM, ADM/E/46.

⁹⁸ “Remarks made upon a Visitation of the Royal Hospital at Haslar the 13th of May 1780,” NMM, ADM/E/42.

⁹⁹ “Andrew Baird to Commissioners for Sick and Hurt,” 9 October 1803, “Sick and Hurt Board In-Letter Book: reports of Dr Andrew Baird as Inspector of Hospitals.”

TNA, ADM 105/20.

¹⁰⁰ “Andrew Baird to Commissioners for Sick and Hurt,” 9 October 1803, TNA, ADM 105/20.

¹⁰¹ “Andrew Baird to Commissioners for Sick and Hurt,” 9 October 1803, TNA, ADM 105/20.

¹⁰² “Andrew Baird to Commissioners for Sick and Hurt,” 9 October 1803, TNA, ADM 105/20.

Ships making the journey to and from the West Indies were seen as particularly vulnerable to the dangers of dirt because of the tropical fevers that either awaited the sailors or that they had come into contact with while stationed in the Caribbean. The recommendation of Rear Admiral Sir William Parker directed the Sick and Hurt Board to supply the Jamaica Squadron with “Fruit, Milk, Vegetables and Soaps to the Sick of the Squadron.”¹⁰³ The increased nutrition supplied by the fresh provisions, and the cleanliness that would theoretically be produced by the soap, would, the Admiralty hoped, mend the “consequence of the ill state of health of the Crews of the respective ships.”¹⁰⁴ Similarly, a 1780, report of Haslar hospital recommended that “Soap should be allowed to the Men in all His Majesty's Ships, in order to keep themselves clean.”¹⁰⁵ Only with the requisite tools, in this case soap, could the dangers of dirt be combatted on long voyages.

The navy was also familiar with dealing with the problems of dirty impressed sailors.¹⁰⁶ Impressed men, who were forced into service, were seen as far dirtier than serving Royal Navy seamen, and both members of the Sick and Hurt Board and naval commanders, recommended that landsmen be washed and issued new clothes upon entering the service.¹⁰⁷ This was especially true if sick impressed men were sent to the hospital, where their dirty clothes were assumed to spread infection. The Sick and Hurt Board, responding to a report on Haslar hospital in 1780, recommended the following cleanliness measures to the Admiralty: “The propriety of

¹⁰³ “Evan Nepean to Commissioners for taking Care of Sick and Wounded Seamen,” 26 February 1799, NMM, ADM/E/47.

¹⁰⁴ “Evan Nepean to Commissioners for taking Care of Sick and Wounded Seamen,” 26 February 1799, NMM, ADM/E/47.

¹⁰⁵ “Remarks made upon a Visitation of the Royal Hospital at Haslar the 13th of May 1780,” NMM, ADM/E/42.

¹⁰⁶ Robert Tomlinson, *A Plan for a practicable, easy and constitutional method, of manning the Royal Navy, upon any emergency without the usual mode of Impressing Seamen* (London: J. W. Pasham, 1774)

¹⁰⁷ “Admiralty to Commissioners for taking Care of Sick & Hurt Seamen,” 11 May 1790, ADM/E/44/A; “Admiralty to Commissioners for taking Care of Sick and Hurt Seamen,” 8 April 1791, ADM/E/44/A; “Admiralty to Commissioners for taking Care of Sick & Hurt Seamen,” 17 December 1792, ADM/E/44/A; Matthew Neufeld, “The Biopolitics of Manning the Royal Navy in Late Stuart England,” *Journal of British Studies* 56(3) (2017), 510.

never crowding the receiving Ships, and of appointing a Ship where the new raised Men should be washed and cleaned and slopped before they were sent to the Hospital or Receiving Ship.”¹⁰⁸ If overcrowding could be prevented, cleanliness ensured, and fresh clothing provided, then the Commissioners believed “much fewer Men would be sent to the Hospital.”¹⁰⁹ Fewer men being sent to hospital was especially important at the outbreak of war when the Royal Navy was desperately short of men.

Hospitalization of sailors was both expensive and necessary; in order to minimize the costs to the naval service the Commissioners for Sick and Hurt recommended several measures to prevent infection from entering Haslar. Three receiving rooms should be “built at the landing place.”¹¹⁰ The first room was to be a general receiving room, the second “a Room with a Warm Bath constantly supplied,” and the third a warm dressing room with a fire.¹¹¹ The three rooms allowed patients to remove their clothes, “washed properly clean with soap and Warm Water removed into the third to be clothed in Hospital Dress,” before they would be assigned to the ward appropriate for their symptoms.¹¹² Charles Middleton, as the Comptroller to the Navy, or in layman’s terms chairman of the Navy Board and therefore responsible for naval spending, agreed with the recommendations aimed at limiting sickness in naval hospitals and on naval ships. Specifically, he agreed that impressed men should be received on tender ships stationed off the coast of the hospital where the men could be examined by naval officers, “and those who are fitt for the Service to be well washed and New Cloath'd, furnished with new Bedding and Aired for sometime, before they are distributed to Ships.”¹¹³ Middleton believed that the

¹⁰⁸ “Remarks upon a Report of Haslar Hospital,” TNA, ADM 98/13.

¹⁰⁹ “Remarks upon a Report of Haslar Hospital,” TNA, ADM 98/13.

¹¹⁰ “Remarks made upon a Visitation of the Royal Hospital at Haslar the 13th of May 1780,” received in Admiralty letter 3 June 1780, NMM, ADM/E/42.

¹¹¹ “Remarks made upon a Visitation of the Royal Hospital at Haslar the 13th of May 1780,” NMM, ADM/E/42.

¹¹² “Remarks made upon a Visitation of the Royal Hospital at Haslar the 13th of May 1780, NMM, ADM/E/42.

¹¹³ “Medical: observations, memoranda and abstract 5 docs. ca. 1778-1805,” NMM, MID/7/4/1.

expense of such a practice, “will be trifling when compared with that arising from having Numerous Sick in the Hospitals.”¹¹⁴ The manning and the health of the navy were bound up with the question of money.

The hospitalisation of men was expensive in multiple ways. First, the loss, temporary or permanent, of the seaman’s labour represented a significant financial hindrance to the Royal Navy. In cases of permanent loss, a disabled or discharged seamen caused compounded financial loss as there was also the replacement cost. Second, the cost of transport to, reception in, and provisions (including medicines) during hospital stay, which were thought to be superior to the ship-board diet, compounded the above financial loss. Finally, there was the cost of labour within the hospital, including the work of administrators, medical officers and their assistants, nurses, washerwomen, and labourers. Medical provision within hospitals was clearly an acceptable necessary expense to the naval service since the mid-eighteenth century, but such necessity did not mean that costs could not be minimised. The primary way to minimise hospital costs and the cost of lost labour to the naval service was to cure or discharge the sick and injured seaman as quickly as possible. The creation of a productive hospital environment, one with adequate care and sufficient cleanliness, so as not to promote relapses of illness was built on the foundation of female nursing labour. Nurses were the cleaners and the carers who ensured the Royal Navy had healthy men and a healthy stock of seamen.¹¹⁵

Late eighteenth-century naval hospitals had clearly delineated roles for employees and strict regulations regarding cleanliness. For example, by November 1777, formal regulations were issued concerning bed linen, which was to be changed every four days. Hospital walls and

¹¹⁴ NMM, MID/7/4/1.

¹¹⁵ “Instructions, Precedents, and Historical Notes relating to the Sick and Hurt Board,” Volume I, TNA, ADM 98/105. Helmstader, “Early Nursing Reform in Nineteenth-Century London,” 328-329; Carré, “Hospital Nurses in Eighteenth-Century Britain,” 89; Helmstader and Godden, *Nursing Before Nightingale*, 8-10.

staircases were to be kept thoroughly clean.¹¹⁶ When Governors were assigned to Haslar and Plymouth in 1795, the instructions to each man for the supervision of the nurses was the same. Nurses were considered servants to the state; they were not to work outside of the hospital, but rather they were to help maintain the “cleanliness and good order” of the hospital.¹¹⁷ The printed regulations issued by the Admiralty in 1808 and 1809 were divided into home hospitals (Haslar and Plymouth) and foreign stations.¹¹⁸ The two different regulation books were necessary because of the difference in the administrative structures between the foreign hospitals and hospitals in Britain. For example, due to their smaller size, foreign hospitals often amalgamated the positions of steward and agent into one person who performed both roles.¹¹⁹ Yet, the role of most employees in all naval hospitals was the same. The nurses in these hospitals ensured that their wards and patients were clean. Nurses were to have access to the ward stores to help them with their work.¹²⁰ It was stipulated that the Matron's job to “superintend, most strictly, the conduct of the Nurses employed in the several wards, and see that they attend the Patients with the utmost assiduity and kindness, and that they, on all occasions, behave themselves with propriety.”¹²¹ The wording in these regulations would not have been out of place in the civilian hospitals of the mid-nineteenth century, suggesting that despite depictions by Victorian reformers, cleanliness was possible in eighteenth-century hospitals.¹²²

¹¹⁶ TNA, ADM 98/105, 439.

¹¹⁷ “Copy Admiralty Order dated 20th Augt. 1795 to Richard Creyke,” NMM, ADM/E/45.

¹¹⁸ *Instructions for the Royal Naval Hospital at Haslar & Plymouth* (London: St. George’s Fields: Philanthropic Society, 1808), 1-2; *Instructions for the Naval Hospitals on Foreign Stations* (London: Philanthropic Society, 1809), TNA, ADM 106/3092, 1-2.

¹¹⁹ See for example, *Instructions for Naval Hospitals on Foreign Stations*, 2, 4, 6-7.

¹²⁰ It is unclear if nurses were indeed granted such access as stipulated in the regulations. *Instructions for the Royal Naval Hospitals at Haslar & Plymouth* (London: The Philanthropic Society, 1808), TNA, ADM 106/3091, 202-203.

¹²¹ *Instructions for the Royal Naval Hospitals at Haslar & Plymouth*, 204.

¹²² Florence Nightingale, *Notes on Hospitals, Third Edition* (London: Longman, Green, Longman, Roberts, and Green, 1863), 7-10.

Hospital regulations are important evidence that the idea of cleanliness was considered crucial for the imagined well-run hospital, but while hygiene and cleanliness were thought to stop disease, it is not clear how these regulations were interpreted or enforced. Reports of hospital inspectors and administrators, perhaps not surprisingly, indicate that the regulations were in fact followed, and that when they were not, the situations were dealt with quickly. For example, when on 27 October 1795, the Governor of Plymouth Naval Hospital, Richard Creyke, had “Rec[eive]d. a report from the Visiting Lieut. that some of the Nurses have not obeyed his directions for the better cleaning their wards,” he quickly “Sent for and reprimanded them.”¹²³ While there were a few instances when Creyke had to discipline hospital staff for cleanliness, it seems to have been an exception to the normal running of the hospital. Numerous times Creyke “visited all the wards and found them in good order.”¹²⁴ Only once did he give specific directions for cleaning to take place. On Tuesday 6 June 1798, he “[v]isited all the open wards in the Hospital and found them in good order – gave directions for the paintwork of the door ways and stair cases to be scoured and cleaned.”¹²⁵ Additionally, Jacques Tenon, a French surgeon who had toured hospitals in England and France in the 1780s observed the cleanliness and care provided by the nurses of Plymouth and Haslar hospitals. In his *Mémoires sur les Hôpitaux de Paris* he contrasted the regulations of French and British naval hospitals and he praised the use of women in the British case, applauding their roles especially since using female labourers freed up men for the navy.¹²⁶ He also believed that women, in general, were more attentive at caring for the sick, neater, and more compassionate: “les femmes son plus entendues

¹²³ “Typed Transcripts of the Private minutes & memoranda of the Governor of the Royal Hospital Plymouth 1795-1799,” NMM, TRN/3, 10.

¹²⁴ NMM, TRN/3, 11, 14, 26, 39, 57, 88, 135, 158, 162, 165, 169, 176, 181, 188, 195, 199.

¹²⁵ NMM, TRN/3, 187.

¹²⁶ Recommendations from Tenon’s *Mémoires sur les Hôpitaux de Paris* were used to reform Hôtel Dieu in 1807. John Frangos, *From Housing the Poor to Healing the Sick: The Changing Institution of Paris Under the Old Regime and Revolution* (Madison, NJ: Fairleigh Dickinson University Press, 1997), 225 note 6.

auprès des malades, plus propres & plus compatissantes.”¹²⁷ Philanthropist and prison reformer, John Howard also noted the proper care paid to cleanliness at Plymouth. “A nurse is allowed for every ten men; the greatest attention is paid to cleanliness, and the keeping the wards always well ventilated.”¹²⁸ Howard also praised the cleanliness of Haslar. He wrote that he “always found this *well-conducted* hospital remarkably clean and quiet.”¹²⁹ Like Tenon, he also believed that the use of female nurses at the naval hospitals contributed to the clean state of the hospitals. “All the nurses here, and in the hospital at Plymouth, are women, which is very proper, as they are more cleanly and tender; and they more easily pacify the patients who are seafaring men.”¹³⁰ Women were thought best suited to care work due to their experience in the domestic realm by progressive medical thinkers and hospital reformers of the eighteenth century.

Indeed, cleanliness could also be used as the mark of a good nurse, in terms of her work and character. For example, in the case of an unnamed nurse of the 28th Ward who was accused of misconduct on 23 October 1796 Creyke found the complaint “unsupported by evidence and even contradicted by the testimony of the major part of the patients in the ward.” It turned out that her “cleanliness and attention to the sick,” combined with her long service, enabled her to keep her job.¹³¹ Similarly, it was her inability to clean properly following a workplace accident which made Catherine Kelly no longer fit for nursing work. Kelly had been cleaning with a limewash (also known as slaked lime) when she accidentally placed her hand in water, causing a

¹²⁷ Jacques Tenon, *Mémoires sur les Hôpitaux de Paris* (Paris, 1788), 327. “En Angleterre, on emploie de préférence des Infirmières: on y ménage cette occupation aux femmes, d'abord, parce qu'il est difficile de leur procurer des moyens de subsister, ensuite, afin de conserver les hommes à la Marine, qui en consomme beaucoup: ajoutez que les femmes son plus entendues auprès des malades, plus propres & plus compatissantes. A l'Hôpital de la Marine à Portsmouth, on accorde deux Infirmières par chaque salle de vingt lits; on en me à proportion dans les autres salles.”

¹²⁸ John Howard, *The State of the Prisons in England and Wales, with Preliminary Observations, and an Account of Some Foreign Prisons and Hospitals, Third Edition* (London: Warrington, 1784), 390.

¹²⁹ John Howard, *An Account of the Principal Lazarettos in Europe* (London, 1789), 180.

¹³⁰ Howard, *Account of the Principal Lazarettos*, 180.

¹³¹ NMM, TRN/3, 57.

chemical burn, in May 1804.¹³² She was kept in the hospital for two months for treatment before returning to duty. The Transport Board ordered Hospital Inspector Andrew Baird to investigate her case in 1808. He found that her right hand “was so much disabled as to prevent her using a Mop or Brush, and consequently to render her incapable of discharging her Duty, as a Nurse, three of the Fingers are much contractd, and the hand in some degree wasted,” and recommended her for a discharge and a pension.¹³³ Evidently, a nurse’s ability to clean was seen as so important to her work that there was no point in having a nurse who could not perform cleaning duties.

Medical practitioners and sailors remarked favourable upon the cleanliness of naval hospitals when they compared the institutions with hospital ships. A petition from the patients of the *Le Caton*, anchored off the coast of Plymouth, detailed the dismal conditions on board. The petitioners claimed that “A number of your seaman and Others that are kept laboring under Divers disorders in a Close contacton prison That is full of all maner of disorders and At a grate expence to government.”¹³⁴ The primary complaint of the sick and wounded seamen on board the *Le Caton* was that they should be kept in “a Close ship That is quite durty and dismal,” when “there is a Clean handsoeam Hospital onshore that would hould twice The number of mean that are kept on bord Of the hospital ships.”¹³⁵

¹³² “Plymouth: Hospital Muster Books, &c. 1804,” TNA, ADM 102/614. Limewash was similar to whitewash paint, but required a process known as ‘damping down’ to wet the lime and adhere to the surface material. Limewash is a caustic substance which can burn the hands of its users if proper precautions are not taken. Limewash is not to be confused with lye (potassium hydroxide) soap which could also burn hands if used in significant quantities.

¹³³ ADM 105/21 “Andrew Baird to Commissioners for Transports etc.,” December 22, 1808, “Transport Board Medical Committee In-Letter Book: reports of Dr Andrew Baird as inspector of Hospitals,” TNA, ADM 105/21. Kelly was still receiving her pension of ten pounds per annum in 1821. Navy Office, “Navy: pensions, compensations, and allowances,” U.K. Parliamentary Papers (1821), 32.

¹³⁴ Received in “Evan Nepean to Commissioners for Sick and Hurt,” 13 August 1795, NMM, ADM/E/45.

¹³⁵ Received in “Evan Nepean to Commissioners for Sick and Hurt,” 13 August 1795, NMM, ADM/E/45.

Cleanliness was also important as the hospital ship *Medusa* left the Fleet stationed off Ushant and headed to port in Plymouth in July 1797. The ship was to remain in port for three days only before returning to the Fleet, but the Captain believed that “the short space given to clean and purify the hospital as well as to apply for necessaries to the proper Board,” was not sufficient.¹³⁶ Instead, the Surgeon of the *Medusa* was directed by the physician to the Channel Fleet, Thomas Trotter, to purchase necessary supplies so long as the expense did not exceed £300. Thus, we see an example of when the cleaning and purification process of a hospital ship were important enough to circumvent the established procedures. Of course, not all hospital ships were found to be disordered and unclean. The *Spanker* at Sheerness in 1797 was found by surgeons of the *Union* and *Zeland* to be “in the most perfect state of cleanliness and good Order.”¹³⁷ The proximity of the *Le Caton* to Plymouth Naval Hospital should have allowed the ship to be more adequately supplied and monitored by medical personnel than the *Spanker*. These two cases show the importance of regulatory medical oversight and the individual ship or hospital particularly for matters of cleanliness, a proven method of preventing disease.

Cleanliness was also important for private contract hospitals, like the one at Liverpool. Local commissioners established contract hospitals for the Sick and Wounded Seamen, who hired medical staff and an appropriate house or houses for the hospital. Thomas Robertson, surgeon of the *Doedalus* stationed in the River Mersey, informed the Admiralty of the state of the Sick Quarters at Liverpool in 1797. Robertson had “found the people there in the most neglected State, the room where they are a small dirty confined place, the most of the beds which two Sick people are supposed is keep [kept] in the most wretched Dirty State, no person to attend

¹³⁶ “Thomas Trotter to Evan Nepean,” 29 July 1797, NMM, ADM/E/45.

¹³⁷ “William Stuart to Skeffington Lutwidge,” 29 November 1797, received in “William Marsden to Sick and Hurt,” 1 December 1797, NMM, ADM/E/45.

on them.”¹³⁸ In response to Robertson's letter, the surgeon of the *Acteon* inspected the situation “in the House at Lancelots Hew.”¹³⁹ He found eleven men “seven of which Sleep in one room, three men of two Beds each and one in the other and in one or two beds in another room for the remainder.”¹⁴⁰ In terms of cleanliness “the Blankets appearing very dirty tho the House in general (Viz) the Floor decent.”¹⁴¹ A report on Sick Quarters at Yarmouth in May 1797 described similar problems in three “dwelling houses” located around the town which could hold 150 sick and wounded seamen.¹⁴² One of the problems with the sick quarters in town was the lack of clean bedding. Although by the late-eighteenth century medical and non-medical naval officers had started to connect cleanliness to clean skin, this was a period of transition in terms of perceptions of cleanliness, fresh bed and body linen were still regarded as one of the hallmarks of cleanliness, which made the lack of bedding even more egregious:

That there is not an accommodation of Bedding at these Quarters, such as seems obviously to be understood by a Contract for Lodging, the Patients lying in their own Beds and Bedding (such only as do not bring any Bedding being supplied) and are with few exceptions without Pillowcases or Sheets, under these circumstances it is not possible the Bedding can be clean and wholesome.¹⁴³

The report recommended that patients housed at sick quarters be supplied with clean bedding and “their own Bedding air'd, clean'd and put by, that no danger might arise from contagion on their return to their respective Ships.”¹⁴⁴ This report highlights for contemporaries that the problems

¹³⁸ “Thomas Robertson to Admiralty,” 2 April 1797, received in “Evan Nepean to Commissioners for Sick and Hurt,” 7 April 1797, NMM, ADM/E/45.

¹³⁹ 3 April 1797, Received in “Evan Nepean to Commissioners for Sick and Hurt,” 7 April 1797, NMM, ADM/E/45.

¹⁴⁰ Enclosure. 3 April 1797, Received in “Evan Nepean to Commissioners for Sick and Hurt,” 7 April 1797, NMM, ADM/E/46.

¹⁴¹ Enclosure. 3 April 1797, Received in “Evan Nepean to Commissioners for Sick and Hurt,” 7 April 1797, NMM, ADM/E/46.

¹⁴² “R Burges, William Hargood, Robert Young, and George Kellir to Admiralty,” 8 May 1797, enclosed in “William Marsden to Commissioners for Sick and Hurt,” 15 May 1797, NMM, ADM/E/46.

¹⁴³ “R Burges, William Hargood, Robert Young, and George Kellir to Admiralty,” 8 May 1797, received in “William Marsden to Commissioners for Sick and Hurt,” 15 May 1797, NMM, ADM/E/45.

¹⁴⁴ “R Burges, William Hargood, Robert Young, and George Kellir to Admiralty,” 8 May 1797, received in “William Marsden to Commissioners for Sick and Hurt,” 15 May 1797, NMM, ADM/E/45.

of dirt and cleanliness were not confined to the walls of hospitals or ships but were part of a wider environment. Contagion could be imported into healing spaces through dirt and could then be re-exported onto naval ships as healed patients returned to their duty.¹⁴⁵ The importation of contagion into the hospital and its re-exportation back to sailor's ships was the same reason cited for the fumigation and storage of patients' ship-board bedding and clothing in the hospital bed house.¹⁴⁶

Not all naval hospitals were clean, but contemporaries believed that it was always possible to improve environmental conditions by cleaning. A letter by an anonymous Lieutenant from Jamaica, reported that sick soldiers were treated far better than sick seamen. In his view military "Hospitals were clean and airy, attendant, nurses &c numerous and every thing satisfactory. On the other hand the Naval Hospitals bore so ill a name that many seamen when afflicted, begg'd to remain on board where their situation was imposable in a word ably confined."¹⁴⁷ Naval officers also believed that Bermuda naval hospital was in a bad condition in 1813. An inspection of the hospital by the commanders of three ships noted three deficiencies in cleanliness at the hospital: dirty interior walls which would require the whitewashing of "the whole of the Interior of the Hospital," that the "premises immediately contiguous to the Hospital require weeding and cleaning up," and that putrid filth had collected near the hospital."¹⁴⁸ The

¹⁴⁵ The same association between filth and contagion was applied to ophthalmia patients returning to Britain following the Egyptian campaign. Kelly, *War and the Militarization of British Army Medicine*, 78.

¹⁴⁶ Specifically regulations called for "the bundles of the Patients when received [into the hospital] should be opened by the Laborers in the open air to prevent as much as possible any ill Effects from Infection, in order that their Contents may be examined and more effectually fumigated, which is to be carefully done in the places fitted up for that purpose ... property tallied into the Bed House in the presence of the Agent or one of his Clerks." "Instructions to the Agent at the Royal Hospital at Plymouth," 31 January 1781, in "Instructions and Precedents," TNA, ADM 98/105, 214-215. See also Remarks made upon an Examination of the Royal Hospital at Haslar from the 28th March to the 4th April 1794," NMM, ADM/E/45; "James Johnson to Sick and Hurt Board," 8 August 1794, TNA, ADM 1/3533, "Letters from Haslar and Stonehouse Naval Hospitals 1793-1800."

¹⁴⁷ Received in "Evan Nepean to Commissioners for Sick and Hurt," 7 May 1797, NMM, ADM/E/45.

¹⁴⁸ "John Pechall, Charles Jill, and William Jilles, to George Cockburn," 28 January 1813, "Sir John Borlase Warren, Admiral (1753-1822) 'Letters and Papers Relating to Hospitals 1808-1814,' NMM, WAR/19

weeding of the hospital yard and the removal of the filth that had collected there was not merely a cosmetic concern. The organic debris that had collected in the yard had contributed to the unhealthy environment through putrefaction.¹⁴⁹ Two or three additional labourers were to be added to the initial hospital establishment under the authority of the hospital surgeon so that “its premises might be Kept properly whitewashed and clean.”¹⁵⁰ Although the disrepair of West Indian hospitals might not have been surprising given their considerable distance from the metropole, the universal applicability of notions of cleanliness and the duty of the naval hospital to provide a clean environment regardless of circumstance is worth noting. Naval officers assumed that even a building that was in a state of some physical disrepair, as in the case of the hospital in Bermuda, could be made clean and healthy with minimal labour costs.

Since cleanliness was clearly important to the Royal Navy, the work of nurses was crucial to cleanliness and therefore to the health and performance of the navy. The centrality of nurses to the satisfactory running of a naval hospital, especially the cleanliness of the wards can be seen in the situation at Gibraltar hospital in 1794-5. Lord Hood, Vice Admiral of the Red squadron, wrote to the Admiralty in June 1794 in order “to acquaint their Lordships of the wretched condition of the Naval Hospital,” at Gibraltar.¹⁵¹ There were several failings of the hospital, starting with the age of the Surgeon Mr. Bayne, who “is quite worn out & so paralytic, that he can scarce Carry his food to his Mouth.”¹⁵² Then there was the lack of surgeons’ mates both within the hospital and in the fleet. Additionally, soldiers or French Prisoners of War were

¹⁴⁹ Erich Weidenhammer, “Patronage and Enlightened Medicine in the Eighteenth-century British Military: The Rise and Fall of Dr. John Pringle, 1707-1782,” *Social History of Medicine* 29(1) (2016), 24.

¹⁵⁰ “John Pechall, Charles Jill, and William Jiles, to George Cockburn,” 28 January 1813, NMM, WAR/19.

¹⁵¹ “Lord Hood to Admiralty,” 24 June 1794, received in “Philip Stephens to Commissioners for Sick and Hurt,” 27 June 1795, NMM, ADM/E/45.

¹⁵² “Lord Hood to Admiralty,” 24 June 1794, received in “Philip Stephens to Commissioners for Sick and Hurt,” 27 June 1795, NMM, ADM/E/45; “John Harness to Lord Hood,” 20 June 1794, received in “Philip Stephens to Commissioners for Sick and Hurt,” 27 June 1795, NMM, ADM/E/45.

in the hospital taking up the space that should have been free for sick seamen.¹⁵³ John Harness, the commander of the *Dolphin*, was sent by Lord Hood to investigate the hospital in June 1794. Harness reported that French Prisoners of War, sick soldiers, and the advanced age of the hospital surgeon represented “inconveniences.”¹⁵⁴ However, in concluding his letter he laid out what he saw as the most egregious problem: “the Hospital was particularly short of Medical Attendance & Nurses.”¹⁵⁵ This concern about the lack of female labourers was echoed by the Admiralty who recommended that the establishment of Gibraltar hospital return to that set up in 1760 which had included “One Physician, One Surgeon, four Assistants, & two Surgeons' Labourers, One Dispenser, two Assistants & two Labourers, A Nurse to every ten Men, with four general Labourers.”¹⁵⁶ Only nursing numbers were directly tied to patient numbers. This connection signifies two key characteristics of naval hospitals: first, the centrality of nurses to medical care and preventative medicine through cleanliness and second, that the role of nurses was important enough to be tracked, and if necessary corrected, on a daily basis.¹⁵⁷

By 1794, the cleanliness of Haslar hospital was praised by visiting naval officers and nurses were given more responsibilities in preventative medicine. They reported “the Wards & Bedding appeared perfectly clean & well aired.”¹⁵⁸ They went on to say that “The Officers of the Hospital, and the Patients are satisfied with the general Conduct of the Nurses and the other

¹⁵³ “Lord Hood to Admiralty,” 24 June 1794, received in “Philip Stephens to Commissioners for Sick and Hurt,” 27 June 1795, NMM, ADM/E/45; “John Harness to Lord Hood,” 20 June 1794, received in “Philip Stephens to Commissioners for Sick and Hurt,” 27 June 1795, NMM, ADM/E/45.

¹⁵⁴ “John Harness to Lord Hood,” 20 June 1794, received in “Philip Stephens to Commissioners for Sick and Hurt,” 27 June 1795, NMM, ADM/E/45.

¹⁵⁵ “John Harness to Lord Hood,” 20 June 1794, received in “Philip Stephens to Commissioners for Sick and Hurt,” 27 June 1795, NMM, ADM/E/45.

¹⁵⁶ “Philip Stephens to Commissioners for Sick and Hurt,” 27 June 1794, NMM, ADM/E/45.

¹⁵⁷ The effect of patient increases and external factors on the numbers of nurses employed by naval hospitals and nurse-to-patient ratios is examined in more detail in Chapter Four.

¹⁵⁸ “Remarks made upon an Examination of the Royal Hospital at Haslar from the 28th March to the 4th April 1794,” Received in “Admiralty to Commissioners for Sick and Hurt,” 9 June 1794, NMM, ADM/E/45.

Servants: One Nurse having been detected secreting Phials of Medicine, supposed with an intent to Convey them out of the Hospital, has been discharged.”¹⁵⁹ The 1794 report even recommended that the cleaning role of nurses within the hospital wards be increased: “it appears that the fumigating lamps supplied to certain Wards are very much neglected; they should be under the Care of the Nurses of the different Wards, who do not at present consider themselves responsible for them.”¹⁶⁰ Responding to the Admirals’ report, the head of the Physician and Council at Haslar, James Johnson, further reiterated to the Sick and Hurt Board the role of nurses in cleaning wards and supervising the personal cleanliness of patients.¹⁶¹ Nurses’ cleaning roles in naval hospitals included supervising the bodily purification activities of their patients. Patients who were able to do so were to wash themselves daily in their beds. Johnson believed that this practice was to be “regularly done without leaving the least wet or slop,” which would prevent the “water closets from being wet.”¹⁶² The Commissioners for Sick and Hurt had cited wet water closets as the cause “attended with a degree of Risk in endangering their [patients’] health or retarding their Recovery,” in the 1794 instructions to the Matrons at Haslar.¹⁶³

The work of cleaning was so important that nurses tasked solely with cleaning duties would be listed separately in weekly returns to the Commissioners for Sick and Hurt. For example, when Governor William Yeo of Haslar submitted his Weekly Return at the end of December 1803 he divided the tally of his nursing staff as follows:

¹⁵⁹ “Remarks made upon an Examination of the Royal Hospital at Haslar from the 28th March to the 4th April 1794,” NMM, ADM/E/45.

¹⁶⁰ “Remarks made upon an Examination of the Royal Hospital at Haslar from the 28th March to the 4th April 1794,” NMM, ADM/E/45.

¹⁶¹ Physician and Council was the administrative body of the hospital and composed of all the senior medical officers. This administrative body was dissolved when Governors were appointed to Haslar and Plymouth in the summer of 1795.

¹⁶² “James Johnson to Admiralty,” 8 August 1794, “Letters from Haslar and Stonehouse Naval Hospitals 1793-1800.” TNA, ADM 1/3533.

¹⁶³ “Instructions for the Matrons of Haslar Hospital,” 2 April 1794, “Letters from Haslar and Stonehouse Naval Hospitals 1793-1800,” TNA, ADM 1/3533.

15 Physl Nurses employed
18 Surgl Nurses employed
2 Nurses empld cleaning¹⁶⁴

The decision to categorise nurses by the wards in which they worked in, physical or surgical, is discussed in greater detail in chapter four. The separation of two nurses to work as cleaners reaffirms the importance of cleanliness to preventative medicine. The work of these nurses was understood to be medical and, as such, as a higher status of labour than that of washerwomen. It would have been far cheaper for Haslar to employ washerwomen at 3s 6d per day, than nurses at 5s per day to do such cleaning work.

Cleanliness and Preventative Medicine in the Army

The disastrous Scheldt expedition in the summer of 1809 demonstrated the importance of preventative medicine to the army. Casualty rates were significantly higher than expected, with 4,000 soldiers dying from 'Walcheren' fever, and 11,000 more being invalided back to Britain. William Fergusson was particularly upset with the management of the situation by Physician-General Lucas Pepys. According to Fergusson, "when at an after period he [Pepys] was ordered to proceed to the succour of the distressed army in Walcheren, refused to obey putting on record his official declaration, that he had no knowledge of camp and contagious diseases."¹⁶⁵ A Commission of Enquiry following the expedition concurred with Fergusson's views. It concluded that the high morbidity and mortality rates were due to an insufficient number of medical practitioners and the incompetence of the medical board.¹⁶⁶ The Commission also

¹⁶⁴ "Return of Officers, and Men received in, or discharged from the Royal Hospital, at Haslar between the 24th and 31st Decr 1803," "Letters from Haslar and Stonehouse Naval Hospitals, 1801-1805," TNA, ADM 1/3534

¹⁶⁵ James Fergusson ed., *Notes and Recollections of a Professional Life, by the late William Fergusson, Esq. M. D. Inspector General of Military Hospitals* (London: Longman, Green, and Longmans, 1846), 56.

¹⁶⁶ Kaufman, *Surgeons at War*, 33.

determined, according to historian Matthew Kaufman, that the “gross inefficiency of the Board was directly responsible for the unnecessary loss of thousands of soldiers' lives each year.”¹⁶⁷

The inefficiency described here stemmed from overlapping duties among the members of the surgeon-general and the inspector of hospitals.¹⁶⁸ As a result, the Army Medical Board was disbanded for its failure to put the proven preventative practices, including cleanliness, in place.

Parliament agreed with popular opinion on the debilitating effects of the disease and the need to prevent such a deadly outbreak in the future. The House of Commons authorised a series of enquiries concerning army medicine at the beginning of the nineteenth century.¹⁶⁹

Parliamentary recommendations concerning cleanliness and hospital care aligned with the beliefs of many military medical practitioners; hospitals, both regimental and general, could be made safer for patients through stringent cleanliness regulations. Despite the presence of a large civilian workforce, army hospitals were military installations and functioned under military discipline.¹⁷⁰ Medical practitioners, acting as hospital administrators, had issued hospital regulations on an individual basis since the foundation of military medical establishments. Standardization of medical practices, tied to professionalization, began in the 1790s with the first system or campaign-wide regulations being issued.¹⁷¹ The frequent mention of cleanliness and its prominence in the hospital regulations for all types of army hospitals reinforced the importance of cleanliness as a preventative method.

¹⁶⁷ Kaufman, *Surgeons at War*, 32.

¹⁶⁸ Ackroyd et al, *Advancing with the Army*, 27.

¹⁶⁹ Kelly, *War and Militarization of British Army Medicine, 1793-1830*, 33-39.

¹⁷⁰ “Report of the Commissioners for Sick and Wounded Seamen &ca. Upon Remarks made upon a Visitation of the Royal Hospital at Haslar the 13th May 1780,” TNA ADM 98/13; Jackson, *A System of Arrangement and Discipline for the Medical Department of Armies*, 259.

¹⁷¹ There were still some geographic variations in the regulations, which went along with the environmental understanding of disease and the Hippocratic tradition which started with *Airs, Waters and Places*. Andrea Rusnock, *Vital Accounts: Quantifying Health and Population in Eighteenth-Century England and France* (Cambridge: Cambridge University Press, 2002), 109. Kelly, *War and the Militarization of British Army Medicine*, 155.

By the end of the eighteenth century, medical practitioners viewed regimental hospitals set up by regimental surgeons as more conducive to health than larger general hospitals which were meant to handle increased levels of casualties following battles and epidemics. One factor leading to this consideration was the ease in maintaining cleanliness and preventing the build-up of contagion in smaller, open-air facilities. Army officers also viewed regimental hospitals as spaces where it was easier to ensure discipline among the patients, who would be known by the officers commanding the hospital.¹⁷² Regimental hospitals catered to the everyday medical needs of army regiments at home and throughout the empire. However, the same regimental organization framework which many medical practitioners favoured also meant that there was less standardization of care and preventative medicine from one regiment to the next. Prior to the first printed regulations for regimental hospitals in 1799, staff surgeons issued their own regulations on a campaign or camp basis. Donald Monro's "Instructions given to the regimental surgeons, relative to the sick and hospitals of their different regiments," presented to the army camp at Cox-heath in 1778, represented an early attempt at homogenous regimental medical practice.

Cleanliness was to be maintained within the regimental hospitals as a whole, and at the site of the patient through personal cleanliness. For example, in the 1780 regulations the hospital was to be "kept as clean as possible," through sweeping, the application of vinegar, and washing the floors "from time to time."¹⁷³ Although there is no mention of whose job it was to do this cleaning, it can be said with some certainty that it was not the surgeon who was holding the broom; it could have been either the nurses, the orderlies, or a combination. Fear that contagion

¹⁷² Millingen, *The Army Officer's Manual Upon Active Service*, 63. They were also thought to be more economically viable. *Fifth Report for the Commission of Military Enquiry*, U.K. Parliamentary Papers 1808, 71.

¹⁷³ Monro, *Observations on the Means of Preserving the Health of Soldiers; and of conducting Military Hospitals* (London, 1780), 153.

had seeped into the straw mattresses necessitated that the straw was changed regularly by the nurses or orderlies. Upon the death of a patient the straw he had slept on was burnt and his bedding “cleaned and well aired before they are again used.”¹⁷⁴ The bodies of the patients were also to be kept clean, shaved twice a week at the same time that their linen was changed and washed every morning. Nurses were supposed to ensure that matters of bodily cleanliness were taken care of. Monro declared that “the nurses ought to carry round a pailful of water with some bran or oat-meal, or soap, and a hand-towel to those who are confined to bed; and they ought to wash with a wetted corner of a cloth, the hands and face of those men who are too weak to wash themselves.”¹⁷⁵ In order to ensure that there was adequate nursing staff to attend the patients, the regulations recommended that there should be a nurse for every twelve to fourteen patients.¹⁷⁶ Monro’s nursing staff at Cox-heath, in Kent, was paid for by the medicine money of the individual regiments raised from stoppages against the men's pay.¹⁷⁷ If fever outbreaks required additional nurses, or if a special hospital for infection was set up, as in the case of the smallpox hospital at Cox-heath, nurses' wages were paid by public funds obtained through the inspector-general.¹⁷⁸ Nurses, and their work, were valued by Monro who saw the importance of nursing care and its relationship to cleanliness and preventative medicine. The clearly defined pay mechanisms ensured that nurses could be paid for their indispensable labour.

There are many similarities between the Coxheath regulations and those issued to regimental hospitals in Jamaica, suggesting that standards and uniform expectations for

¹⁷⁴ Monro, *Observations on the Means of Preserving the Health of Soldiers*, 155.

¹⁷⁵ Monro, *Observations on the Means of Preserving the Health of Soldiers*, 155.

¹⁷⁶ Monro, *Observations on the Means of Preserving the Health of Soldiers*, 155.

¹⁷⁷ Monro, *Observations on the Means of Preserving the Health of Soldiers*, 150; For a detailed explanation of the regimental stoppage system see Tabitha Marshall, “The Health of the British Soldier in America, 1775-1781,” (PhD Diss., McMaster University, 2006), 62.

¹⁷⁸ Monro, *Observations on Preserving the Health of Soldiers*, 152.

regimental care pre-dated the centralised regulations of 1799. Like Monro's orders for Cox-heath, patients were to be washed thoroughly upon admittance to the hospital.¹⁷⁹ However, although the Jamaican hospital regulations mentioned the presence of nurses, it was the duty of orderly men and pioneers to clean and sweep the wards daily.¹⁸⁰ Fumigation methods were also used by medical practitioners to stop the spread of fevers and the formation of contagion in most regimental hospitals. After the wards were clean, they were to be “well fumigated with gunpowder wetted in vinegar, and thrown over heated iron placed in different parts of the wards.”¹⁸¹ The use of vinegar in Monro's Cox-heath regulations and in Jamaica attest to the perceived antiseptic properties of vinegar and its capacity to remove miasmata from the air.¹⁸² Miasmata or miasma was bad or smelly air, which medical practitioners and lay people believed could create or transmit infection and contagion.¹⁸³ Coupled with notions of good air was the belief that free circulation of air was paramount. Although ventilation was an important aspect of preventing noxious miasmas in all hospitals, it was seen as crucial in the West Indian climate where the flow of air prevented the build-up of heat that could be further detrimental to the health of Europeans.¹⁸⁴ The similarities between Monro's Cox-health regulations and those for regimental hospitals in Jamaica demonstrate universally held medical beliefs concerning cleanliness and ventilation.

¹⁷⁹ Head-Quarters, Spanish-Town, *Regulations to be Observed in the Regimental Hospitals of the Several Corps in Jamaica* (Spanish-Town: David Dickson, 1797), 7; Monro, *Observations on Preserving the Health of Soldiers*, 98.

¹⁸⁰ *Regulations to be Observed in Jamaica*, 8-9. Pioneers was the name given to Black soldiers raised for particular service, such as construction details, for the duration of a particular campaign or conflict. Mary Clifford, *From Slavery to Freedom: Black Loyalists After the American Revolution* (Jefferson, NC: McFarland, 2006), 26-27.

¹⁸¹ *Regulations to be Observed Jamaica*, 9.

¹⁸² The use of vinegar to purify air was first employed on naval ships in the early 17th century. Kevin Brown, *Poxed and Scurvied: The Story of Sickness and Health at Sea* (Annapolis, MD: Naval Institute Press, 2011), 31.

¹⁸³ Margaret Pelling, “The meaning of contagion: reproduction, medicine and metaphor,” in *Contagion: Historical and cultural studies* eds. Alison Bashford and Claire Hooker (London and New York: Routledge, 2001), 18-19. Miasma and the importance of good air through ventilation is further examined in Chapter Two.

¹⁸⁴ Karen Ordhal Kupperman, “Fear of Hot Climates in the Anglo-American Colonial Experience,” *William and Mary Quarterly* 41(2) (1984), 233-234.

The enforcement of the regulations outlined by the surgeon of the forces for Jamaica was in the hands of a corporal and sergeant from each regiment. The corporal oversaw the cleanliness of wards and the quick removal of used bedpans.¹⁸⁵ Jamaican regulations tasked the sergeant with ensuring that nothing was to be hung on the walls or in the windows “that can in the least degree prevent a circulation of air, or serve as a receptacle for infection.”¹⁸⁶ Additionally, the surgeon of the forces reported to the commander-in-chief on any deficiencies or complaints, and carried out regular inspections of regimental hospitals.¹⁸⁷ However, the 1799 regulations put greater emphasis on explaining the link between dirt, the formation of contagion, and potentially devastating effect contagion could have on health and manning the army.¹⁸⁸

Cleanliness was also a priority for regimental hospitals. Indeed its importance is seen in the ordering of the regulations; cleanliness and provisions to ensure cleanliness were the first measures to be stipulated in the regulations. For example, rules for Irish regimental hospitals stipulated that “The Walls, if plastered, to be white-washed every three Months; if wainscoted, to be frequently washed with Soap and Water” in the second line of instruction.¹⁸⁹ In order to ensure cleanliness and care, Irish regimental hospitals were to be staffed by “a steady Serjeant, with one Orderly Man, or more according to the Exigency of the Service, and one Woman Nurse; and for every ten Men confined to Bed *by Fever*, an additional Nurse, or Orderly Man.”¹⁹⁰ Although regimental surgeons hired both male orderlies and female nurses, whose roles were not distinguished in the 1803 regulations, it was probably the case that one woman

¹⁸⁵ *Regulations to be Observed Jamaica*, 8.

¹⁸⁶ *Regulations to be Observed Jamaica*, 9.

¹⁸⁷ *Regulations to be Observed Jamaica*, 12.

¹⁸⁸ Simonton, *A History of European Women's Work*, 93.

¹⁸⁹ *Instructions for the Army Medical Board of Ireland, to Regimental Surgeons and Assistant Surgeons Serving on that Establishment* (1803), 2. Administrative separation of the Irish hospitals from the English ones occurred in 1795 with the formation of the Irish Army Medical Board which remained in operation until 1833. A similar separate medical establishment was created for the Ordinance Department in 1797. *Advancing with the Army*, 26.

¹⁹⁰ *Instructions for the Army Medical Board of Ireland*, (1803), 3.

was hired to handle the everyday realities of maintaining cleanliness. The division between the orderlies and nurses was clarified by the Irish regulations in 1806, which stated that the Orderly Man's "duty is to assist the Nurse in attending the Sick, administering Medicines and Nourishment, and keeping the Wards and every other part of the Hospital clean and in good order."¹⁹¹ Again, the stated position of the orderly as an assistant to the nurse shows that women were seen as better suited to clean and care for the sick.

Regimental hospital regulations separated the role of the nursing care for the sick from the work of orderlies by 1812. Nurses were supposed to "attend to the cleaning of the wards, and unless her time is otherwise occupied by a heavy sick list, to wash the hospital bedding and towels, when it is not performed by the Barrack Department."¹⁹² It was the duty of the Orderly Man to "assist the Nurse, by attending to the sick, administering the medicines and comforts, keeping the wards clean, and performing such other duties of the hospital as may be directed."¹⁹³ The regimental surgeon was to monitor the cleanliness of the hospital, and he was also to supervise the washing of the floor with soap and water "for the removal of filth," when dry-rubbing was not sufficient.¹⁹⁴ The role of surgeons in overseeing the work of cleanliness cannot be easily dismissed. Surgeon William Pitt Muston of the South Lincoln Militia, was court martialled for neglecting cleanliness in his hospital and not attending upon his patients. Although he was acquitted on the second charge of not attending to his patients, he was convicted "in respect to the 1st Charge that the Surgeon Wm Pitt Muston did not about the 5th

¹⁹¹ *Instructions from the Army Medical Board of Ireland*, (1806), 41.

¹⁹² *Instructions for the Regulation of Regimental Hospitals and the Concerns of the Sick. Horse Guards 24th September 1812* (London: W. Clowes and Co., 1812), 12.

¹⁹³ *Instructions for the Regulation of Regimental Hospitals* (1812), 12-13. Regulations for regimental hospitals from 1803 stated: "The duty of the Orderly man is to assist the Nurse, by attending the sick, administering the medicines and comforts, and keeping the Wards clean." *Instructions to Regimental Surgeons, for Regulating the Concerns of the Sick and of The Hospital*, Royal College of Surgeons Library (London: Henry Reynell, 1803), 7.

¹⁹⁴ *Instructions for the Regulation of Regimental Hospitals* (1812), 13.

day of August last pay sufficient Attention to the Cleanliness of some of his patients in the Hospital & likewise that he has not in the instances pointed out to the Court in the Medical Register of His Hospital strictly adhered to the regulations prescribed on that head.”¹⁹⁵ It was also the surgeon's role to ensure that contagion was not brought into the hospital if it could be helped: “every Patient must (if possible) be inspected by one of the Medical Officers of the regiment, previous to admission into the Hospital, and his whole body is to be made perfectly clean with warm water and soap; he should put on a clean shirt, and his clothes be purified.”¹⁹⁶ These provisions demonstrate that while medical officers in the army sought to maintain the same levels of cleanliness present in permanent hospitals such as purpose built general or naval hospitals, they also recognised that cleanliness would be difficult, though not impossible, to secure in a moving, tented, or at best semi-permanent establishment.

In 1812, the Army Medical Department expanded upon previous instructions for washing the bedding, representing one instance in the increased importance of women in preventative medicine, a change that gave nurses a greater role in medical care. The precautions to be taken with the bedding of a patient were more elaborate than those used by Monro in 1778; for example, bedding was to be steeped in water, then dried, baked, and finally washed in boiling water with soap, before it was used again.¹⁹⁷ Though it had previously been acceptable to use this procedure only on a patient who had died, the instructions now stated that “when the disease is subdued, the like to be done with the bedding of the whole ward.”¹⁹⁸ This process was in

¹⁹⁵ Horse Guards, 22 October 1807, “Collection of letters to Fergusson.” Wellcome Library, RAMC 212.

¹⁹⁶ *Instructions for the Regulation of Regimental Hospitals* (1812), 14-15.

¹⁹⁷ It is presumed that such work would be done by nurses however the actor is never stated in the regulations. “The whole of the bedding, after being used by such patients, is to be steeped in water frequently changed, and to be thoroughly dried and exposed to air, and after-wards washed with soap and water, before it is either used again or put into store. The straw of the beds is to be burnt, and the places or bedsteads where the patients lay well scoured with soap and hot water.” *Instructions for the Regulation of Regimental Hospitals* (1812), 15-16.

¹⁹⁸ *Instructions for the Regulation of Regimental Hospitals* (1812), 12.

addition to the changing of bedding every fortnight for all patients, and the quick removal of any bedding fouled by patients with “fevers, dysentery, or any diseases of an infectious tendency.”¹⁹⁹ It is not explicitly stated in these or earlier regulations who was to be responsible for the washing of bedding and clothes. However, the washing was probably left in the hands of the nurse employed by the regimental hospital or subsumed under the category of work done by women of the regiment.²⁰⁰

Cleanliness regulations represent universal medical principles that could theoretically be, and were in practice, transferred from the regimental to the general hospital. For example, the measures put in place to prevent contagion in general hospitals were similar to those used in regimental hospitals. William Fergusson's 1811 stipulation that when death had occurred from a contagious disease “not only the bedding, but the bedstead is to be promptly removed for the purpose of being purified.”²⁰¹ The bathing of patients upon admission to the hospital and measures to fumigate their clothes were also designed to prevent contagion.²⁰² Furthermore, patients were to be segregated by disease or symptoms into separate wards or buildings within the general hospitals.²⁰³ However, there were several differences between regimental and general hospitals and how they managed the threat of contagion. General hospitals usually had a more experienced medical staff and more sophisticated management structure.²⁰⁴ A Matron

¹⁹⁹ *Instructions for the Regulation of Regimental Hospitals* (1812), 33.

²⁰⁰ Lynn, *Women, Armies, and Warfare in Early Modern Europe*, 118; Linda Grant De Pauw, *Battle Cries and Lullabies: Women in War from Prehistory to the Present* (Norman: University of Oklahoma Press, 1998), 20.

²⁰¹ “Observations re Regimental Hospitals and duties of the Brigade Surgeon 1811,” Wellcome Library, RAMC 210/3.

²⁰² *Regulations for the Management of the General Hospitals in Great Britain*, 32.

²⁰³ *Instructions for the regulation of military hospitals and the sick with divisions of the army in the Peninsula under the command of Field Marshall the Marquis of Wellington* (Lisbon: Antonio Rodrigues Galhandro, 1813), 1.

²⁰⁴ The medical staff of general hospitals were provided by the staff branch of the medical service. Staff surgeons often had more experience and were more efficient in performing operative procedures than their regimental counterparts. Staff surgeons were also responsible for the formalized field hospital system that was established in the Peninsula in 1813. This meant there could be a continuity of care and regulations provided from the battlefield to the general hospitals. Kaufman, *Surgeons at War*, 260.

acted as the superintendent of the female staff – nurses and washerwomen – attached to the hospital.²⁰⁵ The nurses she supervised were to make sure that their patients and ward were clean, and they were to be “attentive, assiduous, and humane, in their care of the sick.”²⁰⁶ The Matron and the servants of the hospital under her charge were like the other staff members under military discipline.²⁰⁷ Therefore, while cleanliness was seen as the purview of women (either nurse or matron) and of universal importance to preventative medicine, the actions of these civilian women were punishable as offences against the army.

Cleanliness continued to be a principal concern for military hospitals following the end of the Napoleonic Wars. William Fergusson, then the Inspector-General of Army Hospitals, commissioned J. G. V. Millingen, a veteran surgeon of the Revolutionary and Napoleonic Wars, to write the *Army Officer's Manual Upon Active Service*.²⁰⁸ Within this authorised manual published in 1819 the role of the regimental medical officer was to ensure “that the general means of preserving cleanliness, such as brooms, mops, white-washing brushes, scrapers, &c. have not been overlooked.”²⁰⁹ Millingen held “ventilation, dry wards and extreme cleanliness,” as the primary and “most powerful means of resisting and counteracting contagion, and ensuring success to medical exertions.”²¹⁰ However, while *The Army Officer's Manual* went into great detail on how to clean the floors and walls of wards, there was no discussion on who will be doing the work of cleaning.²¹¹ Millingen lumped the work of orderlies and nurses together under the heading of servants, and there is no distinction about cleaning duties.²¹² For Millingen,

²⁰⁵ *Regulations for the Management of the General Hospitals in Great Britain*, 29-31.

²⁰⁶ *Regulations for the Management of the General Hospitals in Great Britain*, 30.

²⁰⁷ *Regulations for the Management of the General Hospitals in Great Britain*, 11.

²⁰⁸ Ackroyd et al, *Advancing with the Army*, 39.

²⁰⁹ Millingen, *The Army Officer's Manual Upon Active Service*, 67.

²¹⁰ Millingen, *The Army Officer's Manual Upon Active Service*, 68.

²¹¹ Millingen, *The Army Officer's Manual Upon Active Service*, 70-71.

²¹² Millingen, *The Army Officer's Manual Upon Active Service*, 104.

unlike other medical practitioners and even earlier military regulations, there was no gendered suitability of women for cleaning work or for nursing care. Such ideas not only erased any distinct role for nurses, but also made it easier in the post-Napoleonic era to remove women from military settings and replace them with male orderlies. When viewed in this way, Millingen's work helped to propagate the understanding that women did not act as officially sanctioned nurses before Nightingale and that nursing work was menial labour that was considered unimportant when compared to the skilled labours of the medical practitioner.

Conclusion

The decision to employ women primarily as nurses in military and naval hospitals was the result of gendering care work. Women were believed to be simply better suited to the work of nursing, caring for patients, and creating a clean healing environment. Medical practitioners and hospital administrators operated within wider societal and gender norms. Their desire for female nurses highlights the interconnectivity of the gendered frameworks of care in civilian, military, and naval medical institutions. However, the discussion about whether military hospitals should be staffed primarily by orderlies or nurses, or a combination of both suggests that the suitability of women to perform nursing in a military situation was not always assumed. The regulations of hospitals appear to reflect what was already happening at military hospitals, and seem to represent the opinion of most military and naval medical practitioners, in terms of gender roles. For the navy, there was little question that the division between female nurses and male labourers was a matter of separate spheres: nurses controlled the ward environment and looked after their patients, while labourers worked in non-medical spaces, stairways, walkways, and the hospital grounds. The seemingly innate capacity of women to care for the sick and injured men qualified

them to enter hospitals as nurses and establish ownership of their labour within these important functions of military and naval hospitals.

CHAPTER TWO: “To be kept open so as at Night gently to move the Flame of a Candle:” Ventilation and the Role of Nurses in Creating a Built Healing Environment

Introduction

Almost twenty years ago, nurse historian Patricia D’Antonio posited that “[u]nderstanding the work of nurses has reshaped historians’ sense of the historical hospital, the treatment of disease, the birth of babies, and the role of women in their families and their communities.”¹ Considering the role of nurses has since become known as the historiographical ‘practice turn’ by nursing historians.² Re-centering the work of nurses in the second half of the long eighteenth century changes the story of the military and naval hospitals from the Seven Years’ War to the Napoleonic period, by reconceptualising these medical institutions as more than the purview of medical officers. It highlights an important phenomenon at the intersection of medical, nursing, and environmental history – the work of nurses in creating a healing environment using

¹ Patricia D’Antonio, “Revisiting and Rethinking the Rewriting of Nursing History,” *Bulletin of the History of Medicine* 73(2) (1999), 269. The same sentiments were echoed by Celia Davies in the 2005 Monica Baly Lecture for the American Association for the History of Nursing. Celia Davies, “Rewriting Nursing History – Again?,” *Nursing History Review* 15 (2007), 15.

² Jane Brooks, “Wartime Nursing: Feeding as Forgotten Practice,” in *Nursing History for Contemporary Role Development*, Sandra B. Lewenson, Annemarie McAllister, Kylie M. Smith eds. (New York: Springer Publishing Company, 2017), 71; Christine E. Hallett, *Containing Trauma: Nursing Work In The First World War* (Manchester: Manchester University Press, 2009), 1; Jane Brooks and Christine E. Hallett, “Introduction: The practice of nursing and the exigencies of war” in *One Hundred Years of Wartime Nursing, 1854-1953*, Jane Brooks and Christine E. Hallett eds. (Manchester: University of Manchester Press, 2015), 3. Patricia D’Antonio, Julie A. Fairman and Jean C. Whelan, “Introduction,” in *Routledge Handbook on the Global History of Nursing*, Patricia D’Antonio, Julie Fairman and Jean C. Whelan eds. (London and New York: Routledge, 2017), 5-6; Karen Nolte, “Protestant Nursing Care in Germany in the 19th Century: Concepts and social practice,” in *Routledge Handbook on the Global History of Nursing*, Patricia D’Antonio, Julie Fairman and Jean C. Whelan eds. (London and New York: Routledge, 2017), 167-168.

ventilation to mediate the connection between the built and unbuilt environments.

Eighteenth-century medical officers held the belief that environmental factors influenced the constitution of their patients, and either promoted or hindered recovery. Stagnant, smelly air, they believed, would lead to the build-up of deadly noxious effluvia, while fresh breezes and regular fumigation contributed to rapid recoveries. However, it was not surgeons and physicians who regulated the environmental conditions of the hospital. Instead, this job was within the purview of female nurses who cleaned patients' bodies and bedding, opened and closed windows as necessary, and operated fumigation lamps on a regular basis. This chapter contextualises the work of such women within an environmental, medical, and gendered labour framework that operated in the spaces of military and naval hospitals, to showcase how the work of ventilation – and thus a healthy, healing environment for recovering seamen – was in the hands of nurses.

Historiography

This chapter draws on the work of environmental historians James Fleming and Ann Johnson's *Toxic Airs*, who sought to integrate frameworks and approaches from medical and environmental history in order to study the historical and contemporary importance of air and human health.³ By borrowing frameworks from environmental history, specifically surrounding the study of pollution, and expanding the historical medical gaze beyond the body, not only does the picture of health and disease become clearer, but as the work of Christopher Hamlin and Andrew Wear has shown, such wider frameworks are more reflective of early modern pre-germ theory

³ James Rodger Fleming and Ann Johnson eds. "Introduction," in *Toxic Airs: Body, Place, Planet in Historical Perspective* (Pittsburgh: University of Pittsburgh Press, 2014), ix; See also Gregg Mitman, "In Search of Health: Landscape and Disease in American Environmental History," *Environmental History* 10(2) (2005): 194; Gregg Mitman and Ronald L. Numbers, "From Miasma to Asthma: The Changing Fortunes of Medical Geography in America," *History and Philosophy of the Life Sciences* 25(3) (2003): 391-394; James G. Hanley, *Healthy Boundaries: Property, Law, and Public Health in England and Wales, 1815-1872* (Rochester, NY: University of Rochester Press, 2016), 58-59.

conceptions of disease.⁴ The importance of air for health in the early modern period derived from the work of both Hippocrates and Galen. Their theories continued to form the basis of medical thought well into the early-nineteenth century. For Hippocrates, as best expressed in his medical treatise *Airs, Waters, Places*, the healthiness of the body depended on its natural soundings, what we would now call environment of which air was a major component.⁵ Galen later emphasized the role and purity of *pneuma* or the body's internal air as key to humoral balance and health.⁶

The link between air and health was increasingly debated by medical practitioners and ordinary civilians in the eighteenth and early nineteenth centuries.⁷ As historian Vladimir Jankovic has shown, the eighteenth century marked a turning point in understandings of air. Professionals contended over how exposure to bad air influenced health outcomes, whether foul smelling miasmas, confined spaces, or extremes of cold and heat. It was only when indoor comfort became possible for the majority of the British population in the mid-eighteenth century, Jankovic argues, that the “dichotomy ... between the medical qualities of indoors and outdoors,” could exist.⁸ With this dichotomy in place, it was possible to control air, to make the domestic

⁴ Christopher Hamlin, *More Than Hot: A Short History of Fever* (Baltimore, MD: John Hopkins's University Press, 2014), 61. In delineating the importance of air to health Hamlin described air as “the master commons: often its quality can be attributed to no single part or agency, but rather represents integrative characteristics of natural circumstances, modes of industry the spatial organization of the built environment, sources and uses of energy, and accumulated personal choices.” Christopher Hamlin, “Surgeon Reginald Orton and the Pathology of Deadly Air: The Contest for Context in Environmental Health,” in *Toxic Airs: Body, Place, Planet in Historical Perspective*, 23-49 (Pittsburgh: University of Pittsburgh Press, 2014), 25; Andrew Wear, *Knowledge and Practice in English Medicine* (Cambridge: Cambridge University Press, 2000).

⁵ D. C. Smith, “Medical Science, Medical Practice, and the Emerging Concept of Typhus in mid-Eighteenth-Century Britain,” in *Theories of Fever from Antiquity to the Enlightenment*, William Bynum and Vivian Nutton eds. (London: Wellcome Institute for the History of Medicine, 1981), 130. Jacques Jouanna, *Greek Medicine from Hippocrates to Galen: Selected Papers* (Leiden and Boston: Brill, 2012), 128-129.

⁶ Brenda Gardenour Walter, “Corrupt Air, Poisonous Places, and the Toxic Breath of Witches in Late Medieval Medicine and Theology,” in *Toxic Airs: Body, Place, Planet in Historical Perspective*, 1-22 (Pittsburgh: University of Pittsburgh Press, 2014), 7.

⁷ Though they continued to be viewed through a neo-Hippocratic lens. The transmission vector for yellow fever, for example continued to be debated into the nineteenth century, with many medical practitioners believing that the disease entered the respiratory system of the body through the air. Margaret Humphreys, *Yellow fever and the South* (Baltimore and London: Johns Hopkins University Press, 1999), 31.

⁸ Vladimir Jankovic, *Confronting the Climate: British Airs and the Making of Environmental Medicine* (New York: Palgrave Macmillan, 2010), 1-2.

space – the hospital, and the ship – healthier, which meant preventing disease from occurring, spreading, or worsening, while promoting healing. Mediated access between the controlled indoor space and the uncontrollable outdoor world occurred through designated sites of architectural permeability: windows, doors, and porous building materials.⁹ The accessibility to outdoor air that these entry and exit points provided could also be used to connect diseases to the weather.¹⁰ Hospitals in particular offered a key site for the integration of meteorological data with a sizeable sample of diseased patients.¹¹ Yet, such connections were only possible once the built environment of the hospital could be controlled. Again, to quote Jankovic, “Ventilation thus became a medical issue, not simply because it solved the problem of foul air, but also because, at the same time, it helped physicians to construct foul air as a preventable cause of disease.”¹² Furthermore, Jankovic criticised historians of environmental medicine for neglecting the simple practice of opening windows, which he characterised the “most common method of ventilation,” and that most practiced by medical practitioners and ordinary people.¹³ People understood that unhealthy air did not originate only from within or without the enclosed spaces of the hospital or home. It came from unclean objects, especially bedding and clothing that had absorbed the sweat of the body or some other form of disease contagion, or the bodies of the sick themselves.

What eighteenth-century medical practitioners meant when they used the word contagion was complex, especially when viewed through twenty-first century eyes. Historian Margaret Pelling distills the eighteenth-century difference between the concepts of contagion and infection

⁹ Amanda Vickery, *Behind Closed Doors: At Home in Georgian England* (New Haven and London: Yale University Press, 2009), 29.

¹⁰ Andrea Rusnock, *Vital Accounts: Quantifying health and Population in Eighteenth-Century England and France* (Cambridge: Cambridge University Press, 2002), 119.

¹¹ Rusnock, *Vital Accounts*, 124.

¹² Jankovic, *Confronting the Climate*, 13.

¹³ Jankovic, *Confronting the Climate*, 74.

to the mode of entry into the body: “Contagion is direct, by contact, and infection indirect, through the medium of water, air, or contaminated articles.”¹⁴ Yet, this simple dichotomy is not sufficient to understand the complexities of the medical reality as “the concepts of contagion, infection, and miasma accumulated layers of connotation over time.”¹⁵ During the second half of the eighteenth century, the term contagion could be applied to both an inanimate object, like dirty linen, and a characteristic of the air or environment.¹⁶ Historians Alison Bashford and Claire Hooker summarize the dual nature of contagion, as follows: “[Contagion] connotes both a *process* of contact and transmission, and a substantive, self-replication *agent*.”¹⁷ Within an eighteenth and early-nineteenth century framework, the concepts of contagion, and miasma (bad air) can and were viewed as complementary rather than contradictory.¹⁸ A foul environment could both create contagion and act as its method of transmission to the sick. The two contemporary understandings of how contagion was spread and created – through the air, and through contact with infected items – are crucial to understanding the importance of ventilation to medical practice and nurses' place in the hospital systems. In essence, nurses sustained an interior environment designed to foster healing through cleaning, purifying, and ventilating hospital spaces. Without their labour, the principles of ventilation would have remained at best a

¹⁴ Margaret Pelling, “Contagion/Germ Theory/Specificity,” in *Companion Encyclopaedia of the History of Medicine*, Volume 1, eds. W. F. Bynum and Roy Porter (London and New York: Routledge, 1993), 309. See also Alison Bashford and Claire Hooker, “Introduction: contagion, modernity and postmodernity,” in *Contagion: Historical and Cultural Studies*, eds. Alison Bashford and Claire Hooker (London and New York: Routledge, 2001), 4.

¹⁵ Pelling, “Contagion/Germ Theory/Specificity,” 310.

¹⁶ Pelling, “Contagion/Germ Theory/Specificity,” 311. Christine Stevenson, *Medicine and Magnificence: British Hospital and Asylum Architecture 1660-1815* (New Haven and London: Yale University Press, 2000), 157. Florence Nightingale also connected contagion to the interaction of the body to the environment. Charles Rosenberg, “Florence Nightingale on Contagion: The Hospital as a Moral Universe,” in *Explaining Epidemics and Other Studies in the History of Medicine*, (Cambridge: Cambridge University Press, 1992), 92-93. For debates about contagionism in the eighteenth century see, Margaret DeLacy, “Nosology, Mortality, and Disease Theory in the Eighteenth Century,” *Journal of the History of Medicine and Allied Sciences* 54(2) (1999), 277-284.

¹⁷ Italics in original. Bashford and Hooker, “Introduction,” 4.

¹⁸ Bashford and Hooker, “Introduction,” 19, 21; Stevenson, *Medicine and Magnificence*, 159.

theory of healing and not a practice of medical care; female labour at hospitals therefore, was crucial to the health and welfare of servicemen.

Methodology

By considering military and naval hospitals as built environments designed with the specific purpose of curing the sick, the work of the nurse in ensuring adequate ventilation becomes more significant than just opening a window. In the eighteenth century such normal, quotidian, actions were unremarkable, unless they were not carried out. Opening the window, and other actions associated with ventilation, are often overlooked by contemporaries and historians. However, these actions of late eighteenth and early nineteenth century nurses were part of a wider medical role – one more commonly associated in the historiography with the mid-nineteenth century than a hundred years earlier.¹⁹

Nurses were promoting health by ensuring patients had access to and were surrounded by good clean air. But before considering the importance of ventilation to late-eighteenth and early nineteenth century medical thought, it is necessary to examine the design, location, and physical characteristics of purpose-built hospitals. The work of architectural historians forms the ground for this discussion of the medical built environment. It is then possible to see how the same selection and design principals were used in a dynamic military situation. Exposing the

¹⁹ Nurses' role in hospital ventilation was seen as part of the period of hospital reform in the 1860s and was tied to the popularity of the pavilion-style hospital. Christine Stevenson, "From Palace to Hut: The Architecture of Military and Naval Medicine," in *British Military and Naval Medicine, 1600-1830* ed. Geoffrey Hudson (Amsterdam and New York: Rodopi, 2007), 231. It also answered a call to action from Nightingale who critiqued the capabilities of hospital attendants in the Crimea. "One would think that the first and last idea in constructing hospitals would be to contrive such means of ventilation as would perpetually and instantly carrying off these morbid emanations. One would think that it would be the first thing taught to attendants to manage such means of ventilation. Often, however, it is not *even* the *last* thing taught to them." Florence Nightingale, *Notes On Hospitals: Being Two Papers Read Before the National Association for the Promotion of Social Science, At Liverpool, in October, 1858* (London: John W. Parker and Son, 1859), 11.

universal understanding about the importance of ventilation within eighteenth-century medical practice, articulated by medical officers in the Royal Navy and the British Army, as well as the popularity of these ideas in the cases of civilian medical practitioners and the lay public, better situates the late-eighteenth century medicalisation of the nurse's work within naval and military hospitals.

Hospital Design

Healthy hospital design began with the selection of a suitable exterior environment, primarily through the choice of location. For example, regulations for Irish regimental hospitals stipulated that "Hospitals should be capacious, and, if possible, placed in an elevated healthy Situation." This proviso reflected the contemporary belief that mountainous regions were healthier than marshy lowlands,²⁰ which were thought to be especially dangerous because of the odours produced in such regions.²¹ Swampy, wetland regions had long been connected to illness in the minds of ordinary people and medical practitioners. The damp conditions associated with these regions were thought to create the conditions necessary to spread disease.²² People believed the unhealthiness of marshes was due to the putrefaction of decaying matter, the smell of which entered the body via the air.²³ Smell was connected to eighteenth-century social conventions,

²⁰ *Instructions for the Army Medical Board of Ireland, to Regimental Surgeons and Assistant Surgeons Serving on that Establishment* (Dublin: George Grierson, 1803), 1. Jankovic, *Confronting the Climate*, 135. John Hunter recommended moving the Portsmouth garrison as "the want of Healthiness does not arise from anything in the Barracks themselves, but their peculiar Situation which cannot be remedied. This appears to me I confess sufficient Reason for condemning them as Barracks, & building others in more elevated & healthy Situations." "John Hunter to Lord Amherst," August 3, 1793, TNA, WO 7/98, 29.

²¹ Bashford and Hooker, "Introduction," 20.

²² Mary Dobson, "Mortality Gradients and Disease Exchanges," *Social History of Medicine* 2(3) (1989), 265-266; Mary Dobson, "Marshlands, mosquitoes and malaria," in *Contours of Death and Disease in Early Modern England* (Cambridge: Cambridge University Press, 1997), 287-367; Darrett B. Rutman and Anita H. Rutman, "Of Agues and Fevers: Malaria in the Early Chesapeake," *William and Mary Quarterly* 33(1) (1976): 31-60.

²³ Mark Harrison, *Medicine in an Age of Commerce & Empire: Britain and Its Tropical Colonies, 1660-1830* (Oxford: Oxford University Press, 2010), 76-77; Michael Brown, "From Foetid Air to Filth: The Cultural

wherein a healthy body and environment were either deodorized through bathing and ventilation or else improved through the application of sweet-smelling fragrances.²⁴ In this sense, the same dangers of marshes could also emanate from any location where large numbers of the unwashed masses congregated. According to medical practitioners and hospital designers, urban regions, therefore, were to be avoided whenever possible as locations for hospitals, despite being the place where the most patients resided.²⁵ Keeping hospitals away from the masses was also beneficial for the town. The most dangerous feature of contagion was that it could be formed simply from the congregation of sick people. Hospitals by their very nature could “become nests for hatching diseases,” which could then spread to the surrounding population.²⁶ The decision to locate hospitals either at the outskirts of urban areas or in the countryside was therefore not only advantageous for the sick within the hospitals, who had access to healthy country air, but also to the citizens of the town or city.

The difference in the designs of Haslar and Plymouth Naval Hospitals demonstrates how different theories of contagion influenced hospital planning over a relatively short period. Construction on Haslar Hospital began in 1746, while that at Plymouth started ten years later; both were completed in the early 1760s.²⁷ Haslar’s designers had originally conceived of the institution as a quadrangle of parallel wards linked by connecting doors, yet only three sides of the building were completed. Connecting doors were thought at the time to be the best means of

Transformation of British Epidemiological Thought, ca. 1780-1848,” *Bulletin of the History of Medicine* 82(3) (2008), 518.

²⁴ Claire Brant, “Fume and Perfume: Some Eighteenth-Century Uses of Smell,” *Journal of British Studies* 43(3) (2004), 444.

²⁵ The exception of course would be hospitals designed to cater to an urban environment. However, even in such instances, placement of the hospitals on the outskirts of the city (at the time the institutions were built) would allow some of the healthy benefits of the countryside to be maintained. See Dana Arnold, *The Spaces of the Hospital: Spatiality and Urban Change in London 1680-1820* (London and New York: Routledge, 2013), 106-117.

²⁶ Buchan, *Domestic Medicine: or, a treatise on the prevention and cure of diseases by regimen and simple medicines*, Second Edition (London: W. Strahan and T. Cadell, 1772), 138.

²⁷ P. D. Gordon Pugh, *History of the Royal Naval Hospital Plymouth* (Plymouth, 1972), 6.

increasing ventilation and limiting the build-up of contagion. Connecting doors also allowed for fever patients to be housed in wards at the end of the wings, an attempt to further limit communication of these diseases to the other patients.²⁸ However, by the time construction had begun at Plymouth, theories of best design had shifted to the block pavilion model, which subsequently formed the basis of hospital construction in the nineteenth century.²⁹ Here, ten three-storey ward buildings were interspersed with single-storey administrative and store (storage) buildings, loosely joined by covered gravel pathways.³⁰ The entrance for each of the ten ward buildings was a vestibule with stairs at one end; a water closet and sinks at the other. Off the vestibule were the doors to two wards that shared a central chimney, but with no means of inter-ward access.³¹

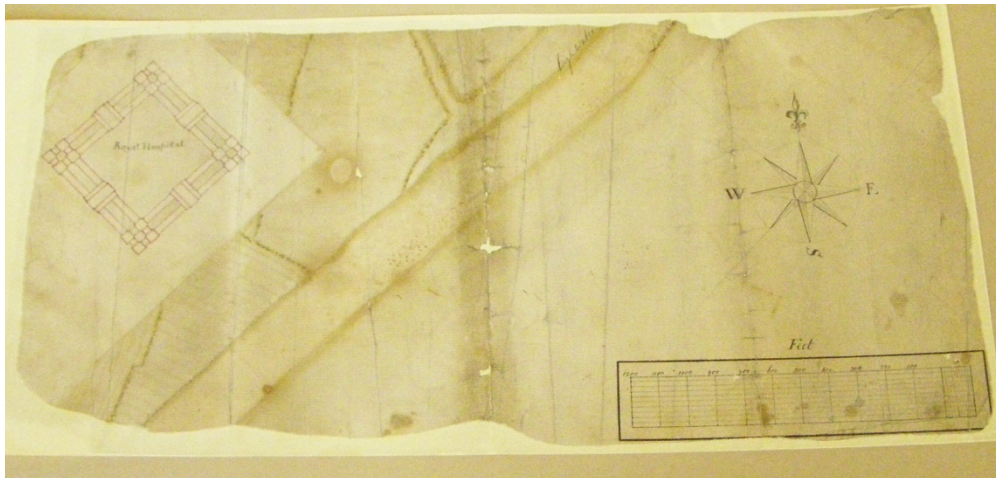


Figure 1: “Plan of the proposed hospital at Haslar, Portsmouth Dockyard, coloured, unsigned, undated c. 18th century,” NMM, ADM/Y/P/116.

²⁸ Kevin Brown, *Poxed and Scurvied: The Story of Sickness and Health at Sea* (Annapolis, MD: Naval Institute Press, 2011), 75.

²⁹ The change from the block plan to the pavilion model was due to the increased cross-ventilation offered by the pavilion model combined with the limiting of cross-contamination between different wards. Arnold, *The Spaces of the Hospital*, 119.

³⁰ “General plans of hospital,” TNA, ADM 140/321.

³¹ Jacques Tenon, *Journal d'Observations sur les principaux hôpitaux et sur quelques prisons d'Angleterre (1787)* edited by Jacque Careé (Paris: Association des Publications de la Faculté des Lettres et Science Humaines de Clermon-Ferrand, 1992), 153.

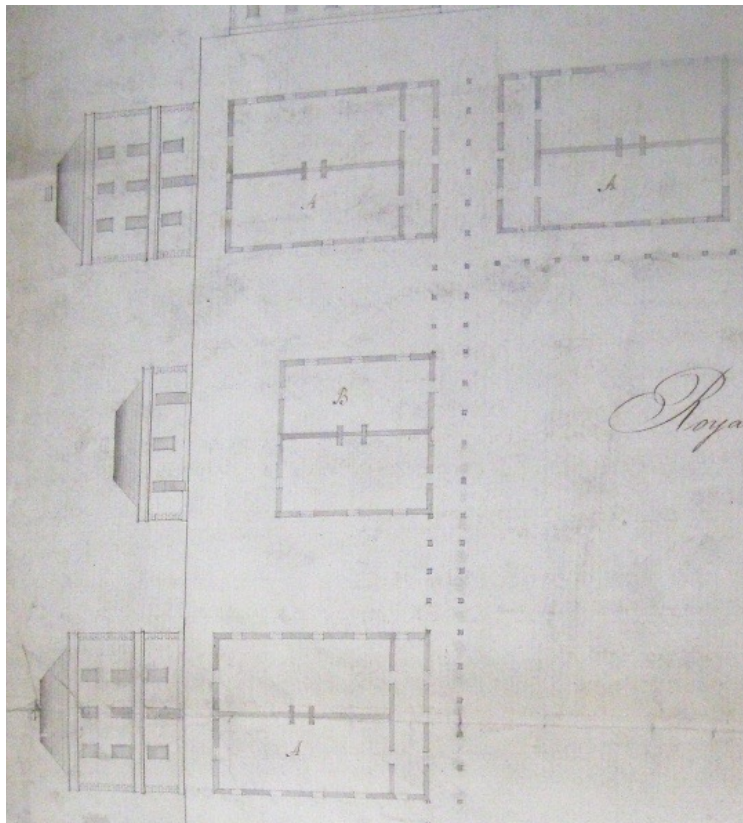


Figure 2: Detail of “General Plans of Plymouth Naval Hospital 1796,” TNA, ADM 140/321.

The increased opportunities for ventilation and the greater possibilities for segregation by disease or symptom explains the differences in construction of the two naval hospitals. The ward doors at Plymouth could be pumped to increase the air flow within the ward. The doors could also be left slightly ajar to cause a cross-breeze when combined with open windows. John Howard (c. 1726-1790), a prison and hospital reformer, praised Plymouth as a “noble hospital,” following his visit in the 1780s.³² Howard believed Plymouth's design to be “in several respects

³² John Howard, *An Account of the Principal Lazarettos in Europe; With Various Papers Relative to the Plague: Together With Further Observations on Some Foreign Prisons and Hospitals; and Additional Remarks on the Present State of Those in Great Britain and Ireland* (London, 1789), 187. Harriet Richardson ed., *English Hospitals 1660-1948: A Survey of their Architecture and Design* (Swindon: Royal Commission on the Historical Monuments of England, 1998), 81 as quoted in Arnold, *The Spaces of the Hospital*, 181.

singular,” as it permitted “a freer circulation of air, as also of classing the several disorders, in such manner, as may best prevent the spread of contagion.”³³ Plymouth naval hospital was also praised by the French royal commission on foreign hospitals of which Tenon was a part: “in not one of the hospitals of France and England, we would say in the whole of Europe, except Plymouth hospital are the individual buildings destined to receive patients as well ventilated and completely isolated.”³⁴ Yet, Howard viewed the existing placement and number of windows in the hospital as inadequate, and recommended that “a window should be made near the door of each ward, and opposite the window in the lobby, for better ventilation of the wards.”³⁵ Furthermore, Howard argued that removing the partitioned nurses' cabin within some of the wards would allow for a more free circulation of air.³⁶ Even when the hospital was praised as a model of ventilation technology and efficiency it was still deemed by reformers as worthy of improvement.

The use of three storey buildings at both Haslar and Plymouth allowed for vertical organization. By putting those patients deemed the most contagious on the top floors, those patients in the wards below would not be exposed to the noxious effluvia of dangerous diseases. Additionally, this organization allowed convalescent patients on the ground floor easier access the healthy outside air.³⁷ Vertical organization of wards demonstrates an integral conception of both the principle of ventilation and the contemporary understanding of contagion build-up; like hot air, effluvia was thought to rise to the ceiling whence it could be evacuated through

³³ John Howard, *The State of Prisons in England and Wales, with Preliminary Observations, and an Account of Some Foreign Prisons and Hospitals, Third Edition* (London: Warrington, 1784), 389.

³⁴ Harriet Richardson ed., *English Hospitals 1660-1948: A Survey of their Architecture and Design* (Swindon: Royal Commission on the Historical Monuments of England, 1998), 81 as quoted in Arnold, *The Spaces of the Hospital*, 181.

³⁵ Howard, *An Account of the Principal Lazarettos in Europe*, 188.

³⁶ Howard, *An Account of the Principal Lazarettos in Europe*, 188. The same problem was also noted by Surgeon Captain P. D. Gordon Pugh in his history of Plymouth naval hospital. Pugh, *History of the Royal Naval Hospital*.

³⁷ Stevenson, *Medicine and Magnificence*, 183.

ventilation. Thomas Trotter (1760-1832) a physician to the Channel Fleet from 1794-1802, noted problems in Haslar's design.³⁸ In a 1797 letter to the Admiralty, Trotter traced a smallpox epidemic on the HMS *Mars* to patients discharged from Haslar hospital. The fault for this event lay not with the care that these men had received there, but with the design of the hospital. "It was a fault in the construction of the Naval Hospital to admit this disease within the roof with other Patients, so subtle is its nature & so easily is it conveyed that the cloaths of a Person in health will carry it from a Sick Chamber & effect others at many miles distance."³⁹ So seriously was the threat of contagion taken that the Admiralty, in response to Thomas Trotter's letter, ordered the connecting doors between smallpox and other wards to be bricked up. This was seen as a cheap and effective means of stopping the spread of disease, as good as the separate building to house the infected patients that Trotter had proposed.⁴⁰

The different designs for Haslar and Plymouth naval hospitals show the subtle changes in ventilation and contagion doctrine occurred over the course of the mid eighteenth century. Architectural historian Christine Stevenson shows that contemporary opinion about Haslar's design during the early years of its operation was overwhelmingly positive.⁴¹ Similar architectural principals to those used at Haslar were also intended for the construction of Gibraltar Naval Hospital in the 1740s.

³⁸ Brian Vale and Griffith Edwards, *Physician to the Fleet: The Life and Times of Thomas Trotter, 1760-1832* (Woodbridge, Suffolk: The Boydell Press, 2011), 99; J. Wallace, "Trotter, Thomas (bap. 1760, d. 1832)," *Oxford Dictionary of National Biography* (Oxford: Oxford University Press, 2004), doi:10.1093/ref:odnb/27763.

³⁹ "Thomas Trotter to Evan Nepean," August 20, 1797, NMM, ADM/E/46.

⁴⁰ "Admiralty to Sick and Hurt Board," September 28, 1797, NMM, ADM/E/46.

⁴¹ Stevenson, "Palace to Hut," 235-236.

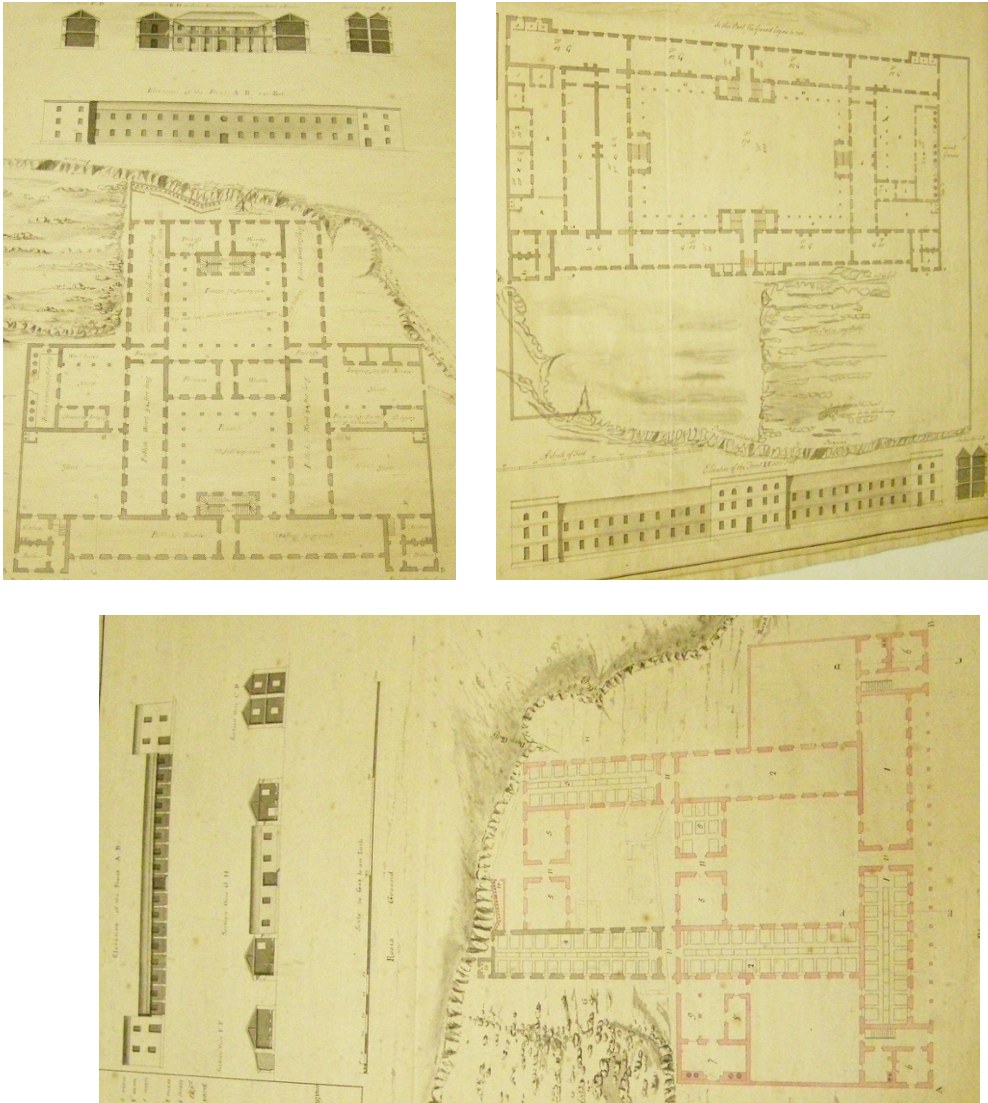


Figure 3: “Plan for a hospital proposed at Gibraltar, drawn by James Montresor, engineer, three designs,” NMM, ADM/Y/G/52

Each of the three designs for Gibraltar shown above illustrate the same basic features intended to improve ventilation, such as courtyard access, large windows, and cross-ventilation, that led to Haslar’s early reputation as a particularly healthy place.

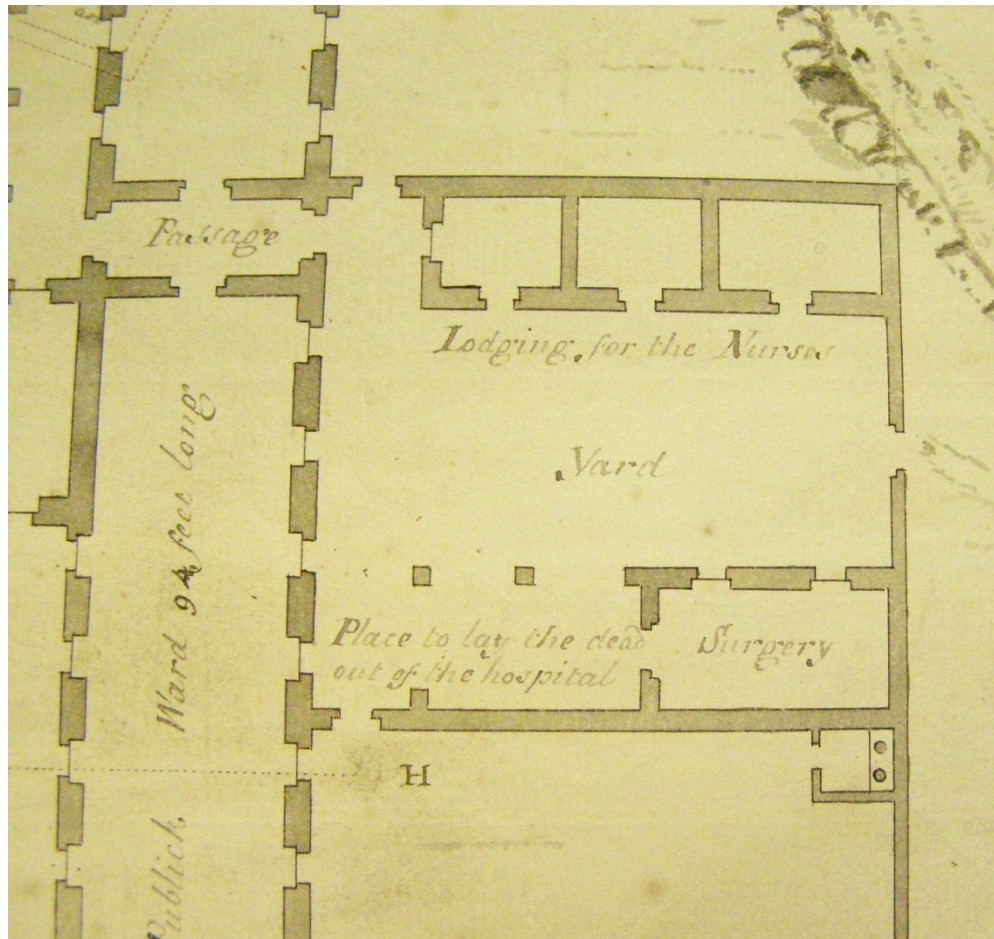


Figure 4: Detail “Plan for a hospital proposed at Gibraltar, drawn by James Montresor, engineer, three designs,” NMM, ADM/Y/G/52

A detail of the third design also shows an early recognition of the need for nurses to be lodged close to both the ward and the surgical space. It also shows the ventilation problems of potential pestilence inherent to the hospital environment in the designation of a “place to lay the dead out of the hospital.”⁴²

⁴² “Plan for a hospital proposed at Gibraltar, drawn by James Montresor, engineer, three designs, 1739.” NMM, ADM/Y/G/52.

However, medical practitioners also recognized that certain medical conditions, such as consumptive cases, would not improve in a hospital environment, despite the most careful choice of location and the best executed of building designs.⁴³ In a July 1764 order to physicians at the naval hospitals the Sick and Hurt Board stipulated that: “We desire You will let Us know whether You do not judge they [consumptive cases] would recover further if they were discharged to the benefit of their Native Air, than by being confined to an Hospital which being an improper Place for consumptive cases in general.”⁴⁴ The belief that the hospital was no place for consumptives continued throughout the rest of the eighteenth century. At the end of the century Plymouth Naval Hospital Governor Richard Creyke regularly recorded the discharge of patients for “country air,” in his minutes and memoranda book.⁴⁵ Creyke's memoranda book contains the ordinary bureaucratic procedures of such a practice. For example, “Approved and informed Mr. Nepean of the discharge and intended residence of Lt. Spencer late of the GALATEA not cured but recommended to country air.”⁴⁶ “Change of air requests” were passed on to the Secretary of the Admiralty Board with the same regularity as weekly hospital returns. Consumptive cases were seen not only as generally incurable, but as a constant drain on the manpower of both the navy and the army. Instructions for those conducting medical examinations for army recruits stipulated that only individuals who were “consumptive, or subject to fits,” were to be “reported as unfit for Service.”⁴⁷

⁴³ Consumption encompassed a wide range of respiratory symptoms often accompanied by the wasting away of the body. Stevenson, *Medicine and Magnificence*, 156.

⁴⁴ “General Orders for Physicians,” 6 July 1764, in “Instructions and Precedents,” TNA, ADM 98/105, 97-98.

⁴⁵ “Typed Transcripts of the Private Minutes & Memoranda of the Governor of Royal Hospital Plymouth 1795-1799,” NMM, TRN/3, 126, 143, 144, 155-156, 160, 165, 195, 197.

⁴⁶ NMM, TRN/3, 165.

⁴⁷ *Instructions to Regimental Surgeons, for regulating the Concerns of the Sick, and of the Hospital Third Edition* (London: Gilbert & Reed, 1808), 39.

Country air was widely seen as an important cure for respiratory diseases in wider medical discourse. While country air was not clearly defined by medical practitioners, it is important to note that the landscape of Britain was rapidly changing in the late-eighteenth century. Whether country air meant a retreat to isolated regions, or merely the landscaped garden, is unclear.⁴⁸ William Buchan, author of the popular medical guide *Domestic Medicine*, remarked that: “I have often seen persons so much afflicted with this malady while in town, that it seemed impossible for them to live, who, upon being removed to the country, were immediately relieved.”⁴⁹ Hospitals like St. George’s Hospital in London were also seen as providing access to the benefits of country air while remaining close enough to the metropole to be readily accessible.⁵⁰ Belief in the curative effects of country air extended throughout the colonies.⁵¹ For example, Philadelphia physician Benjamin Rush praised the benefits of country air in 1797, explaining that “the higher and direr the situation which is chosen for the purpose of enjoying the benefit of this remedy, the better.”⁵² Similar sentiments were echoed by other American medical practitioners.⁵³

The selection of a good location and space for a hospital was also important for the British army. However, unlike the purpose-built institutions of the navy, the army relied on makeshift spaces for both regimental and general hospitals, even if they remained in use during a

⁴⁸ Craig Pearson and Judith Nasby, *The Cultivated Landscape: An Exploration of Art and Agriculture* (Montreal and Kingston: McGill-Queen’s University Press, 2008), 21-26.

⁴⁹ William Buchan, *Domestic Medicine*, 97. For more on Buchan and the popularity of *Domestic Medicine* see C. J. Lawrence, “William Buchan: Medicine laid open,” *Medical History* 19(1) (1975): 20-35.

⁵⁰ Arnold, *The Spaces of the Hospital*, 108-110. Buchan believed “All hospitals, and places for the sick, ought to have an open situation, at some distances from any great town.” Buchan, *Domestic Medicine*, 99.

⁵¹ Humphreys, *Yellow Fever and the South*, 48.

⁵² Benjamin Rush, *Medical inquiries and observations* (Philadelphia: Thomas Dobson, 1797), 132.

⁵³ Noah Webster, *A Collection of Papers on the Subject of Bilious Fevers, Prevalent in the United States For a Few Years Past* (New York: Hopkins, Webb, 1796), 63; David Ramsay, *A sketch of the soil, climate, weather, and diseases of South Carolina* (Charleston, SC: W. P. Young, 1796), 21; James L. Dickerson, *Yellow Fever: A Deadly Disease Poised to Kill Again* (New York: Prometheus Books, 2006), 38-39.

multi-year long campaign as in the case of the Peninsular campaign. Regimental surgeon Robert Jackson recounted the difficult balancing act performed by military medical practitioners in selecting a hospital site: “The site of the hospital under consideration, while such as is judged to be healthy in itself, ought to be so chosen in position as to prove convenient for the execution of business, commanding, by its local advantages, the easy conveyance of such means as are useful or necessary for hospital purposes.”⁵⁴ Accessibility of the hospital site for the sick and injured was an important consideration for military medical practitioners and military commanders. However, accessibility was not the only consideration that went into selecting an ideal hospital site; several other factors also needed to be considered. Hospitals, according to Jackson, should be constructed to allow for ventilation, have a “cheering prospect of the surrounding country,” have protection from excess wind, as well as access to clean water, and be on dry ground.⁵⁵ When all the above were unavailable, ventilation was deemed to be that quality that “hospitals indispensably require.”⁵⁶ Jackson maintained the primacy of ventilation in an expanded edition of his work in 1824:

It was often proved, in the history of the late war, that more human life was destroyed by accumulating sick men in low and ill ventilated apartments, than in leaving them exposed in severe and inclement weather at the side of a hedge or common dyke. It is fit that the military officer mark this fact and bear it in mind; and it is also fit that he bear in mind, that churches and palaces are less proper receptacles of military sick than barns, hovels and open sheds.⁵⁷

Jackson's claim that the lack of ventilation caused the death of sick and wounded soldiers was previously articulated by the so-called founder of environmental military medicine, John

⁵⁴ Robert Jackson, *A System of Arrangement and Discipline for the Medical Department of Armies* (London, 1805), 111.

⁵⁵ Jackson, *A System of Arrangement*, 112.

⁵⁶ Jackson, *A System of Arrangement*, 115.

⁵⁷ Robert Jackson, *A View of the Formation, Discipline and Economy of Armies; with an appendix, containing hints for medical arrangement in actual war* (Stockton: William Robinson, 1824), 542.

Pringle.⁵⁸ Pringle's experiences as a regimental surgeon during the War of Austrian Succession led him to conceive of the environment in military camps and hospitals as factors in the origin of army diseases. Putrefaction of animal matter, he argued, and unhygienic camp layouts fostered the growth and spread of diseases from scurvy to typhus.⁵⁹ A well-ventilated environment, he said, was the first expedient to a patient's cure in a military hospital: "Pure air being of the utmost consequence in the cure, the physician can never be successful in full hospitals unless every ward is kept sweet by a ventilator."⁶⁰ If expensive ventilators could not be procured, Pringle believed "the next expedient is to lay the sick, if numerous, in churches, barns, or ruinous houses," for these locations ensured a permanent state of ventilation.⁶¹ Although the use of ventilators quickly fell out of fashion for regimental military hospitals, due to their expense and difficulty for transport, Pringle's ideas about the ideal characteristics of military hospitals and the necessity of good air for health and healing continued to be espoused by subsequent generations of military medical officers.⁶² Mechanical ventilators were in use at military installations from at least 1808. It was the duty of the Regimental surgeon to "make frequent Inspections into to the state of the Barracks, and of their environs," in an effort to "obviate contagion, or check its spreading influence." Part of this inspection routine included the ensuring that "Ventilators or Air-barrels be not shut or obstructed."⁶³

By the Napoleonic period, the belief that a military hospital should be well ventilated was frequently used by hospital administrators and military medical practitioners to illustrate its good character, as shown in the case of the British staff surgeon to the Portuguese General Hospital at

⁵⁸ John Pringle, *Observations on the Diseases of the Army, In Camp and Garrison* (London, 1753), 22-23.

⁵⁹ Erica Charters, *Disease, War, and the Imperial State: The Welfare of the British Armed Forces during the Seven Years' War* (Chicago: University of Chicago Press, 2014), 24; Stevenson, "From Palace to Hut," 241.

⁶⁰ Pringle, *Observations on the Diseases of the Army*, 289.

⁶¹ Pringle, *Observations on the Diseases of the Army*, 289.

⁶² Donald Monro frequently cited the authority of Pringle. Stevenson, "From Palace to Hut," 242.

⁶³ *Instructions to Regimental Surgeons* (1808), 40.

Luiria. In 1809, John Barnacle assessed the hospital there in a letter to Deputy Inspector of Hospitals, William Fergusson. Barnacle wrote that it had “spacious Wards capable to contain from two to two hundred & Fifty Sick men, the doors of which open in to a large passage three yards wide, affording good ventilation & provided with one hundred Beds on bedsteads for their own use at all times.”⁶⁴ Creating a built environment capable of good ventilation was, as military medical practitioners argued from their experience, made very difficult when they had to make do with what was available on the march.

Hospital design, location, and the capacity for ventilation were even more important in tropical conditions than in Britain.⁶⁵ Tropical weather was a challenge to naval, military, and corporate officials throughout the empire, due to the perception by medical practitioners that the tropical or torrid environment was more dangerous than more temperate climes. Medical practitioners like Gilbert Pasley, employed by the East India Company, claimed that tropical climates had “so great a tendency to putrefaction,” that the characteristics of hospital design must be more carefully considered in hot climates than in Britain.⁶⁶ The increased attention from naval hospital administrators given to the location of hospitals was initially rewarded in the case of the Jamaica Naval Hospital that was moved from Port Royal to New Greenwich in 1744. After the move, there was an increased number of men returned cured to their ships, an improvement that hospital surgeon John Hume owed to the “idyllic” nature of the elevated hospital site.⁶⁷ However, the original hospital would be rebuilt at Port Royal in 1753, owing to the difficulty in transferring patients from their ships to New Greenwich and the discovery of the

⁶⁴ “John Barnacle to William Fergusson,” 22 June 1809, William Fergusson Papers, Yale University Library, MS 1287 Film HM 275, Folder 3: 1809-1810.

⁶⁵ Harrison, *Medicine in an Age of Commerce & Empire*, 79.

⁶⁶ As quoted in Harrison, *Medicine in an Age of Commerce & Empire*, 79.

⁶⁷ Duncan Crewe, *Yellow Jack and the Worm: British Naval Administration in the West Indies, 1739-1748* (Liverpool: Liverpool University Press, 1993), 42, 43-45.

negative effects of the “exhalations of the bad air from the nearby morass.”⁶⁸ A new hospital in Port Royal opened in 1756 some distance away from the lagoon that had plagued the first location with miasma.⁶⁹ The same sort of environmental assessment was used by William Fergusson to judge the healthiness of the barracks at Fort Bourbon, Barbados in 1815:

The barracks at Fort Bourbon, on the hill, appear to be healthily situated – the ground being high enough to be beyond the influence of the bad air from the ravines below and at too great a distance from the Lamentine marshes to feel their effects – still they are not perfectly healthy – The force of the trade winds, suddenly chilling the body, often induces bowel complaints, and they are not exempt from fevers of the ordinary remittent type, such as arise from marshy exhalations.⁷⁰

Although the location of the barracks was deemed to be suitably healthy, the barrack hospital was “inferior and unworthy ... without separation from the different classes of sick.”⁷¹ Even the healthiest site could be, and as in the case of Barbados was, undermined by inferior hospital design.

Temperature regulation was a key concern for hospitals established in tropical climates, and changes in temperature within West Indian hospitals were one key explanation for high sickness rates. For example, before pinning the cause of sickness at New Greenwich on the morass, surgeon John Hume believed that “rapid temperature changes” had caused illness.⁷² Military medical practitioners reacted with surprise, however, at the apparent correlation of increased ventilation during the summer months with higher levels of sickness. Recounting his experiences in the West Indies in the 1790s, William Lempriere remarked:

And if the tropical climate be in general unfavorable to the production of contagion, and to its diffusion or continuance when imported among the soldiers from ships, the

⁶⁸ Crewe, *Yellow Jack and the Worm*, 48.

⁶⁹ The lagoon was originally seen as a key feature of the hospital which would help prevent desertion. Stevenson, “From Palace to Hut,” 234.

⁷⁰ William Fergusson, “Inspection Reports West Indies, Martinico, written Barbados 12 September 1815,” Wellcome Library, RAMC 210/3.

⁷¹ William Fergusson, “Inspection Reports West Indies, Martinico, written Barbados 12 September 1815,” Wellcome Library, RAMC 210/3.

⁷² Crewe, *Yellow Jack and the Worm*, 42.

month of June, July, August, and September, which constitute the driest and most ventilated season of the year, (the sea breeze prevailing with great regularity, purity, and force,) must be more particularly unfavorable to this production or diffusion; besides the intense heat of these months causes all the windows and doors of every house to be thrown open, with every other means by which air may be admitted, which allows a complete and rapid circulation of dry, warm, air; and it was during these months that the tropical continued fever prevailed most.⁷³

Lempriere's reaction was consistent with the universally favourable medical opinion of the benefit of ventilation within all hospital spaces no matter the climate. Of course, open windows in the West Indies let in more than just fresh air. Promoters of tropical ventilation considered the problem of how to deal with mosquitos. For example, inventor William White believed that the combination of perfuming the air and the use of window fans, rather than open sashes, curbed the problem of mosquitos.⁷⁴ White, specifically pitched his window "air machine" to the "Gentlemen of the Navy" who "visit or constantly reside in warm climates," although I have not found evidence to suggest his method was ever applied.⁷⁵ White additionally believed his machine was capable of purifying the air "in ships, mines, hospitals, and prisons."⁷⁶ Ventilation, as illustrated by White's marketing and Lempriere's reaction, was always rigidly seen as beneficial in all instances regardless of climate.

However, while certain features were distinct to hospitals designed for hot climates, others were considered universal. The *Regulations to be Observed In the Regimental Hospitals of the Several Corps in Jamaica* was the first hospital regulation to mention that the duty of the hospital Sergeant included "prevent[ing] any kind of incumbrance to be hung on the walls, or placed in the windows of the ward, that can in the least degree prevent a circulation of air, or

⁷³ William Lempriere, *Practical Observations on the Diseases of the Army in Jamaica, as they occurred between the years 1792 and 1797*, Volume 2 (London: T. N. Longman and O. Rees, 1799), 26.

⁷⁴ Jankovic, *Confronting the Climate*, 84.

⁷⁵ William White, *By His Majesty's Royal Letters Patent, An Air Machine* (London, 1790), 1.

⁷⁶ White, *By His Majesty's Royal Letters Patent*, 2.

serve as a receptacle for infection.”⁷⁷ This same directive later appeared in circulars to the general medical officers of the army. In short, hospital ventilation was a core medical value in naval and military theatres of conflict across the globe in the late-eighteenth and early-nineteenth centuries and was not an invention by Florence Nightingale.

Importance of Ventilation Practices

Sound hospital design was only the first step in facilitating a healthy healing environment. Proper and adequate ventilation within the built environment on a daily basis was equally important. Medical practitioners believed the act of ventilation prevented contagious diseases from forming in the first place and from spreading to other wards in a hospital. For the sake of good ventilation, it was important to prevent overcrowding on the hospital wards and separate patients by symptom or disease. William Fergusson believed that:

Instead of collecting the sick of an Army into one Spot, it ought to be a rule to Separate them as much as possible. This prevents the generation of fresh contagion from its only source, induce accumulation of human effluvia, more particularly from bodies under a State of disease, and accelerates recovery by ensuring a superior degree the advantages of ventilation, discipline repose and attendance.⁷⁸

Fergusson also believed that, whenever possible, sources of contagion should be removed from sick wards especially that “most common and destructive, one arising from the foul linen of the Sick being retained in heaps before it is sent away to wash.”⁷⁹ The washing of linen, and act of doing the laundry, was also important for maintaining clean air. Proper management and order in the hospital environment should ensure that patients were appropriately organized and separated,

⁷⁷ *Regulations to be Observed in the Regimental Hospitals of the Several Corps in Jamaica* (Spanish-Town: David Dickson, 1797), 9.

⁷⁸ “Observations re Regimental Hospitals and duties of the Brigade Surgeon,” Wellcome Library, RAMC 210/3.

⁷⁹ “Observations re Regimental Hospitals and duties of the Brigade Surgeon,” Wellcome Library, RAMC 210/3, Article 4.

and that an adequate flow of air could be maintained. Governor William Yeo of Haslar suggested that overcrowding exacerbated problems of ventilation. According to Yeo:

although the Hospital may be suffered with upwards of Eighteen Hundred Patients by ordering them into Garretes &c. &c. yet it is thought too full at fifteen Hundred, to allow of Provision being made for shifting Patients occasionally to different Wards that they may receive the benefit of thorough Ventilation and Air.⁸⁰

For Yeo, a commanding naval officer with no medical training, ventilation was absolutely necessary for the patients already housed in the hospital because ventilation, in his view, was a benefit to the healing process.

The processes of shifting wards – the intense cleaning and fumigation process carried out in empty wards – meant possessing adequate hospital space, and hiring extra nursing and washing staff to do such work required an investment of capital. Higher costs to the navy in terms of manpower lost to sickness were the result of failure to do these activities. By the 1790s, the Royal Navy was in its second decade of a systemic manpower shortage and was mobilizing for another war.⁸¹ The navy had relied upon impressed sailors throughout the eighteenth century, especially at a war's outbreak, but in the aftermath of the American Revolution the inability to tap into colonial labour for service further exacerbated an endemic manpower shortage.⁸² In such a climate, with as many as 44% of sailors pressed into service by the Revolutionary and Napoleonic Wars, trained seamen represented a significant investment to the state.⁸³ Officials had long acknowledged that inadequate medical care had the potential to turn the course of

⁸⁰ “William Yeo to Evan Nepean,” enclosed in “Evan Nepean to Commissioners for Sick and Wounded,” 15 April 1797, “Sick and Hurt Board, In-Letters and Orders 1797-1798.” NMM, ADM/E/46.

⁸¹ Nicholas Rogers, *The Press Gang: Naval Impressment and its opponents in Georgian Britain* (London: Continuum UK, 2007), 46.

⁸² Denver Brunsman, *The Evil Necessity: British Naval Impressment in the Eighteenth-Century Atlantic World* (Charlottesville, VA: University of Virginia Press, 2013), 242-243.

⁸³ Rogers, *The Press Gang*, 5.

war.⁸⁴ For example, Surgeon William Pallison discussed such a disastrous case in a 1798 letter to Rear Admiral Pringle. Cape Town Hospital had been so overcrowded, Pallison claimed, that “without the smallest ventilation” the sick sailors sent on shore “had not only to contend with the disorder [they] came on shore with, but a floating contagion which must naturally arise from the complication of diseases cooped in so small a space.”⁸⁵ In Pallison's estimation:

many very valuable lives [were] lost last winter all for the want of an Hospital to receive them, and in fact they were allowed to die on board of the different Ships at the very great risque of spreading Contagion throughout the Fleet, and had I not been fortunate enough to get the Government Stables, unprepared as they were, for the reception of the Sick, I am certain many more would have been added to the list of Mortality.⁸⁶

Ventilation was equally a concern on ships and transports. Commanding officers were to ensure that their ships were not overcrowded and were entreated by medical officers not to “neglect of cleanliness and ventilation.”⁸⁷ Whether eighteenth-century medical care could have actually prolonged the lives of these men is an important but less relevant problem, since both medical practitioners and naval administrators believed that seamen's deaths were preventable given the right circumstances, and that failure to act in the right way – a way that effected healing – represented a great expense to Britain, humanity, and the naval service.

As the eighteenth century progressed, medical writers put less emphasis on the ability of patients having access to the wider hospital grounds to partake in the fresh air, possibly due to an effort to prevent desertion. Increasingly, patients were confined to the interior of the hospital. Instructions to the hospital Governors of Haslar and Plymouth issued in 1795 made it clear that

⁸⁴ Matthew Neufeld, “The Biopolitics of Manning the Royal Navy in Late Stuart England,” *Journal of British Studies* 56(3) (2017), 525-526.

⁸⁵ “William Pallison to Rear Admiral Pringle,” 21 February 1798. NMM, ADM/E/46.

⁸⁶ “William Pallison to Rear Admiral Pringle,” 21 February 1798. NMM, ADM/E/46.

⁸⁷ Stewart Henderson, *A Letter to the Officers of the Army Under Orders For, Or That May Hereafter Be Sent, to the West Indies, on the Means of Preserving Health, and Preventing That Fatal Disease the Yellow Fever* (London, John Stockdale, 1795), 6.

the Sick and Hurt Board believed that adequate space and sufficient ventilation existed within the hospital walls: “The space within the walls being large enough to admit of Men having air and exercise sufficient for their health they are not to be allowed to go out of the Hospital without your permission which you are not to grant but on very particular occasions.”⁸⁸ However, an examination of the plans for Haslar, and its surroundings, provides some indication of the balancing act performed by hospital administrators and medical practitioners to attempt to ensure adequate ventilation to wards, and a productive healing environment for convalescent patients.⁸⁹ Whether the hospital physicians deemed there to be sufficient space for the patients to access fresh air, it is clear that the Sick and Hurt Board during the war with Revolutionary France was more concerned with patient desertion, in a time of extensive impressment, than access to outdoor exercise.

Ideally, once patients were organized according to symptoms and without overcrowding, officials thought it was possible to consider the flow of air within the wards. Considerations of the flow of air in hospital design was not limited to military or naval environments. Medical pioneer Edward Alanson championed hospital ventilation as a necessary component to post-operative recovery.⁹⁰ For Alanson:

The air in which the cure is to be conducted, is a point worthy of your greatest attention: if possible, the room should be spacious, and in an open wholesome situation. It is well known, that in hospitals which are situated in populous towns,

⁸⁸ “Governor’s Instructions,” in “Instructions and Precedents,” TNA, ADM 98/105, 455.

⁸⁹ “Plan of Portsmouth Harbour showing proposed docks, Haslar Hospital and part of the Town of Gosport, unsigned, c. 1780, coloured,” NMM, ADM/Y/P/56; “Plan and elevation of the pillars, ironwork and gates of the proposed entrance to the Haslar Hospital in Portsmouth Dockyard,” 1751, NMM, ADM/Y/P/122. This balance between security and a healing environment is even clearer in the plans for Plymouth Naval Hospital. “Navy Board and Admiralty: Civil Engineer in Chief’s Department and predecessor: Maps and Plans. Plymouth. Royal Naval Hospital. General plans of hospital,” 1796, TNA, ADM 140/321 Part 1.

⁹⁰ Alanson was credited with developing a new form of amputation, wherein a large skin flap was saved to promote healing. Margaret DeLacy, “Alanson, Edward (1747-1823),” *Oxford Dictionary of National Biography* (Oxford: Oxford University Press, 2004): doi: 10.1093/ref:obnb/37101.

and much crowded, the salutary influence of the air is so altered, that compound fractures, and other important surgical cases, prove peculiarly fatal;⁹¹

Although Alanson characterised hospitals as “rather a pest, than a relief, to the objects they contain,” he nonetheless suggested additional improvements.⁹² Specifically that:

No ward should be inhabited, for more than the space of four months together; for it is impossible to keep a room healthy, that is constantly crowded with diseased people: the walls should then be scraped, white-washed, and every other necessary means used for the purification of the air, before the readmission of patients.⁹³

Putrefaction from the bodily exhalations of the patients had contaminated the environment of the hospital ward, including the walls, floors, and air, fostering contagion that needed to be purified before more patients could be admitted. Concerning the admission of new patients into the hospital, Alanson advised that they “should be placed in the wards which have been last ventilated, and not in those that have been long inhabited; where it may reasonably be presumed, the air is considerably tainted.”⁹⁴ Finally, he recommended that “a hospital should never be crowded on any account; and always of so large a construction, that some part of the building may at all times, be uninhabited, for the purpose of white-washing, ventilation, &c.”⁹⁵ It is worth quoting Alanson here at length, not only because he so succinctly summarised contemporary views on ventilation, but also because his views on ventilation were representative of thinking about best practice at civilian, military, and naval hospitals as shown by historians Arnold and Stevenson.⁹⁶ Alanson was frequently quoted by military and naval medical practitioners in their

⁹¹ Edward Alanson, *Practical Observations on Amputation, and the after-treatment* (London, 1782), 89.

⁹² Alanson, *Practical Observations on Amputation*, 92.

⁹³ Alanson, *Practical Observations on Amputation*, 92-93.

⁹⁴ Alanson, *Practical Observations on Amputation*, 95.

⁹⁵ Alanson, *Practical Observations on Amputation*, 96.

⁹⁶ Arnold, *The Spaces of the Hospital*, 118; Stevenson, *Medicine and Magnificence*, 161-164.

writings and, given the frequency of amputation as a means of medical treatment, many involved in the military and naval medical system would have read his initial work.⁹⁷

Discussions of ventilation in popular eighteenth-century medical guides, like William Buchan's *Domestic Medicine*, suggest that its importance was broadly accepted. Buchan highlighted the hidden dangers of foul air. He wrote, "unwholesome air is a very common cause of diseases. Few are aware of the danger arising from it. People generally pay some attention to what they eat and drink, but seldom regard what goes into the lungs though the latter proves often more suddenly fatal than the former."⁹⁸ Cramped places were often a part of everyday life such as during travel, or attendance at church and assemblies; overcrowding, "if the air has not a free current," was especially feared by individuals in such situations.⁹⁹ Buchan, in his characteristic bluntness, summarized: "if fresh air be necessary for those in health, it is still more so for the sick, who often lose their lives for want of it."¹⁰⁰ Thus, military and naval medical practitioners echoed the beliefs of their civilian counterparts on the importance of ventilation and fresh air to patients recovering from sickness and injuries.

Ventilation appealed to medical administrators as a key issue for improving outcomes, but opening the wards to increase air flow also reduced privacy. In June 1765 Midshipmen at Plymouth Naval Hospital petitioned the Sick and Hurt Board to have "a Blanket or Blankets ... hung between their Beds,"¹⁰¹ out of a desire for privacy as befitting their rank. The Board's response in a 14th June order allowed for such comforts and privacy with the stipulation that

⁹⁷ Gilbert Blane, *Observations on diseases incident to seamen*, 501-502; John Hennen, *Principles of military surgery* (Edinburgh: Archibald Constable and Company, 1820), 263; George Ballingall, *Outlines of the Course of Lectures on Military Surgery, Delivered in the University of Edinburgh* (Edinburgh: Adam Black, 1833), 411-412.

⁹⁸ Buchan, *Domestic Medicine*, 92.

⁹⁹ Buchan, *Domestic Medicine*, 93.

¹⁰⁰ Buchan, *Domestic Medicine*, 98.

¹⁰¹ "General Instructions to the Officers of the Royal Hospitals," 14 June 1765, in "Instructions and Precedents," TNA, ADM 98/105, 396.

“We agree and We would willingly accommodate them as well as the nature of an Hospital will admit,” and also allowed the Midshipmen access to their trunks, utensils, and a table.¹⁰²

Although agreeing to extra comforts for Midshipmen, the wording of the order ensured that if increased ventilation and access to fresh air was necessary in the hospital, then impediments to such air flow, like blankets hung between beds, would not be permitted. However, under normal daily operations such blockages to ventilation could occur.

Methods of Ventilation

Ventilation tubes and mechanical ventilators were installed on navy ships of more than twenty guns from 1756.¹⁰³ At first small horizontal canvas-sail windmills were installed near the main hatch of ships. Although they were designed to push fresh air into the bowels of the ship, they often proved ineffective at reaching down into the gun decks.¹⁰⁴ Tubes connecting the lower decks to the open air were also used to allow foul air to escape. Stewart Henderson, an army medical officer stationed in the West Indies during the French Revolutionary War, recommended that “the tubes for conveying air into the [berths] should be kept open in the day.”¹⁰⁵ Mechanical ventilators, like the Hales Ventilator, named for its inventor Stephen Hales, fixed the problem of how to ventilate below decks while making the ventilation process active. The Hales used bellows to suck out foul air, forcing its movement rather than waiting for its passive escape.¹⁰⁶

¹⁰² Sea Chests were not to be permitted in the ward. Ordinary seamen were not allowed to bring their own clothes or possessions into the ward environment. “General Instructions to the Officers of the Royal Hospitals,” 14 June 1765, in “Instructions and Precedents,” TNA, ADM 98/105, 396.

¹⁰³ N. A. M. Rodger, *The Wooden World: An Anatomy of the Georgian Navy* (London and New York: W. W. Norton and Company, 1986), 107. The mid-eighteenth century also saw mechanical ventilators installed in the House of Commons and aboard slave ships. Jackonvic, *Confronting the Climate*, 70.

¹⁰⁴ Rodger, *The Wooden World*, 106.

¹⁰⁵ Henderson, *A Letter to the Officers of the Army*, 6.

¹⁰⁶ A. E. Clark-Kennedy, *Stephen Hales: An Eighteenth-Century Biography* (Cambridge: Cambridge University Press, 2015), 151.

Naval officers were initially hesitant and it was only through ship-board trials that mechanical ventilators overcame a general scepticism of their effectiveness from naval officers. Hales remarked upon this scepticism, calling it “the more astonishing, that effectual Proposals to remedy so great an Evil, should for so many Years be received with so much Coldness and Indifference by Mankind.”¹⁰⁷ Better methods for ship ventilation continued to be submitted by inventors to the Sick and Hurt Board and the Admiralty throughout the eighteenth century, including some for use on hospital ships like the *Spanker* in 1797.¹⁰⁸ Proper methods of ventilation were the origin of good health on ships such as the *Aetna* in 1808, whose surgeon claimed that “from the very great attention observed by the captain and officers to cleanliness, ventilation, may be attributed the general good health of the *Aetna*’s ship’s company.”¹⁰⁹ Either through their experience serving as ship-board surgeons, or as army medical practitioners on transport ships, both naval and military medical practitioners became convinced of the importance of ventilation in confined spaces. Civilian physician William Buchan stated that “We have reason to believe, if ships were well ventilated, had good store of fruits, greens, cyder, &c. laid in, and if proper regard were paid to cleanliness and warmth, that sailors would be the most healthy people in the world.”¹¹⁰ In the same way that land-based ventilation theories could be utilised on ships, ship-board experience was also easily transferrable to land-based hospitals.¹¹¹

¹⁰⁷ Stephen Hales, *A Treatise on Ventilators* (London: Richard Manby, 1758), 96.

¹⁰⁸ “William Marsden to Commissioners for Sick & Wounded,” 12 December 1797, NMM, ADM/E/46.

¹⁰⁹ “Journal of His Majesty’s Ship *Aetna* by James Campbell, Surgeon, between 9 July 1807 and 8 July 1808,” 8 July 1808, TNA, ADM 101/81/1, as quoted in Brown, *Poxed and Scurvied*, 101.

¹¹⁰ Buchan, *Domestic Medicine, Second Edition*, 502.

¹¹¹ The same principals were also used in the hospital for Prisoners of War in Portchester. As the head of the Physician and Council at Haslar explained to Mr. Holmwood the Agent at Portchester in 1794. “To preserve the health of the Prisoners, cleanliness and a free circulation of air is at all times necessary, You will therefore pay the strictest attention to the 27th Article of Your Instructions.” “James Johnson to Mr. Holmwood,” 4 September 1794, TNA, ADM 1/3533, “Letters from Haslar and Stonehouse Naval Hospitals 1793-1800.”

Ventilators were regarded by many civilians, like Buchan, as highly beneficial for use in confined spaces. He claimed that “The method of expelling foul, and introducing fresh air, by means of ventilators, is a most salutary invention, and is indeed the most useful of all our modern medical improvements.”¹¹² Nonetheless, for all that medical professionals might have viewed the ventilators as significant improvements, both patients and nurses reacted with scorn at the steady stream of air being created by mechanical means.

Nurses and Ventilation

The responsibility for ensuring that wards were ventilated belonged to nurses. The Thirteenth Article of “Regulations respecting Nurse and other Servants of the Royal Hospital” issued in 1760, stipulated that in fever, flux, and small pox wards “a small Chink of the upper part of some one or more of the Windows is constantly to be kept open so as at Night gently to move the Flame of a Candle when standing on the table.”¹¹³ This same language was used in regulations for the King's Royal Military Hospital in Dublin, but in relation to fever wards only: “In the Fever Wards, Gruel, Barley Water and Whey, are constantly to be kept ready Day and Night; and in these Wards a small chink of the upper Part of one or more of the Windows is constantly to be kept open, so as at Night gently to move the flame of a Candle.”¹¹⁴ Physicians were to ensure that nurses maintained the wards’ ventilation requirements. The 1808 printed *Instructions for the Royal Naval Hospital at Haslar & Plymouth* stipulated that physicians “are to take great care that the wards be at all times properly ventilated.”¹¹⁵ Similarly, Ward Matrons at the naval hospitals

¹¹² Buchan, *Domestic Medicine*, 95.

¹¹³ “Regulations respecting Nurses and other Servants of the Royal Hospital,” 1760 in “Instructions and Precedents,” 1805, TNA, ADM 98/105, 439-440.

¹¹⁴ *Instructions from the Army Medical Board of Ireland, to Regimental Surgeons Serving on That Establishment, For Regulating the Concerns of the Sick and The Hospital*. (Dublin, 1806), viii.

¹¹⁵ *Instructions for the Royal Naval Hospital at Haslar & Plymouth* (London: Philanthropic Society, St. George's Fields, 1808), TNA, ADM 106/3091, 55.

were “frequently to visit,” unoccupied wards within the hospital “to see that they be clean, well ventilated, and in all respects fit to be furnished for the reception of Patients.”¹¹⁶ Authority figures continually monitored nurses’ constant provision of adequate ventilation in occupied and unoccupied wards. This form of monitoring suggests that nurses’ work was identified by the Sick and Hurt Board as the means by which air was kept clean and fresh.

During the earlier part of the eighteenth century, medical practitioners sometimes criticised nurses for failing in their ventilation duties due to ignorance. For example, William Fordyce, a staff surgeon during the War of Austrian Succession, blamed nurses for prolonging inflammatory diseases by closing windows and drawing bed curtains around their patients. He complained that: “By the officious and mistaken care of silly nurses in this respect, the disease is often increased and lengthened, or even proves fatal, especially in strict habits. Numberless indeed are the mischiefs which arise from depriving the patient of cool air.”¹¹⁷ Similarly, Pringle’s 1752 recommendation that military hospitals should be in churches and rundown buildings was related in part because in such structures “neither they [the patients] nor their nurses can confine the air.”¹¹⁸ A built hospital, for Pringle, was often worse than having sick soldiers in the open air exposed to the elements, particularly if its nurses stopped the flow and let air stagnate.

Military and naval medical practitioners had another way of ensuring that nurses opened the windows of their wards. Recounting the advice of naval physician James Lind in his 1780 *Observations on the Means of Preserving the Health of Soldiers*, Donald Monro (1728-1802) recommended the purifying benefits of smoke fumigation. “[Lind] observes, that these steams

¹¹⁶ *Instructions for the Royal Naval Hospital at Haslar & Plymouth*, 203-204.

¹¹⁷ William Fordyce, *A New Inquiry into the Causes, Symptoms, and Cure, of Putrid and Inflammatory Fevers* (London, 1773), 151.

¹¹⁸ Pringle, *Observations on the Diseases of the Army, In Camp and Garrison* (1752), 289.

and smoke, which are inoffensive to the lungs, besides correcting the bad quality of the air, produce another good effect; which, is, to make both the patients and nurses desirous of opening the doors and windows for the admission of fresh air.”¹¹⁹ The fumigation of wards could also be achieved by less obtrusive means, such as the daily sprinkling of vinegar, also carried out by nurses, as recommended for use in regimental hospitals by the Irish Medical Board.¹²⁰ Vinegar purified the air and was even used to kill infection in the mail.¹²¹

However, it was not necessarily ignorance alone that caused nurses to close windows. Sometimes their own comfort and that of their patients probably played a role in a decision to stop the airflow. Some medical practitioners, like Gilbert Blane, believed that both nurses and patients wanted to avoid cold draughts.¹²² Blane, the former physician to the Channel Fleet, claimed that “the main principle of ventilation consists in admitting the fresh air somewhere near to the ceiling.”¹²³ Allowing windows to open from the top, and a cross breeze to circulate at the ceiling “will be perfect; for the sick are thereby sheltered from direct streams of cold air, and the recent and vitiated exhalations from the living body having, by their warmth, a tendency to ascend, are effectually dissipated.”¹²⁴ It was important, he thought, that the rooms be well ventilated. Similarly, some medical theorists believed that hospitals especially demanded a greater flow of air than other spaces, yet all this was not meant to compromise the comfort of the

¹¹⁹ Donald Monro, *Observations on the Means of Preserving the Health of Soldiers; and of Conducting Military Hospitals*, Second Edition, Volume 1 (London, 1780), 103.

¹²⁰ *Instructions from the Army Medical Board of Ireland to Regimental Surgeons Serving on that Establishment* (Dublin: A. B. King, 1813) Wellcome Library, RAMC 1406/3, 10-11. Buchan recommended the same for sick rooms adding that the lemon juice and other “strong vegetable acid,” could also be used. Buchan, *Domestic Medicine*, 98-99.

¹²¹ Brown, *Poxed and Scurvied*, 8.

¹²² Historian Kevin Brown characterized Gilbert Blane and Thomas Trotter as “Lind’s most prominent followers,” in both his views on ventilation and the causes of scurvy. Brown, *Poxed and Scurvied*, 67.

¹²³ Gilbert Blane, *Select dissertations on several subjects of medical science* (London: Thomas and George Underwood, 1822), 137.

¹²⁴ Blane, *Select dissertations on several subjects*, 137-138.

patients.¹²⁵ Lind noted in his observations on ventilation that sick patients, especially in fever wards, did not complain about fresh air and wide open windows “as long as they had sufficient bedding.”¹²⁶ Convalescents, on the other hand, whether because they were more aware of their surroundings or because they were not confined to their beds, quickly complained of cold.¹²⁷ Regardless of the patient's preferences, medical practitioners saw fresh air and ventilation as key to preventative medicine and speedy recoveries. Cross ventilation was easier to procure at Haslar naval hospital with its long open wards, but with this increased ventilation came the risk that contagious or foul airs spread from one ward to another. However, cross ventilation was also seen as a feature of hospitals designed in the pavilion model like Plymouth naval hospital.¹²⁸ When comparing the two hospitals and their ventilation between 1793 and 1797, Gilbert Blane viewed Plymouth as superior.¹²⁹

The experience at St. George's Hospital in London demonstrates the resistance of nurses toward ventilation, whether through the use of mechanical ventilators or open windows. From the early 1760s, air was forced onto the beds of patients at St. George's by Hales ventilators, which evidently “invited immediate complaint and resistance.”¹³⁰ Jonas Hanway, an eighteenth-century philanthropist recorded the response of the nurses at St. George's to the introduction of fresh air:

The *Nurses* of a certain Hospital lately made a Complaint of the *Ventilation* which was introduced, alledging [sic] that ‘*God Almighty's Air was sufficient for them*’. Many, more *knowing* than Nurses, consider as little, that it is *God Almighty's Air*, which gives Live, and the Air we spoil which gives us *Colds*, and *Head-Achs*,

¹²⁵ Jankovic, *Confronting the Climate*, 79.

¹²⁶ Lind, *Most Effectual Means of Preserving the Health of Seamen*, 334-335.

¹²⁷ James Lind, *An Essay on the Most Effectual Means of Preserving the Health of Seamen in the Royal Navy* (London: J. Murray, 1778), 334-35.

¹²⁸ Jankovic, *Confronting the Climate*, 77. Stevenson, *Medicine and Magnificence*, 184.

¹²⁹ Stevenson, *Medicine and Magnificence*, 193-194.

¹³⁰ Jankovic, *Confronting the Climate*, 71.

*Asthma's, Consumptions, and putrid Fevers.*¹³¹

Hanway viewed nurses as “vulgar” and too ignorant of the importance of ventilation on both their own health and the health of their patients.¹³² He negatively compared nurses to medical theorists and physicians who understood that foul air was a potent cause of illness. This situation was different from that of the nurses observed by Blane and Lind in naval hospitals, who seemed to object to excessive ventilation out of concern for the discomfort it caused to patients, not from a lack of understanding of the rationality of ventilation.

Regardless of the motives for some nurses to close hospital windows, a few medical practitioners sought to force nurses to obey ventilation orders through financial punishment. In order to ensure compliance with directives to open windows in their wards, Alanson believed that nurses should be “liable to a fine, to be deducted from her wages, if some of the windows in her ward, are not kept open, during a stated numbers of hours, every day.”¹³³ This disciplinary action does not appear to have been made a regulation in either voluntary hospitals or military and naval hospitals.¹³⁴ Furthermore, no nurse mentioned in Creyke's Memoranda book was discharged for failing to adequately ventilate her ward.¹³⁵ Whether such an absence meant that Creyke did not view failure to keep windows open as a sufficiently grievous offence to have a nurse discharged or docked pay, or if there was simply general compliance with regulations, is unclear. However, the absence of criticism of nurses failing to provide adequate ventilation in Creyke's memoranda book and correspondence with the Sick and Hurt Board does strongly suggest that by the end of the century, nurses were more or less working to keep the air

¹³¹ Jonas Hanway, *Serious considerations on the salutary design of the Act of Parliament for a regular, uniform register of the parish-poor in all the parishes within the Bills of Mortality* (London: John Rivington, 1762), 54.

¹³² Hanway, *Serious considerations*, 54.

¹³³ Alanson, *Practical Observations on Amputation*, 97.

¹³⁴ *Instructions for the Royal Naval Hospital at Haslar & Plymouth*, 201-208;

¹³⁵ NMM, TRN/3.

flowing.¹³⁶ Naval regulations and the writings of naval medical practitioners show that ventilation continued to be an enduring topic of discussion into the early nineteenth century.

Ventilation was so important to some officials that the Royal Artillery Hospital at Woolwich eliminated the possibility of nurses or patients closing windows entirely. “Every window in the Hospital, in the galleries and wards, has a ventilating contrivance, similar to that in St. Thomas's Hospital, and said to be the intervention of Mr. Whitehurst. About an inch and a half of each pane in the bottom of the upper sash is cut away.”¹³⁷ John Rollo, the Surgeon General for the Royal Artillery, credited the “free ventilation with regulated temperature” enabled in the construction of the hospital as the primary reason for the recovery of sick at Woolwich.¹³⁸

Within regimental hospitals in Ireland, the Sergeant was to “prevent any incumbrance [sic] from being hung on the Walls, or placed in the Windows of the Wards, that might in the least degree intercept the Circulation of Air, or serve as a Receptacle for Infection.”¹³⁹ Such regulations and others like them were likely in response to nurses washing bed linen in the wards and hanging it to dry wherever possible. Similar language was also found in the “Orders and Regulations ... [for] Nurses and Patients in the King's Royal Military Infirmary in Dublin,” which were annexed to the instructions to regimental surgeons. Under these orders “all foul Linen, whether Sheets or Shirts, be immediately sent to the House-keeper, in order to their being

¹³⁶ NMM, TRN/3; “Sick and Hurt Board, In-Letters and Orders, 1784-1793,” NMM, ADM/E/44/A; “Sick and Hurt Board, In-Letters and Orders, 1784-1793,” NMM, ADM/E/44/B; “Sick and Hurt Board, In-Letters and Orders, 1794-1796,” NMM, ADM/E/45; “Sick and Hurt Board, In-Letters and Orders, 1797-1798,” ADM/E/46; “Sick and Hurt Board, In-Letters and Orders, 1799-1800,” NMM, ADM/E/47; “Letters from Haslar and Stonehouse Naval Hospitals 1793-1800,” TNA, ADM 1/3533.

¹³⁷ John Rollo, *A Short Account of the Royal Artillery Hospital at Woolwich: With Some Observations on the Management of Artillery Soldiers, Respecting the Preservation of Health* (London: J. Mawman, 1801), 14.

¹³⁸ Rollo, *A Short Account of the Royal Artillery Hospital at Woolwich*, 22.

¹³⁹ *Instructions from the Army Medical Board of Ireland, to Regimental Surgeons Serving on That Establishment* (1806), 40.

carried to the Wash-house ... and no Nurse or other Person is to wash in the Water Closets.”¹⁴⁰

The 1812 *Instructions for the Regulation of Regimental Hospitals* prohibited washing or drying linen within the hospital as an obstruction to the free passage of air.¹⁴¹ These regulations also denied that ventilation was a panacea. “The wards are to be ventilated according to the state of the weather, and the diseases of the patients, the Surgeon being responsible for the due performance of this duty, as injudicious ventilation is hurtful to the sick.”¹⁴² Despite the seeming clarity of the text, the role of the surgeon in this instance is unclear. Surgeons were only required, according to the regulations, to visit their patients twice daily, and while the responsibility for ensuring adequate ventilation may have rested with them, a surgeon would not have been involved in constant monitoring the flow of air.¹⁴³ The regulation implies that the surgeon would assess the necessary degree of ventilation based on prevailing weather conditions, pass instructions on to the nurse, and then later check to see that his orders were followed, for example, during his evening visit to the wards. Although the syntax of this regulation seems to be a departure from earlier directives, the practice, nature, and aim of ventilation policy remained the same.

The attempt to ensure adequate ventilation was not limited to permanent hospital structures. Neither were concerns about adequate and necessary ventilation solely the purview of naval hospitals or other permanent public institutions. War Office orders from 1807 placed the

¹⁴⁰ *Instructions from the Army Medical Board of Ireland to Regimental Surgeons Serving on That Establishment* (1806), viii.

¹⁴¹ *Instructions for the Regulation of Regimental Hospitals and the Concerns of the Sick* (1812), 6.

¹⁴² *Instructions for the Regulation of Regimental Hospitals and the Concerns of the Sick* (1812), 13.

¹⁴³ There were many complaints about both physicians and surgeons failing to meet even this standard. *A collection of orders, regulations and instructions for the Army: on matters of finance and points of discipline immediately connected therewith, published by order of the War Office* (London: T. Egerton, 1807), Wellcome Library, RAMC 153, 391-392; Robert Hamilton, *The Duties of the Regimental Surgeon Considered volume 2*, 124-127; “Thomas Corbett to Philip. Stephens,” May 14, 1792, NMM, ADM/E/44/A; “Philip Stephens to Commissioners for Sick & Hurt,” May 29, 1792, NMM, ADM/E/44/A; Enclosure in “William Yeo to Evan Nepean,” December 18, 1801, TNA, ADM 1/3534.

onus on the patients of general hospitals; those “who are able, must assist in cleaning or airing the Hospital.”¹⁴⁴ Military and naval regulations, such as those for Irish regimental hospitals, stated that “every possible Care taken by thorough Ventilation and strict Cleanliness, to prevent the Origin, and to check the Progress of Infectious Diseases.”¹⁴⁵ Even encamped hospital installations were to be ventilated by unspecified persons on a daily basis according to the *Instructions to Regimental Surgeons*. “The windows of the Hospital Tent are to be opened, and the walls to be lowered every day, to admit fresh air.”¹⁴⁶ Rugs, bedding, and other linen were also to be “hung out on bushes, or to be aired on the dry ground.”¹⁴⁷ Like the airing grounds of the naval hospitals, it was possible to bring the benefits of fresh air into the hospital ward through means other than constant regulation.

Architectural historian, Christine Stevenson in *Medicine and Magnificence* perhaps unwittingly recapitulated Pringle and Fordyce’s portrayal of the quest for hospital ventilation as a battle between informed male medical practitioner and ignorant female nurses:

The poor and illiterate, the nurses, the slaves, and the sailors had to be made to understand that buildings are just a substitute, and a dangerous one at that, for the desirable openness whose benefits however, and perversely, required their validation as sensible. In these accounts of the men - the real ventilators - at work, as in those of the related struggle to keep the ward windows open, we can trace the germ of a much bigger movement to make the poor understand the benefits of broader improvements, to cure ignorance and dirt.¹⁴⁸

Yet, characterizing professional male medical practitioners as the true ventilators in hospital wards obscures the reality of daily work of nurses who were in fact the people whose labour kept

¹⁴⁴ *A collection of orders, regulations and instructions for the Army*, Wellcome Library, RAMC 153, 396.

¹⁴⁵ *Instructions for the Army Medical Board of Ireland*, (1803), 2. The same directive continued to be in place future regulations. *Instructions from the Army Medical Board of Ireland to Regimental Surgeons Serving on that Establishment* (1813) Wellcome Library, RAMC 1406/3, 8.

¹⁴⁶ *Instructions to Regimental Surgeons, for regulating the Concerns of the Sick, and of the Hospital*, (1808), 26.

¹⁴⁷ *Instructions to Regimental Surgeons, for regulating the Concerns of the Sick, and of the Hospital*, (1808), 26.

¹⁴⁸ Stevenson, *Medicine and Magnificence*, 169.

the air around the patients clean and healthy. Rather, the daily work of nurses in all its important banality co-exists with the activities of male medical practitioners who struggled to find a theoretical and practical means of curing their patients. While medical practitioners and the Sick and Hurt Board responsible for creating hospital regulations defined and attempted to ensure adequate ventilation, there were simply too few medical practitioners per hospital to place ventilation in the hands of physicians and surgeons who were needed elsewhere. Therefore, like bedside care and cleanliness, ventilation was the responsibility of nurses.

The under-recognized role of nurses in ensuring ventilation in military and naval hospitals can be compared to the role of servants in Georgian homes. Not only were nurses labelled as servants of the hospital (as will be discussed in greater detail in chapter four), servants ensured that private homes were properly ventilated. Historian Vladimir Jankovic argues that “servant labor allowed affluent individuals to make their homes a stage of unfettered hygienic management.”¹⁴⁹ Servant labour concerning ventilation was hidden in plain sight – invisible yet intrinsically necessary for comfort, health, and wellbeing. Viewed in this light, it is no surprise that the work of nurses in hospital ventilation was generally remarked upon only when it was viewed as inadequate or as a part of prescriptive regulatory literature. As in any ideal situation, fresh air in the correct proportions permeated hospital wards, controlled through the silent and unmentioned work of nurses. In private homes and military and naval hospitals, “[b]eing healthy and ventilated involved work and discipline,” the work and attention of female nurses.¹⁵⁰

¹⁴⁹ Jankovic, *Confronting the Climate*, 62.

¹⁵⁰ Jankovic, *Confronting the Climate*, 62.

Conclusion

Florence Nightingale wrote in her *Notes on Nursing* (1860), that “[w]ithout cleanliness, you cannot have all the effect of ventilation; without ventilation, you can have no thorough cleanliness.”¹⁵¹ The work of later eighteenth-century navy and army nurses in contributing to both cleanliness (as discussed in chapter one) and ventilation demonstrates that key components of what many historians of the mid-nineteenth century nursing reforms took to be original were already part of the work performed by nurses in military and naval hospitals. Opening windows was only the start of maintaining ventilation in hospitals. Conceiving of hospital wards as built environments – where constructed indoor surroundings were environments in their own right – reflected eighteenth-century medical theory. This framework also forces us to resituate our lens of enquiry to the everyday actors in the wards, especially nurses. Nurses’ responsibility for ventilation was indeed a healing role within the hospital frameworks of the navy and the army, even if the nurses themselves had no specialised training in this regard. This medical role was at the time perceived by nurses’ supervisors in much the same way as householders viewed domestic labour – unremarkable unless it was not performed. Male medical officers who engaged in debates on the merits of ventilation practices and the ideal model of hospital environments unsurprisingly cast themselves as the protagonists in the tale of medical advancement even if they did not perform the majority of the work. But without the work of female nurses the dispute surrounding the theory of ventilation would have only remained an academic exercise.

¹⁵¹ Florence Nightingale, *Notes on Nursing: What it is and What it is Not* (New York: D. Appleton and Company, 1860), 92.

CHAPTER THREE: “Neither females nor negroes of either sex were liable to it”: Military and Naval Nursing in the British West Indies

Introduction

The British West Indian islands were among the most profitable of Britain’s global possessions in the eighteenth and early-nineteenth centuries. The sugar planters of the islands generated vast amounts of capital needed to fund a growing empire and were at the epicentre of the triangular trade.¹ From the War of Jenkins’s Ear in 1739 until the French Revolutionary and Napoleonic Wars (1793-1815), the islands were seen as the best of imperial prizes and were consistently under threat from rival French and Spanish interests.²

The booming economy that had made these islands valuable to Britons and British planters over the course of the eighteenth century was also responsible for the spread of deadly diseases. Yellow fever and malaria killed many planters³ because sugar plantations spurred deforestation, urbanization, and standing water, which created the ideal habitat for mosquitos.⁴ Trade in sugar and other commodities attracted many non-immune merchant mariners to the region, fostering connections between the ports of the Atlantic basin. These connections also

¹ Economic cycles from the 1780s to the 1840s have been shown a period of cyclical recession, depression, and revival. Colin Pooley and Jean Turnbull, *Migration and Mobility in Britain Since the Eighteenth Century* (London: University College London Press, 1998), 136.

² J. R. McNeill, *Mosquito Empires: Ecology and War in the Greater Caribbean, 1620-1914* (Oxford: Oxford University Press, 2010), 91-92. For more on the sugar economy as understood by eighteenth and early-nineteenth century planters see: 356-359. For sugar economy see: Stuart B. Schwartz, *Tropical Babylons: Sugar and the Making of the Atlantic World, 1450-1680* (Chapel Hill: University of North Carolina Press, 2011); Dale Tomich, “Commodity Frontiers, Spatial Economy, and Technological Innovation in the Caribbean Sugar Industry, 1783-1878,” in *The Caribbean and the Atlantic World Economy: Circuits of trade, money and knowledge, 1650-1914*, A. B. Leonard and David Pretel eds. (London: Palgrave Macmillan, 2015), 184-216.

³ McNeill, *Mosquito Empires*, 48-49, 52.

⁴ McNeill, *Mosquito Empires*, 48-50. For more on deforestation see Simon Newman, *A New World of Labor: The Development of Plantation Slavery in the British Atlantic* (Philadelphia: University of Pennsylvania Press, 2013), 54-55, 219.

facilitated the spread of both diseases.⁵ While the ecological changes and the growth of sugar cane brought wealth to the White settler planters, the sugar economy also necessitated a massive demographic shift as the population of Black slaves began to drastically outnumber British colonists. Both the increased wealth of the colonies and the comparatively small settler population of the islands required a large military and naval presence to defend them, bringing a sizeable non-immune population to be feasted upon every campaigning season, which in turn spread both malaria and yellow fever.⁶ Malaria and yellow fever outbreaks could be contained and minimised by herd resistance or herd immunity respectively, but the continued influx of non-immune military personnel ensured that neither herd resistance nor immunity could be achieved.

Waging war in the West Indies, at the time believed to be the unhealthiest and deadly region in the world, was no easy feat.⁷ The tropical climate and its accompanying diseases devastated British colonists and military personnel alike. On average, only one-third of each British regiment sent on a West Indian expedition escaped death by tropical fever in the eighteenth and early nineteenth centuries,⁸ with morbidity and mortality numbers from disease as high as 6000 on St. Martinique in March 1794.⁹ Such high losses out of an initial expeditionary force of 8590 men forced the British Army to abandon plans to attack Guadaloupe in December

⁵ McNeill, *Mosquito Empires*, 50.

⁶ For a detailed discussion of ecological change to develop a plantation economy see Mart. A. Stewart “*What Nature Suffers to Growe*”: *Life, Labor, and Landscape on the Georgia Coast, 1680-1920* (Athens, Georgia: University of Georgia Press, 2002), 1-21.

⁷ Michael Duffy, *Soldiers, Sugar, and Seapower: The British Expeditions to the West Indies and the War against Revolutionary France* (Oxford: Clarendon Press, 1987), 326-328.

⁸ Paul Kopperman, “The British Army in North America and the West Indies, 1755-83: A Medical Perspective,” in *British Military and Naval Medicine 1600-1830* Geoffrey Hudson ed. (Amsterdam and New York: Rodopi, 2007), 75-76. R. Norman Buckley, *The British Army in the West Indies: Society and the Military in the Revolutionary Age* (Gainesville, FL: University of Florida Press, 1998), 272.

⁹ McNeill, *Mosquito Empires*, 246-247. Martin Howard details the difficulties of historians and contemporaries to estimate the number of casualties, and morbidity and mortality rates; “[historians] estimates are confounded by disparate time periods and variable inclusion of deaths among sailors and the West India Regiments.” Martin Howard, *Death Before Glory: The British Soldier in the West Indies in the French Revolutionary and Napoleonic Wars 1793-1815* (Barnsley, South Yorkshire: Pen and Sword Military, 2015), Kindle edition, location 4364-location 4365. Duffy discusses similar problems estimating casualty rates. Duffy, *Soldiers, Sugar, and Seapower*, 328-330.

1794.¹⁰ Historian Roger Morriss estimates, between 1794 and 1795, over 22,000 men were sent from Britain to the West Indies, with an additional 30,818 over four months between December 1795 and March 1796.¹¹ This number represented almost the entire strength of the “31,154 men in the 79 line regiments in British Isles and, after home defence and minor deployments, fewer than 20,000 were available for the West Indies.”¹² Unsurprisingly, maintaining the health of servicemen in the region was a high priority for British governments.

Naval and military medical practitioners were cognisant of the dangers posed by the West Indian environment. Stewart Henderson opened his *A Letter to the Officers of the Army Under Orders For, Or That May Hereafter Be Sent, to the West Indies* with a distressing message:

Gentlemen,

From the repeated melancholy account received for the last twelve months from that part of the world you are now destined to, not only of the great mortality which has happened among the privates, but the officers, have no doubt impressed your mind with ideas of the country and your situation, not of the most pleasant nature; but this may have one good effect, by making you listen more attentively to the means pointed out for preventing this fatal disease, which has proved so destructive to so many of our brave countrymen, and at the same time induce you to be more inclined not to neglect prevention, which I am convinced is greatly within your power.¹³

Henderson's work was a generally alarmist text that went on to state that: “those islands have been emphatically, and often too justly, styled the grave of the British army; but I believe at no period since their discovery has this been so strongly verified as of late.”¹⁴ Hector McLean the Assistant Inspector of Hospitals for St. Domingo, described the situation as having “filled the

¹⁰ Roger Morriss, *The Foundations of British Maritime Ascendancy: Resources, Logistics and the State, 1755-1815* (Cambridge: Cambridge University Press, 2011), 65.

¹¹ Morriss, *The Foundations of British Maritime Ascendancy*, 65.

¹² Morriss, *The Foundations of British Maritime Ascendancy*, 65.

¹³ Stewart Henderson, *A Letter to the Officers of the Army Under Orders For, Or That May Hereafter Be Sent to the West Indies, on the Means of Preserving Health, and Preventing That Fatal Disease the Yellow Fever* (London: John Stockdale, 1795), 3.

¹⁴ Henderson, *A Letter to the Officers of the Army*, 3-4.

minds of every one with terror and astonishment.”¹⁵ McLean and Henderson’s profound concern over the health of soldiers in the region was not new¹⁶ rather their concerns were magnified by the recent loss of the Thirteen Colonies in 1783, which made the West Indies the largest battleground in the Americas.

Unsurprisingly, the British military and naval medical establishments in the West Indies played a key role in treating and trying to prevent the spread of disease among soldiers and sailors. Black nurses became a vital part of delivering care and combatting the spread of disease in this region. Although the navy’s and army’s preference for Black nurses owed much to climatic understandings of racial immunity, it also reflected the labour hierarchy and social stratification of the islands.

Historiography

Over the past sixty years, historians have written extensively about perceptions of the relationship between race and disease in the tropical Atlantic World. Beginning with Philip Curtin's work on the disease environment in nineteenth-century West Africa, historians have focused on either debunking or proving the commonly held belief that tropical regions were the “White Man's Grave.”¹⁷ There have been several quantitative studies of both European settler and slave populations that show the deadliness of the West Indian tropical environment.¹⁸

¹⁵ Hector McLean, *An enquiry into the nature, and causes of the great mortality among the troops at St. Domingo* (London: T. Cadell and W. Davies, 1797), vii.

¹⁶ For concern for health and fear of the West Indian climate during the Seven Years' War see: Erica Charters, *Disease, War, and the Imperial State: The Welfare of the British Armed Forces during the Seven Years' War* (Chicago and London: The University of Chicago Press, 2014), 53-86.

¹⁷ Philip Curtin, “The White Man's Grave': Image and Reality, 1780-1850,” *The Journal of British Studies* 1(1) (1961), 94.

¹⁸ Richard Sheridan, *Doctors and Slaves: A medical and demographic history of slavery in the British West Indies, 1680-1834* (Cambridge: Cambridge University Press, 1985); Mary Dobson, “Mortality Gradients and Disease Exchanges: Comparisons from Old England and Colonial America,” *Social History of Medicine* 2(3) (1989); Trevor

Working within this quantitative model of the disease environment Kenneth Kiple in the 1980s examined the biological underpinnings of slavery. More recent work has helped to contextualize the meaning of early modern conceptions of race especially in the Atlantic World.¹⁹ Relatedly, studies that focus on race and its influence on eighteenth-century European militaries have considered either the formation or necessity of the West Indian Regiments,²⁰ or the use of local Black troops and pioneers in various capacities.²¹ Meanwhile, medical historians have examined the medical treatment of non-European bodies serving in the eighteenth-century Royal Navy and British Army.²² Labour relations and gender roles within Caribbean plantation society have also been extensively studied by, for example, Simon Newman and Natalie Zaeck, whose work influenced the content of this chapter.²³ These sources are used to situate the work within broader understandings and conceptions of racialized labour in the West Indies. Finally, because the physical environment of the West Indies was a major preoccupation of early modern medical practitioners, the work of environmental historians John R. McNeill and Mart A. Stewart have

Burnard "The Countrie Continues Sicklie': White Mortality in Jamaica, 1655-1780," *Social History of Medicine* 12(1) (1999).

¹⁹ Kenneth Kiple, *The Caribbean Slave: A Biological History* (Cambridge: Cambridge University Press, 1984); Roxanne Wheeler, *The Complexion of Race: Categories of Difference in Eighteenth Century British Culture* (Philadelphia: University of Pennsylvania Press, 2000); Kathleen Wilson, *The Island Race: Englishness, Empire and Gender in the Eighteenth Century* (New York: Routledge, 2003), 6-15.

²⁰ Buckley, *The British Army in the West Indies*; R. Norman Buckley, *Slaves in Red Coats: The British West Indian Regiments, 1795-1815* (New Haven: Yale University Press, 1979).

²¹ Peter Voelz, *Slave and Soldier: The Military Impact of Blacks in the Colonial Americas* (New York: Garland Publishing, 1993); Todd Braisted, "The Black Pioneers and Others: The Military Role of Black Loyalists in the American War for Independence," in *Moving On: Black Loyalists in the Afro-Atlantic World* John Pullis ed. (New York: Garland Publishing, 1999); Jeffrey Bolster, *Black Jacks: African American Seamen in the Age of Sail* (Cambridge, MA: Harvard University Press, 1997).

²² Wendy Churchill, "Efficient, Efficacious and Human Responses to Non-European Bodies in British Military Medicine, 1780-1815" *The Journal of Imperial and Commonwealth History* 40(2) (2012); Norris Saakwa-Mante "Western Medicine and Racial Constitutions: Surgeon John Atkins' theory of polygenism and sleepy distemper in the 1730s" in *Race, Science and Medicine, 1700-1960* Wlatranld Ernst and Bernard Harris eds. (London and New York: Routledge, 1999); Mark Harrison, *Medicine in an age of Commerce and Empire: Britain and its Tropical Colonies 1660-1830* (Oxford: Oxford University Press, 2010).

²³ Newman, *A New World of Labor*; Natalie Zaeck, "Between Lady and Slave: White Working Women in the Eighteenth-Century Leeward Islands," in *Women in Port: Gendering Communities, Economies, and Social Networks in Atlantic Port Cities, 1500-1800* Douglas Catterall and Jodi Campbell eds. (Leiden and Boston: Brill, 2012).

also been crucial to understand the realities of the tropical disease environment and how it was altered by human hands.²⁴

Methodology

The disease environment of the West Indies from 1700 to 1820 and its deadly effects on British military and naval personnel generated many medical treatises from both civilian and military medical practitioners. In addition to fostering treatment plans and discussions of how tropical diseases should be diagnosed, medical treatises suggested that Black women made the best nurses for the Caribbean due to their perceived immunity. Additionally, travel writings and other eighteenth-century treatises tended to show the unsuitability of White Creole or European women to work in a nursing capacity in military and naval hospitals in this region. Naval pay lists and hospital musters reveal how these intellectual and medical ideas were applied in naval hospitals. The Bermuda Naval Hospital serves as a case study for this chapter.²⁵ The hospital amplifies the economic effects of the use of enslaved labour on local slave owners and the hospital establishment. By comparing Bermudian hospital pay records with slavery registers, it is also possible to learn more about the women who worked as nurses at this institution. The slave owner who was paid by the naval hospital for the labour of enslaved nurses can be tracked in the slavery registers that list the number, sex, age, racial classification (African, mixed race), birthplace, and occupation of the slaves in their household.²⁶ This biographical information was

²⁴ McNeill, *Mosquito Empires*; Stewart, “*What Nature Suffers to Growe.*”

²⁵ The choice to consider Bermuda as part of the Caribbean/West Indies, despite lying outside the Caribbean Sea is done for two reasons: first, the comparable climate and tropical disease framework, and second the comparable use of African and Afro-Caribbean slave labour for reasons of the disease environment as in the case of the other West Indian islands. Bermuda has historic social, cultural, and economic ties to the West Indies and its membership in the Caribbean Community today recognises those ties.

²⁶ “Slavery Registers Bermuda 1821” TNA, T 71/452.

then used to determine the age of enslaved nurses when they worked in the hospital and their reported domestic or household skills.

Race and Immunity

Early modern conceptions of tropical diseases, and the ways to prevent them, were tied to the practice and theory of seasoning. Seasoning, or acclimatization, was the period of tropical sickness that all new arrivals to the torrid zone underwent before adapting to the climate of the American Southeast or the West Indies. This concept was tied to the neo-Galenic and neo-Hippocratic humoral and constitutional understandings of the body and its diseases, which prevailed in Europe and European America into the early nineteenth century.²⁷ Early in the eighteenth century, physician Hans Sloane (1660-1753) discussed the potentially deadly effects of the tropical fevers in his *A Voyage to Jamaica* (1707) and outlined his view of acclimatization:

A great many were of opinion that this Fever was what is call'd the Seasoning, that is to say, that every New-comer before they be accustomed to the Climate and Constitution of the Air in *Jamaica*, are to have an acute Disease, which is thought to be very dangerous, and that after this is over, their Bodies are made more fit to live there, with less hazard than before; and this is not only thought so in the Island, but in *Guinea*, and in remote Eastern parts of the World.²⁸

Once they were seasoned, soldiers “ought to be made capable of labouring under the midday breeze.”²⁹ Yet in order to do even this task, they would need to gradually increase their labour in the hot climate.³⁰ In the early-eighteenth century, it was widely thought that both Africans and

²⁷ Christopher Hamlin, *More Than Hot: A Short History of Fever* (Baltimore: Johns Hopkins University Press, 2014), 61, 109, 181; Andrew Wear, *Knowledge and Practice in English Medicine, 1550-1680* (Cambridge: Cambridge University Press, 2000), 187.

²⁸ Hans Sloane, *A Voyage to the Islands of Madera, Barbados, Nieves, S. Christophers and Jamaica, with the Natural History of the Herbs and Trees, Four-footed Beasts, Fishes, Birds, Insects, Reptiles, &c.*, Vol. 1 (London, 1707), xcvi.

²⁹ William Fergusson, “Inspection Reports” [1815] Wellcome Library, RAMC 210.

³⁰ Fergusson, “Inspection Reports,” Wellcome Library, RAMC 210.

Native Americans were exempt from the tropical acclimatization process and its accompanying illnesses.³¹ As the century progressed, however, there were increased references in medical literature to African slaves both enduring the seasoning process and suffering from tropical fevers.³² Yet, the severity of the seasoning process was thought to be less deleterious for African slaves. The necessity of the seasoning process for Africans befuddled planters, as the following account by Dr. Collins in 1803 shows:

The climate being so similar between those parts of Africa from whence the negroes are brought, and the West-India islands, might naturally suggest an idea, that no bad consequences would result from their transition from one to the other; however, that is not the case; for bad effects do ensue, even where the temperature is perfectly equal, and we find, from causes difficult to be explained, that somewhat of a seasoning is required to negroes, that are carried from one island to another, nay, even from one estate to another, if it be from the low lands to the mountains.³³

The belief that African and Creole slaves were the only people capable of performing intense manual labour in the West Indian climate led to the assignment of “fatigue duties” or hard labour, such as hospital construction and the transport of regimental stores for the army.³⁴ While the notion that Africans were ideally suited to performing labour in the hot climate persisted into the late eighteenth century, and was responsible in part for the creation of the West Indian

³¹ Christian Warren, “Northern Chills, Southern Fevers: Race-Specific Mortality in American Cities 1730-1900,” *The Journal of Southern History* 63(1) (1997), 33; Susan Klepp, “Seasoning and Society: Racial Differences in Mortality in Eighteenth-Century Philadelphia,” *William and Mary Quarterly* 51(3) (1994), 500.

³² Newman, *A New World of Labor*, 80, 220.

³³ Dr. Collins, *Practical rules for the management and medical treatment of Negro slaves, in the sugar colonies, by a professional planter* (London: Vernor and Hood, 1803), 57.

³⁴ The National Archives (TNA) ADM 102/461 “Jamaica (Pay Lists)” 1742; Buckley, *Slaves in Red Coats*, 2; Buckley, *The British Army in the West Indies*, 99; Voelz, *Slave and Soldier*, vi.

Regiments in the 1790s,³⁵ military medical practitioners increasingly recognized that Blacks were also affected by tropical fevers.³⁶

For many people in the eighteenth century, including medical practitioners, race was a malleable property; signs of racial difference, such as skin colour and disease immunity, were believed to originate from exposure to different climates.³⁷ Two theories developed to explain the possibility of a change in race due to climate, and the contrary evidence from lived experience with slavery in temperate zone countries and European settlement in the tropics.³⁸ Monogenesists believed that all humans on Earth descended from one male and female pair. Under this theory, climatic exposure was the only explanation for racial difference. By contrast, polygenesists believed that there were multiple sets of first parents. Each race had descended from their own Adam and Eve. Climate may have influenced the original creation of the Adam and Eve for that race, but “polygenism denies environment has the power to cause differences in physical appearance.”³⁹ Monogenesisism was the dominant philosophical understanding of race in the second half of the eighteenth century, and it was belief in monogenesisism that allowed the concept of seasoning to flourish.⁴⁰ Only in the early-nineteenth century did a strictly biological understanding of race began to emerge, aided by dissection of Black bodies.⁴¹

The melting pot effect of the West Indian disease environment, discussed by historians Mary Dobson and J. R. McNeil, meant that both African and Creole slaves developed resistance

³⁵ Fergusson believed that the Black Regiments were healthy “with the exception of the White Officers.” Fergusson, “Inspection Reports” [1815] Wellcome Library, RAMC 210.

³⁶ James Clark *A treatise on the yellow fever, as it appeared in the island of Dominica, in the years 1793-4-5-6* (London: J. Murray and S. Highley, 1797), 2-3.

³⁷ Gary, Puckerin, “Climate, Health and Black Labor in the English Americas,” *Journal of American Studies* 13(2) (1979), 181.

³⁸ Wheeler, *The Complexion of Race*, 4.

³⁹ Norris. “Western Medicine and Racial Constitutions,” 29-30.

⁴⁰ Dror Wahman, *The Making of the Modern Self: Identity and Culture in Eighteenth-Century England* (New Haven and London: Yale University Press, 2004), 88.

⁴¹ George Stocking, *Victorian Anthropology* (Toronto: Maxwell Macmillan Canada, 1987), 64.

and immunity to malaria and yellow fever. Resistance of immunity happened only if they survived a mild bout of either disease.⁴² Similarly, British Army physician John Hunter (1754-1809) observed that “The negroes afford a striking example of the power acquired by habit of resisting the causes of fevers; for, though they are not entirely exempted from them, they suffer inevitably less than Europeans.”⁴³ Black nurses who caught yellow fever were spoken of with great surprise. For example, naval surgeon Gilbert Blane reported on the only contemporary case of a Black nurse dying of yellow fever in military or naval medicine: “It has been said, that it never attacks either the female sex or Blacks. This is in general, though not absolutely true; for I knew a Black woman, who acted as nurse to some men ill of this fever at Barbadoes, who died with every symptom of it.”⁴⁴ This incident continued to be referenced more than twenty years later in medical treatises.⁴⁵ That Blane’s account remained remarkable for such a long period of time speaks to the near universal belief that Black nurses were immune to tropical diseases.⁴⁶ The belief that Blacks were essentially immune to tropical diseases contributed to the selection of Black nurses to work in military and naval hospitals; it also justified their use in civilian contexts. Due to their perceived immunity, Black nurses were paid “great prices” for private-duty

⁴² Joseph MacKrell, *The History of the Yellow Fever, With The Most Successful Method of Treatment* (Baltimore: John Hayes, 1796), 15. Dobson, “Mortality Gradients” 270-271. McNeill, *Mosquito Empires*, 44-45.

⁴³ John Hunter, *Observations on the Diseases of the Army in Jamaica; and on the best means of Preserving the Health of Europeans, in that Climate* (London, 1788), 24. Hunter’s work was quite influential. The Army Medical Board sent copies of his work to garrison surgeons in the Jamaica and the Leeward Islands and the medical officers the military forces in the West Indies under command of Sir Charles Grey in October 1793. “John Hunter (1728-1793) to Secretary at War,” 8 October 1793, TNA, WO 7/98, 37.

⁴⁴ Gilbert Blane, *Observations on the Diseases Incident to Seamen* (London: Joseph Cooper, 1785), 398-399.

⁴⁵ Thomas Dancer, *The Medical Assistant, or Jamaica Practice of Physic Designed Chiefly for the Use of Families and Plantations*, Second Edition (Sr. Jago de la Vega: John Lunan, 1809), 82.

⁴⁶ Medical practitioners who believed Blacks could catch yellow fever were very few in number. Those that did question racialized immunity like Joseph MacKrell blamed the American birth place of Blacks for their lack of immunity stating that yellow fever “probably does not affect the inhabitants of its own [African or tropical] climate, in a more severe degree, than our own bilious autumnal fevers affect our inhabitants.” Joseph MacKrell, *The History of the Yellow Fever, With The Most Successful Method of Treatment* (Baltimore, John Hayes, 1796), 15.

nursing as the citizens of Philadelphia were “over-bidding one another” during the yellow fever epidemic in that city in 1793.⁴⁷

Civilians and medical practitioners also understood that exposure to yellow fever could make someone immune, even a White person. Writing about a yellow fever epidemic in Cadiz in 1797, naval surgeon Gilbert Blane explained, “both Spanish and English selected their nurses from among those who had had [the disease].”⁴⁸ This notion of differential immunity was so pervasive, due to previous experiences with the fever, that those who had fallen victim in 1797 did not fear another outbreak when it occurred in 1819.⁴⁹ At the same time, locals “shewed no fear or alarm and were not anxious either to quit the city nor to have recourse to seclusion with a view to avoid it.”⁵⁰ The extent to which Blane's conception of European immunity to yellow fever discussed here spread to other military and naval medical practitioners is unclear, as these ideas were not published until after many men were dismissed from service following the end of the Napoleonic Wars. However, the only aspect of this theory of immunity that was innovative was the notion that it did not depend on a particular climatic constitutional adaption, but instead relied on individual experience with the disease.⁵¹

⁴⁷ Absalom Jones, *A narrative of the proceedings of the Black people during the late awful calamity in Philadelphia, in the year 1793* (Philadelphia: William W Woodward, 1794), 8. For more see James L. Dickerson, *Yellow Fever: A Deadly Disease Poised to Kill Again* (New York: Prometheus Books, 2006), 26-27.

⁴⁸ Gilbert Blane, *Select dissertations on several subjects of medical science* (London: Thomas and George Underwood, 1822), 310.

⁴⁹ For more on differential immunity see Linda Nash, “Beyond Virgin Soils: Disease as Environmental History,” in *Oxford Handbook of Environmental History*, Andrew C. Isenberg ed. (Oxford: Oxford University Press, 2014), 79-80; Alfred Crosby, *The Columbian Exchange: Biological and Cultural Consequences of 1492* (Westport: Greenwood, 1972); J. R. McNeill, “Yellow Jack and Geopolitics: Environment, Epidemics, and the Struggles for Empire in the American Tropics, 1640-1830,” in *Rethinking Environmental History: World-system History and Global Environmental Change*, Alf Hornborg, J. R. McNeill, and Joan Martinez-Alier, eds. (New York: Altamira Press, 2007), 199-220. McNeill, *Mosquito Empires*, 4-6.

⁵⁰ Blane, *Select dissertations*, 310.

⁵¹ Hamlin, *More Than Hot*, 51, 225.

European perceptions of the West Indian climate contributed to an endemic manning problem in both armed forces.⁵² Bartholomew James (1752-1828), then a naval lieutenant and transport agent, described his experiences in St. Martinique in 1794 thus:

The dreadful sickness that prevailed in the West Indies is beyond the power of the tongue or pen to describe. In a few days after I arrived at St. Pierre I buried every man in my boat twice, and nearly all of a third boat's crew, in fevers; and shocking and serious to relate the master, mate, and every man and boy belonging to the *Acorn* transport, I came from England in, and had continued my pennant on board during the whole of the time up to May 12. The constant affecting scenes of sudden death was in fact dreadful to behold, and nothing was scarcely to be met but funeral processions in this town, of both officers and soldiers; and the ships of war was so extremely distressed that many of them had buried almost all of their officers and seamen.⁵³

Experiences like those described by James were common. They reinforced Britons' fear of the West Indian climate. Desertion of soldiers and sailors upon the news that they were to be sent to the Caribbean, or escape attempts en route, were common.⁵⁴ German mercenaries also refused to serve in the region due to fears about contracting deadly diseases.⁵⁵ This refusal eliminated a large source of potential recruits, as evidenced by the experience of the American Revolution, where by 1783 German troops outnumbered British regulars in Nova Scotia, Quebec, Newfoundland, and the Great Lakes region.⁵⁶

The justified fear of the tropical climate was not confined to the lower ranks of the military and navy, since the diseases of the region struck with no regard to rank or privilege.

⁵² "The unhealthy climate gave the Caribbean such a bad name that few were willing to serve there voluntarily, and those compelled to do so were often more prepared to risk punishment for desertion, than to wait for death from yellow fever." Duncan Crewe, *Yellow Jack and the Worm: British Naval Administration in the West Indies, 1739-1748* (Liverpool: Liverpool University Press, 1993), 63.

⁵³ John Laughton and James Sullivan eds., *Journal of Rear-Admiral Bartholomew James* (London: Navy Records Society, 1896), 241-242.

⁵⁴ Buckley, *The British Army in the West Indies*, 220-221.

⁵⁵ Buckley, *The British Army in the West Indies*, 62.

⁵⁶ Tabitha Marshall, "The Health of the British Soldier in America, 1775-1781," (PhD Diss., McMaster University, 2006), 48.

Many who fell ill were responsible for the day-to-day running of the army, as the case of Lieutenant Mackay illustrates. Mackay was a member of the quarter-master-general's staff involved in the St. Domingo expedition in 1815. Fergusson described the rapidity of his death as follows: "on the day of his death, [Mackay] was up and dressed on the sofa, with books and papers before him at ten in the morning, passing jokes of comparison between his own dingy complexion, made so by the disease, and that of his mulatto nurse; at two he expired in the same way as Lieutenant Wright."⁵⁷ The indiscriminate nature with which tropical diseases struck, and the lack of understanding of how they functioned, particularly whether or not they were contagious, stimulated anxiety about the West Indian environment among European colonists and troops while also revealing the racialised understanding of nursing care.

European medical personnel also feared the West Indian climate and its potentially fatal disease environment. While various unsuccessful methods of prevention were attempted by colonists and military medical practitioners, yellow fever remained a "Stranger's Disease" most likely to befall adult newcomers to the tropical climate.⁵⁸ The nature of the disease made it especially dangerous to periodic visitors, such as military personnel. Their reluctance to serve exacerbated an already grave problem, as the regulated staffing numbers of one surgeon and two assistant surgeons per regiment already were perceived by medical practitioners and military officers as inadequate for the tropical climate.⁵⁹ Both the Navy's Sick and Hurt Board and the

⁵⁷ Fergusson, *Notes and recollections*, 147.

⁵⁸ The disease also struck children, but generally with mild symptoms, which conferred immunity. Margaret Humphreys, *Yellow Fever and the South* (Baltimore and London: Johns Hopkins University Press, 1999), 6. Various preventative measures were advocated for by military medical practitioners. Henderson, *A Letter to the Officers of the Army*, 14.

⁵⁹ Robert Jackson, *A View of the Formation, Discipline and Economy of Armies: with an appendix, containing hints for medical arrangement in actual war. A New Edition Much Enlarged* (Stockton: William Robinson, 1824), 538. In India, Black doctors were used to supplement military medical personnel for non-European regiments. "General Order Palamcottah 25th April Tuesday 1786" British Library Add MS 29900 "Orderly Book of a Detachment of the Army Commanded by Colonel Sir Henry Cosby in the Southern Provinces [India]," f. 144-149 and "Appendix," paragraph 28. Black servants and assistants were also used to supplement the hospital labour force. British Library,

Army Medical Department had difficulty dispatching medical officers to the West Indies. On 19 June 1797, the Commissioners for the Sick and Hurt Board wrote to the Admiralty to inform them that two unnamed surgeons on board *la Concorde* had refused to sail to the West Indies, and requested a local post. The Admiralty's response on 21st June was terse, stating “that their Lordships feel [the surgeons’] Services so essentially necessary in the West Indies, that they should not be removed from the *Concorde*, that Ship being ordered to sail in a few days.”⁶⁰ This incident represents the impressment of medical men in the same way that ordinary seamen were pressed into service.

The difficulty of convincing medical officers to serve in the West Indies was pervasive throughout the century.⁶¹ In discussing the shortage of surgeon's mates during the War of Jenkins' Ear (1739-48), historian Duncan Crewe characterised the problem as “an uphill struggle ... very few properly qualified mates were willing to serve in the West Indies, whose reputation as a graveyard was too well known.”⁶² Despite these difficulties in procuring naval medical officers to work in the islands, contemporaries perceived the naval health situation in the West Indies as superior to that of the military. Former army surgeon John Bell in his 1791 *Inquiry into the Causes Which Produce, and the Means of Preventing Diseases among British Officers, Soldiers, and Others in the West Indies* observed “the little attention which is paid to preserving the health of soldiers, compared with that which is bestowed on the navy.”⁶³ A short time later, regimental surgeon Stewart Henderson also remarked upon the navy’s apparent preventative

Add MS 29900. “Appendix,” paragraphs 32, 39, and 47. The use of these labourers was codified in 1816. *Code of Regulations for the Medical Department of the Army Under the Presidency of Fort William: to Have Effect From the 1st Day of August* (Calcutta: Government Gazetter Press, 1816), 5.

⁶⁰ Evan Nepean, “Admiralty Office to Lord Commissioners of the Sick and Hurt,” 21 June 1797, “Sick and Hurt Board, In-Letters and Orders 1797-1798,” NMM, ADM/E/46.

⁶¹ Charters, *Disease, War, and the Imperial State*, 53.

⁶² Crewe, *Yellow Jack and the Worm*, 25.

⁶³ John Bell, *An Inquiry into the Causes Which Produce, and the Means of Preventing Diseases Among British Officers, Soldiers, and Others in the West Indies* (London, 1791), vii.

success combating tropical diseases.⁶⁴ However, he was more optimistic about the abilities of army medical personnel:

From the repeated melancholy accounts received from the last twelve months from that part of the world you [the medical officer] are now destined to, not only of the great mortality which has happened among the privates, but the officers, have no doubt impressed your mind with ideas of the country and your situation.... at the same time induce you to be more inclined not to neglect prevention, which I am convinced is greatly within your power.⁶⁵

While persuasive medical treatises, like Henderson's, could help to convince some medical practitioners to serve in the West Indies, their numbers were never sufficient for the need.

Nurses were often used as barometers of contagion within military and naval hospitals, particularly with tropical diseases that were comparatively poorly understood. The transmission of a particular disease to the nurses of the hospital suggested to the military staff that it was contagious.⁶⁶ Some medical practitioners believed that yellow fever was not contagious, regardless of race.⁶⁷ Others, like John Lining, believed that the disease was contagious among the European population but not to Black nurses.⁶⁸ While others, like Blane, extended their notions of contagion to tropical diseases outside of yellow fever. Writing about a "tropical" typhus outbreak in Barbados in 1782, he stated that his memory of this experience was "the more fresh, from the remarkable circumstance of a young negress employed as nurse, having been seized with the most unequivocal symptoms of this fever, though it had been affirmed that

⁶⁴ Henderson, *A Letter to the Officers of the Army*, 4.

⁶⁵ Henderson, *A Letter to the Officers of the Army*, 2.

⁶⁶ Benjamin Moseley, *A Treatise on Tropical Diseases; On Military Operations; and on the Climate of the West-Indies* (London: G. G. and J. Robinson, 1795), 367-368.

⁶⁷ David Ramsay *A Sketch of the Soil, Climate, Weather, and Diseases of South Carolina*, (Charleston: W. P. Young, 1796), 24. For more on contagion debate see Peter McCandless, *Slavery, Disease, and Suffering in the Southern Lowcountry* (Cambridge: Cambridge University Press, 2011), 81-83.

⁶⁸ There was a general understanding that typhus, at least the form that manifested itself in Europe and the colder climates of North America could not exist in hot climates. Lempriere, *Practical observations on the diseases of the army in Jamaica, as they occurred between the years 1792 and 1797*, volume 2 (London: T. N. Longman and O. Rees, 1799), 25.

neither females nor negroes of either sex were liable to it.”⁶⁹ For Lining, the idea that yellow fever was clearly an “infectious disease” was obvious because “almost all the nurses caught [sic] it and died of it.”⁷⁰ This “infection” did not extend to Black nurses who were then employed to tend the sick:

There is something very singular in the constitution of the Negroes, which renders them not liable to this fever; for though many of these were exposed as the nurses to the infection, yet I never knew one instance of this fever amongst them, though they are equally subject with the white people to the *bilious fever*.⁷¹

Regardless of his theoretical underpinnings or the contagion debate surrounding yellow fever, Blane's selection of Black nurses demonstrates the importance of ensuring that fevered men received the best possible care and the greatest continuity of care – a continuous caring relationship between an individual nurse and an individual patient designed to facilitate healing.⁷²

Nurses who themselves fell sick while under contract to military hospitals did not serve the best interests of those under their care or the imperial state. Military and naval medicine throughout the empire had a two-pronged goal: to preserve the health of the troops already in service and to quickly cure those who fell ill. In the West Indies, the distance and time involved in procuring re-enforcements meant that medical failures became campaign failures. For most military and naval commanders one of the hardest challenges of the West Indian environment was trying to keep their ships crewed and regiments manned. Curing the sick sailors of tropical

⁶⁹ Blane, *Select dissertations*, 311.

⁷⁰ John Lining, *A Description of the American Yellow Fever, Which Prevailed at Charleston, in South Carolina, in the Year 1748* (Philadelphia: Thomas Dobson, 1799), 6.

⁷¹ Italics original. Lining believed that only the 'pure' Black body was immune to yellow fever, stipulating that the disease targeted “both sexes of the white colour, especially strangers lately arrived from cold climates, Indians, Mistees, Mulatoes of all ages.” Lining, *A Description of the American Yellow Fever*, 7.

⁷² Martin Gulliford, Smriti Naithani, and Myfanwy Morgan, “What is ‘continuity of care’?” *Journal of Health Services Research & Policy* 11(4) (2006), 248.

fevers meant that they could re-join the war effort.⁷³ The meagre pool of potential recruits on the islands meant that it was difficult to supplement crews with fresh-pressed men.⁷⁴

Medical practitioners' opinions of their nurses' immunity were at the forefront of changing ideas about tropical diseases; the differential immunity acquired by (probably European) nurses working in hospitals during a yellow fever outbreak in New York City in the summer of 1803 led some medical practitioners to speculate that yellow fever was not contagious.⁷⁵ A nurse was necessarily in frequent contact with her patients: "she lifts him out and into bed; she administers food, drink, and medicines; she must often receive the vapours of breathing and perspiration in their concentrated states... she is compelled to remain, for hours, and days and nights exposed to all this combination of dangers which must constantly surround her on the supposition of contagion."⁷⁶ Yet the many nurses who worked in New York hospitals had never, according to Samuel Mitchill and Edward Miller, succumbed to the disease. The authors raised but then quickly dismissed the notion that nurses might gain immunity to the disease stating: "the habit of sustaining the poison of contagion will soon enable nurses to resist it with impunity. It is clear, however, that habit will not account for the escape in the first instance even if the force of it afterwards be admitted in the fullest extent."⁷⁷ Given the danger of the disease, it was particularly important for medical practitioners to determine how yellow fever

⁷³ Crewe, *Yellow Jack and the Worm*, 63.

⁷⁴ Crewe, *Yellow Jack and the Worm*, 63. "The only source of trained men was the merchant fleet and privateers, and no volunteers could be expected from there. The alternative recourse of the pressgang also raised problems, since its legality was seriously questioned in the West Indies, and its employment caused further friction with the civil powers."

⁷⁵ For outbreak timeline see: Samuel Mitchill and Edward Miller, "Medical & Philosophical News, Domestic," in *The Medical Repository, and Review of American Publication on Medicine, Surgery, and the Auxiliary Branches of Science, Vol. 1* eds. Samuel Latham Mitchill and Edward Miller (New York: T. & J. Swords, 1804), 177-178. For discussion on contagion of typhus and yellow fever see Fergusson, *Notes and Reflections*, 180-184.

⁷⁶ Mitchill and Miller, "Medical & Philosophical News, Domestic," 184-185.

⁷⁷ Mitchill and Miller, "Medical & Philosophical News, Domestic," 185.

spread or did not.⁷⁸ As Lempriere argued, whether or not yellow fever was contagious “must lead either to such necessary precautions as may stop its progress, or to remove apprehensions which have contributed their share to the production of the disease.”⁷⁹

The belief that yellow fever emanated from a specific climate, and was therefore not a contagious disease, was reinforced when medical staff attending to the non-seasoned sick did not succumb themselves to the disease. In this respect, yellow fever was just one disease which informed the discussion of environmental or climatic understandings of medicine. As Edward Doughty observed in Cadiz in 1810:

With regard to its [yellow fever] being contagious, I am firmly of opinion it is not so. It is my real belief that it is Endemic, peculiar to this climate and season of the year, and that it does not propagate its baneful effects, by emanations from bodies labouring under its influence, or impart any things prejudicial when every vital function has ceased. And this opinion is corroborated by the certain fact, that not one of the medical officers, nurses, or orderlies, attendant on the sick, have as yet been affected with the disease. Not one of the medical gentlemen who assisted me in opening the body... has been indisposed in the smallest degree.⁸⁰

Doughty's experience at Cadiz reveals a perception of functional immunity to yellow fever that could be acquired through work at military hospitals in tropical climates and underscored the importance of acclimatization. According to this view, once medical practitioners had gained immunity, it would then travel with medical personnel to their next campaign.

That yellow fever appeared non-contagious to most people made it all the more dangerous, since none of the typical preventative measures could be used to fight against it. This perception was the case even though it was understood that some tropical hospitals seemed

⁷⁸ Robert Desowitz credits this preoccupation with contagion for a larger loss of life due to tropical fevers. Robert S. Desowitz, *Who Gave Pinta to the Santa Maria: Torrid Diseases In A Temperate World* (New York and London: W. W. Norton and Company, 1980), 104-105.

⁷⁹ Lempriere, *Practical observations*, volume 2, 24.

⁸⁰ Edward Doughty, *Observations and Inquiries into the Nature & Treatment of the Yellow, Or Bulam Fever, in Jamaica and at Cadiz* (London, 1816), 102.

healthier than others.⁸¹ While ventilation and cleanliness were certainly encouraged in West Indian hospitals, medical practitioners recognized that even with improvements in hospital design and maintenance, these efforts would not end, and in some cases, may not even lessen the surge of yellow fever.⁸² An 1797 letter from an anonymous Lieutenant recounts how even with hospitals “clean and airy, attendant, nurses &c numerous and every thing satisfactory” sailors were so reluctant to enter land hospitals that they “begg'd to remain on board” their ships due to the reputation of the West Indian climate.⁸³ These sailors, whether they knew it or not, were non-contagionists; they believed that simply entering the environment of the West Indies would render them victim to yellow fever and that no contemporary medical means could save them from death.

All new troops sent to the West Indies were to be seasoned and efforts were made by medical officers for it to happen quickly. One seasoned soldier was seen by military officers to be worth ten unseasoned soldiers.⁸⁴ Newly arrived soldiers needed, in the words of Benjamin Moseley, to “learn to take care of themselves” in the tropical climate.⁸⁵ Until such time as the new arrivals learned this important lesson, they should be significantly coddled by medical and military officers. In a marked contrast to regular life in the service, discipline was to be relaxed; drills were not “to exceed the proportion of exercise which is conducive to health;” and most importantly “all drudgery and labour should be performed by negroes, and others, inured to the

⁸¹ “Henry Harvey to Evan Napean,” November 17, 1796, NMM, ADM/E/46

⁸² The plan for a naval hospital at Antigua is very similar to the design of Plymouth Naval Hospital. “Admiralty to Sick and Hurt Board,” January 21, 1779, “Sick and Hurt Board, In-Letters and Orders Jan 1, 1775-Dec 31, 1780,” NMM ADM/E/42. Jamaica also employed the typical quadrangle design similar to Haslar. Christine Stevenson, “From Palace to Hut: The Architecture of Military and Naval Medicine,” in *British Military and Naval Medicine, 1600-1830* Geoffrey Hudson ed. (Amsterdam and New York: Rodopi, 2007), 233.

⁸³ “A Lieutenant to the Sick and Hurt Board,” May 7, 1797, NMM, ADM/E/46.

⁸⁴ Charters, *Disease, War, and the Imperial State*, 70.

⁸⁵ Moseley, *A Treatise on Tropical Diseases*, 194.

climate.”⁸⁶ Henderson offered similar advice about avoiding dangerous labour in the sun, adding that soldiers should eat little meat, and drink only in moderation, “not exceeding a pint of Madeira in the day, and no ardent spirits.”⁸⁷ William Lempriere's assessment of yellow fever was particularly unnerving to his fellow military and naval medical practitioners, as he held that while yellow fever affected newcomers, it was more likely to kill those in good health. He claimed that “the delicate and weak persons, particularly liable to the influence of contagious diseases, were altogether exonerated from this fever.”⁸⁸ That younger soldiers and sailors, theoretically the healthiest and most hearty of recruits, would also get sick easily and quickly was a matter of grave military importance. Sickness could fell the best of servicemen as soon as they arrived in theatre.

Both military commanders and medical practitioners understood the risks of sending men to the West Indies. Both medical practitioners and officers tried to mitigate the suffering of European soldiers out of both humane motivations and the desire to ensure that their troops survived the experience.⁸⁹ For example, in a letter to the Secretary at War, Surgeon General Robert Adair stated: that “as the Necessity of His Majesty's Service requires Troops to go to Places which prove unhealthy to British Constitutions, Care should be taken to alleviate the Distress of the Sick so much as possible.”⁹⁰ In cases of extraordinary sickness, like that on the Bahamian island of New Providence in 1792, the army was willing to pay out large sums of money to regimental surgeons on top of the normal allowance provided for medicines and care to

⁸⁶ Moseley, *A Treatise on Tropical Diseases*, 194.

⁸⁷ Henderson, *A Letter to the Officers of the Army*, 9.

⁸⁸ Lempriere, *Practical observations on the diseases of the army in Jamaica*, 23.

⁸⁹ Many medical treatises opened with dedications similar to that of Edward Doughty's “endeavour to lessen the sum of human misery, which the Torrid Zone but too often and too greatly adds to the inherent physical evils of life.” Doughty, *Observations and Inquiries into the Nature & Treatment*, iii. John Hunter sought to make experience with the tropical climate a prerequisite of promotion for military surgeons. “John Hunter to Lord Amherst,” August 29, 1793, TNA, WO 7/98, 30.

⁹⁰ TNA WO 7/97 “Robert Adair to Sir George Younge,” June 19, 1789, 4.

ease the suffering of the sick and hopefully promote their cure.⁹¹ However, there was the understanding that these extra expenses would be temporary in nature; once “the Regiment will become more inured to the Climate, it is hoped there will be no future Demands to the like Amount.”⁹² The Government of Jamaica also supplemented the medicine allowance of regiments from Europe sent to the island.⁹³ Yet the two hundred sick in New Providence in 1792 were just the beginning of numerous casualties. The military and naval medical situation steadily worsened throughout the 1790s, while larger forces and expeditions arrived. Robert Jackson outlined the problem of the disease environment and the worry of the British public in 1798:

The fever which has prevailed in the West Indies during the present war, and which still prevails, on every importation of European subjects, has been the occasion of alarm to the English subjects, has been the occasion of alarm to the English nation, and of the division of opinion among medical men, in the same manner as the fever of Philadelphia. ... it has nearly annihilated British armies in those islands, and it has appalled the English nation and England itself.⁹⁴

Jackson's account of the disease situation in the West Indies, may have been sensationalized, but it had a significant influence on the medical community in Britain. The disease that had killed so many British troops had no clear origin, and there was no definitive measure to cure the illness though medical practitioners tried many treatments.⁹⁵ Henderson even speculated that it was

⁹¹ “John Hunter to Sir George Younge,” October 29, 1791, TNA, WO 7/97, 77.

⁹² “John Hunter to Secretary at War,” February 28, 1792, TNA, WO 7/97 83.

⁹³ *Regulations to be Observed In The Regimental Hospitals of the Several Corps in Jamaica* (Spanish-Town: David Dickson, 1797), 13.

⁹⁴ Robert Jackson, *An Outline of the History and Cure of Fever, Endemic and Contagious*, (Edinburgh: Mundell & Son, 1798), 222.

⁹⁵ Jackson, *An Outline of the History and Cure of Fever*, 223. Cinchona bark if used in sufficient amounts could relieve the symptoms of malaria as well as act as a prophalexis, however there was no cure or effective treatment for yellow fever and the use of the bark in such instances wasted an expensive drug. McNeill, *Mosquito Empires*, 74-75. Cinchona was first used in the 1620s by the Spanish in Peru. Saul Jarcho, *Quinine's Predecessor: Francesco Torti and the Early History of Cinchona* (Baltimore: Johns Hopkins University Press, 1993), 1-6.

even more deadly to the British army than the forces of other nations.⁹⁶ Only those seasoned to the climate, and the African and Creole populations, seemed to escape an arduous illness and likely death owing to their previous survival of the disease and the immunity conferred by the experience.

The same racialised understanding of medicine and health meant that the ideal nurses in the West Indies were African not European, as Black nurses were believed to be immune to tropical diseases.⁹⁷ Difficulties early in the century with transporting and “seasoning” of nurses and matrons from Britain also may have contributed to the racialised perception of the suitability of Black women for these roles. For example, early hospital instructions for Jamaica issued by the Sick and Hurt Board stipulated that local nurses employed in the naval hospital should speak English and that a European woman should be brought from England to act as “head nurse or matron.”⁹⁸ Yet when Alexander Campbell, the Hospital Contractor in Jamaica, sought to contract for an English nurse he had great difficulty. Even when the hospital contractor managed to procure an English woman willing to undertake the voyage to the West Indies he “was so unhappy as to have her die fourteen days after her Arrival at Jamaica,” and he was unable to contract for another.⁹⁹ Instead Campbell was directed by the attorney to find a suitable head nurse from the island.¹⁰⁰

⁹⁶ “[B]ut as the West Indies have ever proved unsalutary to the young military, particularly the British, who from habits and manner of living suffer more from emigration to southern climates than any other nation --” Henderson, *A Letter to the Officers of the Army*, 4.

⁹⁷ Dancer, *The Medical Assistant*, 82.

⁹⁸ “Memorial of Mr. Alexander Campbell,” enclosed in “Sick and Hurt Board to Admiralty,” 1 October 1746, ADM/F/8, NMM. Crewe, *Yellow Jack and the Worm*, 28. See also page 17.

⁹⁹ “Thursday the 5 June 1746,” “Office of the Commissioners of Sick and Wounded Seamen (Sick and Hurt Board) and successors: Minutes. Minutes. General. 1746-1748,” TNA, ADM 99/19 Part 3, 48v. Crewe, *Yellow Jack and the Worm*, 29.

¹⁰⁰ “Thursday the 5 June 1746,” TNA, ADM 99/19 Part 3, TNA, 48v.

Naval medical practitioners also recommended the use of Black nurses to care for those suffering from yellow fever. Elliot Arthy, a naval surgeon in Jamaica, explained how “indigent negro women,” provided care to seamen “labouring under the most violent attack of Yellow Fever.”¹⁰¹ One unnamed nurse had attended the sick “with the most affectionate and unremitted care and attention, night and day, as well as provided them with sustenance, and such other little necessaries and comforts as sick persons require, until they were quite restored to health.”¹⁰² For her trouble, she was left “incumbered with a debt,” which according to Arthy “required in her little ways and means, a long series of industry to discharge.”¹⁰³ Black nurses were seen by some medical practitioners as not only the best nurses for the climate but so altruistic as to be willing to impoverish themselves to care for their patients.

Black nurses were believed to be immune to the West Indian tropical and non-tropical diseases that were the deadliest to Europeans: yellow fever, malaria, typhus, and scurvy.¹⁰⁴ By the second half of the eighteenth century, slaves in the region were successfully inoculated against smallpox, which meant that they could work in smallpox wards without contracting the sickness.¹⁰⁵ Of course, the reality of the immunity situation was far more complex. While it is true that many West African slaves would have been exposed to the yellow fever virus in childhood and then gained life-long immunity before their transport to the West Indies, such immunity was not universal and depended on having lived in an endemic yellow fever region.¹⁰⁶ The same yellow fever immunity could occur in the West Indies among the European settler,

¹⁰¹ Elliot Arthy, *The Seamen's Medical Advocate* (London, 1798), 41.

¹⁰² Arthy, *The Seamen's Medical Advocate*, 42.

¹⁰³ Arthy, *The Seamen's Medical Advocate*, 42.

¹⁰⁴ Africans were seen as vulnerable to yaws, smallpox, and leprosy, which effected European settlers comparatively less. For description of typhus immunity see Lempriere, *Practical observations on the diseases of the army in Jamaica*, 25. Dobson, “Mortality Gradients,” 289.

¹⁰⁵ Edward Long, *The History of Jamaica* Vol. 2 (London: T. Lowndes, 1774), 275-276.

¹⁰⁶ McNeill, *Mosquito Empires*, 44-45. Desowitz, *Who Gave Pinta to the Santa Maria?*, 99.

slave, and Creole populations if individuals survived a first exposure. Many would experience the disease as children without showing symptoms.¹⁰⁷ With the exception of those West Africans and their children who had the genetic sickle-cell trait, neither Europeans nor Africans could acquire immunity to malaria.¹⁰⁸ Instead, differential resistance would be gained from regular exposure to the disease, which lessened, and in some cases masked, the illness entirely.¹⁰⁹ Therefore, while it was possible that African and Creole slaves would have immunity to yellow fever and differential resistance to malaria, this was not a certainty.

By the late-eighteenth century, the perception of yellow fever as a stranger's disease spurred the increased use of local practitioners for medical care. Despite the above immunological caveats, the 1793 Philadelphia yellow fever epidemic also reveals how Black nurses were valued for their immunity and subsequently compensated financially. In response to some accusations in local newspapers that Black nurses neglected the sick and overcharged patients for their services, anonymous authors A. J. and R. A. commissioned the laudatory *A Narrative of the Proceeding of the Black People, During the Late Awful Calamity in Philadelphia in the Year 1793*.¹¹⁰ The authors believed that more money had been made selling inflammatory tracts against Blacks “than a dozen of the greatest extortioners among the Black nurses.”¹¹¹ Furthermore, the pamphlet stipulated that the high wages paid to Black nurses for their care resulted from “the people over-bidding one another” in order to receive medical care, and that their actions were sanctioned by the city's mayor Matthew Clarkson.¹¹² Jackson also noted that local nurses in the poorer regions of Philadelphia did not catch yellow fever, and “that

¹⁰⁷ McNeill, *Mosquito Empires*, 45.

¹⁰⁸ McNeill, *Mosquito Empires*, 53.

¹⁰⁹ McNeill, *Mosquito Empires*, 2, 53, 252.

¹¹⁰ A. J. and R. A., *A Narrative of Proceedings of the Black People, During the Late Awful Calamity in Philadelphia in the Year 1793* (Philadelphia: William W Woodward, 1794), 1.

¹¹¹ A. J. and R. A. *A Narrative of Proceedings of the Black People*, 8.

¹¹² A. J. and R. A. *A Narrative of Proceedings of the Black People*, 8.

Europeans, or strangers of the northern districts suffered from the disease in a more violent degree than the inhabitants.”¹¹³ Again in this instance, non-strangers, particularly Black nurses, were seen as the ideal providers of medical care for a disease that predominately affected the outsider and the newcomer.

Hospital Inspector William Fergusson also thought highly of the work of Black nurses during an outbreak of dysentery on Guadeloupe in 1815.¹¹⁴ He recommended that they be used permanently at the Barbados general hospital:

While superintending the treatment of those people, I was led to an improvement in the Servants department of the hospital, which I shall do my utmost to establish on a permanent footing, I mean the in-troduction [sic] of Black creole nurses, instead of white Soldier or even Soldier's Wives to attend on the Sick. I was satisfied there were of great use latterly, in attending upon those of their own colour amongst the recruits that fell ill after they arrived at Barbados, and I am sure that in the white wards they will prove far better nurses than either of the two Classes just mentioned.¹¹⁵

Fergusson's views on the usefulness of Black nurses were unquestionably influenced by his own experience as a victim of yellow fever on the St. Domingo expedition in 1815.¹¹⁶ Fergusson went on to write in his autobiography, published posthumously by his son, that Black nurses “make the best sick nurses in the world.”¹¹⁷ He stated that, “nothing can exceed” the Black nurse's “vigilance and tenderness.”¹¹⁸ Creole nurses “also delight in” the task of nursing “far beyond European women of any class, and it is to be regretted they should not always succeed in

¹¹³ Jackson, *An Outline of the History and Cure of Fever*, 221.

¹¹⁴ Charles Creighton, “Fergusson, William (1773-1846),” rev. Jeffrey S. Reznick, *Oxford Dictionary of National Biography*, (Oxford: Oxford University Press, 2004), doi:10.1093/ref:odnb/9339.

¹¹⁵ “Basseterre Guadeloupe, William Fergusson to John Weir, 13 October 1815.” Wellcome Library RAMC 210/2.

¹¹⁶ William Fergusson, “The Memorial of William Fergusson Inspector of Hospitals to His Royal Highness Field Marshall The Duke of York,” n.d. [likely 1817]. William Fergusson Papers, MS 1287, Folder 10: 1815-1831, Yale University Library.

¹¹⁷ William Fergusson, *Notes and Reflections on a Professional Life*, (London: Longman, Brown, Green, and Longman, 1846), 63.

¹¹⁸ Fergusson, *Notes and Reflections*, 63.

obtaining the place they are so well calculated to fill.”¹¹⁹ Fergusson continued to advocate for the universal use of Black nurses in the West Indies after the St. Domingo expedition.

Male orderlies, who in regimental hospitals often performed similar duties to nurses such as “administering medicines and nourishments,” were as likely to succumb to tropical diseases as their fellow soldiers.¹²⁰ Lempriere and Fergusson both had similar experiences with orderlies falling ill. Lempriere's experience showed: “In no instance were the nurses of colour affected by it; and in the few instances where orderly men attending on persons ill of this disease were seized with fever, it never failed to put on the remittent form, which certainly in many cases owned a bad type, and sometimes proved mortal.”¹²¹ While Fergusson thought nursing care should be done solely by women, he and Lempriere both came to the same conclusion surrounding nursing and hospital care in the tropics: that it should be performed by Blacks whenever possible.¹²²

Labour in the West Indies

Beyond issues of racial immunity, the availability of a labour force on the islands also influenced the selection of Black nurses to work in military and naval hospitals. During the eighteenth century the place for non-elite white labour in the workforce was rapidly shrinking as slaves and free people of colour displaced them.¹²³ As Natalie Zacek has shown, “Enslaved and free colored women increasingly took on the roles of seamstresses, hairdressers, cooks, housekeepers,

¹¹⁹ Fergusson, *Notes and Reflections*, 64-64.

¹²⁰ *Regulations to be Observed In The Regimental Hospitals of the Several Corps in Jamaica* (Spanish-Town: David Dickson, 1797), 8.

¹²¹ Lempriere, *Practical observations*, volume 2, 30.

¹²² Fergusson, *Notes and Reflections*, 64. “Basseterre Guadeloupe, William Fergusson to John Weir,” 13 October 1815. RAMC 210/2.

¹²³ Zacek, “Between Lady and Slave,” 136-137. Slaves’ acquired immunity to yellow fever and malaria during their childhoods in Africa was seen as an economic advantage; this was also true of the use of slave labour in Caribbean naval hospitals. As historian and clinician Robert Desowitz concludes, slave's “survival gave further proof of the economic advantage of their enslavement over that of the Amerindians and indentured whites.” Desowitz, *Who Gave Pinta to the Santa Maria?*, 99.

laundresses, nannies, and midwives” throughout urban areas of the Leeward Islands.¹²⁴ The displacement of non-elites from the workforce sped up as unskilled labourers and their families migrated to other British holdings in the Atlantic World (and were not replaced by the European immigrants) and as agriculture became further dominated by sugar production on slave plantations.¹²⁵ Those non-elite Whites who did not leave the island moved to urban centres, with European women finding traditional female jobs such as work in taverns.¹²⁶ While such work did not bar these women from performing nursing duties, it drastically limited their availability to take on the long-term or short contracts typical of hospitals. Furthermore, employment in towns made their service in the regimental hospitals of the army almost impossible during a campaign. Accounts like that of Sedgewicke's 1665 expedition, as related in Edward Long's 1774 *The History of Jamaica*, which “had no hospital, nor other convenient accommodation, nor women to attend them in the capacity of nurses,” attest to the difficulty in procuring nurses White and Black for regimental hospitals on the move in the West Indies.¹²⁷

The gender distributions among the European migrant populations also played a role in the selection of women to perform nursing duties. The European population of Jamaica, as historian Trevor Burnard has shown, was overwhelmingly male with few children and elderly people.¹²⁸ The harsh disease environment meant that it was difficult to reproduce populations by natural means and contributed to the perception that European women were, as Burnard characterizes, “inordinately lazy, small-minded and unattractive in appearance and character.”¹²⁹ European women also were believed to be particularly susceptible to both the climate and its

¹²⁴ Zacek, “Between Lady and Slave,” 137.

¹²⁵ Zacek, “Between Lady and Slave,” 129.

¹²⁶ Zacek, “Between Lady and Slave,” 129.

¹²⁷ Long, *The History of Jamaica*, Volume 1, 232.

¹²⁸ Trevor Burnard, “Evaluating gender in early Jamaica, 1674-1784,” *The History of the Family* 12(2) (2007), 81.

¹²⁹ Burnard, “Evaluating gender,” 83.

accompanying disease. As Edward Long described, “they yield too much to the influence of a warm climate in their listless indolence of life.”¹³⁰

Women of European descent born in the West Indies also were characterised by contemporaries as weak and sickly in both education and body. The climate had taken an irreversible toll on these women’s bodies which greatly worried colonists and British writers concerned about the viability and continued prosperity of the colonies. For example, John Stewart in his 1808 *Account of Jamaica* wrote of pale European women who had a “sickly and languid appearance.”¹³¹ According to Stewart it was only when dancing that European women in the West Indies lost their “appearance of languor and indolence.”¹³² Edward Long had a particularly negative view of European women in the rural West Indies. “We may see, in some of these places, a very fine young woman awkwardly [sic] dangling her arms with the air of a Negroe-servant, lolling almost the whole day upon beds or settees, her head muffled up with two or three handkerchiefs, her dress loose, and without stays.”¹³³ Long further remarked, that, “the women attain earlier to maturity and sooner decline, than in Northern climates.”¹³⁴ Interestingly Long’s negative characterization did not apply to settler children born in the West Indies:

Many of the good folks in England have entertained the strange opinion, that the children born in Jamaica of white parents turn swarthy, through the effect of the climate; nay, some have not scrupled to suppose, that they are converted into Black-amoores. The truth is, that the children born in England have not, in general, lovelier or more transparent skins, than the offspring of white parents in Jamaica.¹³⁵

Although there were some exceptions, such as those women of Scottish and Irish descent who were thought to fare better in the climate, European and White Creole women were thought by

¹³⁰ Long, *The History of Jamaica*, Vol. 2, 280.

¹³¹ John Stewart, *An Account of Jamaica: And Its Inhabitants* (London, Longman, Hurst, Rees, and Orme, 1808), 156.

¹³² Stewart, *An Account of Jamaica: And Its Inhabitants*, 156.

¹³³ Long, *The History of Jamaica* Vol. 2, 279.

¹³⁴ Long, *The History of Jamaica*, Vol. 2, 285.

¹³⁵ Long, *The History of Jamaica*, Vol. 2, 274.

medical practitioners generally unsuited to the hard labour of nursing work in the West Indies, even if they could be convinced through some appeals to patriotic duty to undertake such an occupation.¹³⁶ Lempriere was particularly brusque on both settler women's physical capacity and the competence of Black women for the task of nursing:

In the West Indies the climate does not admit of the sick receiving that benefit from female nursing, which in Europe is always to be preferred; since white women can undergo but little fatigue without falling sick, and when employed as nurses are too apt to drop asleep at a time, when probably the patient may have the most occasion of the assistance; and no dependence can be placed on the negro women.¹³⁷

Instead of using female nurses, Lempriere recommended that Black pioneers be used to care for the sick with a seasoned orderly man to supervise.¹³⁸ Black male pioneers were commonly used for nursing care and fatigue duties when the army was moving on campaign, as the General Hospital Abstract for Barbados in 1815 shows.¹³⁹ Yet, there was also difficulty in ensuring that the army had the required number of pioneers. For example, Fergusson wrote Lieutenant-General Sir James Leith, the Commander of the expedition force, “[i]t having been found impossible to furnish more than 32 Pioneers to the medical department instead of the 96 that were required and approved of by the commander of the Forces.”¹⁴⁰ The difficulty in obtaining pioneers for the service, as well as the diversity of their required roles, meant that they were both little suited to nursing, nor likely to have nursing care as their sole occupation.

White settler women did not have the necessary household skills to be useful as nurses in the West Indies, suggesting that they would not have been much better than Black pioneers at

¹³⁶ Long, *The History of Jamaica*, Vol. 2, 286.

¹³⁷ Lempriere, *Practical Observations*, volume 2, 358.

¹³⁸ Lempriere, *Practical Observations*, volume 2, 358.

¹³⁹ “General Abstract,” Wellcome Library, RAMC 210.

¹⁴⁰ Fergusson, “Memda. for the consideration of the Commander of the Forces,” August 6, 1815, “Memda. for the consideration of the Commander of the Forces.” Wellcome Library, RAMC 210. Andrew Hay, *Memoirs of the Late Lieutenant-General Sir James Leith, G. C. B.* (London: William Stockdale, 1818), 159-161.

nursing care.¹⁴¹ Essential household tasks, and the cleaning and care-giving training that accompanied them, were the purview of domestic slaves. “As mistresses of families, they are unimportant, almost every domestic concern being left to the management of their negroes and mulattoes,” John Luffman, an English visitor to Antigua from 1786-1788 proclaimed.¹⁴² Furthermore, Creole women were berated even more for their use of wet-nurses than elite women in the British Isles.¹⁴³ Long described the situation and its origins in his *The History of Jamaica*:

Whilst I render all due praise to the Creole ladies for their many amiable qualities, impartiality forbids me to suppress what is highly to their discredit; I mean, their disdain to suckle their own helpless offspring! They give them up to a Negroe or Mulatto wet nurse without reflecting that her blood may be corrupted, or considering the influence which the milk may have with respect to the disposition, as well as health, of their little ones. This shameful and savage custom they borrowed from England; and, finding it relieve[s] them from a little trouble, it has gained their general sanction.¹⁴⁴

Wet nurses could pass impurities to the children of European settler women, impurities that in Long’s view could be avoided if the settler women would nurse their own children. Thomas Dancer credited the use of slave wet nurses to the general weakness of European and Creole women in the face of the harsh climate “where the weakly state of white women very generally unfits them for this office.”¹⁴⁵ Additionally, slaves were responsible for filling the role of sick

¹⁴¹ Although in Britain mistresses of elite household would also not have engaged in everyday household labour they were expected to be able to if the need arose. Rosemay O’Day, “Mistress of the Household: what wives did all day,” in *Women’s Agency in Early Modern Britain and the American Colonies* (London and New York: Routledge, 2007), 205-239.

¹⁴² John Luffman, *A brief account of the island of Antigua, together with the customs and manners of its inhabitants* (London: J. Luffman, 1789), 36.

¹⁴³ Luffman, *A brief account of the island of Antigua*, 36.

¹⁴⁴ Long, *The History of Jamaica*, Vol. 2, 276. Ironically while elite-white women were condemned for the practice, the use of wet-nurses with differential immunity to yellow fever likely prevented their infants from contracting the disease. Susan Kuhn, Loreto Twele-Montecinos, Judy MacDonald, Patricia Webster and Barbara Law, “Case report: probable transmission of vaccine strain of yellow fever virus to an infant via breast milk,” *Canadian Medical Association Journal* (2011), E243-E245.

¹⁴⁵ Dancer, *The Medical Assistant*, 273.

nurse to both their owners' families and each other. The reluctance or inability of elite Whites to care for their own children when they were sick, suggested to social commentators then that they tended not to possess the requisite skill set and shows that they were an unlikely source of potential military and naval nurses.¹⁴⁶

The difficulty of tropical fever nursing, which was seen as particularly complicated, also disqualified most settler women from nursing strangers, due to societal conventions.¹⁴⁷ Henry Warren, for example in his *A Treatise concerning the Malignant Fever in Barbados*, gave strict directives for a fever nurse to follow. The sick person was to be completely covered by bed linens, a responsibility Warren gave “strictly in Charge to the Nurse who is employed about him.”¹⁴⁸ “During the Time of Sweating,” the nurse was to be vigilant to ensure that her patient lay in a comfortable position with an elevated, thinly-covered head.¹⁴⁹ Warren further stipulated that “it would not be amiss if [the head] was shaved too.”¹⁵⁰ Such vigilant nursing over the course of a long tropical fever as recommended by Warren was both difficult and all-encompassing. A woman engaged in this ideal form of fever nursing could hardly afford to leave the bedside. Nor did nursing care end with the termination of the fever. Once the fever broke the patient was to “sit up as much as he is able, or be now and then supported in such an erect Posture, if the Giddiness which frequently attend all the Stages of this Distemper will permit.”¹⁵¹ Such exhaustive instructions as Warren's were not likely to be followed in a military

¹⁴⁶ For slaves used as sick nurses see Dr. Collins, *Practical rules for the management and medical treatment of Negro slaves*, 237, 258. Simon Newman, *A New World of Labor*, 92.

¹⁴⁷ David Lambert, *White Creole Culture, Politics and Identity During the Age of Abolition* (Cambridge: Cambridge University Press, 2005), 38-40. For rapid rise of plantation culture see Trevor Burnard, *Planters, Merchants, and Slaves: Plantation Societies in British America, 1650-1820* (Chicago and London: The University of Press, 2015), 140-144.

¹⁴⁸ Henry Warren, *A Treatise Concerning the Malignant Fever in Barbados, and the Neighbouring Islands* (London: Fletcher Gyles, 1740), 54.

¹⁴⁹ Warren, *A Treatise Concerning the Malignant Fever in Barbados*, 54

¹⁵⁰ Warren, *A Treatise Concerning the Malignant Fever in Barbados*, 54.

¹⁵¹ Warren, *A Treatise Concerning the Malignant Fever in Barbados*, 54

hospital, where nurse to patient ratios were 1:10 or at naval hospitals where such ratios were 1:7.¹⁵² The 1:7 figure was the officially suggested ratio that was rarely reached in practice outside the large naval hospitals of Haslar and Plymouth. There were also cases where fever deaths were blamed on neglect of sufficient nursing care. For example, James Clark recounts the tale of a nurse who “having neglected to administer bark and nourishing cordials as directed,” contributed to the death of her patient.¹⁵³ Such stories were rare however, and it was commonly understood that even with the best nursing care, death was still a more likely outcome of fever than survival.¹⁵⁴

Other medical practitioners, like John Hunter, believed that fever nursing was so arduous that it could only be accomplished by a family member. In Jamaica, he witnessed “the son, the brother, or the husband, labouring under the worst fevers,” who were “nursed with unremitting assiduity by the mother, the sister or the wife, who never left the sick either by day or by night.”¹⁵⁵ For Hunter, the willingness of female family members to undertake the task of nursing showed that they believed the disease to be non-contagious. He also acknowledged the harshness of fever nursing: “That such near relations should take upon them the office of a nurse, is matter of the highest commendation in a country, the diseases of which require to be watched with greater care and attention, than can be expected from a servant.”¹⁵⁶ The difficulty of fever nursing and the attention that it required, coupled with their views of settler women’s nursing capacities, may explain why military and naval medical practitioners were generally not disposed to hire or entrust such arduous care to settler women as nurses.

¹⁵² *Regulations to regimental surgeons &c. for the Better Management of the Sick in Regimental Hospitals* (London: J. Jones, 1799), 37-38. *Instructions for the Royal Naval Hospitals at Haslar & Plymouth* (London: The Philanthropic Society, 1808), TNA, ADM 106/3091, 10.

¹⁵³ Clark, *A treatise of the yellow fever as it appeared in the Island of Dominica*, 17.

¹⁵⁴ Hamlin, *More Than Hot*, 264.

¹⁵⁵ Hunter, *Observations on the Diseases of the Army*, 142.

¹⁵⁶ Hunter, *Observations on the Diseases of the Army*, 142-143.

Enslaved nurses and the Bermuda Naval Hospital

By the beginning of the French Revolutionary Wars, it was significantly cheaper to purchase a female slave than a male slave.¹⁵⁷ However, at the time it was believed that female slaves were only suited to certain kinds of labour, such as fieldwork and domestic occupations of washing, clothes production, and cooking.¹⁵⁸ By the end of the eighteenth century, nursing was a female gendered activity regardless of race, and the hiring out of slave women to naval hospitals could have been seen by slave owners as particularly lucrative because female slaves were a cheaper investment. Female slaves also were seen to have better “seasoning” rates than newly arrived male slaves, and also to live longer than they male counterparts.¹⁵⁹ In order to maintain slave labour workforces, plantation owners needed to purchase more male slaves continually. Some owners were left with a surplus of female slaves, owing to the practice of mixed-gender bundling of slaves for sale at auction.¹⁶⁰ Contracting out surplus, or young female slaves, for work in naval hospitals was a way to maintain gender balances on plantations and get the most value for money from slave labour.

The activities of the Gibson family of Bermuda illustrate the economic significance of enslaved nurses hired out to naval hospitals.¹⁶¹ The Bermudian slavery registers for 1821 list

¹⁵⁷ “In inventories made between 1760 and 1784 enslaved women were worth 82% the value of slave men, compared with 87% in inventories made before 1705.” Burnard, “Evaluating gender,” 89.

¹⁵⁸ Barbara Bush, *Slave Women in Caribbean Society 1650-1838* (Bloomington and Indianapolis: Indiana University Press, 1990), 36; Newman, *A New World of Labor*, 92; Zacek, “Between Lady and Slave,” 136-137.

¹⁵⁹ Burnard, “Evaluating gender,” 86.

¹⁶⁰ Burnard, “Evaluating gender,” 89. Sean Kelley, “Scrambling for Slaves: Captive Sales in Colonial South Carolina,” *Slavery & Abolition* 34(1) (2013) 7-8.

¹⁶¹ Bermuda was a particularly important possession for the British in the Caribbean due to its use as a staging ground for privateering runs at the Carolinas. Michael Jarvis, *In the Eye of All Trade: Bermuda, Bermudians, and the Maritime Atlantic World, 1680-1783* (Chapel Hill: University of North Carolina Press, 2010), 444-445. For more on Bermuda as a naval station see Ian Stranack, *The Andrew and the Onions: The Story of the Royal Navy in Bermuda, 1795-1975*, Second Edition (Bermuda: Bermuda Maritime Museum, 1990).

eight female slaves as property of John Gibson, who held ownership in trust for his son Joseph and his daughter Frances Mary.¹⁶² Of these eight women only the youngest, Mary, who was listed as being twelve years of age in 1821, was never employed at the Bermuda Naval Hospital on Ireland Island.¹⁶³ These women were not employed solely as nurses, but they also worked as cooks, bakers, and washerwomen at the hospital. However, all of the Gibson's enslaved women employed at the hospital worked as nurses at some time between 1816 and 1824.

We catch glimpses of these women's labour and lives in the records. Diana Gibson, born in Bermuda, started as a nurse at the naval hospital at age eighteen in 1816, and was the most frequently employed of the Gibson slaves.¹⁶⁴ In the next four and a half years, she was not employed at the hospital for only 258 days, and worked at the hospital for all of 1818 and 1820.¹⁶⁵ Her work as a nurse continued in 1822 and 1823 until she vanished from the pay list records in April 1823. When Diana started as a nurse her wage rate was two shillings per day: this rate was decreased in 1822 to one shilling ten pence per day. These wages were paid to her owner John Gibson, who signed for them.¹⁶⁶ Over the course of the seven years that Diana worked as a nurse, the Gibsons earned £139 1s. The family was paid an additional £373 5s 1d for the labour of Charlotte (£100 9s 8d), Hannah (£26 13s 6d), Rose (£131 9s 9d) and Sarah (£114 12s 2d) as nurses and washerwomen. Nancy, who worked as a cook and baker at the hospital, earned the family £42 18s.¹⁶⁷

¹⁶² "Slavery Registers Bermuda 1821," TNA, T 71/452, 88.

¹⁶³ Pay list records survive for when female nurses were employed at the Bermuda Royal Hospital, between July 1816 and December 1825, with the exception 1821. National Archives ADM 102/89 "Bermuda (Pay Lists)."

¹⁶⁴ TNA, T 71/452, 88.

¹⁶⁵ TNA, ADM 102/89.

¹⁶⁶ Joseph P. Gibson takes over the signing of the pay lists in January 1825. There are a few months where another slave owner signs for the wages of the Gibson slaves, but there are also instances where John Gibson signs for slaves owned by others. TNA, ADM 102/89.

¹⁶⁷ TNA, ADM 102/89.

Tallying up the payments points to the benefit of slave nurses to slave owners. These figures demonstrate a significant income for the Gibson family. Had these women been plantation slaves hired out between 1799 and 1819, economic historian J. R. Ward has calculated that their rate of pay would have been 24d per day in Jamaica and 12d per day in Barbados.¹⁶⁸ Over the same time period purchasing a slave cost £64 on average.¹⁶⁹ While female slaves were generally cheaper to purchase than male slaves, due to planters' perceptions of the greater suitability for fieldwork and trades, the return on investment to the Gibson family was double that which could have been had in fieldwork in Barbados and was on par with that in Jamaica.¹⁷⁰ Nursing slaves were a good return on planters' investments.

Slave owners often viewed female domestic servants in a favoured position on plantations because they were spared from field labour.¹⁷¹ On the typical plantation approximately twelve per cent of slaves, both men and women, would be employed domestically.¹⁷² In the urban regions of Bermuda this number was significantly higher, as shown in slavery registers.¹⁷³ Additionally, only female domestic slaves had the requisite skills to work as nurses in naval hospitals. They were accustomed to cleaning households and tending to the bodies of their owners.¹⁷⁴ If a domestic slave worked as a nurse at the naval hospital for two months out of the year, her employment there would pay for half the annual cost of her upkeep.

¹⁶⁸ J. R. Ward, "The Profitability of Sugar Planting in the British West Indies, 1650-1834," *The Economic History Review* 31(2) (1978), 205.

¹⁶⁹ Ward, "The Profitability of Sugar Planting," 203.

¹⁷⁰ Preference for male slaves Trevor Burnard, *Mastery, Tyranny, and Desire: Thomas Thistlewood and His Slaves in the Anglo-Jamaican World* (Chapel Hill: University of North Carolina Press, 2004), 57; Sheridan, *Doctors and Slaves*. For limitations of the occupations open to enslaved women see Bush, *Slave Women in Caribbean Society*, 34. Lucille Mathurin Mair, "Women Field Workers in Jamaica during Slavery," in *Slavery, Freedom and Gender: The Dynamics of Caribbean Society*, eds. Brian Moore, B. W. Higman, Carl Campbell and Patrick Bryan (Kingston: University of the West Indies Press, 2003), 186.

¹⁷¹ Bush, *Slave Women in Caribbean Society*, 34, 36.

¹⁷² Bush, *Slave Women in Caribbean Society*, 36.

¹⁷³ TNA, T 71/452.

¹⁷⁴ Bush, *Slave Women in Caribbean Society*, 37; Newman, *A New World of Labour*, 92.

Maintaining a slave with food and clothing for a year was estimated to cost twelve pounds.¹⁷⁵

Working as nurse for four months or more out of the year meant that any wages earned were direct profit for their owners. Owners did not just out-source their domestic help, but made enough money through brief periods of hospital employment to pay for the upkeep of their slaves and make a profit on their labour.

Hospital pay lists also show that the Gibson family hired out other slaves to work at the naval institution. Peter Gibson, listed on the 1821 Slavery Register as a 44-year-old labourer born in Bermuda, regularly worked as a cook and baker from July 1817.¹⁷⁶ Other male slaves were regularly employed at the hospital as members of the boat crew for the hospital purveyor.¹⁷⁷ As they ran a tavern, the Gibsons seem to have had closer ties than most Bermudian families with the naval hospital. John Gibson advertised “Neptune's Hall,” which featured a billiard table and “Suitable Refreshments,” in three issues of the *Bermuda Gazette and Weekly Advertiser* in 1813.¹⁷⁸ The tavern was specifically intended for the “Gentlemen of the Navy” and was located conveniently in Spanish Point close to Hamilton and the naval dockyard on Ireland Island.¹⁷⁹ The experience of the Gibson family and their slaves shows the reliance of the naval hospital on enslaved labour and the economic benefit of this practice for particular Bermudian slave owners.

All the nurses employed at the Bermuda Naval Hospital between 1816 and 1824, the decade after the Napoleonic war, were enslaved women.¹⁸⁰ Given the relatively small numbers

¹⁷⁵ Bush, *Slave Women in Caribbean Society*, 39.

¹⁷⁶ TNA, ADM 102/89; TNA, T 71/452, 88.

¹⁷⁷ TNA, ADM 102/89.

¹⁷⁸ John Gibson, “Neptune's Hall,” *Bermuda Gazette and Weekly Advertiser* February 6, 1813, 4; John Gibson, “Neptune's Hall,” *Bermuda Gazette and Weekly Advertiser* February 20, 1813, 2; John Gibson, “Neptune's Hall,” *Bermuda Gazette and Weekly Advertiser* March 6, 1813, 5.

¹⁷⁹ John Gibson, “Neptune's Hall,” *Bermuda Gazette and Weekly Advertiser* February 6, 1813, 4; John Gibson, “Neptune's Hall,” *Bermuda Gazette and Weekly Advertiser* February 20, 1813, 2; John Gibson, “Neptune's Hall,” *Bermuda Gazette and Weekly Advertiser* March 6, 1813, 5.

¹⁸⁰ TNA, ADM 102/89.

of nurses employed at the hospital, the reliance of the hospital administrators on the Gibson's slaves becomes clearer. Between July and December 1816 only two nurses were employed at the hospital, Charlotte and Diana Gibson, with Nancy Gibson working as the hospital cook and baker.¹⁸¹ When an additional nurse was employed between January and June 1817, it was Sarah Gibson.¹⁸² In fact, it was not until April 1818 that the first non-Gibson nurse, Phebe Vesey – property of Sarah Vesey – was employed at the hospital.¹⁸³ Similarly when five nurses (the largest number employed during the period of study) were employed between January and March 1824, the nursing workforce was solicited from four different slave owners: Charlotte Gibson was joined by Molly and Amy Sheasby, Hannah Gilberts, and Molsey Nash.¹⁸⁴

Though the relationship of the Gibson family with the Bermuda Naval Hospital may have been tighter than with other families, they were not the only slave owners to benefit from hiring out their slaves to work in the hospital. Harriet Browne hired out Betsy as a nurse 15-26 May 1822, earning one pound and two shillings off her labour. Lettice Browne worked sporadically as a nurse between July 1818 and December 1819, and from January to June 1822, earning her owner thirty shillings two pence.¹⁸⁵ Clarissa Evans, a 26-year-old domestic in 1821 worked as a nurse from 28 October 1819 to 20 April 1820 and netted her owner Alfred Evans 12 pounds and 4 shillings.¹⁸⁶ Molsey Nash worked as both a nurse and a convict nurse between 29 February 1824 and March 1825, starting when she was just sixteen. George Nash received 28 pounds 10 shillings and 2 pence in compensation for her labour.¹⁸⁷ The hospital had a ready supply of

¹⁸¹ TNA, ADM 102/89.

¹⁸² TNA, ADM 102/89.

¹⁸³ TNA, ADM 102/89.

¹⁸⁴ TNA, ADM 102/89.

¹⁸⁵ She could also have worked some time in 1821 but no records are available for that time. TNA, ADM 102/89; TNA, T 71/452, 33.

¹⁸⁶ TNA, T 71/452, 62; TNA, ADM 102/89.

¹⁸⁷ TNA, T 71/452, 140; TNA, ADM 102/89.

labour from various urban slave owning families, similar to the Royal Navy practice of procuring supplies from more than one contractor.

Interestingly, those families who hired out their slaves to work at the naval hospital held a comparatively small numbers of slaves. The 1821 slavery registers show that Molsey Nash, a house servant, was George Nash's only slave.¹⁸⁸ John Sheasby hired out his sole female slave Amy to work as a nurse from January 1825 to April 1826.¹⁸⁹ James Seymour owned seven slaves, including Marian, who worked as a nurse from July 1822 to June 1823.¹⁹⁰ In fact the Gibson family, with seventeen slaves, nine of whom worked at the hospital in some capacity, owned the most slaves of those who hired out their slaves.¹⁹¹ These small numbers and the occupational distinctions of the slaves suggest that their owners were urban and may not have been particularly wealthy. Even in other parts of the British West Indies, urban slave owners would be more likely to have labour connections with local naval hospitals due to their location. Additionally, these types of owners were likely the most in need of the added income that hiring out their slaves could provide, as the households were not tied to the plantation economy.¹⁹²

There is evidence to suggest that the Bermuda Naval Hospital did not always or exclusively rely on enslaved labour, though such exceptions were rare. The victualing (food) accounts of John Till, for October-December 1812, submitted to Admiral John Warren, include tallies for servants. The hospital maintained one servant between 11 September and 17 October, two servants between 18 October and 21 December, and three for the remainder of the year,

¹⁸⁸ TNA, T 71/452, 140.

¹⁸⁹ He also owned a male slave. TNA, T 71/452, 172; TNA, ADM 102/89.

¹⁹⁰ TNA, T 71/452, 153.

¹⁹¹ TNA, T 71/452, 88; TNA, ADM 102/89.

¹⁹² Kathleen Butler, *The Economics of Emancipation: Jamaica & Barbados, 1823-1843* (Chapel Hill: University of North Carolina Press, 1995), 38.

reflecting the increase in the number of patients.¹⁹³ All enslaved workers were listed on hospital pay lists as “victualled by their owners;” and at least from July 1816, subsistence rate was paid to the medical officers and European workers in positions of authority.¹⁹⁴ These are only two instances within the available pay records where no subsistence rate was paid to workers in lower positions: Amelia Thompson who worked as a seamstress 4 August to 16 September 1817, and Elizabeth Young, a nurse from 11-31 October 1819. Both Thompson with her signature and Young with her mark, signed for their own pay.¹⁹⁵ This evidence, coupled with a distinct lack of mentions to ownership suggests that these women were not enslaved, though whether they were of Creole or European origin is unclear.

After the war, the Transport Board, which had authority over naval hospitals from 1806, was wary of the political connotations of using enslaved labour in West Indian naval hospitals, especially following the 1807 abolition of the slave trade. From 1819, Bermuda Naval Hospitals carried the following attestation signed by the slave owners:

I do Swear that the Negro slaves in the forgoing List opposite to whose names I have put my Signature are not the property of any Person or Persons belonging to His Majesty's Naval Hospital Establishment or in His Pay or Service; neither has any such Person or Person any Interest directly or indirectly in them, or any advantage from their being at the said Hospital.¹⁹⁶

Such an attestation attempted to distance the hospital establishment from local contractors and slavery, and to guarantee that the medical officers did not gain economic benefit from the employment of their own slaves.¹⁹⁷ At least one Bermuda medical officer, Dispenser James

¹⁹³ “Letters and Papers Relating to Hospitals 1808-1814,” NMM, WAR/19 Sir John Borlase Warren, Admiral (1753-1822), 134.

¹⁹⁴ TNA, ADM 102/89.

¹⁹⁵ TNA, ADM 102/89.

¹⁹⁶ TNA, ADM 102/89.

¹⁹⁷ This stance was of particular importance as the Royal Navy had been engaged in policing action against the West-African slave trade following its abolition in 1807. These policing actions carried more weight following the establishment of the Courts of Mixed Commission in 1819. John Beeler, “Maritime Policing and the Pax

Anderson, owned two female slaves according to the slavery registers: 35 year-old Rose and 38 year-old Ranie, who worked as house servants.¹⁹⁸ However, the use of enslaved labour in naval hospitals spared the administration the expense of victualing more labourers or paying a subsistence fee as in the case of European labourers.¹⁹⁹ It is also possible that it was the use of enslaved labour that allowed nurses to be paid a full shilling less per day than nurses at Haslar.²⁰⁰ The practice of using enslaved nurses in the Bermuda naval hospital was clearly an economic benefit to both the hospital and urban slave owners.

Black labourers were also used in other parts of the hospital. William Lempriere, a regimental surgeon in Jamaica noted “there were two negroes allowed to cook and perform the other drudgery about the sick and hospital.”²⁰¹ It is unclear if this drudgery also included tasks frequently seen as nursing work like washing bed linens and other cleaning work. Other West Indian naval hospitals also employed enslaved labourers and nurses as the pay lists for Antigua and Barbados show.²⁰² Unfortunately, these records are not as clearly delineated by role. For example, the 1 October to 31 December pay list records list a cost of £18 17s 6d for “night Nurses” employed at a cost of “2/6 & 2/ P night.”²⁰³ Jane Wilson was paid 2s 6d per night “for hire of a Night Nurse” earning her £11 10s, she was also paid 2s per night for the “Extra ditto [Night Nurse],” earning her an additional £8 2s.²⁰⁴ Jane Wilson signed for her pay using an ‘x’

Britannica: The Royal Navy's Anti-Slavery Patrol in the Caribbean, 1828-1848,” *The Northern Mariner* 16(1) (2006), 2.

¹⁹⁸ TNA, T 71/452, 96.

¹⁹⁹ TNA, ADM 102/89.

²⁰⁰ TNA, ADM 102/89; The Matron at both Bermuda and Haslar Naval Hospitals received the same annual salary of twenty-five pounds. “Admiralty: Naval Hospitals' and Hospital Ships' Musters, and Miscellaneous Journals. Hospital Muster Books, &c. Haslar: pay lists 1819” TNA, ADM 102/397.

²⁰¹ Lempriere, *Practical observations on the diseases of the army in Jamaica*, 285.

²⁰² TNA, ADM 102/12 “Antigua (Pay Lists),” 1806-1816; TNA ADM 102/54 “Barbadoes servants & 'negroes',” 1814-1816; TNA ADM 102/55 “Barbadoes (Pay Lists),” 1806-1816.

²⁰³ TNA, ADM 102/128.

²⁰⁴ TNA, ADM 102/128.

as her mark, like many other women who worked as nurses at Plymouth and Haslar naval hospitals. However, the phrasing of her reason for pay “hire of a Night Nurse,” and the fact that she was paid for the additional work of another person suggests that she was not paid for work as a nurse, but for finding someone else to do the work. Nonetheless, given the perceptions of immunity and the labour market of the islands, this person was probably Black and could also have been enslaved.

Conclusion

The use of Black nurses in the West Indian military and naval hospitals responded to both a perceived and a real need for nursing labour in what for many was a harsh disease environment. These nurses provided the care so desperately needed by sick soldiers and sailors, while their work operated within the framework of eighteenth-and early-nineteenth century understandings of race and immunity. As the attempts to employ European nurses when Jamaica Naval Hospital first opened showed, gender was the overarching consideration when employing nurses for military or naval hospitals. The work of the nurses required the combination of domestic skills like cleaning and ventilation with patient care, activities that medical practitioners viewed as distinctly and naturally the purview of women. However, within the Caribbean environment both the gender of the nurse and a racialised immunological perspective, Black women in the West Indies were the ideal nurses.

Within the stratified labour market of the islands, elite settler women were not perceived as possessing the requisite domestic skills to be employed as nurses.²⁰⁵ The same plantation economy that eliminated elite settler women from consideration for employment in hospitals also

²⁰⁵ Any non-elite women, who would have likely had the domestic skills required who were available to be employed in naval hospital were seen as lacking the required racialised immunity to tropical diseases.

contributed to the decision of urban slave owners to hire out their slaves to naval hospitals. The employment of enslaved nurses represented an economic benefit to their owners, and their work was seen as suitable to their sex and the labour market of the islands. Although it was never explicitly discussed as such, the economic gains of the urban slave owners in hiring out their slaves, male and female, would have also led to savings for the Royal Navy. It was, to use a modern idiom, a win-win for the owners and the Royal Navy, if not a financial gain for the women. This study of Black nurses adds another dimension to the familiar tale of Black bodies and Black labour benefitting White rule in the West Indies.

CHAPTER FOUR: Hospital and Household: Plymouth Naval Hospital 1775-1815

Introduction

Nurse Joanna Sullivan was discharged from Plymouth Naval Hospital on 31 July 1799 for “selling liquor in the Wards.”¹ But twelve days later she was rehired, and continued working until 5 September.² Sullivan's partner in illegal alcohol provisioning, nurse Elizabeth Matthews, was also discharged on 31 July but never worked in the hospital again. Additionally, Matthews was effectively banished by hospital administrators from what had been her dwelling place for the past five years.³ A clue to the rationale behind the decisions to rehire Sullivan but not Matthews might lie in the nurses' service history. Sullivan began her nursing work in September 1793 and had worked almost constantly for the following seven years until her discharge.⁴ Matthews did not begin her service until two years later, during which period she worked continually for the next five years.⁵ The treatment of these two employees of Plymouth Naval Hospital suggests that previous experience was more valuable to hospital administrators than strictly following of regulations. The prioritization of experience over obedience was also typical of masters and mistresses of households.

¹ Captain T. Gillespie, “Typed Transcripts of the Private Minutes & Memoranda of the Governor of the Royal Hospital Plymouth 1795-1799” National Maritime Museum, TRN/3, [hereafter cited as NMM, TRN/3], 190. “Plymouth: pay lists 1798-1799,” The National Archives, ADM 102/689.

² TNA, ADM 102/689.

³ TNA, ADM 102/689.

⁴ There was a gap between 3 October 1797 and 16 April 1798. “Plymouth: pay lists, 1794-1797,” TNA, ADM 102/688 and ADM 102/689.

⁵ TNA, ADM 102/688-689.

Interpreting the operation of naval hospitals as an extension of household management practices helps bring to the fore the lived experience of nurses like Sullivan and Matthews. Treating hospitals as households, writ large, explains how these institutions responded to naval needs, and highlights the complexities of running a late-eighteenth century naval hospital. Labour organization within eighteenth century hospitals purposefully mirrored that of larger English households: the Hospital Governor assumed the role of the patriarch or Master, the Matron that of the housekeeper or Mistress, and the nurses the domestic servants. Clinical naval hospitals were mega households where multiple factors — patient numbers, external pressures, and nursing ability and experience — interacted and influenced who was and who was not suitable for the important work of caring for the sailors of the British state. At times of high patient numbers, less desirable nursing candidates would be kept on only if they could continue to provide care, while times of peace or lower patient numbers meant higher nursing standards and a very low turnover in the nursing workforce. Plymouth and Portsmouth's Haslar hospitals attended to the medical needs of seamen within what were in fact large-scale domestic spaces, where the hearth acted as the social centre of the ward, affective bonds established through grouping sailors together by symptom, and common tasks such as cleaning were viewed as preventative medical measures.⁶

According to the 1808 *Instructions for the Royal Naval Hospitals at Haslar & Plymouth*, the hospital workforce was divided between medical officers and “Labourers, Nurses, or Other

⁶ The name of Plymouth Naval Hospital was changed to Stonehouse in the nineteenth century. The use of Plymouth in this paper reflects the name used by contemporaries in their correspondence and regulations. Elliot Arthy, *The Seaman's Medical Advocate* (London, 1798), 66-67; Robert Jackson, *An Outline of the History and Cure of Fever, Endemic and Contagious* (Edinburgh, 1798), 9-11; Alison Bashford and Claire Hooker, “Introduction: contagion, modernity and postmodernity,” in *Contagion: Historical and cultural studies*, Alison Bashford and Claire Hooker eds. (London, 2001), 9-10.

Servants.”⁷ Drawing on hospital regulation books, medical treatises, journals, and correspondence, this chapter considers the organization of work at Plymouth Naval Hospital along the lines of a household. Examining this institution within a domestic framework uncovers the influence of class, gender, and professionalization in the interactions of civilian servants, particularly nurses, and the medical or naval officers who governed and managed the hospital. The household model of hospital management also highlights the power of nurses over the mini-households of individual hospital wards. Nurses not only dispensed medicines, and maintained cleanliness and order within the wards, but also were responsible for locking the door at night.⁸ This responsibility reinforced nurses' dual roles as both landlady who controlled access to the ward space and medical provider to sailor-patients. Such a dual role was familiar to civilians and naval personnel within early modern Britain, which promoted a common understanding of the hierarchical relations between nurses and hospital administrators.⁹

Wards, and indeed the hospital as a whole, were deliberately configured as a household. Those in charge of Plymouth Naval Hospital, whether the Hospital Council or, after 1795, the Governor Richard Creyke, regularly filed “Hospital accounts,” including a “Household book.” This book included tradesmen's bills, disbursements, and the assembled ward books which detailed the expense of coals, beer, and wine to the various wards. Hospital administrators also

⁷ *Instructions for the Royal Naval Hospitals at Haslar and Plymouth*, (London: The Philanthropic Society, 1808), TNA, ADM 106/3091, 26.

⁸ For nurses' duties see: *Instructions for the Royal Naval Hospitals at Haslar and Plymouth*, 203-205.

⁹ Leigh Whaley, *Women and the Practice of Medical Care in Early Modern Europe, 1400-1800* (Houndsmills, Hampshire, 2011), 150-152; Andrew Wear, *Knowledge and Practice in English Medicine, 1550-1680* (Cambridge, 2000). This would also have been familiar to sick and wounded seamen who had previously been quartered in private homes. “Evan Nepean for Admiralty to Commissioners for Sick and Wounded,” three enclosures discussing state of private sick quarters at Liverpool, “Sick and Hurt Board, In-Letters and Orders 1797-1798,” NMM, ADM/E/46. See also Matthew Neufeld and Blaine Wickham, “The State, the People and the Care of Sick and Injured Sailors in Late Stuart England,” *Social History of Medicine* 28.1 (2015): 45-63.

described the institution as a household.¹⁰ Defending his own conduct as head Physician, and Haslar Hospital as a whole, James Johnston blamed the size of the hospital-household for its problems. He wrote in 1794 that he was “well aware that there are many defects in the Hospital and some must ever remain, for in such an immense fabric with three hundred Servants, and now near fifteen hundred Patients perfection in all its parts cannot be looked for.”¹¹ As suggested above, nurses, washerwomen, butlers, labourers, and other non-medical officers were all considered as servants of the hospital. Many hospital employees lived in the hospital, with nurses residing either in “Nurse cabins” in the wards or more commonly in attic garret rooms.¹² The hospital had all the markers of an early modern household: it was a site of production and consumption, a unit of residence, and a site of governing authority.¹³

Some historians have argued that the household was the universal model through which contemporaries conceived of medical care.¹⁴ For example, Deborah Harkness' discussion of London hospitals in the Elizabethan era directly compared the role of Matron to an “Elizabethan housewife within the home.”¹⁵ Like the naval hospitals two hundred years later, the Matron and the nursing sisters at St. Bartholomew's and St. Thomas' hospitals lived within the walls.¹⁶ Even

¹⁰ “Instructions to Mr. George Mottley Agent to the Royal Hospital at Haslar,” 1795. TNA, ADM 1/3533, articles 22 and 24.

¹¹ “James Johnston to Sick and Hurt Board,” 8 August 1794, TNA, ADM 1/3533.

¹² “General plans of [Plymouth] hospital 1796,” TNA, ADM 140/321-3; “Plan of Portsmouth Harbour showing proposed docks, embankment, Haslar Hospital,” c. 1780, NMM, ADM/Y/P/57; “Plan of the proposed hospital at Haslar,” no date, NMM, ADM/Y/P/116; “Design for Hospital for the Navy at Gibraltar,” 1734, NMM, ADM/Y/G/51. Extending chimneys through nurses' attic rooms at Haslar was proposed in 1794. “George Poore to Admiralty,” 31 August 1794, TNA, ADM 1/3533.

¹³ Keith Wrightson, *Earthly Necessities: Economic Lives in Early Modern Britain* (New Haven and London: Yale University Press, 2000), 45.

¹⁴ Wrightson, *Earthly Necessities*, 296-297; Roy Porter described eighteenth-century medicine particularly surgery as a “household-centred micro-economy.” Roy Porter, “William Hunter: A Surgeon and a Gentleman,” in *William Hunter and the Eighteenth Century Medical World*, W. F. Bynum and Roy Porter, eds (Cambridge: Cambridge University Press, 1985), 34.

¹⁵ Deborah Harkness, “A View From the Streets: Women and Medical Work in Elizabethan London,” *Bulletin of the History of Medicine*, 82(1) (2008), 74-76.

¹⁶ Harkness, “A View From the Streets,” 74-76.

within the institutionalised settings of poor hospitals and workhouses, basic care work was firmly in the hands of women who were viewed, both by society in general and medical practitioners in particular, as having by nature of their gender the requisite skills for medical work through their training in household work.¹⁷ Historian Mary Fissell characterised women as “central to health and healing before 1800.”¹⁸ This idea was tied to women's body work within their or their employers' households, whether small or large.¹⁹ Considering the naval hospital as a large household reinforces the centrality of women's work in the provision of naval health care within the fixed space of the ward and connects their domestic labour within the hospital to the interests of the fiscal-military state.²⁰

Women's work at naval hospitals was reflected within this large assortment of source material generated by the hospitals and the Royal Navy. However, we lack a comparable amount of source material produced by nurses themselves. A prosopographical approach compensates for this imbalance and permits a richer and more nuanced analysis of nurses and nursing in naval hospitals. This method allows for the study of the common characteristics of a particular group, often quite large, in this case nurses. Much of this chapter's analysis is based on naval hospital pay lists on which the Royal Navy recorded at monthly intervals its hospital personnel and their pay. Pay lists indicate start and end dates for employment, sick leave, and limited biographical

¹⁷ R. Michael James, “Health care in the Georgian household of Sir William and Lady Hannah East,” *Historical Research* 82(2) (2009), 706. Whaley, *Women and the Practice of Medical Care*, 2.

¹⁸ Mary Fissell, “Introduction: Women, Health, and Healing in Early Modern Europe,” *Bulletin for the History of Medicine* 82(1) (2008), 1.

¹⁹ Fissell, “Introduction,” 6. Jennifer K. Stine, “Opening Closets: The Discovery of Household Medicine in Early Modern England,” (PhD Diss., Stanford University 1996), 13. Men were also involved in such roles either by necessity or interest in the practice of medicine. Elaine Leong, “Collecting Knowledge for the Family: Recipes, Gender and Practical Knowledge in the Early Modern English Household,” *Centaurus* 55 (2013), 84; Lisa Smith, “The Relative Duties of a Man: Domestic Medicine in England and France,” *Journal of Family History* 31(3) (2006), 237-56.

²⁰ Amanda Flather, “Space, Place, and Gender: The Sexual and Spatial Division of Labor in the Early Modern Household,” *History and Theory* 52 (2013), 346.

information.²¹ This mostly quantitative data was entered into an online database. I used SQL queries to collect details about nursing careers: the typical length of employment, the percentage of discharges, and the number of sick days. These kinds of statistics also reveal how quickly the hospital reacted to outside influences, such as rapid mobilisation at the beginning of a war or the aftermath of major battles. In an approach similar to that used by Sue Hawkins in *Nursing and Women's Labour in the Nineteenth Century*, I merge qualitative information from letters and reports with particular case studies to demonstrate the effects of the needs of the state on individual nurses and to underscore how these necessities often meant bending official regulations.²² The survival of the Memoranda Book and Private Minute Book of Governor Creyke from 1795-1799, allowed me to focus my analysis on Plymouth and forgo an examination of Haslar (Portsmouth) hospital.²³ The combination of quantitative data and case studies allows me to consider the nursing occupation at naval hospitals as a whole and to reconstruct the hospital household. The analysis underscores the significance of these women to the functioning of the hospital, while providing a nuanced understanding of nursing's collective enterprise through the work of individual nurses.

²¹ For more on the growth and importance of military see Erica Charters, "L'histoire de la quantification: la guerre franco-anglaise et le développement des statistiques médicales," *Dix-huitième siècle* 47.1 (2015), 30-31.

²² Sue Hawkins, *Nursing and Women's Labour in the Nineteenth Century: The Quest for Independence* (London, 2010), 9-10.

²³ Pay list records for Plymouth begin in July 1777 and I have chosen to end my analysis in December 1799. "Plymouth: pay lists, 1777-1779," TNA, ADM 102/683, "Plymouth: pay lists, 1780-1781," TNA, ADM 102/684, "Plymouth: pay lists, 1782-1784," TNA, ADM 102/685, "Plymouth: pay lists, 1784-1788," TNA, ADM 102/686, "Plymouth: pay lists, 1789-1794," TNA, ADM 102/687, TNA, ADM 102/688-89. The database contains 18784 distinct entries for 1419 individuals including nurses, washerwomen, linen menders, cooks, and assistant cooks.

Ward and Hospital Design

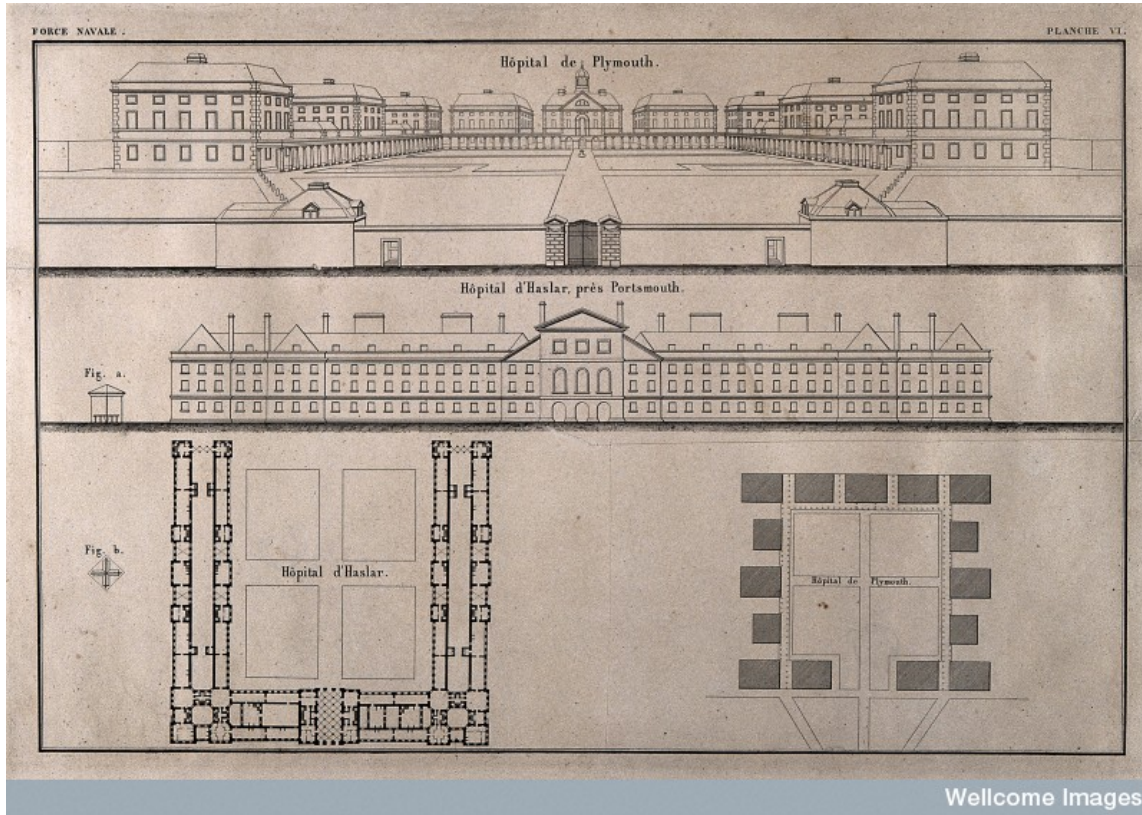


Figure 1: “Naval hospitals at Plymouth and Haslar Point, near Portsmouth: facades and plans.”
VOO14697 Wellcome Library

Plymouth was perhaps the best suited of the eighteenth century naval hospitals to have individual wards that could be described as households because its wards were distinct rather than interconnected.²⁴ The ward as a household worked due to its construction in the pavilion block style. The entrance for each of the ten ward buildings opened onto a vestibule with stairs, a shared water closet and sinks. Doors to both wards opened off the vestibule allowing for the use of a shared a central chimney between them.²⁵ Philanthropist and prison reformer John Howard

²⁴ For discussion on the importance of the threshold and controllable access to the household see Amanda Vickery, *Behind Closed Doors: At Home in Georgian England* (New Haven and London: Yale University Press, 2009), 27-29.

²⁵ Christine Stevenson, *Medicine and Magnificence: British Hospital and Asylum Architecture, 1660-1815* (New Haven and London, 2000), 182-183; P. D. Gordon Pugh, *History of the Royal Naval Hospital Plymouth* (London, 1794), 20.

(c. 1726-1790) believed Plymouth's design was “in several respects singular,” as it permitted “a freer circulation of air, as also of classing the several disorders, in such manner, as may best prevent the spread of contagion.”²⁶ This layout also created close, intimate spaces. At Plymouth, ward access was restricted to the main door off the vestibule, which acted like the front door of a home. At Haslar, wards were joined together by a series of connecting doors, which meant that the separation of patients was harder to maintain. In a 1797 letter to the Admiralty, Surgeon Thomas Trotter traced a smallpox epidemic on the HMS *Mars* to patients discharged from Haslar. He suggested that the fault for this outbreak lay not with the care that these men had received, but with “the construction of the Naval Hospital to admit this disease within the roof with other Patients.”²⁷ In other words, the wards did not stop the spread of disease from one group of patients to another. In response, the Admiralty ordered the connecting doors between smallpox and other wards to be bricked up — a cheaper and equally effective means to stop the disease spreading than Trotter’s proposal of a separate building for infected patients.²⁸ Although the Sick and Hurt Board and the Admiralty were cognisant of the importance of the health and speedy recovery of their seamen, and were especially worried about contagious disease, the naval healthcare system was financed exclusively with public money, and new building construction was particularly costly, especially during a conflict.²⁹ Naval administrators recognised that only so much could be done, and what could be done had to be cost-effective.

Within both naval hospitals, individual wards were strictly organized by medical officers. Patients were grouped according to their symptoms or diseases. Those who were most

²⁶ John Howard, *The State of Prisons in England and Wales, with Preliminary Observations, and an Account of Some Foreign Prisons and Hospitals, Third Edition* (London, 1784), 389.

²⁷ “Thomas Trotter to Evan Nepean,” 20 August 1797, NMM, ADM/E/46.

²⁸ “Admiralty to Sick and Hurt Board,” 28 September 1797, NMM, ADM/E/46.

²⁹ “Admiralty to Sick and Hurt Board,” 9 June 1794, NMM, ADM/E/45.

contagious were placed on the top floors, while those with surgical or non-contagious diseases resided on the middle floor. The ground floor was for convalescent patients who would benefit from the supervised walkways around the hospital.³⁰ From at least 1804 patients were split into surgical and physical wards.³¹ There is also an indication that this separation was in place earlier as a nurse was discharged when she refused to be transferred to a surgical ward on 2 June 1796.³² Within all these divisions patients were also classed by rank. Petty officers and Midshipmen would complain to the Sick and Hurt Board if they could not be housed in a ward suitable to their station; they often petitioned to be housed outside the hospital in private sick quarters.³³ Grouping men by symptom and rank encouraged a sense of home and ship-board-like regularity. The 1808 *Instructions* codified this admitting practice in their stipulation to both Physicians and Surgeons: “that you are not to place Officers in the same ward or cabin, who are not accustomed to mess and associated together on board His Majesty's Ships; nor Officers, nor other persons, who walk the quarter deck, in the same ward with inferior Patients.”³⁴ Furthermore, medical practitioners grouping patients together by similar symptoms and stages of healing probably created social bonds through the simple acts of eating and commiserating about their conditions together. In the strictest definition used by Samuel Johnson in his *Dictionary of the English Language* from 1755, the ward acted as a “family” because its inhabitants lived in the same

³⁰ Howard, *State of the Prisons*, 389-390; Stevenson, *Medicine and Magnificence*, 182.

³¹ “Return of Officers at sick quarters, and Men received in, or discharged from the Royal Hospital, at Haslar between the 24th and 31st Decr 1803” [this and similar hereafter: “Return of Officers ... Haslar between 24th and 31st Decr 1803] and “Return of Officers ... Plymouth between 6th and 13th of January 1804,” TNA, “Letters from Haslar and Stonehouse Naval Hospitals 1801-1805,” ADM 1/3534.

³² NMM, TRN/3, 40.

³³ NMM, TRN/3, 70. See also “Robert Young and George Kellir to Admiralty,” enclosed in “William Marsden to Sick and Hurt,” 15 May 1797, NMM, ADM/E/46 and “James Johnston to Admiralty,” 8 August 1794, TNA, “Letters from Haslar and Stonehouse Naval Hospitals 1793-1800,” ADM 1/3533.

³⁴ *Instructions for the Naval Hospitals at Haslar & Plymouth*, 56, 89.

household.³⁵ Despite being regularly in motion, patients who had spent time in the same ward often retained the ties they had made there. For example, the escape of two men from their ward on 9 July 1797 was, according to them, not to run from the hospital but to “talk with their friends at the window of another building.”³⁶ The validity of the men's claims can be questioned, but their story was still deemed probable, and the matter was closed without punishment.

Populating wards by sailors’ symptoms or diseases, as well as their progress toward health, meant that the mini-household of the ward was in a constant state of flux. A report from Haslar in July 1780 described the sick-in-motion:

No ward has the same Men in it for 2 days together: When a Man recovers in a Fever Ward he is immediately sent to a convalescent one, if he relapses he is sent back to a Fever Ward, not perhaps to the one he came from but to whatever Ward there may be a vacancy in: the same continual Fluctuation happens in Chronic and Surgery Wards, so that in the course of one Month a Man may have passed through 5 or 6 Wards.³⁷

This system of ward management was seen by medical practitioners as best medical practice in the late-eighteenth and early-nineteenth centuries even if it caused increased work for the Agent and Steward of the hospital. Justification for moving the sick from ward to ward was two-fold. First, it prevented “overcrowding,” the largest and most easily-prevented threat to medical care.³⁸ Second, this method allowed nurses to develop specialized skills, even if these skills were acquired only through on-the-job training. Nurse Jane Butler, for instance, was discharged from

³⁵ Naomi Tadmor “The Concept of the Household-Family in Eighteenth-Century England,” *Past & Present* 151(1) (1996): 112-113; Naomi Tadmor, *Family and Friends in Eighteenth-Century England: Household, Kinship, and Patronage* (Cambridge: Cambridge University Press, 2001), 19;

James, “Health care in the Georgian household,” 697.

³⁶ NMM, TRN/3, 94.

³⁷ “Report of the Commissioners for Sick and Wounded Seamen &ca. upon the Remarks made upon a Visitation of the Royal Hospital at Haslar the 13th. of May 1780,” [hereafter: “Visitation of the Royal Hospital at Haslar”] TNA, ADM 98/13.

³⁸ For more on crowding see “Visitation of the Royal Hospital at Haslar,” ADM 93/13; “John Snipe to Admiralty,” enclosed in “Evan Nepean to Commissioners for Sick & Wounded &c,” 27 March 1797, NMM, ADM/E/46; Stevenson, *Medicine and Magnificence*, 156.

the hospital on 2 June 1796 when she “refused to be transported to a Surgical Ward.”³⁹ She was rehired in January 1797 and does not reappear in Creyke's Memoranda Book, suggesting that she did nothing during her continued service worthy to remark upon.⁴⁰ The division of nurses into the broad categories of physical and surgical, and the fact that the hospital establishment was then carrying extra nurses on their books at the request of the physicians and surgeons, demonstrates that nurses were valued by the medical officers for distinct skills.⁴¹ Surgical nurses likely had a greater facility in wound care and the after-effects of limb amputation, while physical nurses were more proficient in dealing with fever care.

However, the divisions by wards were not always well received by those in charge of administering the naval medical system. Wards not filled to capacity were seen by some naval officers as an unnecessary expense to the government. Physician and Inspector of Hospitals, Andrew Baird, responded to such charges by the Admiralty in 1803 by reiterating the necessity of avoiding overcrowding and maintaining sufficient nurses to care for the patients:

an unnecessary expense seems also to have been incurred in Coal and Candle by keeping only seven or eight Patients in a Ward capable of holding twenty but as I feel it is right to keep Patients as little crowded as possible, I have directed and request you will enforce that placing of fourteen in each Ward capable of holding twenty, by which the number of Wards will be considerably reduced and the nurses to each Ward will afford the Patients a nurse constantly by them.⁴²

A certain number of wards also needed to be left empty to allow nurses and labourers to thoroughly clean, fumigate, and ventilate them before the reception of more patients.⁴³ This process of “shifting” the wards was seen as important for the promotion of healing in the

³⁹ NMM, TRN/3, 40; TNA, ADM 102/688.

⁴⁰ TNA, ADM 102/688.

⁴¹ “Return of Officers ... Plymouth between 6th and 13th of January 1804,” TNA, ADM 1/3534.

⁴² “Andrew Baird to Sick and Hurt Board” 10 April 1803, TNA, ADM 105/20.

⁴³ “Haslar Hospital Observations” no date likely 1795 NMM, “Medical: Observations, memoranda and abstract 5 docs. ca. 1778-1805,” MID/7/4

hospital. When an influx of patients prevented fumigation, it raised great alarm.⁴⁴ For example, Governor Yeo believed that Haslar was not ready to receive patients in case of emergency in October 1796, “because there is not sufficient Wards left open to be properly Ventilated and shifted.”⁴⁵ Belief in the importance of shifting extended beyond medical officers and hospital administrators. In his comments on a report concerning the “...most Effectual methods of Reforming the Defects in the Present mode of Conducting Naval Hospitals,” Comptroller of the Navy Admiral Charles Middleton wrote: “Haslar Hospital is capable of containing Two thousand one hundred sick, but it ought never to receive more than Eighteen Hundred that a sufficient number of Wards may be empty and aired to receive, and Shift the Sick into ~ this is of the utmost consequence to the mens recovery.”⁴⁶ The pervasiveness of the idea of ward shifting and popular understandings of the dangers of overcrowding ensured that despite the extra cost these measures incurred, they were deemed a necessary public expense to keep the number of sailors out of service due to illness as low as possible.⁴⁷ Manning concerns partly dictated how care at the hospital was managed.

While shared patient experiences within the hospital probably generated a sense of community, the ward itself was designed to promote a sense of home; feelings of homeliness and comfort were thought to promote healing and recovery. The instructions stated that, “Sickness generally depresses the spirits,” and in order to combat this mentality physicians and nurses were “to sooth and cheer [seamen's] minds by the most humane attention.”⁴⁸ Such expressions of

⁴⁴ “William Yeo to Admiralty” 15 April 1797, NMM, ADM/E/46.

⁴⁵ “William Yeo to Admiralty, 15 April 1797, NMM, ADM/E/46.

⁴⁶ “Observations on the Causes of the Sickness ...” NMM, MID/7/4; Roger Morriss, ‘Middleton, Charles, first Baron Barham (1726–1813)’, *Oxford Dictionary of National Biography* (Oxford, 2004).

⁴⁷ Overcrowding in prisons was discussed in a similar way. Philippa Hardman, “Fear of Fever and the Limits of the Enlightenment: Selling Prison Reform in Late Eighteenth-Century Gloucestershire,” *Cultural and Social History* 10(4) (2013): 527. For overcrowding on ships see: “John Snipe to Admiralty,” 22 March 1797, enclosed in “Evan Nepean to Commissioners for Sick and Hurt,” 27 March 1797, NMM, ADM/E/46.

⁴⁸ *Instructions for the Royal Naval Hospitals at Haslar & Plymouth*, 56.

“consolatory kindness,” would it was hoped “naturally inspire [the sick] with confidence, exhilarate [sic] their spirits, and add to their hope of recovery, to which it cannot fail to contribute.”⁴⁹ Medical officers believed that the environment of the ward, and its sense of home and comfort, could not help but facilitate speedy recovery. Each ward possessed a hearth to provide light and heat, and to produce patient comforts such as hot drinks. Indeed, the hearth was central to the Georgian conception of home. As historian Amanda Vickery has described: “The hearth became a metonym for domesticity, encapsulating both a sense of emotional core and life-sustaining warmth.”⁵⁰ Furthermore, patients ate together, which promoted a sense of community similar to that on their ships. Even the process of collecting provisions was a communal activity. Hospital regulations allowed for one patient to accompany the ward nurse to witness the collection of ward provisions for the day.⁵¹ Nurses would then distribute patients' food either to their beds or, for convalescent wards, around a table. Eating together was a healing activity at the hospitals.

Some sailors were quite content to stay in hospital on shore rather than return to their ships or be sent to the convalescent ships anchored in the harbour. Governor Yeo wished to send those patients who had been riotous or disorderly to a convalescent ship, “no Punishment at this Place being equal to some of their Offences, and none they so much dread as turning them out of the Hospital to that Ship.”⁵² This action indicates that some patients at least would have much rather stayed in the comfort of the hospital. Yet, in the aftermath of the Spithead mutiny of early 1797, the request to move riotous men out of the hospital could also have been an attempt to

⁴⁹ *Instructions for the Royal Naval Hospitals at Haslar & Plymouth*, 56.

⁵⁰ Amanda Vickery, “An Englishman's Home is His Castle? Threshold, Boundaries and Privacies in the Eighteenth-Century London House,” *Past & Present* 199 (2008), 153.

⁵¹ “Instructions to Hospital Agent,” 1795, TNA, ADM 1/3533, article 19.

⁵² “William Yeo to Evan Nepean,” 6 July 1797, TNA, ADM 1/3533.

avoid further unrest within Haslar, but this was never explicitly stated by Yeo.⁵³ As the naval hospitals provided comforts often associated with domestic life, which would have provided motivation for the seamen to remain in the hospital, wards acted as mini-households within the larger household of the hospital. Importantly, these mini-households were primarily overseen not by a naval officer, but by a civilian female nurse.⁵⁴

Servants of the Hospital

The stipulations of employment for nurses were very similar to those of a large civilian household with live-in domestic servants. They included the provision that nurses would have to request permission to leave their station.⁵⁵ For example, nurse Mary Littlejohns was granted leave on 29 March 1796, to “attend her sick daughter.”⁵⁶ Pay list records show that Littlejohns was checked, or withheld, two days' pay and was back to work on 1 April.⁵⁷ Hospital administrators seem to have been quite compassionate granting permission for requests for leave, as in the case of nurse Mary McDonald. When she extended her leave in December 1796 by an extra night without permission, Creyke forgave her “on account of her young children and general good character.”⁵⁸ Administrators evidently recognized that there was more to the nurses' lives than their work at the hospital.

⁵³ The Spithead mutiny was a labour stoppage or strike action by sailors anchored in the Spithead mooring area. Although there were other factors that contributed to this political action, pay grievances, especially as the last pay increase for ordinary seamen was in the seventeenth century, were a primary concern for the “long-serving able seamen and senior ratings,” that led the mutiny. Ann Veronica Coats and Philip MacDougall, “Introduction, Analysis and Interpretation,” in *The Naval Mutinies of 1797: Unity and Perseverance*, eds. Ann Veronica Coats and Philip MacDougall (Woodbridge, Suffolk: The Boydell Press, 2011), 15. See also N. A. M. Rodger, *Command of the Ocean: A Naval History of Britain 1649-1815* (New York: W. W. Norton, 2006), 445-450.

⁵⁴ Nurses' direct overseers were also not medical officers, but the hospital Matron. *Instructions*, 204; “Instructions for the Matrons of Haslar Hospital,” 2 April 1794, TNA, ADM 1/3533.

⁵⁵ *Instructions for the Royal Naval Hospitals at Haslar & Plymouth*, 8.

⁵⁶ NMM, TRN/3, 32.

⁵⁷ The term 'chequed' was used in pay list records to signify both unpaid leave and the withholding of pay for days worked as a punishment. TNA, ADM 102/688.

⁵⁸ NMM, TRN/3, 63.

Nurses were also cared for in ways similar to domestic servants while they were employed at the hospital.⁵⁹ They were not allowed to contract for their own medical care, which was to be supplied by their employer.⁶⁰ Hospital regulations stated that if nurses and other servants became sick they could be received into a sick ward for up to thirty days for cure.⁶¹ After this time, if they were still ill, the hospital governor needed permission from the Sick and Hurt Board to allow them to remain. Governor Creyke repeatedly made such requests on nurses' behalf, which were often granted by the Board.⁶² Medical provisions were, when necessary, extensive, as the cases of Jane Nicoloi and Mary Pierce at Haslar illustrate. Both nurses had "from the Dressings of Some of the Seamen had Each a hand Poisond So as to have them Cutt of."⁶³ Upon their recovery, the women petitioned the Sick and Hurt Board to continue their work at the hospital. They were supported by Dr. Robert Dodds who had performed their operations.⁶⁴ Between July 1777 and December 1799, pay lists show that Plymouth paid out 14,350 sick days to 451 individual nurses. In addition to medical care and Half Pay, sick nurses continued to receive provisions from the hospital stores and were to be entered in the household book as patients.⁶⁵ As the case of Susanna Butters of the Hospital Ship *Le Canton* (January and February 1798) shows, sick nurses from other naval establishments also could be entered into the hospital.⁶⁶ Nurses were cared for by their employers, as well as caring for the sailors.

⁵⁹ James, "Health care in the Georgian household," 697.

⁶⁰ Catherine Crawford, "Patients' Rights and the Law of Contract in Eighteenth-Century England," *Society for the Social History of Medicine* 13.3 (2000), 382.

⁶¹ NMM, TRN/3, 85.

⁶² NMM, TRN/3, 85. Spare nurses were kept on hand to do the work of those nurses who were sick. "Instructions for the Matrons of Haslar Hospital," 2 April 1794, TNA, ADM 1/3533. TNA, ADM 102/682-689.

⁶³ "Phillip Stephens to Commissioners of the Sick and Hurt Board," Enclosure 29 September 1778, NMM, ADM/E/42.

⁶⁴ "Robert Dodds to Sick and Hurt Board," 2 October 1778, NMM, ADM/E/42.

⁶⁵ "Instructions to Agent," TNA, ADM 1/3533, article 23.

⁶⁶ TNA, ADM 102/689; Established as a hospital ship see "Admiralty to Sick and Hurt Board," 15 January 1794, NMM, ADM/E/45.

Extreme circumstances, such as the explosion of the HMS *Amphion*, could also cause sick and injured women to enter the hospital. Creyke recorded how on 6 September 1796, “A woman being brought to the Hosp. much hurt by the blowing up of the *Amphion* was from motives of humanity received and sent into a ward by the Asst. Surgn. attending at the receiving room, and from the same motive directed by me to be entered as a Nurse and sent into the Sick Nurses ward.”⁶⁷ Pay lists show her to be Jane Stockdale, who remained in the hospital as a nurse in name only for six weeks, until 20 October.⁶⁸ There is no indication in Creyke's Memoranda Book of him informing the Admiralty or the Sick and Hurt Board of Stockdale's admittance. Nor is there any mention of the incident in the surviving records. The motives of humanity mentioned above may have kept him from doing anything, such as informing those above him in the chain of command, which might have jeopardised Stockdale's recovery by causing her to be removed from the hospital.⁶⁹

Humanity and an obligation to reward nurses for their long service also was evidenced in cases of superannuation. Pay list records show that three nurses, Elizabeth Archer, Honor Palmer, and Margaret Rogers were kept in the hospital on Half Pay when medical officers deemed that they were no longer capable of duty.⁷⁰ Archer, who was placed on half pay at the end of January 1784, remained in the hospital for three and a half years until her death on 6 November 1787.⁷¹ Palmer and Rogers were both recommended for Half Pay in 1795 by Dr. Farr for “constant services in this Hospital for 15 years and upwards and in his opinion deserving of

⁶⁷ NMM, TRN/3, 54.

⁶⁸ TNA, ADM 102/688.

⁶⁹ For more motives of humanity in caring for servicemen during war see: Erica Charters, *Disease, War, and the Imperial State: The Welfare of the British Armed Forces during the Seven Years' War* (Chicago and London, 2014) and civilians see: Erica Charters, Eve Rosenhaft and Hannah Smith, “Introduction,” in *Civilians and War in Europe 1618-1815*, Erica Charters, et al eds. (Liverpool, 2012), 4-5.

⁷⁰ TNA, ADM 102/683-89.

⁷¹ TNA, ADM 102/686.

superannuation.”⁷² In fact, naval policy stipulated that Half Pay was to be granted only for services longer than twenty years. Creyke noted that this requirement was unreasonable and that “there will be scarce one in a Century benefitted by it.” He passed Dr. Farr's recommendation on to the Sick and Hurt Board for review.⁷³ The Board agreed that the nurses should receive both Half Pay and an “Allowance of Provisions.”⁷⁴ Pay lists show that both nurses were placed on Half Pay on 1 November.⁷⁵ Medical officers’ and hospital administrators’ concern for persons could, it appears, trump naval policy when it was deemed just by the Sick and Hurt Board.

Palmer's and Rogers's experiences as nurses at Plymouth were quite remarkable. Palmer was already a nurse at the hospital when the available pay list records began in July 1777, and was the only remaining nurse from 1777 still employed in the hospital when she was granted Half Pay in 1795. Furthermore, she worked consistently the entire time, with only short leaves of absence in December 1777, October 1778, and October 1790.⁷⁶ Nor did Palmer receive any sick pay, except for 23 days in September 1795, two months before she received superannuation.⁷⁷ The hospital was very much her home and it would remain so until her death on 28 December 1798.⁷⁸ With a start date of 1 September 1779, Rogers's pre-Half Pay career was almost as long as Palmer's. However, she fell sick sooner (April 1795) and became another example of a nurse who was kept in the hospital for cure past thirty days. Yet in this case, remaining in hospital was not likely to lead to a recovery due to her advanced age. Rogers’s stay in the hospital and the treatment she received were not likely to result in any benefit to the hospital by her return to

⁷² NMM, TRN/3, 8.

⁷³ NMM, TRN/3, 8.

⁷⁴ “Evan Nepean to Sick and Hurt,” 22 October 1795, NMM, ADM/E/45.

⁷⁵ They carry the notation: “On Half Pay from 1 Novr. 1795 Agreeably to A Letter to Govern & Council 28 Oct 1795.” TNA, ADM 102/688.

⁷⁶ TNA, ADM 102/683-89.

⁷⁷ TNA, ADM 102/683-89.

⁷⁸ TNA, ADM 102/689.

nursing work. This case again demonstrates that motives of humanity could co-exist with the pecuniary interests of the hospital and the navy. Rogers remained on the hospital books from June until October 1795, though her pay had ceased on 17 May. How long she continued sick after being placed on Half Pay is unclear, yet she was still present in the pay list records in December 1799. The cases of Palmer and Rogers suggest that the hospital was a long-term home for many nurses. Plymouth was also the final resting place for the fifty-nine nurses who died during their service.⁷⁹

In one final and unfortunate way, nurses were also like domestic servants in that they could be targets for violence and abuse.⁸⁰ An unnamed nurse at Haslar Hospital in June 1797 was severely beaten by James Murray, a patient and “an old Offender,” from the HMS *Puissant*.⁸¹ In Governor Yeo's account to the Sick and Hurt Board he described the incident, which occurred

the day after his [Murray's] return to the Hospital [he] constantly followed one Nurse, wanting her to go out with him, and endeavoured to get into her Cabin, which because she refused he beat her about the Arms and Loins with his Crutch in a most cruel manner, so as to lay her up. Mr. Stephenson complained of it to me, I sent for him and when asked how he could be such a Rascal to beat a Woman, his immediate answer, 'she deserved it.'⁸²

Murray was confined in a “Mad Cell” for his actions, though shortly after he was transferred into a Fever Ward.⁸³ On 13 February 1806 an anonymous letter was sent to the Transport Board (which had taken over the operation of the Naval Hospitals), accusing the First Surgeon of Plymouth, Mr. Cairns, with misconduct.⁸⁴ Although the anonymous letter does not survive,

⁷⁹ TNA, ADM 102/683-689.

⁸⁰ Laura Gowing, *Domestic Dangers: Women, Words, and Sex in Early Modern London* (Oxford, 1996), 251-252. Kristina Straub, *Domestic Affairs: Intimacy, Eroticism, and Violence between Servants and Masters in Eighteenth-Century Britain* (Baltimore, 2009), 12.

⁸¹ “William Yeo to Sick and Hurt” 17 June 1797, TNA, ADM 1/3533.

⁸² “William Yeo to Sick and Hurt,” 17 June 1797, TNA, ADM 1/3533.

⁸³ “William Yeo to Sick and Hurt,” 3 June 1797, TNA, ADM 1/3533.

⁸⁴ “Carins to Transport Board,” 2 March 1806, TNA, “Letters from Haslar and Stonehouse Naval Hospitals 1806-1811,” ADM 1/3535.

Cairns' response does — as do the transcripts of interviews between Baird and the hospital staff. When questioning nurse Elizabeth Craven, Baird asked, “Did you see Mr. Cairns go into the Nurses Cabbin, or take any improper liberties with Nurse Panton, such as pulling down the Bed Clothes, and putting his hand on her breast, or did she strike him on the face?”⁸⁵ Although Craven and the other nurses questioned asserted that they never saw anything untoward, unwanted sexual advances appear to have been among the charges against Cairns. Another incident in which it is unclear whether the sexual relationship was consensual or forced, concerns nurse Mary Mahany. She was discharged from Plymouth on August 1, 1799 for “sleeping with a patient.”⁸⁶ Termination of employment for having sexual relations within the hospital was common in non-naval institutions in the early modern period and licentious early modern nurses were a useful foil to chaste nineteenth century ones.⁸⁷ However, unlike the London hospitals in the Elizabethan period, or later institutions based on the Nightingale model, there was no prohibition on married women working and living at Haslar and Plymouth. Two nurses, including Ann Brown whose pay list record states “lately Called Swell but now Married,” were married during their tenure as nurses at the hospital with their names being altered on the pay list records.⁸⁸ Eighteenth-century hospitals had no problem with nurses who were sexually active within the bond of matrimony.

The Fluctuating Household

The number of staff working at the naval hospital household, including medical officers, fluctuated according to patient numbers. Responding to a report on Haslar hospital made in

⁸⁵ “The Examination of Elizabeth Craven, Nurse of the 55th Ward, on certain charges contained in an Anonymous Letter dated February 13th 1806, against Mr. Cairns first Surgeon, and others, belonging to the said Hospital,” 27 February 1806, TNA, ADM 1/3535.

⁸⁶ NMM, TRN/3, 190; TNA, ADM 102/689.

⁸⁷ Harkness, “Women and Medical Work,” 77; Hawkins, *Nursing and Women's Labour*, 5.

⁸⁸ TNA, ADM 102/687.

1780, the Commissioners for Sick and Wounded Seamen outlined their staffing policy as follows:

And We would remark that the Number both of Surgeon's Assistants and of Dispenser's has always been fluctuating: when the Hospital is full the Number required by the Physicians, Surgeons and Dispenser is given; when the Hospital thins We do not immediately displace them, but We do not fill up the Vacancies which happen by Death, Promotion or otherwise until the Hospital again fills.⁸⁹

With the ratio of one Assistant Dispenser to every two hundred patients, it is no surprise that their numbers fluctuated more slowly than the numbers of nurses, which had initially a one nurse to every ten patients ratio.⁹⁰ The same principle of staff reductions tied to patient levels was applied to all members of the hospital household. Not only did the number of staff vary according to patient numbers, provisions did as well. “The quantity as well as the quality of the meat, milk, and vegetables, may be seen in the Victualling Room and by the daily victualling Book every morning, the quantity is ascertained by the number of Patients, if more be sent then the precise ration while daily calculated, the contractors have no objection to have the articles left for the next days consumption.”⁹¹ The Haslar report also mentioned that such a staffing policy could also result in difficulties obtaining the required level of help, as in the case of washerwomen for Haslar, where there were not enough numbers willing to work for three shillings a week.⁹² An insufficient number of washerwomen also was blamed for the inability of

⁸⁹ “Report of the Commissioners for Sick and Wounded Seamen &ca. upon Remarks made upon a Visitation of the Royal Hospital at Haslar the 13th. of May 1780,” TNA, ADM 98/13.

⁹⁰ According to visits to the hospital by Tenon and Howard this ratio was initially 1:10 or two nurses per every ward that held twenty men. Jacques Tenon, *Mémoires sur les Hôpitaux de Paris* (Paris, 1788); Howard, *The State of Prisons*, 390. The first mention a ratio of 1 :7 in regulations was in a directive to Haslar Naval Hospital on 27 December 1802, and followed a visit of St. Bartholomew’s, St. Thomas’s, and Guy’s hospitals in London. “Instructions and Precedents,” TNA, ADM 98/105, 84. The regulation was official changed for Plymouth as well in the 1808 *Instructions for Royal Hospital at Haslar & Plymouth*, 10.

⁹¹ G. Cleather Enclosure 1” 25 July 1803, TNA, ADM 1/3534.

⁹² “Report of the Commissioners for Sick and Wounded Seamen &ca. upon Remarks made upon a Visitation of the Royal Hospital at Haslar the 13th. of May 1780,” TNA, ADM 98/13.

hospital staff to shift men as often as they desired, since they could not procure enough clean and dry linen.⁹³

There was no mention of the number of nurses to be employed in the Governor's initial instructions from 1795, suggesting that hiring practices should have reflected the 1:10 ratio of previous instructions from the Sick and Hurt Board. However, the ratio of nurses to patients as gathered from the available reports between 1795 and 1799, and 1804, evidently fluctuated between 1:4 and 1:9.⁹⁴ Higher numbers of patients to nurses occurred when there was a rapid increase in patients, as in January 1797, where the first 1:9 ratio appeared.⁹⁵ The hospital was understandably slower to respond to rapid patient increases. For example, on 7 January there were 358 patients in the hospital and 664 one week later.⁹⁶ Pay list records show that the first new nursing hires after the patient increase did not enter the hospital until 15 January.⁹⁷ Conversely, patient ratios of 1:4 were more likely to appear following a rapid patient reduction, as occurred in June 1799. On June 1, there were 733 patients and 115 nurses at Plymouth. By June 29, there were 436 patients and 96 nurses representing a nurse/patient ratio of 1:4.5.⁹⁸ Indeed, nurse/patient ratios for the rest of the year hovered around 1:5 despite minor patient number fluctuations. The fewer patients that each nurse was required to care for meant in theory a better quality of care was available to the sick and injured men, helping return them to their

⁹³ "Report of the Commissioners for Sick and Wounded Seamen &ca. upon the Remarks made upon a Visitation of the Royal Hospital at Haslar the 13th. of May 1780," TNA, ADM 98/13.

⁹⁴ NMM, TRN/3; "Return of Officers at Sick Quarters, and Men received in, or discharged from the Royal Hospital, at Plymouth between 6th of January and the 13th of January 1804" and "Return of Officers at Sick Quarters, and Men received in, or discharged from the Royal Hospital, at Plymouth between 13th of January and the 20th of January 1804," and "Return of Officers at Sick Quarters, and Men received in, or discharged from the Royal Hospital, at Plymouth between 20th of January and the 27th of January 1804," and "Return of Officers at Sick Quarters, and Men received in, or discharged from the Royal Hospital, at Plymouth between the 7th and 16th of March 1804," and "Return of Officers at Sick Quarters, and Men received in, or discharged from the Royal Hospital at Plymouth between the 23d of March and the 30th of March 1804" ADM 1/3534.

⁹⁵ NMM, TRN/3, 66-70; TNA, ADM 102/688.

⁹⁶ NMM, TRN/3, 66-67.

⁹⁷ TNA, ADM 102/688.

⁹⁸ NMM, TRN/3 184, 187.

ships and the British war effort faster. Ward divisions also could lead to carrying more nurses on the hospital books, as two nurses were to be employed in every ward even if that ward was not full.

Several factors influenced the number of nurses retained in the hospital at any given time. Considerations included the skill they possessed, a belief that patient numbers would probably increase again, or the request of physicians and surgeons. For example, Dr. Geach asked that an additional nurse be employed in the 55th Ward in October 1795. This request had seemingly been approved by Creyke, as he notes in his *Private Minutes and Memoranda* book: “Sent to the Steward to know why an additional Nurse had not been employed in the 55th Ward when Dr. Geach had represented her services were required.”⁹⁹ Following the Steward's reiteration of “the standing regulations of the Hospital no more than one nurse is allowed to 10 patients,” Creyke directed that a nurse be taken from another ward in order to fulfil Geach's request.¹⁰⁰

Furthermore, each of the 1804 Reports carries the phrase “The Extra Nurses kept by desire of the Physicians & Surgeons,” a rationale to the Sick and Hurt Board for the employment of nurses in excess of the 1:10 ratio.¹⁰¹ This connection also is seen when nurse numbers responded to increases and decreases in the number of patients. For example, as regulations stipulated a 1:7 nurse to patient ratio, from 7-14 January 1797 the number of nurses jumped from 46 to 73.¹⁰² That such a high nurse-patient ratio existed demonstrates how crucial their work was to the proper functioning and cleanliness of the hospital. Furthermore, despite the fluctuations in the total number of nurses, a core group of nurses continually worked at the hospital sometimes for

⁹⁹ NMM, TRN/3, 10.

¹⁰⁰ NMM, TRN/3, 10.

¹⁰¹ “Return of Officers at Sick Quarters, and Men received in, or discharged from the Royal Hospital, at Plymouth between 6th of January and the 13th of January 1804,” TNA, ADM 1/3534.

¹⁰² TNA, ADM 102/688.

ten to fifteen year stretches. Indeed, eight nurses worked at the hospital for longer than fifteen years, including Palmer and Rogers during their superannuation; thirteen nurses worked between ten and fourteen years, and thirty-eight worked between five and nine years.¹⁰³ Despite 183 out of 1288 nurses working only working one month or less, the relative stability of experienced nurses almost certainly allowed for institutional memory – specifically the transfer of knowledge and skills – to be maintained even in a fluctuating work environment.¹⁰⁴ The employment of a core group of nurses with key skills and knowledge allowed the hospital to heal hundreds of men despite an ever changing workforce, both in terms of number and content.

The Surgeon of the Hospital Ship *Argonaut* also requested the Admiralty authorise the employment of additional nurses: “I have to request you will please to make application to the Lords Commissioners of the Admiralty to have one more [nurse] added to the establishment, as the Hospital is divided into four Wards it becomes necessary to have one to each Ward.”¹⁰⁵ Additionally, the Admiralty gave permission to allow an extra nurse to be employed on another Hospital Ship the *Spanker* at the request of their surgeon George Shibbald, in April 1798.¹⁰⁶ Yet this nurse was to be discharged as soon as she was no longer needed on board if patient numbers decreased.¹⁰⁷

By 1808, the navy’s printed *Instructions* for the hospital laid out a specific policy for nursing numbers that was to be enforced by the Hospital Governor. “You [the Governor] are to take care that no more Nurses be employed than at the rate of one to every seven Patients; unless in case of emergency, and where the nature of their diseases shall require it.”¹⁰⁸ Interestingly,

¹⁰³ TNA, ADM 102/683-689.

¹⁰⁴ TNA, ADM 102/683-689.

¹⁰⁵ “H Weekes to Phillip Hue,” 5 May 1797, NMM, ADM/E/46.

¹⁰⁶ “Evan Nepean to Sick and Hurt,” 12 April 1798, NMM, ADM/E/46.

¹⁰⁷ “Evan Nepean to Sick and Hurt,” 12 April 1798, NMM, ADM/E/46.

¹⁰⁸ *Instructions for the Royal Naval Hospital at Haslar & Plymouth*, 10.

rather than forcing the hospital establishment to conform to an order from above, these instructions represent a reflection of the realities of hospital life. In other words, both the Sick and Hurt Board, and after 1806 the Transport Board, were responsive to the requests of the hospital administration both for more nurses when required and the flexibility to determine, within reason, their own staffing needs.

Charting the number of nurses employed at Plymouth between 1777 and 1799 demonstrates the degree to which their role and employment were tied to the demands of the naval service. In other words, war created nursing employment and economic opportunities for women.

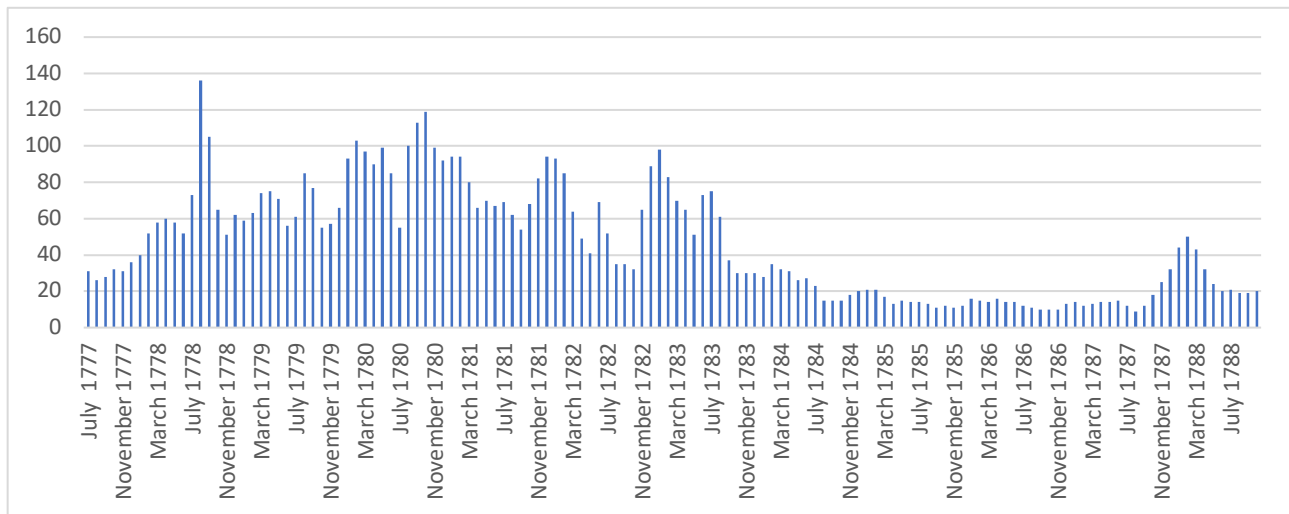


Figure 2: Number of nurses at Plymouth July 1777-October 1788

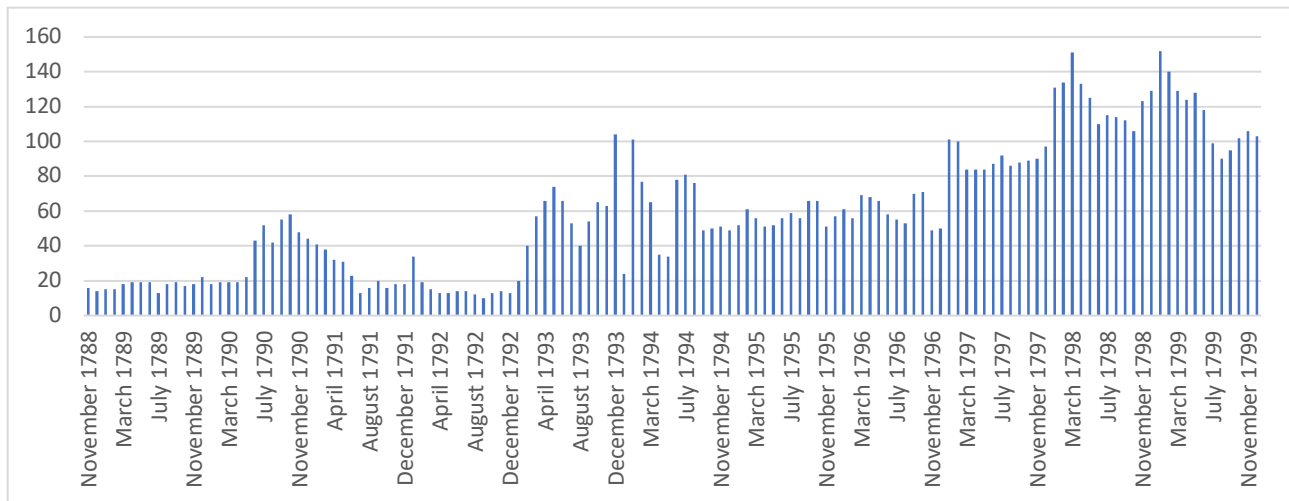


Figure 3: Number of nurses at Plymouth November 1788-December 1799

These charts show how the number of nurses remained high during the American Revolutionary War, with patient and therefore nursing numbers increasing and decreasing in a cyclical nature. The highest annual seasons of sickness, lasting from November to March, coincided with the wettest time of year and the return of ships to Britain from the Caribbean and North American fleets. There was a sharp reduction following the end of the war in 1783 and the reduction of British Naval operations overseas. Naval officials, in the post-American Revolution period, were particularly concerned with maintaining the smallest hospital, dockyard, and supply expenses possible in times of peace to save money.¹⁰⁹

The start of war in 1793 saw another sharp jump in nursing numbers from a peacetime establishment of 27 in February 1793 to 75 the following month. In the aftermath of the large battle of the Glorious First of June in 1794, another jump occurred, from 47 nurses in May to 104 in July, and then 109 in August. Plans for executing a peace time reduction of hospital staff at

¹⁰⁹ “Charles Middleton to Admiralty,” 1791, draft, NMM, “Letters from Charles Middleton to the Admiralty Office,” MID/2/54.

both Haslar and Plymouth were also discussed in 1801 following Nelson's victory at the Battle of Copenhagen and negotiations for the Peace of Amiens.¹¹⁰

Although the number of nurses and other hospital staff was principally tied to the number of patients in the hospital and the needs of the Navy, other factors including stealing, drunkenness, misconduct, malpractice and disobeying orders could result in nurses' discharge and the need to find a replacement. Letters to the Sick and Hurt Board indicate that intoxication was the primary concern of naval hospital management towards nurses.¹¹¹ For example, a report from Deal in 1780 proclaimed that “the Hospital Nurses have been frequently drunk & that they have made it a common practice to carry Spiritious Liquors into the Hospital which the Serjeants have taken from them.”¹¹²

Unfortunately, it is impossible to determine how many nurses were discharged or docked pay for drunkenness using pay lists alone since they do not contain the reason for the pay lost or discharge. Yet matching the information found in the pay lists with Creyke's journals reveals not only how many nurses he reported as either drunk or accused of bringing liquor into the hospital, but also makes it possible to infer why certain nurses were discharged for their offences while others were simply docked their pay. Length of a nurse's previous employment in the hospital and times of increased patient numbers were more likely to mean a decision to dock pay rather than discharge the nurse.

During the period of Creyke's journal (August 1795 to October 1799), 607 women were discharged from the hospital.¹¹³ Of these, 18 were discharged for drunkenness and another 7

¹¹⁰ “William Yeo to Evan Nepean,” and enclosure, 18 December 1801, TNA, ADM 1/3534.

¹¹¹ *Instructions for Royal Naval Hospitals at Haslar & Plymouth*, 204; “Remarks made on an Examination of the Royal Hospital at Haslar,” 17 June 1794, NMM, ADM/E/45; “Sick and Hurt to Richard Creyke,” 14 August 1795, NMM, ADM/E/45; “William Yeo to Sick and Hurt,” 28 March 1799, TNA, ADM 1/3533.

¹¹² “Proceedings of a Regimental Court of Enquiry held by order of Major Travis Marsh as Deal 20th Feb. 1780,” enclosed in “Admiralty to Commissioners for Sick and Hurt,” 10 March 1780, NMM, ADM/E/42.

¹¹³ TNA, ADM 102/688-89.

were discharged for attempting to bring liquor into the hospital.¹¹⁴ These sorts of discharges represented approximately four percent of the discharges at the hospital. Furthermore, women discharged for liquor related offenses in this period had only worked an average of 6.76 months before their discharge, with the majority of nurses working less than five months before being discharged. Furthermore, discharges for drunkenness commonly occurred during a time of staff reduction, suggesting that if these women were liable to be drunkards early in their service it was only after the needs of the hospital and State had diminished that it was deemed necessary to discharge them. For instance, Sarah Ravencroft, was discharged for “repeated drunkenness,” on December 24, 1798.¹¹⁵ She had been working at the hospital for more than a year since December 2, 1797, without her pay being checked.¹¹⁶ Yet, by December 15, 1798 the number of patients in the hospital had fallen below 570 for the first time since November 17th.¹¹⁷

Extenuating factors often influenced the Governor’s decision either to discharge or to be lenient with nurses accused of drinking. On December 2, 1795 Creyke received a report that nurse Catherine Edmonds “returned much intoxicated into the Hospital last night.”¹¹⁸ Edmonds was neither discharged nor fined for her infraction. Instead “The Matron and officers of the Hospital having interceded for the pardon of the Nurse,” Creyke forgave her “this time on account of her former good conduct in her station.”¹¹⁹ A month later on January 7, 1796, Edmonds was given a week's leave from the hospital to attend her sick husband.¹²⁰ At the end of her week's leave, on January 14th, Creyke noted, “Cathe. Edmonds having petitioned for longer leave to attend her dying husband I directed the Postman to enquire into the truth of her story at

¹¹⁴ NMM, TRN/3; TNA, ADM 102/688-89.

¹¹⁵ NMM, TRN/3, 163; TNA, ADM 102/689.

¹¹⁶ TNA, ADM 102/688-89.

¹¹⁷ NMM, TRN/3, 158, 162.

¹¹⁸ NMM, TRN/3, 15-16.

¹¹⁹ NMM, TRN/3, 16.

¹²⁰ NMM, TRN/3, 20; TNA, ADM 102/688.

Plymouth.”¹²¹ Although Edmonds was never mentioned again in his Memoranda Book, pay lists show that she returned to work on January 20th and would continue to work at the hospital until her discharge on March 5, 1797. It is possible that she was forgiven because of her extenuating circumstances (her husband's sickly condition) as well as her capacity to nurse. Her discharge in March 1797 did coincide with a time of large patient numbers in the hospital and a high nurse to patient ratio, with one nurse for every 9.48 patients.¹²² With such a high demand for nursing care it is unlikely that the hospital would choose to discharge a capable nurse unless Edmonds' work had suffered following the death of her husband.

In addition to the compassion shown to Edmonds by the hospital's managers, there were also nurses who returned to work despite having been discharged for bringing liquor into the hospital. Pay list records show that the nurse, unnamed by Creke, discharged for attempting to bring in liquor on October 27, 1796, was either Dorothy Craggs or Mary Moring.¹²³ Both women returned to work in the hospital in January 1797, after the number of patients in the hospital had jumped from 358 to 664 between January 7 and 14th.¹²⁴

¹²¹ NMM, TRN/3, 21; TNA, ADM 102/688.

¹²² NMM, TRN/3, 76.

¹²³ NMM, TRN/3, 57; TNA, ADM 102/688.

¹²⁴ NMM, TRN/3, 66-67; TNA, ADM 102/688.

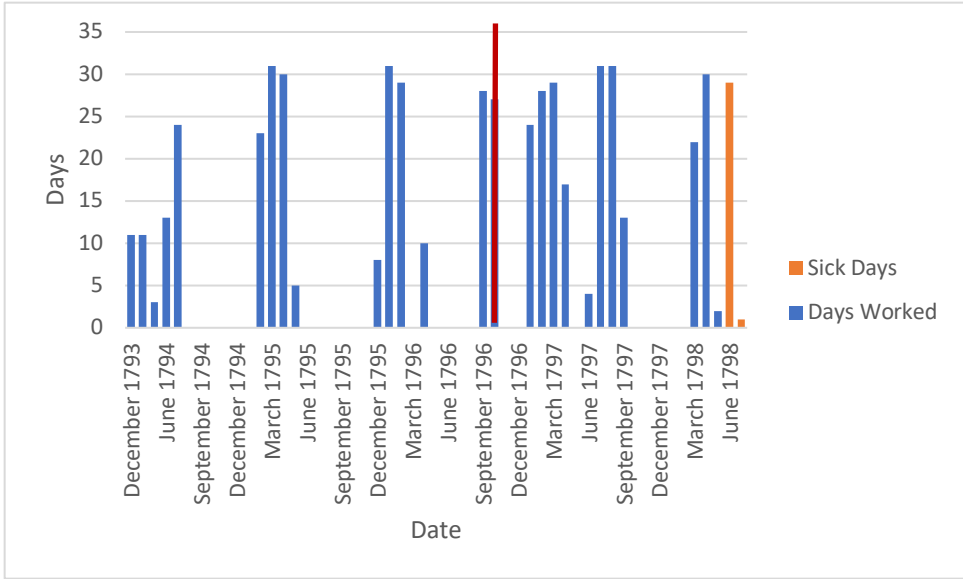


Figure 4: Career of nurse Dorothy Craggs. Time of discharge marked by red line.

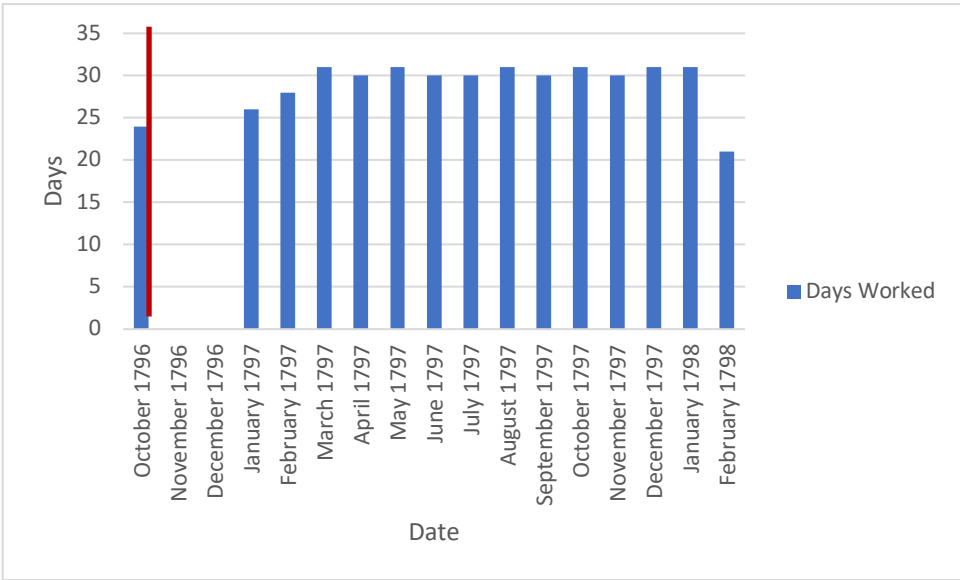


Figure 5: Career of nurse Mary Moring. Time of discharge marked by red line.

It is probably the case that Moring and not Craggs was the one discharged for attempting to bring in liquor. She was mulcted (stopped) two day's pay on February 21, 1798 for

drunkenness.¹²⁵ Pay list records show that she was also discharged on February 21st, and it is probable that these events were related.

The possible repeat offences of Moring demonstrate why the 1808 *Instructions* contained the provision:

[I]f any of the Labourers, Nurses, or other Servants, should behave so as to make it improper to continue them in their employments, you are, on being convinced of the fact, to discharge them, and to enter others in lieu, observing, that all persons so discharged are to be reported to the Commissioners aforesaid, with your reasons for the same, and those discharged for misconduct are never to be again employed in, or even permitted to enter the Hospital, on any pretence whatever.¹²⁶

The rehiring of nurses previously accused of offenses was quite common. Mary Yeo was twice discharged and rehired. Creyke originally discharged her in order to make an example of her. The first discharge, for improper behaviour on September 11, 1795, was specifically meant to be an example to the other nurses. Creyke wrote: “Upon further complaint of the Nurses improper behaviour yesterday evening I have directed that she shall be discharged, As the number without her will be sufficient and an example of severity may prevent much irregularity and disorder in future.”¹²⁷ This discharge appears to represent a clear attempt by Creyke to assert his authority as Governor only two months after his appointment. However, Yeo did not take the warning to heart and was discharged for a second (and final) time for bad conduct on 23 February 1797.¹²⁸

¹²⁵ NMM, TRN/3, 123; TNA, ADM 102/689.

¹²⁶ *Instructions for the Royal Naval Hospital at Haslar & Plymouth*, 3-4.

¹²⁷ Creyke had previously received a complaint about her conduct on September 10th. NMM, TRN/3, 5.

¹²⁸ NMM, TRN/3, 75; TNA, ADM 102/688.

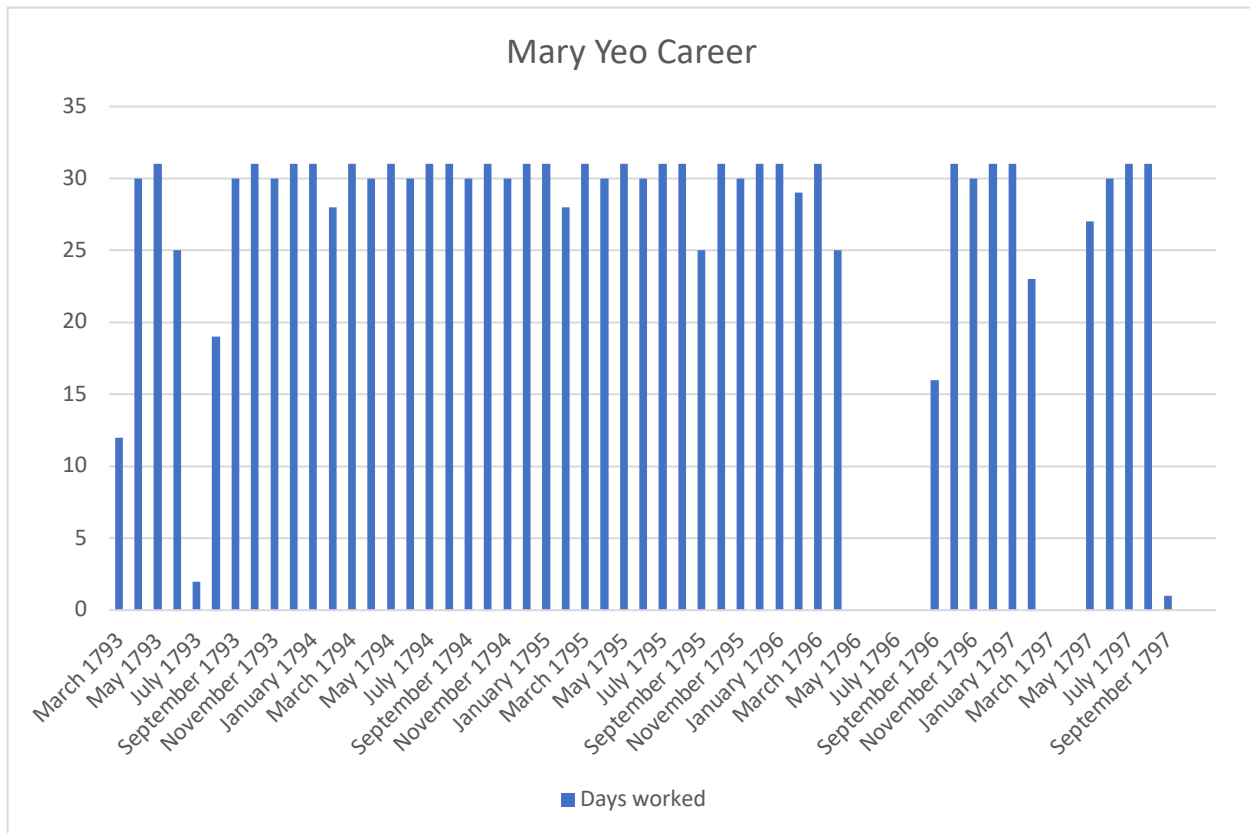


Figure 6: Nurse Mary Yeo's Career at Plymouth Naval Hospital. Discharges marked by red lines.

If Yeo's first discharge was meant to serve as a warning, it was weakly enforced. She returned to duty at the hospital on September 18th, just one week after her discharge.¹²⁹ The time between her second discharge and rehiring was longer. She did not return to work until May 5th, just over two months later.¹³⁰

Nurses were also discharged for serious medical infractions. Two nurses, Dorothy Clist and Sarah Isaac, were “to be discharged for malpractices,” on 26 September 1798.¹³¹ Although details about these malpractices were not recorded, the use of the word malpractice signified a

¹²⁹ TNA, ADM 102/688.

¹³⁰ TNA, ADM 102/689.

¹³¹ NMM, TRN/3, 153.

medical failing rather than a disciplinary one. The timing of Clist and Isaac's discharges, during a period of high patient numbers, indicates that whatever the specifics of their malpractices they were far more grievous than drunkenness or insubordination. Neither nurse worked in the hospital again.¹³² Known medical infractions among the nursing staff included neglect of duty. Nurse Ann Hanover was discharged on 18 June 1798 for this offence, only six months after her entry into the hospital.¹³³ Again, although specifics of her case were not stated by Creyke, the phrase 'neglect of duty', like malpractice, had medical rather than disciplinary connotations. Instructions for medical staff frequently referred to 'duty' as the provision of medical needs.¹³⁴ Similar language was used by the Sick and Hurt Board to discuss care work in naval hospital regulations. The Governor's instructions from the Board stated that "the wards are frequently visited at uncertain times in the course of the day ... for the purpose of keeping the Nurses and other Attendants on the sick, strictly on their duty, and seeing that the Patients be, at all times, treated with that attention and kindness, so necessary for the comfort and consolation of men languishing under pain and sickness," and that the Governor was to ensure that the nurses followed such practices.¹³⁵ Nurses' medical work, the work of body care, therefore was considered to be a duty.

Internal frictions over following instructions, and in some instances over medical decisions, also led to nurses being docked their pay and even discharged from service. Rachel Arnott began her nursing career in December 1787. She worked regularly but not continually until April 1797. Arnott returned to the hospital in January 1798 and would work until December 1799, the end of the analysis period. In addition to being yet another example of a

¹³² TNA, ADM 102/689.

¹³³ NMM, TRN/3, 140; TNA, ADM 102/689.

¹³⁴ *Instructions for the Naval Hospitals at Haslar & Plymouth*, 47.

¹³⁵ *Instructions for the Naval Hospitals at Haslar & Plymouth*, 16-17.

person who entered and left the hospital on a regular basis as Figure 7 below demonstrates, she also had a frequent history of being checked pay. For example, in December 1798 she was docked two day's pay for “disrespect to the Matron.”¹³⁶ Although further details on the rationale for this disrespect are not known, it is likely that Arnott's comparatively long history at the hospital – she had worked at the hospital longer than Matron Eleanor Richardson – might have made her feel that her experience as a nurse permitted her to dispute with the Matron.¹³⁷ Arnott also was checked of pay between February and April 1794, most notably the entire month of March.¹³⁸ There is no explanation for this listed on the pay list records. Shorter periods of being docked pay were used to provide leaves of absence under Creyke, and it is possible that Arnott was simply granted an extended leave in this case. That she continued to work in the hospital for what remained of 1794 without interruption suggests that the rationale for her docked pay was not to do with an offence so egregious as to have her discharged from service.

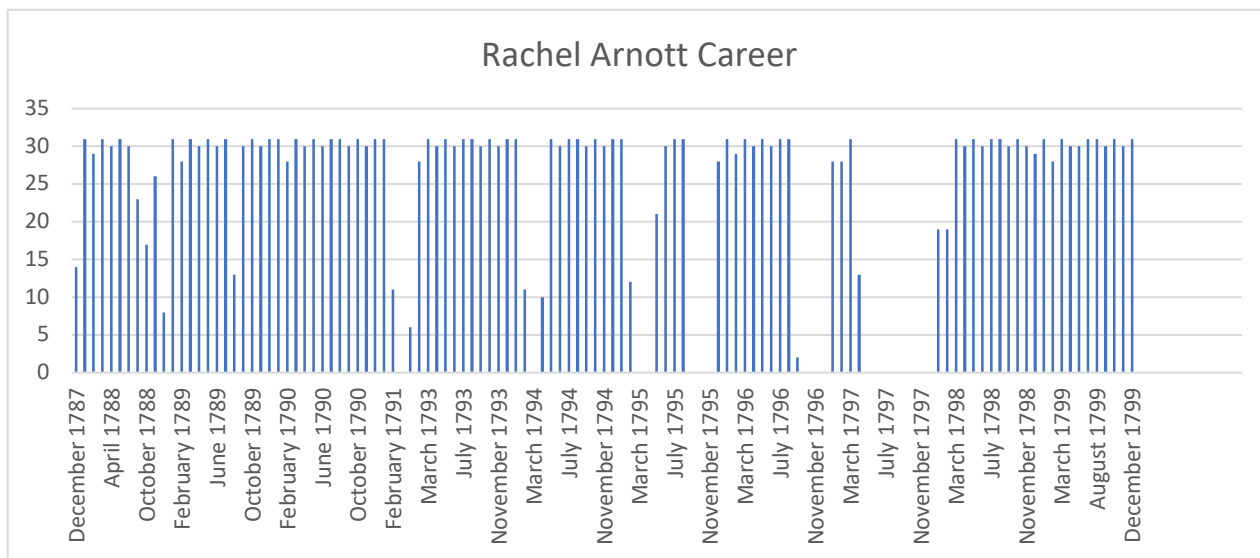


Figure 7: Career of nurse Rachel Arnott at Plymouth Naval Hospital.

¹³⁶ NMM, TRN/3, 162; TNA, ADM 102/688.

¹³⁷ Eleanor Richardson was the Second or Assistant Matron. She first appeared in the pay list records in September 1788. TNA, ADM 102/686.

¹³⁸ TNA, ADM 102/687.

Inexperienced nurses received the worst punishment. For example, nurses who were docked pay for disobeying orders commonly had worked at the hospital for less than a year.¹³⁹ Often, as in the case of Susanna Richardson and Mary Thomas, they did not have a history of steady work at the institution. Thomas was docked pay on 5 December 1797, while Richardson and another nurse, likely Elizabeth Gusgett, were docked one day's pay on 20 December 1797 for "breach of orders."¹⁴⁰ The three nurses had all entered the hospital in 1797: Thomas in January, during a rapid increase in patients, Gusgett in May, and Richardson in July. Their disobedience could have been due to poor screening, since they entered the hospital during a period of rapid growth in patient numbers when the hospital struggled to adapt and when reviewing applicants was likely to be less stringent. It could also have been that the heavy workload throughout the year had resulted in frayed interpersonal relations. December was also a month of increased discipline in the hospital, since that was the time when servants were more likely to relax and celebrate the festive season. For instance, when Nurse Elizabeth Craven was asked to remember the visit of First Surgeon Cairns to the 55th Ward on Christmas Eve 1805, she stated that she remembered the circumstances so vividly because "being Christmas [E]ve, we thought that after he was gone, we could make more free to enjoy ourselves."¹⁴¹ That greater liberties may have been taken during the Christmas season was expected. Washerwomen were even given the holiday off.¹⁴²

Despite these examples of discharge for infractions, nurses were just as likely to be praised and financially rewarded for their work as they were to be punished. Thirty-one times in

¹³⁹ TNA, ADM 102/688. The nature of these orders, especially whether they were medical or naval is unclear. Yet, owing to the nature of contact between medical officers and nurses it is more likely that they were medical orders.

¹⁴⁰ NMM, TRN/3, 112, 115; TNA, ADM 102/688.

¹⁴¹ "The Examination of Elizabeth Craven, Nurse of the 55th Ward, on certain charges contained in an Anonymous Letter dated February 13th 1806, against Mr. Cairns first Surgeon, and others, belonging to the said Hospital," TNA, ADM 1/3535.

¹⁴² TNA, ADM 102/687.

his Memoranda Book Creyke used some variation on the phrase “Visited all the wards and found everything in good order.”¹⁴³ When Governor Yeo reported on losses and surpluses in the hospital stores in November 1802, he was careful to specify that “I however take the liberty to state that these loses do not appear to arise from carelessness in the Wards, or from those on charge of the Store Matron, for with them they have been found right.”¹⁴⁴ Even before the transition to having the hospitals under the charge of a resident naval Governor, James Johnston the head of Physician and Council, found in 1794 that “the Nurses in general are careful and attentive.”¹⁴⁵ He did acknowledge, however, that when employing “so great a number some are of a different complexion, but whenever they are found guilty of a misdemeanour they are immediately discharged.”¹⁴⁶ Nurses, like other employees, were mostly conscientious if not saints.

Nurses received financial compensation for their service when medical practitioners and naval officers were satisfied with their work. As early as 1780, visiting Admirals and Captains recommended that nurses at Haslar receive a pay increase.¹⁴⁷ The same report also recommended that nurses and washerwomen receive the same pay, indicating that both positions were equally regarded as essential services.¹⁴⁸ However, pay lists records from July 1780 to December 1781 show that there was no pay raise for nurses or washerwomen in the year and a half following the report.¹⁴⁹ Yet, by 1798, nurses at Haslar were making more per day than nurses at Plymouth. On 24 March, Creyke recorded in his Memoranda Book “Represented to the S&WBd. the propriety of advancing the pay of the Nurses of this Hosp. (now 3/6) to 5/- the same rate as the Nurses at

¹⁴³ NMM, TRN/3, 26.

¹⁴⁴ “William Yeo to Evan Nepean,” 17 November 1802, TNA, ADM 1/3534.

¹⁴⁵ “James Johnston to Sick and Hurt Board,” 8 August 1794, TNA, ADM 1/3533.

¹⁴⁶ “James Johnston to Sick and Hurt Board,” 8 August 1794, TNA, ADM 1/3533.

¹⁴⁷ “Remarks on Haslar,” 3 June 1780, NMM, ADM/E/42.

¹⁴⁸ “Remarks on Haslar,” 3 June 1780, NMM, ADM/E/42.

¹⁴⁹ “Haslar Pay Lists 1780-1781,” TNA, ADM 102/379.

Haslar.”¹⁵⁰ The Admiralty agreed to Creyke's proposal in a letter on 5 April.¹⁵¹ When this pay raise took effect on 9 April nurses were for the first time in the available pay records making more than washerwomen, and subsequently earned as much as the highest paid female servant, Elizabeth Drake the Cook.¹⁵² This pay raise could have been an attempt to retain the nurses currently on staff; however, this rationale is never discussed in the correspondence.

Domestic Medicine and Nurses' work

Nurses were not responsible for all domestic or preventative medical labour in the naval hospitals; rather this labour was divided among other workers such as labourers and washerwomen.¹⁵³ Washerwomen handled the washing of bed linens, but it was the ward nurses' responsibility to see that bedding was changed in a timely matter. It was understood that contagion could be imported into the ward through patient's clothes, bedding, and bodies, so before admission patients were to be bathed, and bedding and clothing confiscated and relegated to the Bed House.¹⁵⁴ Patients were to be clothed in hospital shirts, and only if there were not enough shirts were they allowed to remain in their own clothes.¹⁵⁵ If a man died in the ward of a disease that was deemed to be contagious, his clothing and bedding were to be burnt.¹⁵⁶ Naval officers also recommended in the 1794 report that nurses should also be in charge of the

¹⁵⁰ NMM, TRN/3, 128.

¹⁵¹ “Admiralty to Sick and Hurt Board,” 5 April 1798, NMM, ADM/E/46.

¹⁵² TNA, ADM 102/689.

¹⁵³ “Stephen to Sick and Hurt Board,” enclosure, 3 June 1780, NMM, ADM E/42.

¹⁵⁴ “Haslar Hospital Observations” no date likely 1795, NMM, MID/7/4.

¹⁵⁵ “Response to Visitation on Haslar Hospital,” TNA, ADM 1/3533

¹⁵⁶ “Remarks made on an Examination of the Royal Hospital at Haslar from 28th March to the 4th April 1794 both days included,” 9 June 1794, NMM, ADM/E/45.

fumigation lamps within the wards that had previously been the purview of the male medical assistants.¹⁵⁷

The quest to keep wards and patients clean, so as to avoid the spread or generation of contagion, was not an easy task, nor was it without danger. In 1808 Baird was asked by the Transport Board to enquire into the case of nurse Catherine Kelly who burnt her right hand while cleaning with limewash.¹⁵⁸ To avoid similar accidents in future, flannel cloths that had previously been used for applying lime white wash, were replaced with brushes. Kelly was awarded a pension of ten pounds per year for her injury.¹⁵⁹ Despite incidents such as that experienced by Kelly, female nurses were seen as innately able to do the work of nursing.¹⁶⁰

Cleanliness within the wards was not only important to the hospital, since contagion was believed to be transmitted from dirty clothes and bedding could also impact the Fleet. In August 1797, Dr. Thomas Trotter traced a smallpox epidemic on HMS *Mars* to dirty hospital bedding. John Jones, patient zero, had “complained of the offensive smell” of his bed sheets, while in hospital. They were quickly changed, and he was later sent back to his ship cured. However, “after being a few days at Sea” Jones’ smallpox appeared and he quickly died.¹⁶¹ Thus, while the ward served as a mini-household within the larger household of the hospital it was not isolated from the wider activities and environments of the Royal Navy.

¹⁵⁷ “Remarks made on an Examination of the Royal Hospital at Haslar from 28th March to the 4th April 1794 both days included,” 9 June 1794, NMM, ADM/E/45.

¹⁵⁸ “Andrew Baird to Transport Board,” 22 December 1808, TNA, ADM 105/21.

¹⁵⁹ “Andrew Baird to Transport Board,” 22 December 1808, TNA, ADM 105/21.

¹⁶⁰ Carol Helmstadter, “Class, gender and professional expertise: British military nursing in the Crimean War,” in *One Hundred Years of Wartime Nursing Practices, 1854-1953*, Jane Brooks and Christine E. Hallett eds. (Manchester: Manchester University Press, 2015), 24, 31.

¹⁶¹ “Thomas Trotter to Evan Nepean” 30 August 30, 1797, NMM, ADM/E/46.

Policing the Household

The hospital household was closely monitored. Patients and servants came and went, many of the former against their will as pressed men; consequently, access to and the spaces within the hospital were carefully controlled.¹⁶² Porters could and did deny entry to individuals, as in the case of the wives of two hospital labourers who had come to milk the surgeon's cows in July 1803.¹⁶³ The porters were required under their regulations to search servants and others who had entered the hospital when they left.¹⁶⁴ The Governor's 1795 instructions stated that "No Strangers are to be admitted within the Walls of the Hospital without your leave, unless they shall be the Friends of some of the Officers, who in that case are to be considered responsible for their conduct and no inferior Servants or Persons suspected of conveying any thing out of the Hospital are to be suffered to pass the Gate without Examination."¹⁶⁵ There were evidently good grounds for this. Nurses Dorothy Craggs and Elizabeth Bond were discovered stealing candles by the porter and were docked two days' pay for their offences on March 20, 1797.¹⁶⁶ Physical modifications to both Plymouth and Haslar hospitals, including placing bars on the windows and walls, was also regularly suggested by visiting inspectors.¹⁶⁷ For example, an examination, by

¹⁶² Numbers of pressed seamen varied according to labour market in port towns, but was likely around 44 percent during the Revolutionary and Napoleonic Wars. Nicholas Rogers, *The Press Gang: Naval Impressment and its opponents in Georgian Britain* (London, 2007), 5.

¹⁶³ "John Simpson et al to Richard Creyke," 25 July 1803. TNA, ADM 1/3534.

¹⁶⁴ "William Yeo to Admiralty," 21 January 1802, TNA, ADM 1/3534; "Remarks made on an Examination of the Royal Hospital at Haslar," 17 June 1794, NMM, ADM/E/45; *Instructions for the Royal Hospitals at Haslar & Plymouth*, 211-12.

¹⁶⁵ "Evan Nepean for Admiralty to William Yeo," August 14, 1795, NMM, ADM/E/45.

¹⁶⁶ NMM, TRN/3, 78. An unnamed nurse at Haslar was discharged during the visit of hospital inspectors when she was caught "secreting Phials of Medicine, supposed with an intent to Convey them out of the Hospital." "Remarks made on an Examination of the Royal Hospital at Haslar from the 28th March to the 4th April 1794," NMM, ADM/E/45

¹⁶⁷ "Remarks made on an Examination of the Royal Hospital at Haslar," 17 June 1794 and "Evan Nepean to Sick and Hurt," 11 August 1795, NMM, ADM/E/45; NMM, TRN/3, 15, 23; "Report of the Commissioners for Sick and Wounded Seamen &ca. upon the Remarks made upon a Visitation of the Royal Hospital at Haslar," 25 July 1780, TNA, ADM 98/13. Security was an integral part of the design of Haslar. P. J. Buxton, "The influence of military threats on the design and use of the Royal Naval Hospital Haslar," *Journal of the Royal Naval Medicine Service* 94(1) (2008), 33-38.

several command officers and ship's surgeons, of Haslar Hospital in March and April 1794 blamed the Council of Physicians and Surgeons, in charge of hospital operations for the hospitals organizational failings. The inspectors believed that "the interior Government of this Hospital, must ever be defective, and liable to much abuse, so long as the principal Officers remain so near upon a footing [with each other]."¹⁶⁸ The Royal Navy's decision to take over the hospitals, from the direct responsibility of the Sick and Hurt Board, was driven by manpower worries. The Admirals recommended to the Admiralty that a Governor with the rank of Captain "should have the inspection and superintendence of the whole."¹⁶⁹ The Admiralty agreed, and Captain Richard Creyke was appointed Governor of Plymouth on July 13, with Captain William Yeo taking up the position of Governor of Haslar on July 15, 1795.¹⁷⁰

If the work of nurses such as cleaning and tending to the sick fit easily into eighteenth-century female gender roles, the policing of the ward space and other manifestations of authority over male patients did not. The hospital, in an age of pressed service and high rates of desertion, was designed to keep patients within its walls. Measures to prevent escape included bars on the windows, patrolling sentries, and locking the ward door at night.¹⁷¹ It was the nurses, in an unexpected manifestation of gendered power, who held the ward key. Lapses in security by nurses were punished. Nurse Elizabeth Edwards in September 1795, was docked her pay for negligence in locking the ward door.¹⁷² In the mini-household of the ward, nurses were landladies and patients were tenants; by contrast, the medical officers were but high-status visitors with general authority. Haslar's surgeon's mates used their status as ward visitors to their

¹⁶⁸ "Sick and Hurt to William Yeo," 14 August 1795, NMM, ADM/E/45.

¹⁶⁹ "Sick and Hurt to Richard Creyke," 14 August 1795, NMM, ADM/E/45.

¹⁷⁰ "Evan Nepean to Richard Creyke," and "Evan Nepean to William Yeo," August 14, 1795, NMM, ADM/E/45.

¹⁷¹ NMM, TRN/3, 10.

¹⁷² TNA, ADM 102/688; NMM, TRN/3, 10.

advantage in 1795. They could not attend at 8:30 as the Governor suggested, because “the nurses and attendants, as well as providing the men with their Breakfasts ... must get the Wards clean and decent” for the “Physicians and Surgeons with Attendants” arrival.¹⁷³ With the exception of up to two visits to the ward by medical officers a day, it was nurses who wielded authority over the patients. They dispensed, and where necessary received instruction on how to dispense, medicines.¹⁷⁴ Upon the death of a patient at night, it was the nurses who gathered belongings and informed the medical officers.¹⁷⁵ That female servants were entrusted by hospital administrators with such power was a point of contention among some in the hospitals though by the 1790s accusations of theft of patient's effects seem to have stopped. For instance, when a theft was discovered in a ward on 3 June 1796, blame was put not on the nurse but “suspicion fell strongly on a man who put the light out as if to conceal his misdeed.”¹⁷⁶ This incident was the only mention of theft in Creyke’s memoranda book. There were no stories of property theft by nurses in his correspondence.¹⁷⁷ Unsurprisingly, as nurses’ responsibilities increased, especially concerning the policing of their wards, reports of bad behaviour on the part of nurses decreased.

However, authority over wards did not mean that nurses were model employees. With the responsibility of locking and unlocking doors in the hands of nurses, the hospital establishment took any infractions seriously. Elizabeth Harris was docked two days’ pay on July 9, 1797 “for her negligence” in leaving the 49th Ward unlocked.¹⁷⁸ Later in July, Nurses Mary

¹⁷³ “Medical attendants at Haslar Hospital to Admiralty,” 23 September 1795, NMM, ADM/E/45.

¹⁷⁴ “Haslar's Response to Admiral's report,” 8 August 1794, TNA, ADM 1/3533.

¹⁷⁵ NMM, TRN/3 p. 3-4. “Instructions for the Matrons of Haslar Hospital,” 2 April 1794, TNA, ADM 1/3533.

¹⁷⁶ NMM, TRM/3, 40.

¹⁷⁷ The plumber was directed in his regulations to inspect the weights and measures of the medical officers to see if any had been stolen, although there is no mention of previous theft. “Sick and Hurt Board to Mr. Petter Pafford, Plumber,” 27 November 1794, TNA, ADM 1/3533.

¹⁷⁸ NMM, TRN/3, 94; TNA, ADM 102/688.

Bull and Mary Laskey, were both mulcted two days' pay "for losing and concealing the loss of the key of the 4th Building," on the 25th.¹⁷⁹ That nurses were docked pay for offences relating to the keys of wards, demonstrates the significance of locking-up as a protocol to prevent desertions. However, it is even more significant that nurses were trusted with this important responsibility in the first place. Regulations from 1779 placed the responsibility "to lock up & open the doors of the Wards every Evening & Morning" in the hands of the hospital Porter.¹⁸⁰ In a supplementary letter to the Sick and Hurt Board, the Admiralty indicated its disapproval of allowing Sergeants or Corporals of the Guard to hold keys at night as it represented "too great a charge is [sic] entrusted to them."¹⁸¹ The Admiralty recommended instead the appointment of two additional Porters to share the responsibility of monitoring the gate and locking and unlocking the hospital doors.¹⁸² Although it is unclear when the transfer of authority over ward and building keys to nurses occurred, keys to wards and hospital buildings evidently passed to nurses by the 1790s. Women, as nurses, were key to stopping sailors from fleeing the hospital and compounding the Royal Navy's manning problem.

The locks were not deemed adequate by all medical officers. The door-locks at Haslar hospital were replaced with padlocks in July 1777 after it was reported that, "the Locks which were fix'd to the Doors before being constantly spoil'd by the People filling them with Sand, so as to prevent the Keys from entering them."¹⁸³ It is unclear who was responsible for spoiling the locks, but the hospital patients had more to gain by defective locks than nurses or other hospital workers. Yet, nurse Elizabeth Sullivan was fined one day's pay for "spoiling the lock of her

¹⁷⁹ NMM, TRN/3, 97; TNA, ADM 102/688.

¹⁸⁰ "Regulations for Hospitals particularly for the Royal Hospital at Haslar," NMM, ADM/E/42.

¹⁸¹ "Phil Stephens to Sick and Hurt," 3 November 1779, NMM, ADM/E/42.

¹⁸² "Phil Stephens to Sick and Hurt," 3 November 3, 1779, NMM, ADM/E/42.

¹⁸³ "Thomas Pye to Sick and Hurt," 18 July 1777, NMM, ADM/E/42.

cabbin [sic],” at Plymouth Naval Hospital on April 5, 1798.¹⁸⁴ Suggesting that nurses too, might have something to gain by destroying locks or were perhaps bribed or blackmailed by patients wanting to desert.

Other aspects of ward management were also in the hands of nurses. After a change in ward composition or an influx of new patients, the hospital agent, George Mottley, was to prepare a muster list to be “left in the Care of the respective Nurses.”¹⁸⁵ Mustering the patients each day was viewed as a method to prevent desertion. The fact that nurses' kept the muster list was as big a responsibility as locking the door each night, as they were responsible for monitoring manning in the hospitals.¹⁸⁶ Nurses also could be punished for not maintaining proper order in their wards, as happened in the case of Sarah Gool, who was discharged on April 4, 1799, for “allowing necessaries to be destroyed in her ward without reporting it.”¹⁸⁷ Nurses also received verbal and written instructions on the medications to be administered to each of their patients. It was the duty of the medical officers during their afternoon visit to the wards to “see that the Medicines prescribed in the morning, are duly received, that the Nurses understand the directions on these Medicines, and the manner they are to be administered in the night.”¹⁸⁸ In sum, nurses had a major role in ensuring the patients took the necessary steps towards full recovery and active service in the Royal Navy, including perhaps most importantly of all that they did not run off.

¹⁸⁴ NMM, TRN/3, 130; TNA, ADM 102/689.

¹⁸⁵ “Instructions to Mr. George Mottley Agent to the Royal Hospital at Haslar,” no date, c. 1793, TNA, ADM 1/3533.

¹⁸⁶ “Remarks made on an Examination of the Royal Hospital at Haslar,” 17 June 1794, NMM, ADM/E/45.

¹⁸⁷ NMM, TRN/3, 176; TNA, ADM 102/689.

¹⁸⁸ “James Johnson to Assistant Surgeons,” 30 September 1794, TNA, ADM 1/3533.

Conclusion

Re-orienting our view of the naval hospital as an institution at which domestic and medical spaces overlapped, and the work of nurses within them, does not limit or marginalize the martial roles of these institutions. Rather, an analysis of staff fluctuations highlights the hospitals' connection to British foreign policy and naval warfare. But naval hospitals were more than a martial space. Furthermore, contemporaries conceived of and designed hospital spaces along household lines. Labour organization followed household management principles with nurses as servants bound by regulations and conventions, as we saw in the administration's providing requests for leave, care while sick, and unfortunate victims of violence. Yet nurses maintained a large degree of agency in the provision of medical care for the Royal Navy, including the exercise of power over male patients, and authority in ward spaces. The navy valued nurses for their experience and financially compensated them well for their work. While the hospital was by necessity heavily policed, nurses were not simply victims of an authoritarian patriarchal system. Women in naval hospitals were entrusted with the responsibility — in the absence of constant male, martial presence — of mustering seamen, locking doors, and maintaining order. Thus, female nurses in naval hospitals were paradoxical in nature; female servants of the hospital with a degree of power over the weakest male servants of the fiscal-naval state.

CHAPTER FIVE: Regulating Care: Nurses and Perceptions of Nursing in the Royal Navy and the British Army

Introduction

Given the crucial importance of caring for sick and wounded soldiers and seamen for martial success, it is no surprise that both the Royal Navy and the British Army regulated their respective medical systems. After the conclusion of the Seven Years' War (1756-1763), the role of the navy's Sick and Hurt Board and its relations with the Admiralty, the Navy Board, and the Victualling Board, were clearly defined in a manner that had not been the case before. The continued operation of the navy at peace and war, and the ongoing role of its hospitals and ship-board care, ensured that regulations respecting medical care were followed by all medical personnel and subject to revision. While the army also regulated the work of its medical practitioners, it was more difficult to issue regulations that affected the whole army. This problem stemmed from the fact that the eighteenth-century British Army was still raised by colonels on a campaign by campaign basis. The authority of both regimental commanders and the officers in charge of specific expeditions was paramount. As historian Catherine Kelly has shown, the Army Medical Board could issue overarching directives, but whether these regulations were followed on the ground or not depended on the will of the commanding officer.¹

¹ Catherine Kelly, *War and the Militarization of British Army Medicine, 1793-1830* (London: Pickering and Chatto, 2012), 60-61.

Indeed, Kelly found that commanders would regularly disregard directives from the Army Medical Board in favour of suggestions by military medical practitioners serving in their armies.²

During the late-eighteenth and early-nineteenth centuries the Royal Navy and the British Army had different systems of hospital care by necessity. The navy relied on permanent clinical institutions in Britain, in the Atlantic, and the Mediterranean to care for sick and wounded seamen when ship-board surgeons did not have the resources or ability to treat them. In these institutions, civilian women provided nursing care. By contrast, the army's system of care was more fragmented and subject to theoretical and ideological debates. By the end of the eighteenth century, the prevailing opinion among military medical practitioners was that care for the sick and injured should be performed first in regimental hospitals.³ Surgeons and assistant surgeons attached to various regiments, with the assistance of one female nurse (often a soldier's wife), provided regular care for the sick of that regiment. Regimental hospitals were designed to move with the regiment. For this reason, hospitals were often tented, or situated in other temporary accommodation.⁴ Only in the aftermath of battles with large numbers of wounded, or when facing the ravages of epidemic diseases, did the Army use general hospitals, which were the purview of the Staff Branch of the Army Medical Department. The Department often hired Oxbridge educated physicians with little military experience. Their classical education was

² Catherine Kelly, "Medicine and the Egyptian Campaign: The Development of the Military Medical Officer during the Napoleonic Wars c. 1798-1801," *Canadian Bulletin of Medical History* 27(2) (2010), 337. The overarching quasi-public private partnership nature of the British Army organization may also have played a part in the resistance of military commanders to conform to Army Medical Board directives. Stephen Conway, *War, State, and Society in Mid-Eighteenth-Century Britain and Ireland* (Oxford: Oxford University Press, 2006), 54-55; Stephen Conway, "Entrepreneurs and the Recruitment of the British Army in the War of American Independence, 1775-1783," in *War, Entrepreneurs, and the State in Europe and the Mediterranean, 1300-1800*, Jeff Fynn-Paul, ed. (Leiden and Boston: Brill, 2014), 129-130.

³ Kelly, *War and the Militarization of British Army Medicine*, 36-43; Martin Howard, *Wellington's Doctors: The British Army Medical Services in the Napoleonic Wars* (Stroud, Gloucestershire: The History Press Ltd., 2008), 139-141.

⁴ Howard, *Wellington's Doctors*, 135-139.

believed to be theoretically superior to more practically-educated physicians from other universities.⁵ These physicians repurposed churches, barns, and private houses, which were often not well staffed with medical personnel. Staff shortages meant that both surgeons and assistant surgeons were seconded from the Regimental Branch. By contrast, nurses were raised from local populations or were the wives and widows of the rank and file.⁶ The differences in hiring practices for nurses accounted for regulatory differences and the perceived role of the nurse in the two services.

This chapter looks at the ways in which nurses and nursing care were regulated differently in the two main armed forces branches, and will show why that was the case. Naval regulations evince the importance of nurses and nursing throughout every facet of naval healthcare, due to the reliance on large clinical hospitals. A comparison between the two medical systems' perception and use of nurses also highlights the operational difficulties of the Army medical system, in particular how the temporary (or occasional) nature of army nurses stunted not only the development of a trained nursing staff, but also the professionalization of military medical officers.

Both the Royal Navy and the British Army used female nurses to provide essential medical care to casualties. Nurses' work, such as cleaning and patient care, was regulated through the instructions issued from time to time from their respective headquarters and governing bodies. The choice to use women as nurses stemmed from their perceived gendered suitability for nursing work, ensured that the army and navy were looking for similarly skilled

⁵ Kelly, *War and the Militarization of British Army Medicine*, 5, 39.

⁶ Howard, *Wellington's Doctors*, 116.

women.⁷ For example, shortly after the American war, the naval regulations stipulated that women entered into the hospitals as nurses should be between the ages of 25 and 45 years of age, though the entry of nurses over the age of 35 was only to occur when no others could be found.⁸ Naval regulations further stipulated that “where merit may be equal, [it] shall be given to the widows of Seamen and Marines, who may have served in His Majesty's Navy.”⁹ Similarly for the army, a suitable nurse was “a sober, careful, cleanly, and active woman,” who was “accustomed to the charge and management of sick persons.”¹⁰ Like in the navy, preference in hiring of army nurses was to be “given to the wife of a Non-commissioned Officer or Soldier of the regiment, if in other respects she corresponds with the description required.”¹¹ Both services wanted to have female dependents of servicemen as the core of their nursing complement. Though there were no age restrictions for being employed as a nurse by the military, the ideal nurse in both cases was ostensibly the same: a capable woman, preferably married to a serviceman, familiar with caring for the sick, the duties of cleaning, and if possible managing the behaviour of recovering sailors and soldiers.

While the preference for female nurses as employees on the basis of their gendered suitability for care work was the same for both forces, the physical realities of the military and naval systems were very different. The Royal Navy operated, through the Sick and Hurt Board, two large clinical hospitals in Britain, Haslar and Plymouth, in addition to several other smaller

⁷ The gendered division of labour in hospital spaces and the importance of cleaning, ventilation, and care for patients has been discussed in Chapter One pp. 28-75, Chapter Two pp. 76-113, and Chapter Three pp. 114-153 of this dissertation.

⁸ “Instructions, precedents and historical notes relating to the Sick and Hurt Board, collected for the Board of Revisions: Vol 1, 1805,” 19 April 1784, TNA, ADM 98/105, 422; *Instructions for the Royal Naval Hospital at Haslar & Plymouth* (Philanthropic Society, St. George's Fields, 1808), 6.

⁹ *Instructions for the Royal Naval Hospitals at Haslar & Plymouth*, 6.

¹⁰ *Instructions for the Regulating of Regimental Hospitals. Horse Guards 24th September 1812*. (London: W. Clowes and Co., 1812), 12.

¹¹ *Instructions for the Regulating of Regimental Hospitals*, (1812), 12.

institutions in the Caribbean World. Although there were slight operational variances between Haslar and Plymouth and the hospitals overseas mainly in the number employed and job divisions of administrative officers and staff all naval hospitals were permanent establishments that were in constant operation from their inception, including during peacetime. This consistent operation generated institutional memory which was reflected not just in long term hospital staff and nurses, but also in the regulations that governed the institutions.

The provision of medical care was radically different in the army. Regimental hospitals were temporary, formed whenever the regiment had need for them, rarely in actual buildings, and more commonly tented. General hospitals were only required while the army was actively campaigning during wartime. Personal political manoeuvring among the Army Medical Board (AMB) even removed General Hospitals from the British Isles entirely in 1801.¹² These decisions later led to an embarrassing scramble for hospital placements in naval and civilian hospitals following the return of casualties from the Corunna campaign in 1809.¹³ Although army General Hospitals bore some similarities to naval hospitals, at least in their capacity to care for thousands of men, there the similarities ended. Except for the institutional memory which may have resided in the person of regimental and general hospital medical officers, each new war required a rebuilding of the medical hospital system and the position of nurses. In effect, each army hospital was a new creation.

Methodology

A close chronological reading of the Royal Navy's and the British Army's nursing and hospital regulations over the late eighteenth and early nineteenth centuries demonstrates the evolving

¹² Kelly, *War and the Militarization of British Army Medicine*, 35.

¹³ Kelly, *War and the Militarization of British Army Medicine*, 44.

expectations of nurses' work in and the stagnant nature of nursing duties in the case of the army.¹⁴ The military and naval regulations are then compared to the regulatory frameworks of London's biggest voluntary hospitals, St. Bartholomew's and St. Thomas's, in order to situate better the work of nurses in naval and military hospitals. The Royal Navy had a long history of sending patients to London hospitals before the construction of Haslar and Plymouth.¹⁵ The correspondence of the Sick and Hurt Board and the Admiralty demonstrates that both agencies closely watched the situation at the London hospitals, and occasionally altered their regulations as a consequence of metropolitan developments. For example, this monitoring can be seen in the decision to change the ratio of nurses to patients to 1:7 in December 1802. Although analysis of the actual ratio of nurses to patients at Plymouth naval hospital suggests that the 1:10 ratio had been long abandoned in practice at the naval hospitals, the official reason given for the switch was to follow the current practice at the London hospitals.¹⁶ Studying the relationship between civilian hospitals and naval institutions helps to illustrate what the naval institutions chose to adopt or not from the older civilian institutions. The decision of naval institutions to use one job title of nurse did not limit the role or authority of these women, but rather highlights the multitude of duties that they could perform.

Historiography

Little has been written about how nursing care was regulated in British military, naval, or civilian hospitals before the introduction of the Nightingale reforms in the 1860s. Much of the

¹⁴ Barbara Herrnstein Smith, "What Was 'Close Reading'? A Century of Method in Literary Studies," *Minnesota Review* 87 (2016), 58.

¹⁵ Matthew Neufeld, "Neither private contractors nor productive partners: The English fiscal-naval state and London hospitals, 1660-1715." *International Journal of Maritime History* 28(2) (2016): 263-290.

¹⁶ "Instructions and Precedents," 27 December 1802, TNA, ADM 98/105, 84.

literature that considers the pre-1860 period focuses on how early regulations changed with the Nightingale reforms, rather than examine the earlier regulations themselves and what they were meant to achieve.¹⁷ Histories of military medicine have used hospital and army medical board regulations to discuss the status and education of military medical officers, and disagreements among officials over military exigencies and medical provision but otherwise ignored nurses.¹⁸ Histories of the Georgian Royal Navy, especially more recent cultural histories such as that by Sarah Kinkel, consider both the structure of the eighteenth-century navy administration and its changing culture of order and discipline, but not the regulations of hospitals.¹⁹ A consideration of nursing regulations allows us to examine the function of the military and naval medical systems more broadly. The Navy's and Army's regulations directed at nurses were distinct; both services sought to control women's work while remaining utterly dependent on female labour to operate their care regimes.

Naval Hospital Nurses

A chronological examination of changing nursing regulations at naval hospitals shows not only their evolution in response to different circumstances, but also the justification of nursing staff

¹⁷Carol Helmstadter and Judith Godden, *Nursing Before Nightingale, 1815-1899* (Ashgate: Farnham, Surrey, 2011), 12-14, 60. Carol Helmstadter, "A Third Look at Sarah Gamp," *Canadian Bulletin of Medical History* 30(2) (2013), 144-146; Stuart Wildman, "Local Nursing Associations in an Age of Nursing Reform, 1860-1900," (PhD Dissertation, University of Birmingham, 2012), 155-156.

¹⁸ Kelly, *War and the Militarization of British Army Medicine*, 44-49, 122; Richard L Blanco, *Wellington's Surgeon General: Sir James McGrigor* (Durham, N.C. Duke University Press, 1974), 8-11; *Disease, War, and the Imperial State*, 96-97; Howard, *Wellington's Doctors*, 102-104; Paul Kopperman addresses the conformity of medical practitioners to generally accepted treatment rules: Paul E. Kopperman, "The British Army in North America and the West Indies, 1755-83," in *British Military and Naval Medicine, 1600-1830*, ed. Geoffrey Hudson (Amsterdam and New York: Rodopi, 2007), 73-74.

¹⁹ N. A. M. Rodger, *Command of the Ocean: A Naval History of Britain, 1649-1815* (New York and London: W. W. Norton & Company, 2006), 319-322; N. A. M. Rodger, *The Wooden World: An Anatomy of the Georgian Navy* (New York: W. W. Norton, 1986); Sarah R. Kinkel, "Disciplining the Empire: Georgian Politics, Social Hierarchy, and the Rise of the British Navy, 1725-1775," (PhD Dissertation: Yale University, 2012). For information on orders and hierarchical provision of ship's surgeons see: "Particulars of such part of His Majesty's Order in Council of the 23d January, 1805, for improving the Situation of the Medical Officers of the Navy, as relate to such Officers serving on board Ships," British Library, Add MS 34928, "Nelson Papers Vol. XXVII General Correspondence Vol. XXCI 1 January-28 February 1805," fols 141-142.

for efficient hospital functioning. My analysis underscores how changes in the governance of naval hospitals did not change the place of nurses within the hospital workforce, and significantly that these women received more responsibility over the course of the eighteenth century. Although nurses were still in some cases seen as sources of disorder, by 1800 this increased responsibility illustrates that they were also valued by medical practitioners and hospital administrators for distinct care skills and abilities, of which ward management was but one.

The regulations of contract naval hospitals were issued to the Sick and Hurt Board during the War of Austrian Succession in 1742.²⁰ Contract hospitals hired by the local Sick and Hurt Agent or Commissioner for the Sick and Hurt Board were to be carefully cleaned and ventilated, and where possible divided into wards, where every “Sick or Wounded Man is to have a Bed to himself.”²¹ Wards were to be further organized by sickness or symptoms, and recovering men were to have a ward of their own. The hospital was to be staffed by “a sufficient Number of Servants,” in order to be “kept as clean and as sweet as possible,” with “not less than one proper Nurse for every Ten Men.”²² Unfortunately, the instructions do not elaborate on what made a “proper” nurse, though judging from later naval regulations and the generally accepted role of nurses in military and voluntary hospitals, it would be expected of a proper nurse that she feed

²⁰ The colonial conflict between the British and the Spanish in the War of Jenkins Ear (1739-1748) merged into the War of Austrian Succession on the continent in 1740. British troops were dispatched to Flanders in 1742. David Syrett, “Towards Dettingen: The Conveyancing of the British Army to Flanders in 1742,” *Journal of the Society for Army Historical Research* 84(340) (2006): 316-326. These records are listed in the TNA catalogue as being from 1741. “Admiralty instructions to the Sick and Hurt Board [1742],” TNA, ADM 98/103. This connection was also seen by the compilers of all instructions regarding naval hospitals and the Sick and Hurt Board in response to a parliamentary commission in 1805. “Preliminary Observations respecting the different changes in the Establishment and duty of the Board of Commissioners for Sick and Wounded Seamen,” in “Instructions, precedents and historical notes relating to the Sick and Hurt Board, collected for the Board of Revisions: Volume 1 1805,” TNA, ADM 98/105; *The Seventh Report of the Commissioners for Revising and Digesting the Civil Affairs of His Majesty's Navy*, February 26, 1807. Printed April 11, 1809.

²¹ “Admiralty instructions to the Sick and Hurt Board [1742],” TNA, ADM 98/103.

²² “Admiralty instructions to the Sick and Hurt Board [1742],” TNA, ADM 98/103.

and medicate patients, maintain cleanliness in the ward, and handle the task of nursing the sick with tenderness.²³ Another similarity between the 1742 and later regulations was the perceived danger of liquor and stipulating the punishment for nurses who conspired to bring in or allowed alcohol to be brought into the hospital. Contract hospitals were not to be hired in “Houses were strong Liquors are sold [pubs], if others can possibly be had for them,” while officers were entreated to “take all precautions in their Power to prevent all such Liquors being brought to, or drank by the men, whilst under Cure.”²⁴ The non-prescription drinking of liquor was thought to be “the worst Consequence to the People [patients] themselves, of great hindrance to the Service, and of considerable unnecessary Expence to the Crown,” as it slowed down the recovery of the sick and wounded and prevented them from re-joining their ships and the war effort.²⁵ In order to help prevent liquor entering the hospital, officers were “not to fail of immediately expelling any Nurse or other Servant who shall be found any ways concerned in bringing of such Liquors to the People, or permitting or conniving at their being brought to them, And People so expelled are never to be restored.”²⁶ The punishment for those found bringing liquor to the patients would remain in force at all naval hospitals until the end of the Napoleonic Wars.²⁷

The 1742 instructions described here highlight the key difference between the military and naval hospital regulations. Although the naval instructions were designed to be in force only for the duration of the war, they formed the basis for regulations at permanent Royal Naval hospitals from the 1750s. Constant naval operations, at both peace and war, ensured that there

²³ *Instructions for the Royal Naval Hospitals at Haslar & Plymouth*, 37; *Instructions for the Naval Hospitals on Foreign Stations* (London: Philanthropic Society, St. George's Fields, 1809), TNA, ADM 106/3092, 11.

²⁴ “Admiralty instructions to the Sick and Hurt Board [1742],” TNA, ADM 98/103.

²⁵ “Admiralty instructions to the Sick and Hurt Board [1742],” TNA, ADM 98/103.

²⁶ “Admiralty instructions to the Sick and Hurt Board [1742],” TNA, ADM 98/103.

²⁷ *Instructions for Naval Hospitals at Haslar & Plymouth*, 20.

was always a need for a ship-board and hospital medical apparatus with an accompanying regulatory structure.

The 1742 instructions were designed by the Sick and Hurt Board to apply to all contract hospitals, and covered establishments of multiple sizes and situations. The instructions were also principally directed to agents, commissioners, and hospital contractors, not medical officers who would be working within the hospitals. The Instructions for Medical Officers were issued on 3 June 1742.²⁸ With the establishment of Haslar and Plymouth Naval Hospitals, new instructions were issued in 1755 and 1760 respectively. For the compilers of naval instructions in 1805 “the Instructions for the guidance of the Officers of those [permanent] Hospitals [Haslar and Plymouth] ... were the same as the Instructions, formed in 1742 with some additional Articles.”²⁹ Among those additional articles from 1755 and 1760 were those “Regulations for Nurses and other Servants of the Hospital.”³⁰ The decision to include separate regulations for nurses and other servants in the instructions to Haslar and Plymouth shows that the work of these members of the hospital staff could no longer simply be conflated with social and gender norms. The meaning of a 'proper nurse' was now more strictly defined, as was their position within the hospital hierarchy.

The initial nursing regulations for Haslar and Plymouth contained seventeen regulatory articles. Most of these articles detailed what should constitute proper behaviour, and

²⁸ A draft of these instructions was approved by the Admiralty Board on 3 June 1742. “Preliminary Observations respecting the different changes in the Establishment and duty of the Board of Commissioners for Sick and Wounded Seamen,” TNA, ADM 98/105.

²⁹ “Preliminary Observations respecting the different changes in the Establishment and duty of the Board of Commissioners for Sick and Wounded Seamen,” TNA, ADM 98/105. This could reduce quite a bit of space from the footnotes.

³⁰ “Preliminary Observations respecting the different changes in the Establishment and duty of the Board of Commissioners for Sick and Wounded Seamen,” TNA, ADM 98/105.

punishments for failure to behave properly. For example, Article X (ten) concerning alcohol and disorders stipulated:

That all Nurses who disobey the Matrons [sic] Orders get drunk Neglect the Patients or quarrel or fight with any other Nurses or Quarrel with the Men or do not prudently and cautiously reveal to the Superior Officers of the Hospital all irregularities committed by the Patients in the Wards (such as Drinking Smoaking [sic] Tobacco in the Wards, Quarrelling destroying the Medicines or Stores feigning Complaints and Neglecting their Cure) be immediately discharged the Services and a note made against their Names on the Books of the Hospital that they may be never more employed.³¹

The specificity of the misdemeanours listed in this article suggests that it was issued in response to a number of misbehaviours occurring in naval hospitals. The proscribed actions could be a hindrance to the recovery of the patients and a threat to the operation of the Royal Navy, as disorder might preface either desertion or mutiny. Other articles of the initial instructions which focused on behaviour of nurses and patients, such as the attendance at chapel, and the prohibition on gaming and the selling of alcohol in the ward, reflect less on the duties or tasks of nurses and more on creating an orderly hospital environment designed to foster recovery.³² However, there were some distinctly medical regulatory articles in the initial nursing regulations. Impurities, such as “dirt, bones, or Rags,” and “foul Linen whether Sheets or Shirts,” were to be removed from the ward environment and its environs.³³ Ward divisions were to be reinforced and contagion limited by “no Hospital Dresses or any part of that dress be carried out of the Fever, Flux, or Small-Pox Wards into other Wards.”³⁴ Nurses were also to carefully monitor their patients’ conditions: “That if any Men are taken ill in the Recovery Wards so as to be obliged to take to their Beds the Nurses do acquaint the Hospital Mate in waiting therewith that they may be

³¹ “Instructions and Precedents,” Volume 1, TNA, ADM 98/105, 438.

³² “Instructions and Precedents,” Volume 1, TNA, ADM 98/105, 440.

³³ “Instructions and Precedents,” Volume 1, TNA, ADM 98/105, 437.

³⁴ “Instructions and Precedents,” Volume 1, TNA, ADM 98/105, 438.

immediately removed if that shall be judged necessary.”³⁵ The initial nursing regulations for Haslar and Plymouth illustrate that administrators understood nursing as a complex and crucial role in the hospital establishment, and that since nurses provided medical care *and* monitored patient behaviour, their own behaviour had to be policed.

Subsequent regulations focused more on medical provision and less on nurses’ behaviour. Instructions issued on 17 November 1777, for example, specified the manner that beds in the wards should be made, as well as stipulating that: “As the Sheets of every Patient are to be shifted at least once in 14 Days and their Body Linen every 4th day and oftener if disorders that require it the nurses are enjoined on pain of being discharged to make Application to the Matron for Linen to shift the Patients accordingly.”³⁶ Provisions concerning spirituous liquors were the only behavioural stipulations that remained in nursing regulations. In response to a letter from Dr. James Johnson head of the Physician and Council at Haslar in May 1794, which stated that “several of the Nurses have been detected having Spirituous Liquors and strong beer in their possession,” the Sick and Hurt Board “Resolved Unanimously that Nurses who shall be found to have spirituous Liquors shall not only be discharged immediately but shall likewise forfeit whatever Wages may be due to them at the time of such discharge not however exceeding one Months Pay.”³⁷ However, the prohibition of nurses having liquor in their possession was not simply about the quality of nursing care or the ability of nurses to do their duty in hospital, but rather the intoxication of the patients who were “guilty of irregularities which could not have happened had they been kept sober.”³⁸ Drunk patients would not soon become healthy seamen.

³⁵ “Instructions and Precedents,” Volume 1, TNA, ADM 98/105, 439.

³⁶ “Instructions and Precedents,” 17 November 1777, TNA, ADM 98/105, 441.

³⁷ “Instructions and Precedents,” 21 May 1794, TNA, ADM 98/105, 442.

³⁸ “Instructions and Precedents,” 21 May 1794, TNA, ADM 98/105, 442.

Additional instructions directed at naval nurses highlight the nurses' integration within the hospital system, including their medical roles. The initial "Joint Instructions to the Physician, Surgeon, and Agent" at Haslar and Plymouth, issued in 1755 and reissued in 1760 with the opening of Plymouth, reemphasized the importance of ensuring that liquor did not enter the hospital. Medical officers were required "jointly and immediately to expel any Nurse, or other Servant of the Hospital who shall be found any way concerned in the bringing of such Liquor to the People, permitting or conniving at their being brought to them; and that Nurses or Servants so expelled, never be restored to their Employment about the Sick."³⁹ The sole mention of nurses in the "Joint Instructions to the Physician, Surgeon, and Agent" demonstrates both the perceived threat of liquor to the recovery of sick and wounded seamen and the belief that nurses worked primarily in a care, not a medical, role (though liquor was viewed as having a retarding effect on medical recovery) in the mid-eighteenth century.

The Sick and Hurt Board continually augmented these joint instructions with more orders, including the "Rules to be observed for regulating His Majesty's Hospitals for Sick and Hurt," which were sent to Haslar on 26 May 1756. There the work of the nurse as a provider of medical care can first be seen beyond the particular instructions for nurses. The role of the Matron or chief nurse was clarified in these instructions. The Matron was to "look out and instruct the Nurses in Orderly handling and lifting the weak Patients."⁴⁰ This directive to the Matron was the first instruction of any kind intended to instruct nurses in the practice of clinical nursing, expanding on directives about tenderness in previous regulations.⁴¹ While there is no explanation for what prompted this instruction, we can infer that either the medical officers in the hospital or

³⁹ "Instructions and Precedents," Volume 1, TNA, ADM 98/105, 2.

⁴⁰ "Instructions and Precedents," Volume 1, 26 May 1756, TNA, ADM 98/105, 24.

⁴¹ "Admiralty instructions to the Sick and Hurt Board [1742]," TNA, ADM 98/103.

the Commissioners for the Sick and Hurt Board believed that it was no longer sufficient to assume that nurses knew how to care without some training. It is also an indication that nurses, through their contact with the patients, had a clinical role that could hinder or help the recovery of the sick and wounded. Later instructions to naval hospital Governors stipulated that Physicians and Surgeons were to monitor the care of nurses “seeing that the Patients be, at all times, treated with that attention and kindness, so necessary for the comfort and consolation of men languishing under pain and sickness.”⁴² The constant revision and addition to the original hospital instructions demonstrates that naval regulators recognized and were responsive to the everyday medical situation in the hospitals including the evolving role of nurses within these institutions.

'Instructions to the Agent' at Haslar, and Plymouth outlined the intended interactions between nurses and the hospital agent. The role of nurses in mustering the patients in their wards first appeared in these instructions.⁴³ In particular, the hospital Agent was to make out ward muster lists from his book of hospital intakes and discharges. These records were to be “left in the care of the respective Nurses”⁴⁴ to ensure “the greater facility of mustering the Wards of the Hospital.”⁴⁵ Procedures following a patient’s death on a hospital ward show the hierarchical nature of hospital management and the role of both nurses and the matron. After a patient died:

the Nurse of the Ward to which he shall have belonged, is immediately, if it is in the day time, to report the same to the Matron, or if in the Night, early the next Morning, who is to go into the Ward and there receive the Report in form, and then to note in writing the precise Hour when the Patient died; which Note is to be carried to the Agents Office, and to be preserved as a Voucher to justify the authority of the Hospital Books.⁴⁶

⁴² *Instructions for the Royal Naval Hospitals at Haslar & Plymouth*, 16-17.

⁴³ “Instructions and Precedents,” Volume I, TNA, ADM 98/105, 180-181.

⁴⁴ “Instructions and Precedents,” Volume 1, TNA, ADM 98/105, 181.

⁴⁵ “Instructions and Precedents,” Volume 1, TNA, ADM 98/105, 180.

⁴⁶ “Instructions and Precedents,” Volume 1, TNA, ADM 98/105, 181.

Both nurses and their matron were key to the ability of the agent to do his duties of monitoring the hospital muster books and financial accounts.

The Sick and Hurt Board issued the “Instructions to the Steward” for the first time in 1772, making medical “and other instruments for Lame and Infirm Patients as either of the Chief Surgeons shall demand” the responsibility of nurses.⁴⁷ Upon the death or recovery of the sick patient, the Steward was “to Demand and receive again into custody from the Nurses such of the said Instruments.”⁴⁸ This regulation provides further insight into the role of nurses in assisting patients in their recovery through devices such as crutches. It also highlights their interaction with all members of hospital administration. For example, nurses applied to the Steward for brief leaves of absence from their duty.⁴⁹ The Matron’s inability to grant requests for leave indicates that she was not sufficiently high enough in the hospital hierarchy – which was controlled by men – to have this power. By contrast, the authority of housekeepers in civilian households over female staff was more far-reaching. Hospital Matrons may have had substantial powers, but these were circumscribed by an inherently gendered hierarchy.

Nurses’ role in dispensing medicines was further clarified in the “Instructions to the Keeper and Dispenser of Medicines, Drugs, and Necessaries for the Sick and Wounded” issued in 1760. The Dispenser kept a daily record of the medicines issued to individual nurses. Nurses were to return promptly “all the Bottles, Phials, and Gallypots sent into the Wards” by the following day, lest the value of the container be “deducted from their wages.”⁵⁰ Although this regulation shows that nurses were responsible for collecting medicines from the dispenser and giving them to the patients, it was only in supplementary orders to the dispenser that

⁴⁷ “Instructions and Precedents,” Volume 1, TNA, ADM 98/105, 233.

⁴⁸ “Instructions and Precedents,” Volume 1, TNA, ADM 98/105, 233.

⁴⁹ “Instructions and Precedents,” Volume 1, TNA, ADM 98/105, 234.

⁵⁰ “Instructions and Precedents,” Volume 1, TNA, ADM 98/105, 358.

considerations of whether the patients correctly received the medicines were discussed. An additional general order to the dispenser at Plymouth, issued on 12 December 1760, directed that the Assistant Dispenser “may constantly go round to the Wards of the Hospital to see that the Medicines are properly placed by the Nurses at the Head of the Cradle of each Patient for whom they are prescribed.”⁵¹ Three decades later a report of an inspection of Haslar Hospital (1794) further recommended that nurses receive instruction in the dispensing of medicines as “many of whom cannot read” the dispensing instructions on the medicine phials.⁵² The double-checking of nurses’ work was meant to ensure that nurses issued medicines to the correct patient and at the correct dosage. Given the size of the hospital and the already overburdened dispensing staff, had the recommendation of the Haslar report been followed, it would probably have been only in cases when the prescription for a specific patient was changed. Entrusting even illiterate nurses with the task of remembering previous directions and discussions about patient’s medicines shows the trust placed in these women by medical practitioners.

Age requirements first appear for nurses in 1784. Upon their entry into the hospital, all nurses were to be at least twenty-five years old and no older than forty-five.⁵³ This age requirement expanded on a previous rule that stated simply that nurses incapable of continuing to work through old age or infirmities should be removed.⁵⁴ The maximum age would further be lowered to thirty-five in the 1808 printed instructions.⁵⁵ The decision to reduce the hiring age of nurses was likely due to recognition of the physical demands of their labour and the increased specificity of their duties. Cleaning, feeding patients, and administering medicines were all

⁵¹ “Instructions and Precedents,” 12 December 1760, TNA, ADM 98/105, 344-345.

⁵² “Remarks made on an Examination of the Royal Hospital at Haslar,” 27 March 1794, NMM, ADM E/45.

⁵³ “Instructions and Precedents,” 5 July 1784, TNA, ADM 98/105, 422.

⁵⁴ “Admiralty to Sick and Hurt Board,” October 22, 1795, NMM, ADM/E/45.

⁵⁵ *Instructions for the Royal Naval Hospitals at Haslar & Plymouth*, 6.

physically demanding often requiring the lifting of heavy vials, trays, and supplies. Medical officers assumed that older women could complete these tasks, yet the tasks would have been even more physically taxing.⁵⁶ The importance of the medical role of nurses was further clarified in the 1808 printed instructions to Haslar and Plymouth. Nurses, “from the nature of the service on which they are employed,” could not be pulled away from their work for daily mustering in the same way that male hospital servants, primarily labourers, were.⁵⁷ Unlike the regulations of military and voluntary hospitals discussed below, administrators regarded nurses as an integral part of naval hospital operations, as their place in all parts of the regulations demonstrates.

Regulations aimed at nurses at the naval hospitals also demonstrated the explicit attempt to ensure that the nurses who worked at the hospital were the most skilled available. Nurses who had worked in wards that were closed in order to be shifted (a process of intense cleaning, fumigation, and ventilation before the reception of more sick sailors) were not to be discharged from the hospital. Instead they were “to be employed as Assistants in those most Sickly” in order to lessen the load of nurses in wards with significant numbers of sick.⁵⁸ This practice ensured both that the needs of the patients could be more adequately met, and that nurses remained on the hospital books. Furthermore, if nurses needed to be let go due to a reduction in the number of patients, the Sick and Hurt Board directed Physician and Council to discharge those with shorter terms of service: “We would always have those who have been longest in the Service enjoy the benefit of employment,”⁵⁹ as long as there was no fault in “their Conduct or Abilities.”⁶⁰ These staffing policies resulted in a stable core of experienced nurse employees who

⁵⁶ Amy M. Froide, “Old Maids: the lifecycle of single women in early modern England,” in *Women and Ageing in British Society Since 1500*, Lynn Bothelho and Pat Thane, eds. (London: Pearson Education Limited, 2001), 100.

⁵⁷ *Instructions for the Royal Naval Hospitals at Haslar & Plymouth*, 116.

⁵⁸ “Instructions and Precedents,” 26 May 1756, TNA, ADM 98/105, 24.

⁵⁹ “Instructions and Precedents,” 3 June 1767, TNA, ADM 98/105, 395-396.

⁶⁰ “Instructions and Precedents,” 3 June 1767, TNA, ADM 98/105, 396.

were a crucial component of an otherwise constantly fluctuating nursing workforce. Even during a peace-time reduction of nurses from 1783 to 1794 (the time between the American Revolution and the outbreak of the French Revolutionary Wars) institutional memory about nursing work would be maintained and facilitate on-the-job training for incoming nurses.

The importance of nurse seniority to hospital administrators is shown through the pay list records themselves. After 1756, nurses were paid monthly and were added to the same pay list as those for the Assistant Surgeons: “In addition to our Order to you of the 25th Instant you are hereby directed and required to pay the Nurses employed at [blank] their Salaries Monthly, in the same manner you are directed by the said Order to pay Assistant Surgeons &c.”⁶¹ This directive replaced an order from 1755, which allowed for nurses to be paid daily wages and kept under a separate heading in the disbursements table of the hospital agent.⁶² The order in which nurses were entered in the monthly pay list records corresponded with the order in which the nurses had entered hospital service. An example of list records is shown in Figures 1 - 4.

⁶¹ “Instructions and Precedents,” 30 November 1756, TNA, ADM 98/105, 171.

⁶² “Instructions and Precedents,” Volume 1, 19 August 1755, TNA, ADM 98/105, 151.

Persons Names.	Quality.	Time of Entry.	D. or D.D.	Time when.	N ^o of Days Em- ploy'd.	Rate of Allowance.	Sum.	We whose Names are hereunder- written, do acknowledge to have Received of <i>M^r Adams</i> the respective Sums expressed against our Names.	Witness.
James Reed	Labour				28	5 ⁰⁰ March	1.00	<i>Jas Reed</i>	
Wilton Payne					28		1.00	<i>W Payne</i>	
Wilton Buzgelly					28		1.00		
John Bridgman					28		1.00		
Arthur Gliddon					28		1.00	<i>Ar Gliddon</i>	
Roger Hyatt					28		1.00	<i>Roger Hyatt</i>	
Thos. Faircott					28		1.00		
Henry Batty					28		1.00	<i>Henry Batty</i>	
Eliz. Drake	Cook				28		1.00	<i>Elizth Drake</i>	
Ann Topp	W ^{ch}				28	1 ⁰⁰ March	1.00	<i>Ann Topp</i>	
Joe Nelson	F th				28	1 ⁰⁰ March	1.00	<i>Joe Nelson</i>	
Eliz. Archer	Nurse				28	0.14	0.14	<i>Elizth Archer</i>	
Mary Anglar					28	0.14	0.14	<i>Mary Anglar</i>	
Rach ^d Adams		15	12 ¹	15	3	0.14	0.42	<i>Rach^d Adams</i>	
Judith Gill					28	0.14	0.14	<i>Judith Gill</i>	
Jane Snugg					28	0.14	0.14	<i>Jane Snugg</i>	
Honor Palmer					28	0.14	0.14	<i>Honor Palmer</i>	
Cath. Peap					28	0.14	0.14	<i>Cath^{erine} Peap</i>	
Jus ^a Cornish					28	0.14	0.14	<i>Jus^a Cornish</i>	
Mary Palmer					28	0.14	0.14	<i>Mary Palmer</i>	
Mary Findley					28	0.14	0.14	<i>Mary Findley</i>	
Sarah Morris					28	0.14	0.14	<i>Sarah Morris</i>	
Sarah Carter					28	0.14	0.14	<i>Sarah Carter</i>	
Eliz. Robson					28	0.14	0.14	<i>Elizth Robson</i>	
Eliz. Hanagan					28	0.14	0.14	<i>Elizth Hanagan</i>	
							10.16		

Figure 1: "Abstract of Money's due to assistant Surgeons, Dispensers, Extra Clerks & Servants employed at the Royal Hospital Plymouth between the 1st, and 28th of February 1782," TNA, ADM 102/685, page 2.

The disbursements table from Plymouth Naval Hospital for the month of February 1782 (figure 1), lists Elizabeth Archer first among the nurses, which matched her place as the nurse with the longest employment. The nurses who follow in the list were also entered in the order of their entry into the hospital as nurses. The order of names did not change when a nurse was sick or put on half pay due to her superannuation, as can be seen in the case of Jane Archer in Figure 2.

Persons Names.	Quality.	Time of Entry.	D. or D.D.	Time when.	N ^o of Days Employ'd.	Rate of Allowance.	Sum.	We whose Names are hereunder written, do acknowledge to have received of the respective Sums expressed against our Names.	Witness.
James Reed	Labour				31	5 ¹ / ₂ p ^{er} week	1.2.11	Ed. Edmon for 31 st day	
Will ^m Payne					31		1.2.11	Ed. Edmon for 31 st day	
Will ^m Pengelly					31		1.2.11	Ed. Edmon for 31 st day	
John Bridgman					31		1.2.11	Ed. Edmon for 31 st day	
Arthur Pladden					31		1.2.11	Ed. Edmon for 31 st day	
Robert Wyatt					31		1.2.11	Ed. Edmon for 31 st day	
Thos. Tuscott					31		1.2.11	Ed. Edmon for 31 st day	
Henry Batty					31		1.2.11	Ed. Edmon for 31 st day	
Edw. Drake	cook				31		1.2.11	Ed. Edmon for 31 st day	
Ann Toye	3 rd d ^o				31	12 ¹ / ₂ ann ^o	1.2.11	Ed. Edmon for 31 st day	
Is. Sclton	Laundress				31	6 ¹ / ₂ p ^{er} day	1.0	Ed. Edmon for 31 st day	
Eliz. Aitch	Nurse				31		15.6	Ann Toye	
Mary Douglas					31		15.6	Ann Toye	
Judith Gilt					16		4.0	Ann Toye	
John Emery					31		15.6	Ann Toye	
Honor Palmer					31		15.6	Ann Toye	
Cath ^a Reap					31		15.6	Ann Toye	
Sus ^a Cornish					29		15.6	Ann Toye	
Mary Palmer					31		15.6	Ann Toye	
Mary Findley					11		5.6	Ann Toye	
Sarah Morris					31		15.6	Ann Toye	
Sarah Carter					31		15.6	Ann Toye	
Eliz. Robson					31		15.6	Ann Toye	
Eliz. Flanagan					12		10.0	Ann Toye	
Mary Matchett					19		21.0	Ann Toye	

Figure 2: "Abstract of Money's due to the Assistant Surgeons, Dispensers, Extra Clerks & Servants employed at the Royal Hospital Plymouth between the 1st and 31st of March 1782," TNA, ADM 102/685, page 2.

The death of a nurse, as in the case of Rachel Adams who was discharged dead from the hospital on February 15, 1782, meant that the nurse below on the list rose in seniority, as can be seen in Figure 3.

ABSTRACT of Money's due to the Assistant Surgeons, Dispensers, Extra Clerks, & Servants employed at the Royal Hospital Plymouth between the 1st, and 29th of February 1784

Persons Names.	Quality.	Time of Entry.	D. or D.D.	Time when.	N ^o of Days Employ'd.	Rate of Allowance.	Sum.	We whose Names are hereunder written, do acknowledge to have Received of Mr. [Name] the respective Sums expressed against our Names.	Witness.
John Cobban	Assistant Surgeon				29	5/10 th day	7-6-0	John Cobban	
Phillip Haiches	do				29	3/6	7-5-6	Haiches	
W ^m Richardson	Dispenser				29	3/6	5-1-6	Richardson	
Thomas Davis	do				29	3/6	5-1-6	Davis	
John Baylis	Sec ^y ca. th				29	3/6	3-12-6	Baylis	
Henry Ould	Quint st				29	3/6	3-12-6	Ould	
John King	Porter				29	1/6	2-3-6	King	
Jonathan Davis	Servant				29	3/6	1-0-0	Davis	
Jamison Spence					29	3/6	1-0-0	Spence	
Henry Easton					29	3/6	1-0-0	Easton	
John Melman					29	3/6	1-0-0	Melman	
Arthur Gliddon					29	3/6	1-0-0	Gliddon	
Henry Ratty					29	3/6	1-0-0	Ratty	
Mat. Neworthy					29	3/6	1-0-0	Neworthy	
W ^m Pike					29	3/6	1-0-0	Pike	
W ^m Allen					29	3/6	1-0-0	Allen	
Eliz th Drake	cook				29	6 th day	0-11-6	Drake	
Ann Toye	apt. st.				29	6 th day	0-11-6	Toye	
Eliz Archer	Nurse				27	3/6	0-7-6	Archer	
Henry [Name]					27	3/6	0-7-6	[Name]	

Figure 3: “Abstract of Money's due to the Assistant Surgeons, Dispensers, Extra Clerks, & Servants employed at the Royal Hospital Plymouth between the 1st and 29th of February 1784,” TNA, ADM 102/685, 1.

However, if a nurse left the hospital due to her discharge, when she returned she was entered as a completely new nurse, as can be seen in Figures 4 and 5. This procedure was likely for ease of recordkeeping in the pay list ledger.

Persons Names	Quality	Time of Entry	D. or D.D.	Time when	N ^o of Days Employed	N ^o of Days Vic-tualled	Rate of Allowance	Sum	We whose Names are hereunder-written do acknowledge to have Received of the respective Sums expell'd against our Names.	Witness.
1794 Brought Over										
Mary Stroudhouse	"	1 Aug	"	"	17	"	0.8.0	14.6	E. Watson for Mary Stroudhouse	
Mary Yoc	"	"	"	"	31	"	0.15.0	4.65	The mark for Mary Yoc	
Susanah Hill	"	"	"	"	31	"	0.15.0	4.65	Susanah Hill	
Mary Mops	"	"	"	"	31	"	0.7.0	2.175	J. Park for Mary Mops	
Cath ^l . Edmonds	"	"	"	"	15	"	0.15.0	2.25	The mark of Cath ^l . Edmonds	
Mary M. Carthy	"	"	"	"	31	"	0.15.0	4.65	The mark of Mary M. Carthy	
Mary Edson	"	"	"	"	31	"	0.10.0	3.15	Mary Edson	
Ann Dewdney	"	"	"	"	31	"	0.15.0	4.65	Ann Dewdney	
Mary Littlejohns	"	"	"	"	31	"	0.15.0	4.65	Mary Littlejohns	
Eliz ^h Cayler	"	"	"	"	31	"	0.15.0	4.65	Eliz ^h Cayler	
Jam. Murray	"	"	"	"	31	"	0.15.0	4.65	Jam. Murray	
Eliz ^h Cummings	"	"	"	"	31	"	0.15.0	4.65	Eliz ^h Cummings	
Joham ^l Sullivan	"	"	"	"	31	"	0.15.0	4.65	Joham ^l Sullivan	
Jane May	"	"	"	"	31	"	0.15.0	4.65	Jane May	
Sus ^h Brady	"	"	"	"	31	"	0.15.0	4.65	Sus ^h Brady	
Eliz ^h Webb	"	"	"	"	31	"	0.15.0	4.65	Eliz ^h Webb	
Jane Rowland	"	"	"	"	31	"	0.15.0	4.65	Jane Rowland	
Sarah Turner	"	"	"	"	31	"	0.12.0	3.6	Sarah Turner	
Sus ^h Brownson	"	"	"	"	31	"	0.15.0	4.65	Sus ^h Brownson	
Judith Gist	"	"	"	"	31	"	0.15.0	4.65	Judith Gist	
Marg ^l Littlejohns	"	"	"	"	31	"	0.15.0	4.65	Marg ^l Littlejohns	
Mary W. Donald	"	"	"	"	8	"	0.15.0	1.20	Mary W. Donald	
Ann Finn	"	"	"	"	8	"	0.15.0	1.20	Ann Finn	
Jane Edgecombe	"	"	"	"	8	"	0.15.0	1.20	Jane Edgecombe	
Eliz ^h Beveridge	"	"	"	"	8	"	0.15.0	1.20	Eliz ^h Beveridge	
Martha Lightwood	"	"	"	"	31	"	0.15.0	4.65	Martha Lightwood	
Mary Arnott	"	"	"	"	31	"	0.15.0	4.65	Mary Arnott	

Figure 4: "Abstract of Monies due to the Assistant Surgeons, Dispensers, Clerks, & Servants, employed at the Royal Hospital Plymouth between 1st and 31st August 1794," TNA, ADM 102/687, 3.

For example, in August 1794 nurse Jane Edgecombe worked eight days before her discharge from Plymouth Naval Hospital. Her position in the pay list was between Ann Finn, who was also discharged on August 8th, and Elizabeth Beveridge, who worked into September.⁶³ Even with

⁶³ "Plymouth: pay lists," 1789-1794, TNA, ADM 102/687; "Plymouth: pay lists," 1794-1797, TNA, ADM 102/688.

the discharge of many nurses who had been below her in the pay list, Edgcombe still fell five positions in the order and was subsequently below Sarah McNorton in seniority.⁶⁴

Persons Names	Quality	Time of Entry	D. or D.D.	Time when	N ^o of Days Employed	N ^o of Days Victualled	Rate of Allowance	Sum	We whose Name are hereunder-written do acknowledge to have Received of the respective Sums expressed against our Names
Sarah Allen	Nurse	1 Aug		Brought Over					
Eliz ^h Fountain	"	"	"	Aug 31			By day	0.15.0	The master of the vessel
Han ^h Francis	"	"	"	29	29		"	0.14.0	Eliz ^h Fountain
Mary Keys	"	"	"	8	8		"	0.12.0	Eliz ^h Fountain
Mary Dudge	"	"	"	13	13	23 ³	"	0.12.0	Eliz ^h Fountain
Marg ^h Smith	"	"	"	2 Sick	2	23 ³	"	0.0.0	Eliz ^h Fountain
Sus ^h Honey	"	"	"	8	8	26	"	0.4.0	Eliz ^h Fountain
Jane Hodge	"	"	"	31	31		"	0.15.0	The master of the vessel
Han ^h Bedford	"	"	"	29	29		"	0.14.0	Eliz ^h Fountain
Jane Butler	"	"	"	8	8		"	0.14.0	Eliz ^h Fountain
Chart Potter	"	"	"	8	8		"	0.4.0	Eliz ^h Fountain
Mary Randle	"	"	"	2	2		"	0.4.0	Eliz ^h Fountain
Sarah McNorton	"	"	"	12	12		"	0.6.0	Eliz ^h Fountain
Ann Groom	"	"	"	31	31		"	0.15.0	The master of the vessel
Marg ^h Donovan	"	"	"	2	2		"	0.1.0	Eliz ^h Fountain
Sus ^h Butlers	"	"	"	6	6		"	0.3.0	Eliz ^h Fountain
Jane Warwick	"	"	"	1	1		"	0.0.0	Eliz ^h Fountain
Jane Johns	"	"	"	1	1		"	0.0.0	Eliz ^h Fountain
Sarah Mitchell	"	"	"	31	31		"	0.15.0	The master of the vessel
Eliz ^h Sandle	"	"	"	1	1		"	0.0.0	Eliz ^h Fountain
Sarah Walker	"	"	"	1 Sick	10	23 ³	"	0.0.0	Eliz ^h Fountain
Sus ^h Day	"	"	"	29	19	26 ³	"	0.12.0	Eliz ^h Fountain
Dorothy Leget	"	"	"	1	1	26 ³	"	0.0.0	Eliz ^h Fountain
Mary Ann Fenbath	"	"	"	1 Sick	3	26 ³	"	0.0.0	Eliz ^h Fountain
Mary Foresaith	"	"	"	2	3	26 ³	"	0.3.0	Eliz ^h Fountain
Eliz ^h Cundy	"	"	"	1	1	26 ²	"	0.0.0	Eliz ^h Fountain
Christ ^h Hall	"	"	"	1	1		"	0.0.0	Eliz ^h Fountain
Jane Edgcombe	"	"	"	13	30	18	"	0.9.0	Eliz ^h Fountain
Car ^o Over								5.15.0	

Figure 5: "Abstract of Monies due to the Assistant Surgeons, Dispensers, Clerks, & Servants, employed at the Royal Hospital Plymouth between 1st and 31st August 1794," TNA, ADM 102/687, 4.

⁶⁴ "Plymouth: pay lists," TNA, ADM 102/687.

This practice of listing nurses' seniority also was summarized in the regulations issued by the Admiralty to the hospital Governors in 1803:

... as Superannuation was extended to Nurses and Labourers of Hospitals that a certain time of Servitude should be necessary to enable them thereto during which time if they be discharged for Misdemeanor they shall never be re-entered and that if discharged at their own request or from any other cause than the necessary reduction of the establishment and re-entered their former time shall be taken for nothing and that at each time of their discharge a Certificate shall be sent to this Office signed by yourself a Physician or Surgeon and the Steward or Agent expressing the cause which will be entered in a book to be kept for that purpose⁶⁵

Thus, according to the official instructions, the only way for a nurse to keep her seniority was if she had been discharged as part of a general work-force reduction.⁶⁶ Yet, pay list records from the period after December 1803 show that in fact the practice of listing by seniority continued much the same as it had before this instruction. For example, nurses who went on leave but were not discharged maintained their seniority. It was only those nurses who were discharged for leave, not simply docked their pay for time missed, who gave up their order in the ranks of seniority.

The decision to record nurses' names by seniority, and by 1808 to record the wards in which they worked, demonstrates that they were valued as individuals with specialised skills.⁶⁷ Skilled nurses were valuable in a monetary sense; the quicker a sick or wounded sailor returned to his ship, the better it was for the Royal Navy, both in terms of lost manpower and cost of care. Within this framework, the rehiring of certain nurses in times of high patient numbers can be viewed not only as a matter of convenience, but as a mark of their perceived individual abilities. Naval hospitals, with their standing mandate to care for sick and wounded seamen whether at

⁶⁵ "Instructions and precedents," 15 December 1803, TNA, ADM 98/105, 476-477.

⁶⁶ *Instructions for the Royal Naval Hospitals at Haslar & Plymouth*, 13.

⁶⁷ *Instructions for the Royal Naval Hospitals at Haslar & Plymouth*, 204.

peace or war, valued their nurses as individuals and paid them well. This was not the case in the military.

Regulating Nursing in the Army

The lack of a British standing army during the eighteenth century ensured that there was no permanent military medical administration from one military conflict to the next. Even in European theatres, military medical establishments, beyond that of the regiment, would often need to be reconstructed for each campaign season. It was only in the Revolutionary and Napoleonic Wars that the Army Medical Board started to issue unified printed instructions for Regimental and General Hospitals. The first such regulations dated from 1799. Five years after an overhaul of the military's medical administration, spurred by a medical disaster of the Flanders campaign, these regulations were designed to create a caring and efficient medical system. The reforms resulted in the Army issuing commissions to army surgeons and physicians, and the renaming of the position of surgeon's mate to assistant surgeon.⁶⁸ Medical officers hoped that changes to the provision of army medicine would lend more prestige to the occupation of army surgeon and attract more and better-qualified candidates to the role.⁶⁹ As a result, a Royal Warrant was issued on 22 May 1804, which outlined the new regulations concerning the pay and privileges of surgeons on active service and increased half-pay provisions tied to length of service.⁷⁰ Ultimately, the Army Medical Board designed the regulations to provide sick and injured soldiers with the best possible care and attention:

⁶⁸ James McGrigor, *The Autobiography and Services of Sir James McGrigor Director-General of the Army Medical Department* (London: Longman, Green, Longman, and Roberts, 1861), xvii; *Wellington's Doctors*, 176; *Wellington's Surgeon General*, 126; *War and Militarization of British Army Medicine*, 2.

⁶⁹ Kelly, *War and the Militarization of British Army Medicine*, 103.

⁷⁰ "Regulation for Encreasing the Advantages and Improving the Situation of the Medical Officers of the Army," in *Instructions to Regimental Surgeons for Regulating the Concerns of the Sick*, (1806), 1-10.

to give very particular attention to fixed Rules and Instructions, it is our duty to propose such Regulations as relate to the interior Management of all Regimental Hospitals. With this Intention we hope the following Regulations will secure to the Sick the diligent and regular attention of the Surgeon and Attendants.⁷¹

As with naval healthcare, the majority of everyday care was in the hands of nurses and orderlies. Under the 1799 regulations, the hospital Sergeant was “to see that the Nurse and Orderly-man, punctually give to the patients what has been directed by the Surgeon. He is likewise to see that the ward is kept clean, and the bed-pans emptied out by the Orderly-man, immediately after they have been used.”⁷² According to these regulations, the duties of nurse and orderly seem to have overlapped. The specific duties of the nurse were “to prepare the slops and comforts for the sick, and occasionally to assist in administering medicines, cooking the victuals, washing, &c.”⁷³ Although her pay of one shilling per day was the highest of the non-medical officers working in the regimental hospital, a nurse was not intrinsic to the proper functioning of the army medical system.⁷⁴ The ability to exchange a nurse and orderly-man also was shown in the provision that “for every ten men confined to bed by fever, an additional Nurse and Orderly-man should be allowed.”⁷⁵ Basic care work was not strictly gendered in the Army, in contrast to the Royal Navy.

It is unclear the extent to which the 1799 regulations were a reflection of contemporary regimental policies or a top-down standardization of British military medicine. Similar language concerning the role of nurses in regimental hospitals appeared two years before in the *Regulations to be Observed In The Regimental Hospitals of the Several Corps in Jamaica*

⁷¹ *Regulations, to regimental surgeons, &c, for the better management of the sick in Regimental Hospitals* (London: J. Jones, 1799), 7.

⁷² *Regulations, to Regimental Surgeons* (1799), 31.

⁷³ *Regulations, to Regimental Surgeons* (1799), 37.

⁷⁴ *Regulations, to Regimental Surgeons* (1799), 37.

⁷⁵ *Regulations, to Regimental Surgeons* (1799), 37.

published in 1797. According to these regulations, “the duty of the orderly men and pioneers (one of the latter likewise to cook for the hospital) is to officiate as nurses, by attending the sick, administering their medicines and nourishment, and to keep the ward clean.”⁷⁶ Nurses also were discussed in earlier writings of military medical practitioners as having performed similar tasks. For example, the year before the official regimental hospital regulations were issued, surgeon William Blair (1766-1822), in his *The Soldier’s Friend, or, The Means of Preserving the Health of Military Men* noted that:

Every regimental hospital will be provided with a steady serjeant; with one orderly man, or more, according to the exigency of the service; and one woman nurse; and for every ten men confined to bed by fever, an additional nurse, or orderly man; and all the patients who are able, are every morning and evening to assist in cleaning and airing the hospital, carrying away dirt, &c. and by every means to assist the helpless.⁷⁷

Regimental surgeon, William Lempriere, described the ways in which the wife of the hospital sergeant in Jamaica “washed, had charge of the bedding and linen of the men, made drinks, and in short, acted completely as a nurse.”⁷⁸

The lack of detail concerning nurses’ work prescribed by the Army Medical Board in the 1799 regulations is particularly surprising given medical officers’ longstanding calls for systematic reform, as early as the aftermath of the Seven Year’s War. For example, army physician Donald Monro (1727-1802) divided the role of nurses in regimental hospitals into two roles, that of “Matron or Head Nurse” and that of “Common Nurses.”⁷⁹ Matrons would,

⁷⁶ Head-Quarters, *Spanish-Town Regulations to be Observed In The Regimental Hospitals of the Several Corps in Jamaica* (Spanish-Town: David Dickson, 1797), 11.

⁷⁷ William Blair, *The Soldier’s Friend: or, The Means of Preserving the Health of Military Men; Addressed to the Officers of the British Army* (London, 1798), 133.

⁷⁸ William Lempriere, *Practical observations on the diseases of the army in Jamaica, as they occurred between the years 1792 and 1797* (London: T. N. Longman and O. Rees, 1799), 284.

⁷⁹ Donald Monro, *An Account of the Diseases Which were most frequent in the British Military Hospitals in Germany*, (London: A. Millar, D. Wilson, and T. Durham, 1764) 384.

accordingly to Monro, act in a supervisory capacity, while nurses would carry out essential patient care.⁸⁰ Common nurses' duties could be broadly summarized as follows: to keep the patients "always neat and clean," to "give [the patients] their Diet regularly," and to ensure that medicines were dispensed as directed by the medical officer.⁸¹ Nurses were also to report to the medical officers "any Faults or Irregularities which any of their Patients may have committed," thus, policing patient behaviour.⁸² Monro likewise believed that nurses should have the responsibility of informing the matron of the death of any patients.⁸³ These suggestions mirror similar regulations that had been issued for naval hospitals in the 1770s; like their naval counterparts nurses in military settings performed similar functions: cleaning, caring, policing, and monitoring.⁸⁴ Additional similarities with the Royal Navy exist in the six additional regulations Monro proposed for nurses, covering proper fumigation and ventilation of hospitals – necessary to create a healthy healing environment as discussed in chapter two – nurses' conduct, and prohibitions on the introduction of spirituous liquors into military hospitals.⁸⁵ Monro reiterated verbatim his call for a regulated military medical system composed of matrons and nurses in a 1780 publication.⁸⁶ Significantly, Monro's hospital system divided tasks and authority along what some historians, like Chris Dooley in the case of psychiatric nursing, view as hallmarks of twentieth-century modern professionalization.⁸⁷ Calls by Monro to implement a

⁸⁰ Monro, *An Account of the Diseases*, 284.

⁸¹ Monro, *An Account of the Diseases*, 384.

⁸² Monro, *An Account of the Diseases*, 285.

⁸³ Monro, *An Account of the Diseases*, 285.

⁸⁴ "Instructions issued to Mr. [blank] Agent of the Royal Naval Hospital at [blank] in the year 1772," 20 October 1772 in "Instructions and Precedents," TNA, ADM 98/105, 181; "Instructions issued to Mr. [blank] Steward of the Royal Naval Hospital at [blank], 14 December 1770, in "Instructions and Precedents," TNA, ADM 98/105, 294.

⁸⁵ Monro, *An Account of the Diseases*, 285-287.

⁸⁶ Donald Monro, *Observations on the Means of Preserving the Health of Soldiers; and of Conducting Military Hospitals* (London: J. Murray, 1780), 121-124.

⁸⁷ Dooley has shown that the reconstruction of care in mental institutions to involve a matron and specialised nurses was a hallmark of the creation of the psychiatric nursing profession in Canada in the 1930s. Chris Dooley, "'They Gave Their Care, but We Gave Loving Care': Defining and Defending Boundaries of Skill and Craft in the Nursing

system of military nursing care with a matron and nurse framework can also be integrated into the early professionalization narrative of military medicine.⁸⁸ Even later in his 1800 *Regimental Companion*, Charles James, an army officer, suggested that female hospital staff should be divided into the positions of matron, head nurse, and nurses. The fact that elements of the British Army's medical leadership were calling for standardization of care during both peace and war demonstrates how continuity was an enduring concern for the military. For James, "[t]he Nurses and orderly men are to take care, that the wards are swept clean, the beds made, the window opened where necessary, and all filth removed early in the morning."⁸⁹ In addition, nurses were to take care to shift body and bed linen, and ensure that no liquor was brought into the hospital.⁹⁰ Again cleanliness, ventilation, and policing of order in the hospital took precedence over the role of the nurse. The conflation of the role of nurse and orderly man, as James suggested, was especially common in the army general hospitals, possibly due to a lack of suitable candidates in foreign countries to act as female nurses.

While military medical officers called for the use of female nurses in regimental hospitals, and while medical professionals such as Monro called for stringent regulation not only of nurses' roles but also their conduct, these topics were not reflected in the official regulations. The British Army's stagnant regulatory system is visible with the reissuing of virtually unchanged regimental and general hospital regulations in 1803, 1806, and 1812. The role of the nurse in regimental hospitals was quickly and succinctly defined: "to administer the medicines and comforts to the patients, to attend to the cleaning of the wards, and, unless her time is

Service of a Manitoba Mental Hospital during the Great Depression." *Canadian Bulletin of Medical History* 21(2) (2004), 231.

⁸⁸ Kelly, *War and the Militarization of British Army Medicine*, 1.

⁸⁹ Charles James, *The Regimental Companion; Containing the Relative Duties of Every Officer in the British Army; and Rendering the Principles of System and Responsibility familiar*, Volume II, (London: T. Egerton, 1800), 340.

⁹⁰ James, *The Regimental Companion*, 340.

otherwise occupied by a heavy sick list, to wash the hospital bedding and towels, when it is not performed by the Barrack Department.”⁹¹ In her work, the nurse was to be assisted when necessary by the Orderly Man.⁹² Even with a clearer division between the role of the nurse and that of the orderly, a ratio of one nurse for every five hundred men was not viewed as of absolute necessity. This toleration for a high patient to nurse ratio was best demonstrated by the instructions given to regimental surgeons when the regiment was split up into cantonments.

Regimental regulations stipulated that:

This regulated allowance is intended for an entire Regiment: when the Regiment is separated, the Surgeon is expected to exercise his discretion in dividing and apportioning the ordinary expence of the whole, in such a way as to meet the exigencies of all. Thus, in the situation of a Regiment detached in three parts, it is advisable to discontinue the Nurse, and to employ three Orderlies in her stead; and, by so doing, to give a due proportion of assistance to each Detachment.⁹³

Thus, when military necessity demanded the separation of a regiment, the financially-conscious army regulators saw the nurse as an expense too costly to necessitate the hiring of additional nurses for each cantonment, or part, of the divided regiment. Nurses were, in other words, important but not essential to care for sick and wounded soldiers in the British Army.

Indeed, the differences between these four sets of regulations were not found in the job description of the nurse, but through a clearer specification of who should fill the position of nurse and rates of pay. According to the 1799 regulations, a “decent,” and “sober,” woman was to hold the position of nurse.⁹⁴ Nurses, and women in general, still represented a potential moral danger to soldiers and threats to order.⁹⁵ However, in the 1803 and 1806 instructions, there is no

⁹¹ *Instructions for the Regulation of Regimental Hospitals* (1812), 12.

⁹² *Instructions for the Regulation of Regimental Hospitals* (1812), 12.

⁹³ *Instructions to Regimental Surgeons for Regulating the Concerns of the Sick* (1806), 22.

⁹⁴ *Regulations to regimental surgeons* (1799), 37.

⁹⁵ John A. Lynn, *Women, Armies, and Warfare in Early Modern Europe* (Cambridge: Cambridge University Press, 2006), 105-106.

mention of the ideal qualities of potential regimental hospital nurses.⁹⁶ Nonetheless, by 1812 the original requirement of sobriety among nurses returned with further stipulations that the nurse be a “careful, cleanly, and active woman accustomed to the charge and management of sick persons.”⁹⁷ When all qualifications were equal, “preference should be given to the wife of a Non-commissioned Officer or Soldier of the regiment.”⁹⁸ Although the decision to employ the wife of a soldier would support the family unit, pay for the nurse was reduced from one shilling to nine pence per day as a cost-saving measure between 1806 and 1812.⁹⁹ Therefore, although the duty of the nurse did not change between 1799 and 1812, the later regulations indicate a clear desire on the part of military medical authorities to fill the nursing role with the best possible candidates, even while their pay had been reduced. In certain instances, we see an attempt was made to confer status or prestige on the position through the hiring of the wives of non-commissioned officers. Such a hiring policy legitimated the labour that many women tied to the army were already performing, while at the same time lessening the costs of such service by lowering the wages of nurses.

When compared with the naval system, the system of pay reporting for nurses' and other employees' wages theoretically could lead to governmental observers inflating the cost of nursing care. Not only were all nursing costs lumped together, but it was impossible to show the value of individual work or to develop a system of seniority-based retention and compensation. On a campaign-by-campaign basis, nursing care was dispensed from the regiment's coffers collectively and was lumped together with other hospital servants. For instance, the auditor's

⁹⁶ *Instructions to Regimental Surgeons, for Regulating the Concerns of the Sick and of The Hospital* (London: Henry Reynell, 1803), Royal College of Surgeons Library, TRACTS A217(2), 4-5; *Instructions to Regimental Surgeons for Regulating the Concerns of the Sick* (1806), 21-22.

⁹⁷ *Instructions for the Regulation of Regimental Hospitals* (1812), 12.

⁹⁸ *Instructions for the Regulation of Regimental Hospitals* (1812), 12.

⁹⁹ *Instructions to Regimental Surgeons for Regulating the Concerns of the Sick* (1806), 21; *Instructions for the Regulation of Regimental Hospitals* (1812), 12.

rolls suggest that “Wages to Servants and Nurses attending the Hospital at Halifax from the 23d, of August 1778, to the 6th of February 1779, as by a List of the persons names and Receipts of John Bowden, and [Redmond] Connell Stewards of the Hospital,” cost £87 8s 0d.¹⁰⁰ Such lump sums would then be divvied out to the individual employees. Similarly, “Pay of Stewards, Nurses, Orderlies &c,” at Minorca between 24 February and 24th April 1799, was £28 3s 0d.¹⁰¹ Accounts from the general hospital in the West Indies from 1795-1798 fail to break down pay, that totalled £10,286 3/4s 1/2d, beyond the category “Wages.”¹⁰² Although the Halifax account suggests that an individualized list along the same lines as that kept by the navy hospital might have existed, it was clearly not common practice to include an itemized list of pay disbursed to particular nurses, other hospital servants, or medical practitioners. In such a pay scheme, it might appear to the army officials and Parliament, that nurses were overpaid; saving on costs was always a concern for perpetually cash-strapped institutions.

Regulations for regimental hospitals in Ireland outlined similar staffing requirements to those of regimental hospitals designed to serve the rest of the British Army, yet there were small differences, illustrating the continuance of varied regulations based on geographic circumstances. The similarities are not surprising since the Irish regulations were printed in 1803 and 1806, the same as other British army regulations. For example, each regimental hospital in Ireland was “to be provided with a steady Serjeant, . . . with one Orderly Man, or more according to the Exigency of the Service, and one Woman Nurse; and for every ten Men confined to Bed *by Fever*, an

¹⁰⁰ “Auditors of the Imprest and Commissioners of Audit: Declared Accounts (In Rolls). Roll 267 Dr. J. Jeffrier, Purveyor to the hospitals at Halifax in Nova Scotia,” 1778-1779, TNA, AO 1/1519/267.

¹⁰¹ “Auditors of the Imprest and Commissioners of Audit: Declared Accounts (In Rolls). Roll 284 R. Patrick, Purveyor to the hospitals in Minorca,” 1798-1799, TNA, AO 1/1523/284.

¹⁰² “Auditors of the Imprest and Commissioners of Audit: Declared Accounts (In Rolls). Roll 278 A. Turnbull, Purveyor to the General Hospital in the West Indies,” 1795-1798, TNA, AO 1/1522/278.

additional Nurse, or Orderly Man.”¹⁰³ The same staffing provision was printed in the 1806 version of the instructions, without stipulating of the possibility of additional nurses for fever patients.¹⁰⁴ Working under the supervision of the hospital Sergeant, nurses in Irish regimental hospitals were to “assist in administering the Medicine, cooking the Victuals, washing the Patients’ Linen, Bedding, &c..”¹⁰⁵ Essentially, they performed the same tasks of those nurses in other British regimental hospitals.

The generalist nature of regimental hospital nurses’ work is not surprising given that a regimental hospital was the primary site of medical treatment in the military medical system. Army hospitals were designed to be small, movable, and able to deliver essential medical care. They were not necessarily equipped to handle the complex realities of massive battle casualties, amputations, and severe disease outbreaks. Serious wounds or epidemics might initially be assessed by a regimental surgeon, but casualties were then meant to be transported back up the line to general hospitals.¹⁰⁶ Unlike the naval hospitals in Portsmouth and Plymouth, which were permanent structures with relatively stable staffs, general hospitals in the army were only formed out of necessity during emergencies. Under the direction of the staff branch of the Army Medical System, general hospitals were typically under the direction of more experienced medical officers. General hospitals were spaces that, at least temporarily, resembled fixed hospital structures, especially when operating in the British Isles. Within such a framework, it might be expected that the regulations governing nurses and nursing care in army general hospitals would have resembled the naval hospitals more than the regimental hospitals. Indeed,

¹⁰³ *Instructions for the Army Medical Board of Ireland, to Regimental Surgeons and Assistant Surgeons Serving on that Establishment* (Dublin: George Grierson, 1803), 3. Wellcome Library, RAMC/1406.

¹⁰⁴ *Instructions from the Army Medical Board of Ireland, to Regimental Surgeons Serving on That Establishment, For Regulating the Concerns of the Sick and The Hospital.* (Dublin, 1806), Wellcome Library, RAMC/1406/1, 8.

¹⁰⁵ *Instructions from the Army Medical Board of Ireland* (1806), Wellcome Library, RAMC/1406/1, 40.

¹⁰⁶ Howard, *Wellington's Doctors*, 113.

there were some similarities. For example, in both systems nurses were to collect food from the hospital kitchens, accompanied by a hospital patient, and distribute it to their wards.¹⁰⁷ Likewise, army general hospital nurses and all female servants of the institution were to be under the supervision of the Matron, mirroring authority structures in naval hospitals.¹⁰⁸

Yet, while the roles of naval nurses were carefully and sometimes exhaustively detailed in the navy regulations, the regulations governing the role of female nurses in general hospitals remained vague, generalised, and more interchangeable with men. Female nurses are once again to be “selected from among the Wives of Non-Commissioned Officers, and Soldiers,” but a single nurse was to have the care of an entire hospital floor, while one orderly man was allowed for every eight patients.¹⁰⁹ Army regulations distinguished only between the roles of nurses and orderlies when it came to nurses’ oversight of diet and the cleaning of linen.¹¹⁰ And only nurses were directed to be “attentive, assiduous, and humane, in their care of the sick.”¹¹¹ In all other facets the role of the nurse and that of the orderly were interchangeable. For example, “the Nurses and Orderlies” were to “wash and put away the utensils, after each meal,”¹¹² and “directions for administering medicines during the night [were] clearly understood by the respective Nurses, and Orderlies.”¹¹³ The general conflation of the role of the orderly man and female nurses in army general hospitals, and the shortening of the title “orderly man” to “orderly,” was further compounded by the addition of an orderly mate to the hospital staff. This individual who was equated to the position of hospital mate in naval hospital regulations and was not to perform nursing care, but “to have in his charge a Case of Capital Instruments, with a Tray

¹⁰⁷ *Regulations for the Management of the General Hospitals in Great Britain* (London: W. Clowes, 1813), 32.

¹⁰⁸ *Regulations for the Management of the General Hospitals in Great Britain*, 30-31.

¹⁰⁹ *Regulations for the Management of the General Hospitals in Great Britain*, 48.

¹¹⁰ *Regulations for the Management of the General Hospitals in Great Britain*, 32, 29.

¹¹¹ *Regulations for the Management of the General Hospitals in Great Britain*, 30.

¹¹² *Regulations for the Management of the General Hospitals in Great Britain*, 33.

¹¹³ *Regulations for the Management of the General Hospitals in Great Britain*, 41.

of Dressings, and such Surgical Apparatus, as may be thought necessary to meet any accident. These he is to deliver over to the Officer who relieves him, specifying the same in his Morning Report.”¹¹⁴ Orderly mates were therefore viewed as junior medical officers, whereas female nurses were interchangeable with untrained military men pulled from the ranks.

Regulations issued for military hospitals in the Peninsular Campaign (1807-1814) contain references to both female nurses and male orderlies. Like the above general hospital regulations, the role of the nurse and the orderly man were mostly interchangeable, with two key exceptions. First, orderly men, not nurses, were to dispense and collect medicines.¹¹⁵ Second, nurses rather than orderlies would be solely responsible for “attendance on sick officers.”¹¹⁶ Orderly men were cautioned not “to attempt any medical duty beyond the dressing of a blister, or the application of a poultice.”¹¹⁷ While there was no specific limitation on the duties of nurses, probably their medical role also would have had similar restrictions. Indeed, the absence of a clearly delineated role for nurses could suggest that their medical role in patient treatment was even more curtailed during this campaign.

The military medical system of the Revolutionary and Napoleonic Wars depended on both the regimental and general hospitals providing adequate and timely care to sick and injured soldiers. Without the regimental hospital infrastructure, there was no healthcare provision. As Fergusson described in his draft regulations for regimental hospitals in Portugal: “The Regimental Hospital ~~when properly conducted~~, is the Cardinal hinge on which the health of Armies depends, the first resource of the Sick Soldier, and ~~the fountain of experience~~

¹¹⁴ *Regulations for the Management of the General Hospitals in Great Britain*, 42.

¹¹⁵ *Instructions for the Regulation of Military Hospitals and the Sick With Divisions of the Army in the Peninsula Under the Command of Field Marshal the Marquis of Wellington* (Lisbon: Antonio Rodrigues Galhardo, 1813), Wellcome Library, RAMC/149 Box 8, 54.

¹¹⁶ *Instructions for the Regulation of Military Hospitals in the Peninsula*, 43.

¹¹⁷ *Instructions for the Regulation of Military Hospitals in the Peninsula*, 51.

respectability and character to the Medical Officer the best support for maintaining the active strength of the forces.”¹¹⁸ Fergusson’s first draft focused on three facets of regimental hospitals: their proper organization, their importance to the sick soldier and thereby the strength of the army, and the hospital as a training ground for medical officers. However, his second draft was more finely tuned, focusing only on the importance of the regimental hospital for the health of soldiers and the strength of the army. Most army medical officers viewed regimental hospitals as the primary location of military medicine.¹¹⁹ Yet, without general hospitals, there was no mechanism to handle large numbers of casualties or sick men. Army Surgeon R. Blant described the necessity of general hospitals during an epidemic at Peniche, Portugal in September 1810: “[O]ur poor Recruits die from 7 to 12 of a day & no means we can adopt has stopt the progress of disease Disentery & Fever are the principals this Morn[ing] completed 450 we have sent to Lisbon - & yet 100 Men continue every day to enter the Hospitals.”¹²⁰ Due to their smaller size and capacity, regimental hospitals could be easily overwhelmed, as Blant’s account illuminates.

Given the importance of general hospitals for rapidly responding to massive numbers of patients, the lacklustre regulatory apparatus for nursing care was an unfortunate oversight. Furthermore, when the difficulties of quickly moving regiments and regimental hospitals are considered alongside more permanent general hospitals, it is surprising that the roles of both nurses and orderlies were not more clearly defined in regimental hospital regulations. General hospitals, which had better access to a stable labour force, rarely distinguished the role of

¹¹⁸ Deletions in the text represent Fergusson’s edits to his draft observations. “Observations re Regimental Hospitals and duties of the Brigade Surgeon,” Wellcome Library, RAMC 210/3

¹¹⁹ For more discussion on the merits of regimental hospitals in comparison with the failings of general hospitals see: Kelly, *War and the Militarization of British Army Medicine*, 36-37, 42, 86, 102; Robert Jackson, *A System of Arrangement and Discipline for the Medical Department of Armies* (London: John Murray, 1805), 57-59; Robert Jackson, *An Outline of the History and Cure of Fever, Endemic and Contagious* (Edinburgh: Mundell & Son, 1798), 9-11; J. G. V. Millingen, *The Army Officer’s Manual Upon Active Service* (London: Burgess and Hill, 1819), 59.

¹²⁰ “R. Blant to William Fergusson”, 28 September 1810, William Fergusson Papers, Yale MS 1287 Film HM 275.

orderlies from that of female nurses. The use of nurses to care for officers does suggest that their nursing care was superior to orderlies, who were described by patients as “brutes,”¹²¹ or “inhuman murderers of the sick.”¹²² Others, like regimental surgeon, Robert Hamilton, thought orderlies would answer their duties “tolerably well,” but only if “he is to continue, not to be changed every week, or less, as is sometimes done, since it takes some time to qualify him for the office.”¹²³ This sentiment was echoed in the regulations of army regiments: “it will tend materially to the Benefit of the Sick, that this Non-commissioned Officer, and the Orderly Men acting in the Hospital, should be considered as being in a permanent situation, and not liable to be removed except in case of Misdemeanour.”¹²⁴ Military medical officers working at regimental hospitals believed that “a woman is always to be preferred, where a choice can be made.”¹²⁵ Hamilton also believed, like later regulations would illustrate, that the nurse was to have a supervisory role, particularly when an orderly was needed to provide continuous nursing care to a patient. “When a patient is so ill that it becomes necessary for one of the orderlies to sit by him, he undertakes this duty under the nurse’s inspection. She makes a report of his behaviour to the surgeon on his next visit.”¹²⁶ Yet despite the differences in preference of orderlies or female nurses between regimental and general hospitals, both sorts of institutions were sparsely regulated when delineating the duties of nurses and orderlies, possibly because medical practitioners and regulators thought their role was so simple and obvious as not to need careful delineation.

¹²¹ John Spencer Cooper, *Rough Notes of Seven Campaigns In Portugal, Spain, France and America, During the Years 1809-10-11-12-13-14-15* (London: John Russell Smith, 1869), 149.

¹²² Johann Christian Maempel, *Adventures of a young rifleman in the French and English armies, during the war in Spain and Portugal, from 1806 to 1816* (London: H. Colburn, 1826), 188.

¹²³ Robert Hamilton, *The duties of a regimental surgeon considered*, Volume 1, (London: J. Johnson, 1787), 29.

¹²⁴ *General Regulations and Orders relative to the duties in the field and in cantonments* (London: T. Egerton, 1798), 35.

¹²⁵ Hamilton, *The duties of a regimental surgeon considered*, Volume 1, 53.

¹²⁶ Hamilton, *The duties of a regimental surgeon considered*, Volume 1, 57.

Regulating Nursing in English Civilian Hospitals

Though there had been rules and regulations for the conduct of nurses, sisters, and patients at the London voluntary hospitals since their sixteenth-century inception, these rules were often, like the army case shown above, succinct. The lack of detail suggests that the knowledge did not need to be codified, owing to a common understanding of medical practices. The regulatory structure of these institutions made them seem more like the ad hoc army establishments formed on a campaign-by-campaign basis.¹²⁷ The regulations concerned only what was happening in the hospitals wards, which were also places of nurses and nursing care within a defined gender-segregated space. The opposite was true of the naval hospitals where nurses were important not only in the ward, but throughout the hospital, as is suggested by mention of nurses in all hospital regulations. On the surface, London's hospitals seem to have more in common with naval hospitals than with either army regimental or general hospitals. Both Haslar and Plymouth naval hospitals and the voluntary hospital movement began in the eighteenth century. Voluntary hospitals were permanent, consistently funded institutions, with close ties to their local communities, and hospital administrators through the governmental voluntary subscription system. To gain a general sense of nursing regulations in voluntary hospitals, I expanded my analysis to consider civilian hospitals in different English cities.¹²⁸

¹²⁷ Kelly, *War and the Militarization of British Army Medicine*, 17. John Woodward, *To Do the Sick No Harm: A Study of the British Voluntary Hospital System to 1875* (London: Routledge & Keegan Paul, 1974), 29-35.

¹²⁸ The work of Roy Porter has demonstrated how English voluntary hospitals "all followed the same model, framed similar rules, and made identical appeals to the passions, piety, prudence, and pockets of the locals." However, he does not consider regulations directed specifically at nurses. Roy Porter, "The gift relation: philanthropy and provincial hospitals in eighteenth-century England," in *The Hospital in History*, Lindsay Granshaw and Roy Porter, eds. (London and New York: Routledge, 1989), 130.

Civilian hospitals that had been in existence the longest, St. Bartholomew's and St. Thomas's in London, had the most specific regulations regarding nursing care.¹²⁹ Nurses and Sisters at St. Bartholomew's were to see that no liquor was brought into the hospital, to dispense medicines and food to patients as directed by the medical personnel, and to ensure that patients returned to their beds by ten o'clock at night.¹³⁰ Those from St. Thomas's Hospital were even more detailed, in that they separated the duties of sisters, nurses, and patients.¹³¹ This division was similar to that between head nurses and nurses called for by Monro in army hospitals. Nurses dispensed medicines and food, including emetics to induce vomiting. They also participated in other medical tasks, including the use of clysters (enemas) and assisted the surgeons with dressings.¹³² Sisters acted like the head nurses proposed by Monro in army hospitals: they were to monitor the patients' and nurses' conduct, maintain cleanliness in the wards, and ensure that linen was washed and delivered to the hospital matron.¹³³ Ward Sisters also could be punished by the hospital governors if a discharged patient did not leave the hospital, or if a patient went a week at the hospital without medical or surgical assistance.¹³⁴ Unlike the other hospitals discussed, St. Thomas' offered additional regulations for "the Watch,"

¹²⁹ Although St. Thomas's and St. Bartholomew's are not formed under the voluntary hospital movement they are often considered together with the voluntary hospitals when examining hospitals in the eighteenth century. Susan C. Lawrence, *Charitable knowledge: Hospital pupils and practitioners in eighteenth-century London* (Cambridge: Cambridge University Press, 1996), 3. Other hospitals evolved out of the Georgian infirmary movement, when thirty hospitals were founded in England by the end of the eighteenth century. Anne Borsay, "Visitors and residents: the dynamics of charity in eighteenth-century Bath," *Journal of Tourism History* 4(2) (2012), 172. Adrian Wilson called voluntary hospitals "amongst the most original and enduring monuments of Georgian England," which "subsequently became the leading medical institutions of the industrial age." Adrian Wilson, "Conflict, Consensus and Charity: Politics and the Provincial Voluntary Hospitals in the Eighteenth Century," *English Historical Review* 111(442), (1996), 599.

¹³⁰ "Rules to be Observed by the Sisters and Nurses of St. Bartholomew's Hospital," 18th century, St. Bartholomew's Hospital Archives.

¹³¹ "Saint Thomas' Hospital Group. Administration: duties of staff and patients, 18th Century." London Metropolitan Archives, H01/ST/A/025.

¹³² "The Duty of the Nurse," LMA, H01/ST/A/025.

¹³³ "The Duty of the Sister," LMA, H01/ST/A/025; *Abstract of the Orders of St. Thomas's Hospital Relating to the Sisters, Nurses and Poor Patients, therein*, (London, 1705).

¹³⁴ *Abstract of the Orders of St. Thomas's Hospital*.

those nurses who were to supervise the patients at night. Night nurses were to monitor the condition of patients reporting any “Alteration for the Worse in their Illness,” and ensure that patients stayed in their beds.¹³⁵ If night nurses were asleep on the job, or if they “lye down” they were to be “immediately discharged” from the hospital.¹³⁶

The Royal Naval Hospital at Greenwich, a home for aged, ill, and disabled sailors, had similar nursing regulations as those for St. Thomas’s and St. Bartholomew’s Hospitals.¹³⁷ Greenwich was influenced by St. Bartholomew’s and St. Thomas’s, which were the only large hospitals in London when Greenwich was constructed.¹³⁸ Although Greenwich did have a small infirmary, most of the nurses employed at the hospital did not do clinical care.¹³⁹ In fact, nurses who worked in the infirmary received an extra two shillings a week on top of the four pounds per annum paid to “Women Servants or Nurses.”¹⁴⁰ However, early Greenwich regulations for nurses did not acknowledge a difference between female servant nurses and the clinical work of nurses in the infirmary. The 1704 regulations, like those for military hospitals discussed above, are a single paragraph: “The 3 Women under the Matron shall make the Beds of Such as unable to do it themselves, clean the Rooms, tend the Sick; & do all other Services to be perform’d by Women; in which they shall follow the directions & obey the Commands of the Matron at all times.”¹⁴¹ These sparse regulations demonstrate that nurses’ work was seen as so obvious and

¹³⁵ “The Duty of the Watch,” LMA, H01/ST/A/025.

¹³⁶ “The Duty of the Watch,” LMA, H01/ST/A/025.

¹³⁷ “Admiralty: Royal Greenwich Hospital: Various Minutes. General Court and Directors, 1703-1708,” TNA, ADM 67/3; Regulatory foundations were also similar between Greenwich and the French l’Hôtel Royal des Invalides in Paris. John Bold, “Comparable Institutions: The Royal Hospital for Seamen and the Hôtel des Invalides,” *Architectural History* 44 (2001), 140-141.

¹³⁸ Woodward, *To Do the Sick No Harm*, 147-148.

¹³⁹ Geoffrey Hudson details the eighteenth-century medicalisation of the hospital with an increased focus on ventilation and reduction in physical punishments for infractions. Geoffrey Hudson, “Internal Influences in the making of the English Military Hospital: The Early-Eighteenth-Century Greenwich,” in *British military and Naval Medicine 1600-1830* (Amsterdam: Rodopi, 2007), 261-262.

¹⁴⁰ 11 August 1704, TNA, ADM 67/3, 41.

¹⁴¹ 11 August 1704, TNA, ADM 67/3, 43.

so innate to women that it did not need to be carefully delineated. Voluntary hospital regulations for nurses were equally vague on the specifics of nursing duties.

Voluntary institutions founded after 1725 had similar regulations for nursing care and governance, with minor regional differences. Nurses, the hospital Matron, and Steward all lived in the hospital, and received medical directives from both a rotation of medical practitioners affiliated with the hospital, and the hospital governors.¹⁴² Unlike both army and naval hospitals, civilian hospitals were particularly concerned that both male and female servants had no familial responsibilities outside of the hospital. For example, the Liverpool Infirmary in its 1749 regulations decreed: “That all Persons, concerned as Servants in the House, be free from the burden of Children and the care of a Family.”¹⁴³ This is the direct opposite of naval hospitals which specifically hired the wives and widows of seamen, and as seen in chapter four, these women often had families to support outside the hospital. Or rather, under the voluntary hospital system, the hospital itself was to become a new form of family for both servants and patients.¹⁴⁴ Within this familial hierarchy, nurses and other servants were entreated to consider and “the Matron as their Mistress,”¹⁴⁵ and the Apothecary “as their Master.”¹⁴⁶

¹⁴² See for example regulations 17 and 18 regarding House-Visitors in *Rules and Orders of the General Infirmary at Leeds* (Leeds: Griffith Wright, 1770), 6-7.

¹⁴³ *Rules and Orders of the Public Infirmary at Liverpool* (Liverpool: John Sadler, 1749), 9, in George McLoughlin, *A Short History of the First Liverpool Infirmary 1749-1824*, Appendix 1 (London: Philimore, 1978), 68; *The Statutes and Rules for the Government of the General Hospital Near Birmingham, in the County of Warwick* (Birmingham: Pearson and Rollason, 1779), 27.

¹⁴⁴ *Rules for Admission of Patients and Nurses As Published in the Annual Report, 1782* (Nottingham, 1782), in Frank H. Jacob, *A History of the General Hospital Near Nottingham: Open to the Sick and Lame Poor of any County* (London: Simpkin Marshall Ltd., 1951), 52.

¹⁴⁵ *Rules and Orders of the Public Infirmary at Liverpool*, 23; *Rules for the Government of the General Hospital Near Birmingham*, 28; *Rules and Orders of the Public Hospital in the Town of Cambridge Founded by Dr. Addenbrooke, and Supported by Voluntary Subscriptions* (Cambridge: J. Archdeacon, Printer to the University, 1770), 18; *Rules and Orders of the General Infirmary at Leeds*, 19.

¹⁴⁶ *Rules for the Government of the General Hospital Near Birmingham*, 28; *Rules and Orders of the General Infirmary at Leeds*, 19.

Regulations for nurses in civilian institutions were similar across the country, with local variations relating to changes of the seasons and daylight. The 1749 regulations from Liverpool directed: “That the Nurses clean their respective Wards by seven in the Morning, from the first of *March* to the first of *October*, and by eight in the Morning from the first of *October* to the first of *March*; and that they serve up Breakfast within an Hour after the Wards are cleaned.”¹⁴⁷ Leeds utilised the exact same regulations in 1770, with the substitution of Michaelmas for the first of October for Lady-Day for the first of March.¹⁴⁸ By contrast, Nottingham in 1782, replaced March with April.¹⁴⁹ Other hospitals employed the same regulation with minor variations. For instance, Addenbrooke in Cambridge, in 1778, and Birmingham General Hospital in 1779, removed the stipulation that breakfast must be served within an hour of cleaning the wards.¹⁵⁰ The same language and sentiment that described the nurses’ duty, such as keeping the wards clean, also was found when delineating their other duties in the hospital regulations. Nurses at all the hospitals administered medicines according to the directions of the apothecary or other medical personnel, treated the patients with kindness and tenderness, and prevented liquor or food from being brought into the hospital by visitors of the patients.¹⁵¹ Similarly, regulations forbade nurses and other servants to accept money or gratuity from any person for better care.¹⁵² Thus, the duties of nurses at voluntary hospitals could be subsumed

¹⁴⁷ *Rules and Orders of the Public Infirmary at Liverpool*, 23.

¹⁴⁸ *Rules and Orders of the General Infirmary at Leeds*, 19.

¹⁴⁹ *A History of the General Hospital Near Nottingham*, 69.

¹⁵⁰ *Rules and Orders of the Public Hospital in the Town of Cambridge Founded by Dr. Addenbrooke, and Supported by Voluntary Subscriptions* (Cambridge: J. Archdeacon, Printer to the University, 1778), 18; *Rules for the Government of the General Hospital Near Birmingham*, 27.

¹⁵¹ *Government of the General Hospital Near Birmingham*, 28; *A History of the General Hospital Near Nottingham*, 69; *Rules and Orders of the Public Hospital in the Town of Cambridge*, 1770 and 1778, 18; *Rules and Orders of the Public Infirmary at Liverpool*, 23.

¹⁵² *Rules and Orders of the Public Infirmary at Liverpool*, 9; *Rules for the Government of the General Hospital Near Birmingham*, 12; *Rules and Orders of the General Infirmary at Leeds*, 9.

under the three categories of nurses in military and naval hospitals: to maintain cleanliness and order, and to supervise patients in a medical capacity.

Within civilian hospitals, whether those long established like St. Thomas's and St. Bartholomew's, or the newer voluntary hospitals founded in the eighteenth century, the role of nurses was understood to be simple and similar, without marked regional differences. And like that of the army regulations of the late eighteenth century and early nineteenth century, they often could be summarised in a few short, often vague sentences. The crossover of regulations from the civilian sphere to the military sphere is not surprising, especially when considering that the military medical officers appointed to work in army general hospitals often were pulled from civilian institutions.¹⁵³ The similarities could also extend to regimental hospitals, which bore little similarity to the work of civilian or general hospitals, but overwhelmingly sought to employ medical officers trained at Oxford, Cambridge, or civilian hospitals.¹⁵⁴

Conclusion

When the first printed naval hospital instructions were issued in 1808, nurses were crucial to the functioning of the Royal Navy's hospitals at home and throughout the Atlantic World. Navy hospital nurses had direct authority over the patients in their ward, were responsible for keeping the ward muster book, dispensed medicines, distributed food, monitored stages of disease and progress of symptoms, and notified the hospital Matron of any deaths. The critical role that nurses played in the functioning of the Royal Navy hospitals was underscored by the regulations. The regulatory structure of naval hospitals, and the position of nurses in them, cannot simply be explained by the permanence of their institutions. Rather, the regulations' attention to order and

¹⁵³ Kelly, *War and the Militarization of British Army Medicine*, 30-32.

¹⁵⁴ Kelly, *War and the Militarization of British Army Medicine*, 5.

to ordering nursing work show that nurses were part of a wider professionalization endeavour in the second half of the eighteenth century. As Sarah Kinkel explains, a “new culture of naval service based on order, discipline, and hierarchy” was implemented deliberately by the Admiralty during the 1740s.¹⁵⁵ This cultural shift had repercussions not only for how the Royal Navy waged war, but also how it managed healthcare.¹⁵⁶ The naval hospital could only adequately function when it was clear who had what role within the hospital. It is also clear that naval hospital nurses were valued for their experience with a clear system of seniority applying. In the army, by contrast, the regulatory situation was different. The army issued a new set of instructions for each new campaign. The role of nurses also was less explicit and not carefully delineated within army regulations. The army acknowledged the women working for the military provided valuable care, but such care was not regulated as though it was essential or specialised; nor were they given any authority in the military medical system. The army, which was less professionalised than the navy, also treated its nurses in a less professional manner.

¹⁵⁵ Kinkel, “Disciplining the Navy,” 2.

¹⁵⁶ Kinkel, “Disciplining the Navy,” 2.

CONCLUSION

Late eighteenth-and early nineteenth-century naval and military nurses were clearly valued by medical practitioners, hospital administrators, and patients in these institutions. Yet, their presence has been absent or glossed over by the prevailing historical narratives of both the military and naval medicine and nursing history. Three historiographical reasons exist to explain why military and naval nurses, especially during the French Revolutionary and Napoleonic Wars, have failed to feature in historians' analysis. First, for most nursing historians, Florence Nightingale's activities in the Crimean War act as a watershed moment in the history of the practice. The use of the Nightingale myth to help create nursing's professional identity in the late-nineteenth and early-twentieth centuries demanded that pre-reform nurses needed to be cast as both inadequate providers of care, due to their lack of specialised training, and immoral working-class women, in direct opposition to nursing's new chaste middle-class image.¹ The increased importance of trained nurses emerging from nineteenth-century nursing schools helped to change the identity of the nursing profession for the better of its practitioners, who could begin to achieve greater status, better pay and working conditions as a result.² Second, those studies that have considered the work of military and naval nurses in the seventeenth and early-

¹ Carol Helmstadter, "Class, gender and professional expertise: British military nursing in the Crimean War," in *One Hundred Years of Wartime Nursing Practices, 1854-1953*, Jane Brooks and Christine E. Hallett, eds. (Manchester: Manchester University Press, 2015), 31.

² Jane Books and Christine E. Hallett, "Introduction," in *One Hundred Years of Wartime Nursing Practices*, Jane Brooks and Christine E. Hallett eds. (Manchester: Manchester University Press, 2015), 11.

eighteenth centuries have rightfully situated the work of nurses within the contemporary medical systems. Such systems have a greater similarity to medieval hospital structures, or home-based care, than the nineteenth-century's "new medicine," making it difficult to see the connections to the later period (connections that become clearer with the examination of the late-eighteenth century clinical naval hospitals). Third, the difficulties of studying nurses' work in the pre-modern period necessitates a complex drawing together of multiple source materials that are often lacking the voice of nurses themselves. Such methodological challenges are not impossible to overcome, through the use of digital humanities, as this dissertation shows.

With the explicit integration of nurses into the operation of military and especially naval hospitals, a more complete picture of the operation of these institutions emerges. Nurses, like medical officers, agents, stewards, porters, orderlies, and labourers, formed individual cogs in the hospital machine without which the machine ceased to function. The importance of nurses in the functioning of these hospitals and the medicalisation of the nursing role can be shown through an examination of the work that nurses performed in the hospital environment. Nurses' work was distinctly gendered, and women were hired to work in military and naval hospitals because they were seen by medical practitioners, hospital administrators, and the Sick and Hurt Board and the Army Medical Board, as having the requisite domestic labour skills and experience. Furthermore, it was a popular belief in the late-eighteenth and early nineteenth centuries that women had an innate knowledge of and ability in care work.

One facet of the intersection between nurses' domestic skills and medicalised care is shown in chapter one with the examination of hospital cleanliness. Although pre-Nightingale nurses were often dismissed as charwomen, this view neglects the importance of cleanliness and hygiene to both preventative medicine and the promotion of healing in late-eighteenth and early-

nineteenth century medical thought.³ Contemporary notions of contagion and the spread of epidemic disease removed the act of maintaining cleanliness from a simple domestic provision and resituated washing of bodies, bedding, and wards into distinct medical acts. Simply put, cleanliness, imposed upon the environment and the body by nurses, promoted a return to health and service for the sick or wounded serviceman. Ventilation accompanied cleanliness in the promotion of a healthy, healing built environment. By focusing on what nurses did in ensuring adequate ventilation, the simple act of opening the window becomes an essential part of the creation of a medical environment. Medical practitioners extolled the virtues of ventilation in their writings, but it was not the medical officer that ensured daily ventilation in the ward. Without the labour of the nurse – hidden like that of a domestic servant’s unless there was a problem to be remarked upon – hospitals would have remained hotbeds of contagion.

The domestic skills necessary to carry out nursing duties were also a factor in the West Indian climate. However, in this disease environment there were other factors to consider when selecting the ideal nurse. In the late-eighteenth and early-nineteenth centuries, the islands, and the diseases of yellow fever and malaria that were endemic, were seen as particularly deadly to an unseasoned European population. The high casualty rates among British soldiers and sailors transported to the West Indies during the French Revolutionary and Napoleonic Wars, were exemplary of this disease phenomena. The Black enslaved population of the islands were believed to be immune to tropical diseases due to their differential immunity and resistance. The same factors that resulted in the formation of the West Indian Regiments in the 1790s also influenced the employment of Black nurses in West Indian military and naval hospitals.

³ Jacques Carré, “Hospital Nurses in Eighteenth-Century Britain: Service without Responsibility,” in *The Invisible Woman: Aspects of Women's Work in Eighteenth-Century Britain*, Isabelle Baudino, Jacques Carré, and Cécile Révauger, eds. (Aldershot, Hampshire: Ashgate, 2005), 89; Helmstadter, “Class, gender and professional expertise,” 25.

However, the racialised and stratified labour market of the islands added another layer to the employment of Black women as the case study of Bermuda Naval Hospital shows. Enslaved women had the requisite domestic skills and abilities in care work to be employed in the naval hospital, while their employment in such establishments was economically significant to their owners and a financial saving to the state.

Another case study, Plymouth Naval Hospital, conceived along household lines, illustrates not only how the hospital was organised, but dispels several stereotypes about nurses in the pre-Nightingale period. The eighteenth century did not represent “the darkest known period in the history of nursing” at least when the workforce of Plymouth is considered.⁴ Not all nurses were drunkards, tramps, and thieves; nor was the nursing workforce in constant turmoil. The period of peace between the end of the American Revolution in 1783 and the raising of naval forces for a potential war with France in 1790 is remarkable for its stability in the nursing staff. Nursing staff levels fluctuated when required due to rising or diminishing patient numbers. Quantitative analysis of the nursing workforce also demonstrates that more nurses were kept on the books of the hospital than were stipulated in nursing regulations, and that such nurses were kept due to the express wishes of the medical officers. Privileging the domestic space of the ward as a necessary aspect of the healing process also underscores a previously unremarked upon gender dynamic in late-eighteenth and early-nineteenth century naval hospitals, one wherein female servants – nurses – were in a position of moderate authority over the bodies and medical care of male servants of the state – sailors. This authority is particularly evident in everyday

⁴ Lavinia Dock and Adelaide Nutting, *A History of Nursing: The Evolution of Nursing Systems from the Earliest Times to the Foundation of the First English and American Training Schools for Nurses*, Volume I (New York and London: G. P. Putnam's Sons, 1907), 499.

medical care, where interactions between medical officers and most patients occurred at best twice a day, and the responsibility of nurses in locking and unlocking the ward door each day.

The activities of nurses in Plymouth Naval Hospital discussed in correspondence and the memoranda book of Plymouth Governor Richard Creyke align with the prescriptive literature of naval hospital regulations. A comparison of naval and military regulations highlights the key differences in medical provision between the two systems of care, especially when mobile regimental hospitals are analysed alongside permanent naval hospitals. Yet, at their core, the Royal Navy and the British Army desired the same sort of nurse: a woman capable of performing domestic duties and caring for the sick and wounded. As discussed above, these characteristics are representative of the ways in which nursing care was conceived of at the time. However, the way the Royal Navy sought to integrate nurses into all facets of medical care differed sharply from the manner in which nursing care was discussed in military regulations. Furthermore, pay list records show that nurses were valued for their individual skills and experience, and were rehired when patient numbers grew based on seniority. The army, cognisant of its continually evolving military operations and campaigns in foreign non-colonial theatres of operation, could not rely on a steady supply of suitable nurses. When necessary, the army saw fit to decree that it was acceptable to replace female nurses with male orderlies drawn from the ranks. This practice was viewed as a cost-effective way to ensure that soldiers received some form of nursing care. Unfortunately, such replacement of female nurses with male orderlies, coupled with the lack of named nurses in military records, perpetuates the myth that there were no female military nurses before Nightingale.

The framework of military medicine contributed to the positivist narrative of Nightingale and her mission to the Crimea in 1854. During the French Revolutionary and Napoleonic Wars

military medicine professionalised and specialised, as Catherine Kelly has shown, yet the continued success of the British military medical system hinged on continued conflict.⁵ With the rapid demobilisation that followed the end of the Napoleonic Wars in 1815, military medical practitioners left the service and entered civilian practice.⁶ Many of the same medical practitioners who would help to shape British military medicine in the Napoleonic period would go on to shape the new hospital medicine of the 1830s.⁷ Yet, with a reduced scope of operations in peacetime the funds that made the military medical system run were cut off by Parliament. A letter from T. K. I. G. at the start of the French Revolutionary War illustrates the perennial problem with military medicine:

our opinion in general upon the promotion of Surgeons especially during a war and of the fatal effects of the System of our Intercensors, who promote the old Regimental Surgeons to the Staff when they were more proper to be put upon the superannuated list. We cannot but admit that some provision ought to be made for them, but not at the expence of the service - the first object is the care of the care of the Soldier; Oeconomy is a secondary one.⁸

The need of British army medicine to essentially restart operations at the commencement of each new conflict hindered medical and nursing care. James McGrigor (1771-1863), Director General of the Army Medical Department from 1815 to 1851, was able to accomplish many things on a limited budget, but reorganise nursing care was not one of them.⁹ When the British Army was deployed to the Crimea, the Army Medical Department was disorganised, reliant on recalled

⁵ Catherine Kelly, *War and the Militarization of British Army Medicine, 1793-1830* (London; Pickering & Chatto, 2011), 157.

⁶ Kelly, *War and the Militarization of British Army Medicine*, 128-130.

⁷ Carol Helmstadter and Judith Godden, *Nursing Before Nightingale, 1815-1899* (Farnham, Surrey: Ashgate, 2011), 2.

⁸ "T. K. I. G. to John Gurnny," 2 November 1793, "War Office and predecessors: Various Departmental Out-letters. Medical Department. General, 1793." TNA, WO 7/99, 5-6.

⁹ These achievements included chairs of military surgery at Edinburgh and Dublin universities and the collection of morbidity and mortality statistics from medical practitioners around the world. Kelly, *War and the Militarization of British Army Medicine*, 130.

medical practitioners from the Half Pay list, and sorely hurting for supplies and nurses. The government-sponsored Nightingale nurses and the Anglican and Irish nuns that accompanied her were undoubtedly necessary. Their life-saving nursing care deserves to be showcased in nursing history, but not at the expense to those late-eighteenth and early-nineteenth century nurses who came before them.

Instead by extending the narrative of nursing history back into the late-eighteenth-century, especially into the clinical settings of naval hospitals, continuities between the pre-and post-Nightingale reform nursing can be illuminated. These civilian women were key to the British war effort throughout the Atlantic World. At the same time the decision to privilege the hiring of seamen's wives and widows illustrates the state's perceived obligation to care for those whose families had served the state. Meanwhile nurses' work and official regulations show the universality of medical and environmental thought concerning ventilation, immunity, and preventative medicine. The story of late-eighteenth and early-nineteenth century military and naval nurses then, is not simply a story of nursing or medical history. Rather these women and their labour need to be integrated into a gendered narrative, an environmental narrative, and a wider British narrative.

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- ADM/Y/P/122 “Plan and elevation of the pillars, ironwork and gates of the proposed entrance to the Haslar Hospital in Portsmouth Dockyard.”
- MID/2/54 “Letters from Charles Middleton to the Admiralty Office.”
- MID/7/4 “Medical: Observations, memoranda and abstract 5 docs. ca. 1778-1805.”

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