

The Proceedings of the 18th Annual History of Medicine Days Conference 2009

The Proceedings of the 18th Annual History
of Medicine Days Conference 2009:
The University of Calgary Faculty of Medicine,
Alberta, Canada

Edited by

Lisa Peterman, Kerry Sun and Frank W. Stahnisch

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The Proceedings of the 18th Annual History of Medicine Days Conference 2009:
The University of Calgary Faculty of Medicine, Alberta, Canada,
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| Fiona Aiston | Queen's University |
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| Anastasia Aristarkhova..... | University of Calgary |
| Bradley Ball..... | Dalhousie University |
| Brydon Blacklaws | Dalhousie University |
| Lesley Bolton..... | University of Calgary |
| Valerie Brulé | University of Calgary |
| Julia Cameron-Vendrig..... | Queen's University |
| Chantelle Champagne..... | University of Alberta |
| Stephen Choy..... | University of Western Ontario |
| Rebecca Coish | University of Manitoba |
| Melissa Crawford | Northern Ontario School of Medicine |
| Anna Davies | Memorial University of Newfoundland & Labrador |
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| Kate Elzinga | University of Calgary |
| Mary England | Dalhousie University |
| Mollie Ferris | University of Calgary |
| Adam Fowler | University of Saskatchewan |
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| Allison Geddes | Dalhousie University |
| Seirin Goldade | University of Calgary |
| David Goodick..... | Dalhousie University |
| Donald Graham | University of Calgary |
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| Luke Harnish | Dalhousie University |
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| Karolina Kowalewski | University of Calgary |
| Erin M. Kwolek | University of Calgary |
| Bret Landry..... | Dalhousie University |

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| Yves Leroux | Dalhousie University |
| Eldon Loh | University of Alberta |
| Mark Macdonald | Memorial University of Newfoundland & Labrador |
| Steven Marti | University of Calgary |
| Rhonda Matheson | University of Manitoba |
| Yasmin Mayne..... | University of Calgary |
| Matt McGeachy | University of Toronto |
| Jennifer McPhail..... | Northern Ontario School of Medicine |
| Thomas F. Muir | Dalhousie University |
| Matthew Parsons | Dalhousie University |
| Amber J. Porter..... | University of Calgary |
| Chelsey Ricketts | Dalhousie University |
| Lina Roa | University of Calgary |
| Charlene Ronquillo..... | University of British Columbia |
| Meghana Saincher | University of Alberta |
| Kalpa Shah | University of Western Ontario |
| Daniel Sheps | University of Manitoba |
| Akshay Shetty..... | University of Western Ontario |
| Nik Straub..... | University of Guelph |
| Caitlin Symonette | University of Western Ontario |
| Gordon Tsang | University of Western Ontario |
| Stefanie van der Gracht | University of Calgary |
| Julian Vanderpol..... | University of Alberta |
| Sebastian Vuong..... | Dalhousie University |
| Kat Williams..... | McGill University |
| Dr. Nicole Wilson..... | University of Calgary |
| Jennifer Zymantas | Lakehead University |

PREFACE AND ACKNOWLEDGEMENTS

It has been almost twenty years since Dr Peter Cruse inaugurated the Calgary History of Medicine Days as a local platform at which students could present their research projects in the history of medicine at the University of Calgary. In the beginning, it was just one day that marked the end of the term and also the local history of medicine course, about which he wrote:

[...] part of the popularity may be linked to the course's noncredit status. This, he said, means students take it 'because they get excited about the history of their profession and with the idea that if they look to the past they can get an idea of how to conduct their own affairs.' He stresses that the course also has a practical side because it teaches students how to develop the art of speaking in public and how to prepare slides for a presentation – skills that receive little development in other courses.¹

Although the Calgary “History of Medicine and Health Care” course has somewhat changed its nature since the historical development started by Peter Cruse, the students continue to be committed to this experience, which offers them insights from various faculty members into their specific areas of interest (etc. history of pathology, complementary and alternative medicine, the history of medical specialization and education, to name just a few). Students not only get a hands-on exposure to historical sources and artefacts, but they are paired with supportive faculty preceptors and pursue smaller research projects on their own with supervisory input from faculty members in the Medical School as well as from Main Campus. This means that the culture around History of Medicine and Health Care has developed into a truly inter-professional and intergenerational form of education, research and exchange. The intriguing character of the field is likewise reflected in the research exchanges during the Calgary History of Medicine Days, which have now grown into the only singular national event at which both undergraduate, early graduate and postgraduate students in the History of Medicine can

¹ Peter Cruse, “University of Calgary students keen to revisit medical history,” *Canadian Medical Association Journal* 156 (1997), p. 628. The article was written by Peter Cruse in the third person singular, before it was submitted to CMAJ.

meet and exchange their ideas and research with likeminded peers as well as many faculty members and colleagues from Calgary, Alberta and Canada. Since the last two years, there have also been quite a number of international presenters and contributors, who made their way to this major event in history of medicine at the University of Calgary.

As such, the development of the Calgary History of Medicine and Health Care Program and the increase in the activities around the annual History of Medicine Days at the University of Calgary are very much in line with the recent discussion by professional medical historians from numerous programs in North America. This was, for example, well reflected at the 2010 Conference of the American Association for the History of Medicine at the Mayo Clinic, in Rochester, MN (April 29 – May 2) this year. With its inter-professional and interdisciplinary outlook, the Calgary program further progresses in concurrence with the values promoted by the Association of American Medical Colleges. They can be found, in an intriguing article by the distinguished cardiologist and bioethicist Erich H. Loewy from UC Davis:

The author in this article advocates the teaching of the history of medicine to medical students throughout their undergraduate medical education. The thesis is that teaching the history of medicine enhances the development of the student into a physician and supports his technical training. History acts as a unifying force connecting a variety of scientific and humanistic disciplines and, by providing a historical perspective, serves to promote the student as a professional.²

This encompassing approach to the History of Medicine is now further represented in the annual Proceedings Volumes, which combine the submitted and accepted papers from medical history, health care, history and other interested undergraduate and graduate students from across Canada. The individual categories outlined in the Table of Contents assemble the submitted papers on general topics from the history of medicine and health care, as they were arranged in the program of the 18th annual History of Medicine Days. Subjects range from ancient history of medicine to modern developments and touch on personal stories of doctors, attitudes to disease, economics of medicine, health policy and the history of public health and eugenics. With Frank W. Stahnisch having assumed the role of the Chair of the Calgary History of Medicine and Health Care Program together with the Alberta Medical

² Erich H. Loewy, "Teaching the History of Medicine to Medical Students," *Journal of Medical Education* 60 (1985), pp. 692-695; esp. 692.

Foundation/Hannah Professorship in the History of Medicine and Health Care in 2008, the Proceedings Volumes have now been rearranged and prepared in a more novel manner. Of all the submitted conference papers, a maximum of the twenty best papers will be considered for inclusion and publication in the conference proceedings. The review process and the selection of high quality papers is made by a local committee, which further receives input from the Board of Advisors to the volume editors as well as from external historians of medicine, whose expertise is sought on a case- and experience-oriented level. The volume editors for the Proceedings of the 18th Annual History of Medicine Days Conference are pleased with the final thirteen papers selected for publication which represents the high standard of all the research projects presented at the Calgary conference. Among these is also one international paper from Nikolaus Ingold, a PhD student in History of Science at the University of Zurich in Switzerland. We are very grateful that this top quality article could be included in this volume as well.³

Furthermore, with the publication of this volume, the editors will actively seek to include a paper or even the manuscript from the respective keynote speakers, so as to adequately represent his or her featured lecture to the annual History of Medicine Days conference. In 2009, the invited keynote lecture was given as a co-sponsored event together with the Darwin Lecture Series at the University of Calgary and the Calgary History of Medicine Society. The distinguished Professor of Biology and Chair of the History of Biology Program, Dr. Garland E. Allen, from Washington University in St. Louis (United States) could be won. His topic “Evolution, Genetics and Eugenics: The Misuse of Biological Theory, 1900-1945. Lessons from the Past”, was largely based on an earlier article that was published in the scholarly journal *Endeavour* as: “Genetics, Eugenics and the Medicalization of Social Behaviour: Lessons from the Past,” *Endeavour* 23 (1999), pp. 10-19. The proceedings editors wish to express their sincere thanks to Dr. Allen, the editors-in-chief of *Endeavour*, Drs. Christopher M. Tancock and John Waller, as well as the publisher Elsevier Ltd. in Oxford, England. They have all given us their permission and the rights to reuse this article in our Proceedings Volume, which thus can reflect the main argument and historical content of the author’s

³ All of the contributions in these proceedings, for which the volume editors have received explicit *Copyright Transfer Forms* and *Author Consent Forms*, will also be made available online through the University of Calgary Internet Repository *dSpace*: History of Medicine Days Community Homepage:
<https://dspace.ucalgary.ca/handle/1880/47439>.

keynote address as it was held on Friday, March-6 2009 in the Libin Theatre of the University of Calgary Medical Faculty.

The abstracts from all other presenters at the conference are included in a special Appendix, so as to comprehensively document the activities, discussions, oral and poster presentations at the Calgary History of Medicine Days in the current conference proceedings. This year, 59 students from fifteen universities – Dalhousie University, Lakehead University, Memorial University of Newfoundland & Labrador, Northern Ontario School of Medicine, Queen's University, McGill University, University of Alberta, University of British Columbia, University of Calgary, University of Guelph, University of Manitoba, University of Saskatchewan, University of Toronto, University of Western Ontario, and the University of Zurich – gave oral or poster presentations during the two-day event held on March 6-7, 2009. Research enthusiasm, oratory and A/V competence of the speakers were of a very high quality. The conference audience was not only magnificently entertained, but the local and national delegates contributed to a very stimulating and engaging discussion throughout the whole event. The proceedings editors wish to thank all participants for their active contributions and support, which helped to make this academic conference very successful. Both the publication of the Proceedings Volumes and the organization of the Calgary History of Medicine Days would not have been possible without the substantial financial support from Associated Medical Services and the Alberta Medical Foundation. In addition, we wish to thank Vitaid Ltd. for a donation to the conference, the Calgary Darwin Lecture Series, the Philosophy and the History Department, the Faculty of Social Sciences and the Faculty of Medicine at the University of Calgary for their continued support. We also extend our warm thanks to Jennifer Lewis for her secretarial support during the first stages of preparing this manuscript, when submissions arrived in 2009, as well as to Beth Cusitar for her important additional editorial help before the manuscript was finalized.

Frank W. Stahnisch

Lisa Petermann

Kerry Sun

(University of Calgary,
December 10, 2010)

A GREAT SENSE OF HUMOUR: GREEK MEDICAL IDEAS AND CRUSADE-ERA CHRISTIANITY AND ISLAM

ADAM FOWLER

SUMMARY: There is a tendency to portray the Crusades as a battle of dichotomous ideologies when this is not actually the case. An examination of crusade-era Christian and Muslim medical ideas—especially anatomy and theories of internal medicine reveals that both were shaped in very similar ways by their Greek predecessors. Most obviously, both Christians and Muslims received and worked with the same Greek source material in a variety of translations. Humoural ideas percolated through these texts into both theory and practice, as demonstrated by a number of contemporary books. Healthy and ill bodies were described in terms of the four humours, while both Christian and Muslim doctors diagnosed and treated patients based on humoural theory. When their ideas deviated from Hippocratic, Galenist, or Aristotelian writings, innovation tended only to be a modification of the Greek medical framework. The same was true of medicine involving the six non-naturals, which formed another great part of medieval practice across Europe and the Near East. There can be little doubt that Muslim and Christian physicians disagreed on not much but details. While paradoxical in light of the rhetoric of “corrupting bodies” so common in crusade-era propaganda, it demonstrates that scientific ideas were a place of common ground. Such commonalities may explain the survival of many multifaith communities across the Levant even during the height of the crusading zeal.

KEYWORDS: Crusades, Islam, Christianity, Galen, Hippocrates, Ancient Medicine, Humoural Theory.

PRECEPTOR: Dr. Sharon Wright ■ **INSTITUTION:** University of Saskatchewan

Introduction

A standard portrayal of the Crusades is as a clash of two worlds. Christian Europe sits in the West, proudly—perhaps arrogantly—indulging in its beliefs and rituals. In the East are the Muslims, revelling equally in a culture that is set opposite to that of their Christian opponents. What this

picture hides is the rich cultural heritage that these alleged enemies shared. Professional medicine is one of the many examples where Christians and Muslims drew their knowledge from the same roots. Both Christians and Muslims relied heavily on Classical Greek texts in forming their ideas of the medical world. The way they imagined their very physical forms was rooted in a shared knowledge of the Classical past. An examination of crusade-era Christian and Muslim medical ideas—especially anatomy and theories of internal medicine—reveals that they were shaped in very similar ways by their Greek predecessors.

Medieval Christians relied almost entirely on Greek texts for their knowledge of human anatomy. Yet the work of Galen (129–200/216 B.C.), the most important of Greek anatomical and physiological researchers, did not find its way directly into the European medical corpus. In fact, Galenic texts first arrived as Arab translations; many were translated by famous Muslim physician-philosophers: Avicenna (c. 980–1037 A.D.) and Rhazes (865–925 A.D.), to name a few examples.¹ By the twelfth century, an Arabic summary of Galen's major anatomical work, *De usu partium* – called *De juvamentis membrorum* in Europe – had been imperfectly translated into Latin.² It was imperfect largely because of its lack of proper medical vocabulary. The Greek “thorax,” for example, was translated to Latin as *clibanus*, or “oven.” The summary remained popular until it was overtaken two centuries later by a full translation from the original Greek text. Even when medieval scientists challenged Galen's ideas, it was only to favour Aristotelian ones.³ In fact, the content of Galen's anatomy manuals would only be contested in the sixteenth century, when Vesalius (1514–1564) began his famous dissection and lecture campaign, styling himself as a new Galen.⁴ During and even well after the crusading era, then, the Christian “knowledge” of the physical body was strongly shaped by Greek ideas.

¹ Piers Mitchell, *Medicine in the Crusades* (Cambridge: Cambridge University Press, 2004), p. 140.

² Roger French, “*De Juvamentis Membrorum* and the Reception of Galenic Physiological Anatomy,” *Isis* 70 (1979), pp. 96–109; here: p. 100.

³ *Ibid.*, pp. 102–103.

⁴ Andrew Cunningham, *The Anatomical Renaissance: The Resurrection of the Anatomical Projects of the Ancients* (Aldershot: Scolar Press, 1997), pp. 88–142; here: p. 116. Vesalius placed himself in direct opposition to traditionalists, who thought him presumptuous for claiming to know more than Galen. Still, the fact that he said he was only continuing the work of the Greek anatomist says much about Galen's continuing influence.

Even earlier than this, Muslim physicians also relied on Greek, especially Galenist and Aristotelian texts for their knowledge of anatomy.⁵ As early as the ninth century, the Arabic predecessor to *De juvenentis membrorum* had been published in the Levant, bringing the first Greek anatomical ideas into Muslim medical science. Like its later Latin translation, it was handicapped by the constraints of summary and a lack of technical medical vocabulary.⁶ For instance, Galen's "arterial vein" in the lungs became the translator's "pulsatile vein that looks like a nonpulsatile vein."⁷ Nonetheless, the book's influence was felt for hundreds of years. Other texts also contributed include Al-Khwarizmi's (ca. 780-835/850 A.D.) encyclopaedic *Keys of the Sciences*, written over a century later, which covered much more than just medicine. It reveals a continued reliance on the Greek medical tradition for anatomical information.⁸ In the twelfth century, revisions of Galenist anatomy took a similar form in Europe. Averroes (1126-1198), a practitioner in the courts of Muslim Spain during the acceleration of the *Reconquista*, modified Galen's idea of paralytic stroke to include Aristotle's suggestion that the heart, rather than just the brain, controlled bodily motion. Because strokes were caused by "an obstruction of the paths [...] which passes [*sic!*] from the heart to the brain," he argued, they could "originate in [either of] these two locations."⁹ Although this was something of a development, Greek anatomical ideas still dominated, just as they did in the Christian tradition.

Another obvious inheritance is the theory of the four humours. Espoused by Hippocrates (c. 460-c. 370 B.C.) and refined by Galen, the idea itself is simple. The body's liquids are supposed to be composed of four components, each embodying a pair of essential qualities—hot and cold, wet and dry. Blood, to begin with, is hot and wet; yellow bile, or *cholé*, is hot and dry; black bile, or *melané cholé*, is cold and dry; and phlegm is cold and wet. Healthy people are supposed have an approximately even mixture of the humours. Disease could be seen as an

⁵ Unfortunately, direct quotations from Muslim sources are often unavailable, because of the paucity of translations.

⁶ French, *De Juvamentis Membrorum*, p. 101.

⁷ As cited in French, *ibid.*, p. 102; they are referring to the vein-like pulmonary artery.

⁸ Clifford Edmund Bosworth, "A Pioneer Arabic Encyclopaedia of the Sciences: Al Khwarizmi's *Keys of the Sciences*," *Isis* 54 (1963), pp. 108-109.

⁹ As cited in Axel Karenberg and Irmgard Hort, "Medieval Descriptions and Doctrines of Stroke: Preliminary Analysis of Select Sources. Part II: Between Galenism and Aristotelism – Islamic Theories of Apoplexy (800–1200)," *Journal of the History of the Neurosciences* 7 (1998), pp. 174-185; here: p. 179.

imbalance of these fluid substances, so treatment was aimed at restoring it.¹⁰ As a result, humoural ideas provided both a theoretical framework in which to understand the causes of health and illness, and provided practical methods of treatment. Before, during, and long after the Crusades, it served both purposes in Christian and Muslim medical thinking.

Christian Medical Theory

Let us first examine its role in Christian medical theory: In the ninth century, one monk stated simply that “all diseases arise from the four humours.”¹¹ His statement would remain axiomatic for centuries. Cancers, for example, could be caused by an accumulation of black bile.¹² Byzantine doctors, relying on many of the same texts that filtered into Europe, declared that even mental illness were caused by a humoural imbalance—usually an excess of melancholy.¹³ Twelfth-century European works were more specific: *cholé* caused acute mental problems, while *melané cholé* caused chronic ones.¹⁴ Clearly, medical theory, like anatomical knowledge, could grow within the Greek framework. A good example of such growth is Maurus of Salerno’s (ca. 1130-1214) theory of variable humours. He argued that each of the four six-hour periods during the day was dominated by a particular humour.¹⁵ Many of his ideas, though, are more typical of his age. Sweat, for instance, was a discharge of humours, and so could tell very much about a patient’s makeup:

[...] if [sweat] is clear in color this indicates an excess of natural phlegm; if red, an abundance of blood; if saffron-colored, of bile; if lead-colored, of

¹⁰ Albert Lyons, R. Joseph Petrucelli et al., *Medicine: An Illustrated History* (New York: Harry N. Abrams, 1978), p. 295. Lyons and Petrucelli’s is just one of countless descriptions of Hippocrates’ and Galen’s humoural theory, which is such a large part of any discussion of medical history that it can be anticipated as widely known.

¹¹ As cited in Loren MacKinney, *Early Medieval Medicine: With Special Reference to France and Chartres* (Baltimore: Johns Hopkins Press, 1937), p. 83.

¹² John Riddle, “Ancient and Medieval Chemotherapy for Cancer,” *Isis* 76 (1985), pp. 319-330; here: p. 326.

¹³ Michael Dols, “Insanity in Byzantine and Muslim Medicine,” *Dumbarton Oaks Papers* 38 (1984), p. 138.

¹⁴ Mitchell, *Medicine in the Crusades*, p. 187.

¹⁵ Maurice Harold Saffron, “Introduction” in *Maurus of Salerno: Twelfth-Century “Optimus Physicus” with His Commentary on the Prognostics of Hippocrates*, ed. Maurice Harold Saffron (Philadelphia: American Philosophical Society, 1972), p. 15.

black bile. [...] [As] to taste: it is thought that lack of taste indicates an excess of natural phlegm; a sweet taste, an excess of blood or sweet phlegm; a vinegary taste, an excess of black bile or sour phlegm; a bitter taste, an excess of bile.¹⁶

Similar ideas percolated into vernacular texts, like the much-translated – and many-titled – *Book of Sydrac*. Too much phlegm and melancholy, the cold humours, went to a twelfth-century copy, could act like “a thunderbolt” in causing shivering. Even anatomy fell under the humoral umbrella, for the *Book of Sydrac* explains vision in terms of the eye’s humours.¹⁷ The Christian medical mind clearly leaned heavily on Greek theory.

But it was not just idle thought, since practical treatments were also humorally-based. The basic goals were either to remove whichever humour was in excess, or to balance it with something possessing its opposite qualities. Maurus of Salerno put it simply: “contraries are cured by contraries.”¹⁸ In the Christian Levant, for example, laws mandated punishment for doctors who “[put] on [patients] cold things” where they “ought to [have] put hot things, for instance on the brain, or on the nerves, or on the joints which are cold in nature.”¹⁹ During the same period, bloodletting became a popular treatment—and even preventative—of a range of problems. The goal, of course, was to remove a pathological excess of blood. Among the Hospitallers, for example, “it [was] customary that the brethren should be bled on Saturdays,” and bleeding was often a first treatment in fevers and other hot diseases.²⁰ Others noted different methods of removing unwanted humours. Powerful—often poisonous—drugs designed to purge black bile were prescribed to cancerous patients, to eliminate the cause of the tumours.²¹ Less drastic

¹⁶ Maurus of Salerno, “Commentary on the Prognostics of Hippocrates” in *Maurus of Salerno*, ed. and trans. Maurice Harold Saffron, p. 61.

¹⁷ William Holler, “The Ordinary Man’s Concept of Nature as Reflected in the Thirteenth-Century French *Book of Sydrac*,” *The French Review* 48 (1975), pp. 526-538; here: p. 528. Various titles include *Roman* and *Livre de Sydrac*, *La fontaine de toutes sciences*, *Le tresor de sciences*, and *Le Roman du philosophe Sydrac*. By the 1300s, it had appeared in French, Provençal, Flemish, Italian, Middle Dutch and English.

¹⁸ Salerno, *Commentary on the Prognostics of Hippocrates*, p. 66.

¹⁹ *Livre des assises de la cour des bourgeois* as cited in Susan Eddington, “Medicine and Surgery in the *Livre des assises de la cour des bourgeois de Jérusalem*,” *Al-Masaq* 17 (2005), pp. 87-97; here: p. 92.

²⁰ As cited in Mitchell, *Medicine in the Crusades*, p. 196.

²¹ Riddle, *Ancient and Medieval Chemotherapy for Cancer*, p. 326.

treatments were available for less serious illnesses. By “the expulsive power” of sweating, argued Maurus of Salerno, “the patient [was] made to feel [...] more comfortable.”²² In oedema, he said, “medication assists in the removal of the harmful humours from which it originates.

Muslim Medical Theory

Muslim medical theory was equally affected. Under Sultan Saladin (1137/1138-1193 A.D.), Moses Maimonides (ca. 1135-1204 A.D.) made another Arabic translation of Galen’s and Hippocrates’ works. The translator, wrote a contemporary, “forced himself not to change the language [...] except maybe a conjunction or particle”—clearly, the Greeks’ influence had not faded by the Crusades.²³ Writers discussed the humours without explanation, assuming their audience would know what they meant.²⁴ Just as in Europe, the theory was flexible. Haly Abbas (d. ca. 990), for example, suggested that one cause of stroke might be “the congestion” of “thick blood,” even though that had never been posited by the ancients.²⁵ Like the Byzantines, some Muslim theorists proposed that mental illness had a purely physiological cause; an unbalance of the humours. As Abbas, writing in the tenth century but influential through the crusading period, put it, “there can be no mind without [...] a healthy body, and this comes about from the balance of the humours.”²⁶ In the same vein, forgetfulness was supposed to arise from an accumulation of cold or moisture in the brain.²⁷ Al-Jurjani (1040-1136), a Persian physician appointed to the Khwarazm court in 1110, theorised that impotence was rooted in inherently melancholy temperaments.²⁸ Fevers of all kinds were imagined to be caused by the decomposition of a particular

²² Salerno, *Commentary on the Prognostics of Hippocrates*, p. 62.

²³ “[...] s’est imposé la loi de ne rien changer aux expressions [...] si ce n’est peut-être une conjonction ou une particule.” As cited in Max Meyerhof, “L’oeuvre médicale de Maimonide” in *Studies in Medieval Arabic Medicine*, ed. Penelope Johnstone (London: Variorum Reprints, 1984), p. 142. Translation by the author.

²⁴ Joseph Salvatore Graziani, *Arabic Medicine in the Eleventh Century as Represented in the Works of Ibn Jazlah* (Karachi: Hamdard Academy, 1980), p. 57.

²⁵ Karenberg and Hort, *Islamic Theories of Apoplexy*, p. 178.

²⁶ As cited in Dols, *Insanity in Byzantine and Muslim Medicine*, pp.140-141.

²⁷ Gerrit Bos, ““Baladhur” (Marking-Nut): A Popular Medieval Drug for Strengthening Memory,” *Bulletin of the School of Oriental and African Studies, University of London* 59 (1996), p. 229.

²⁸ M. Khaleghi Ghadiri and Ali Gorji, “Natural Remedies for Impotence in Medieval Persia,” *International Journal of Impotence Research* 16 (2004), p. 81.

humour; which one it was determined the character of the illness.²⁹ Like in Christian lands, Muslim theoretical anatomy was also influenced, and in similar ways—the thirteenth-century *Tadhkirah* describes the eye's structure in terms of the humours.³⁰ Muslim medical theorists relied heavily on humoral theory to construct an idea of what it meant to be ill.

Like Christians, these Muslims were not content just to think—humoral theory was translated into practical treatment. Doctors were sometimes represented as lunar figures in illustrations, to represent their control over the elemental domain below the moon, where the humours and their constituent elements reigned.³¹ Just as with Christian treatments, the general outline was one of opposites. Strokes, to continue an illuminating example, were “cold,” since their causes were usually supposed to be an excess of phlegm or melancholy. As such, “hot” treatments like mustard were standard prescriptions.³² Similarly, the historian Ali Gorji notes a variety of medieval Persian headache cures, including garlic for “cold-humour” headaches and plum for “warm-humour” ones. Several of the cures he lists were specifically supposed to balance the humours.³³ Avicenna said that “headache [could result] from the sudden alterations in humours” in the head.³⁴ So, for example, if a plethora of blood was the issue, then bleeding would relieve the pain.³⁵ Humoral theory could appear in even simpler forms: if someone was too hot from a dry fever, a wet cloth could be applied to his or her head and cold, wet food like cucumbers could be prescribed.³⁶ Here, it seems, Christians and Muslims had much in common.

Closely associated with the humours were the six “non-naturals” (*sex res non naturales*), another Greek idea, they rounded out both Christian

²⁹ For an excellent description of a number of different fevers and their humoral roots, see: Graziani, *Arabic Medicine in the Eleventh Century*, pp. 61-64.

³⁰ Sami Khalaf Hamarneh, *Part 1: Tibb Khalil Agha Collection* (Cairo: Dar al-Mahasin Press, 1967), p. 57. Humoral language exists even in modern descriptions of the eye's anatomy.

³¹ Oya Pancaroglu, “Socialising Medicine: Illustrations of the Kitab Al-Diryaq,” *Muqranas* 18 (2001), pp. 164-165. The region above the moon was composed of the fifth, perfect element, quintessence.

³² Karenberg and Hort, *Islamic Theories of Apoplexy*, p. 182.

³³ Table 1 in A. Gorji, “Pharmacological Treatment of Headache using Traditional Persian Medicine,” *Trends in Pharmacological Science* 24 (2003), pp. 351-354.

³⁴ As cited in Ali Gorji and M. Khaleghi Ghadiri, “History of Headache in Medieval Persian Medicine,” *The Lancet Neurology* (2002), p. 511.

³⁵ *Ibid.*, p. 513. For an excellent description of the Arabic science of bloodletting, see: Albucasis, qtd. in Mitchell, *Medicine in the Crusades*, p. 194.

³⁶ Graziani, *Arabic Medicine in the Eleventh Century*, p. 62.

and Muslim medical philosophy. Called non-natural because they were external influences—as opposed to the “natural,” internal humours. They include diet, exercise, excretion, emotion, climate, and sleep.³⁷ Physicians paid close attention to them because they could preserve or upset the balance of a patient’s humours. Naturally, then, they played a part in medicine across Europe and the Middle East.

The Non Naturals in Christianity

As we have already begun to see, vast numbers of Christian treatments were based in controlling patients’ non-naturals; they were considered the cause and potential cure of many illnesses. The Nun’s Priest in Chaucer’s *Canterbury Tales* tells of a woman who is “nevere sik” because of “attempree [a temperate] diet / And exercise / and hertes suffisaunce.”³⁸ Lack of such moderation was unhealthy: contemporary biographies of Thomas Beckett (1118-1170) attribute pains in his side to the intense anxiety of his 1164 trial.³⁹ In fact, powerful emotions could be quite dangerous, just as in modern tales of people dying of “broken hearts.” Troilus, the Trojan hero in Homer’s *Iliad* (8th century B.C), was supposed to have sickened from his love for Criseyde. More concretely, diet, exercise, and sexual activity were all seen as directly tied to one’s health. In the Kingdom of Jerusalem, doctors of patients who died usually had to pay compensation to the family of the deceased, or to the owner, if the patient was a slave. However, any physician who could “show in court [...] that the person he was treating [had lain] with a woman, or drank wine, or ate any bad food which the doctor had forbidden him” was “under no obligation to pay.”⁴⁰ Similarly, bad climate could have a terrible impact on health: John of Joinville (1225-1317 A.D.) described how the “unhealthy climate” of Egypt, where “not a drop of rain ever falls,” allowed “disease to spread through the army.”⁴¹ Writing in the fifteenth

³⁷ Karenberg and Hort, *Islamic Theories of Apoplexy*, pp. 182-183.

³⁸ As cited in Peregrine Horden, “A Non-Natural Environment: Medicine without Doctors and the Medieval European Hospital” in *The Medieval Hospital and Medical Practice*, ed. Barbara Bowers (Ashgate: Burlington, VT, 2007), p. 137.

³⁹ *Ibid.*, p. 136.

⁴⁰ *Livre des assises de la cour des bourgeois* as cited in Eddington, *Medicine and Surgery in the Livre des assises de la cour des bourgeois de Jérusalem*, p. 93.

⁴¹ As cited in Mitchell, *Medicine in the Crusades*, 185. The disease he subsequently describes is unquestionably scurvy, for it shows all of the classic signs: spots on the leg, swollen gums, and nosebleeds prior to inevitable death, if untreated.

century, the Italian physician Ugo Benzi (1376-1439 A.D.) provided his patients with strict regimens of sleep, food, and activity. For an aging nobleman, he made numerous recommendations:

[...] let him sleep seven or eight hours a night [...] let him be sure that he has a [bowel] movement every day [...] let him walk or ride horseback every day before eating [...] let him forgo sexual intercourse as much as possible [...] [and] in regard to his food, he should always incline to moderation.⁴²

It is clear that the world, as much as the body, played an essential part in medieval Christians' ideas of health and disease.

Non Naturals in Islam

Yet again, a similar trend is also visible in contemporary Muslim practice. Countless treatments were based in manipulating the non-naturals. Muslims, too, believed in the deadly potential of passionate emotions; especially love. Dying of a broken heart was certainly possible. The Arab story of Manjun and Layla tells how Manjun, “who is separated from his beloved,” subsequently “dies out of love for [her].”⁴³ On a somewhat similar note, impotence could be caused by trying to have sex in the wrong place or in the wrong frame of mind.⁴⁴ Physicians composed long lists of allowed and forbidden foods since malnutrition also hindered sexual functions.⁴⁵ Menstrual problems, by contrast, were usually associated with climate—excessive bleeding in hot areas, and too little in cold ones.⁴⁶ More general problems could also arise. Sudden changes in any of the six non-naturals could precipitate headaches, so moderation was often the first suggestion to prevent them.⁴⁷ According to Avicenna, the diet was to be kept dry—“bread and dried figs”—and patients had “to be prevented from sleeping immediately” after meals.⁴⁸ The distance between Christian and Muslims in this regard was surprisingly small.

⁴² Dean Putnam Lockwood, *Ugo Benzi: Medieval Philosopher and Physician 1376-1439* (Chicago: University of Chicago Press, 1951), pp. 54-55.

⁴³ Dols, *Insanity in Byzantine and Muslim Medicine*, p. 139.

⁴⁴ Ghadiri and Gorji, *Natural Remedies for Impotence in Medieval Persia*, p. 81.

⁴⁵ Graziani, *Arabic Medicine in the Eleventh Century*, p. 95.

⁴⁶ *Ibid.*, pp. 96-97.

⁴⁷ Gorji and Ghadiri, *History of Headache in Medieval Persian Medicine*, pp. 511-512.

⁴⁸ Karenberg and Hort, *Islamic Theories of Apoplexy*, p. 183.

Conclusions

It is clear, then, that both traditions were moulded in remarkably parallel ways by their shared Greek past. Of course, their medical worlds did diverge, and continued to do so long after the last crusade. At the most basic, bodily, level, Christians' and Muslims' worlds were not as different as, thought to believe. Religion was not the only thing that defined their outlooks. Modern students are occasionally surprised to find out that multi-faith communities survived in the Levant for centuries before and after the height of the crusading zeal. Deep, perhaps unrealized, connections like those illustrated above help to begin to explain why such easy interaction was possible. If we continue to look for these connections that emphasizes the similarities between Christians and Muslims, than we can use this as a stepping stone to bridge the gap and provide a greater understanding between the two religions.

DEINSTITUTIONALIZATION OF MENTAL HEALTH CARE IN BRITISH COLUMBIA: A CRITICAL EXAMINATION OF THE ROLE OF RIVERVIEW HOSPITAL FROM 1950 TO 2000

CHARLENE RONQUILLO

SUMMARY: During the 19th century, ideas based on moral treatment, pedagogical guidance of mentally ill patients and hospitals specializing in caring for the mentally ill, were viewed with high regard as innovative and progressive institutions. As mental hospitals grew into large custodial institutions, they experienced criticism in regards to issues of overcrowding, inadequate funding and provision of care, alienation, and isolation of patients from society. These criticisms resulted in public pressure for deinstitutionalization, increased emphasis on the importance of community care and regionalization of mental health services in the post World War Two era. The purpose of this paper is to analyze how this transformation evolved in British Columbia. Riverview Hospital was established as a centralized mental hospital for the province. The period of the early 1950s ushered in the move towards decentralization and saw the beginning of the decline of Riverview's population and eventual diminution of its role in the province. Popularity of the idea of deinstitutionalization grew swiftly, however, its operationalization and the practical consequences of this shift in care seems to be minimally informed.

KEYWORDS: Deinstitutionalization; Mental Health Services; 20th Century History; Hospitals, Psychiatric; Health Policy, Government Publications.

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Introduction

The shift towards “deinstitutionalization” was a movement in mental healthcare that gained swift global popularity by the early 1960s. In British Columbia, implementation of this ideal was exemplified by the downsizing and proposed closure of the provincial mental facility, Riverview Hospital. An additional goal to the proposed closure was to

work towards rehabilitating and reintegrating residents back into society. In pursuit of this endeavour, extensive evaluations of psychiatric services in the province were carried out and detailed downsizing plans for Riverview Hospital were outlined in several reports from 1950 to 2000. Focusing on reports and policy documents from the 1970s to the 1990s, this paper will examine the contextual factors that influenced the downsizing process as well as the outcomes and repercussions of these plans for patients, families, and communities in the province.

Background

Prior to the late 19th century, treatment means for those afflicted with mental illness were limited. As a result, individuals were left to cope with their symptoms and illness on their own. Only people who were deemed dangerous were imprisoned. Other than that, people were cared for in their families.¹ Recognition of the need for specialized treatment for mental illness began to develop in the late 1800s with a theory that separation of the mentally ill from the rest of society during treatment was an important key factor in rehabilitation.² Subsequently, the idea of institutionalizing the mentally ill in specialized facilities grew to be an attractive option because: (1) it absolved families from the responsibility of caring for their ill family member; (2) it had become a widespread belief that isolation was beneficial for communities (as it removed “dangers” and “undesirables” from society); and (3) it was essential for rehabilitation (e.g. involving patients in labour, on these grounds, was seen as helping to cure them).³ In the 19th and early 20th century, rapid

¹ Geertje Boschma, *The Rise of Mental Health Nursing: A History of Psychiatric Care in Dutch Asylums, 1890-1920* (Amsterdam: Amsterdam University Press, 2003).

² John Conolly, *The Construction and Government of Lunatic Asylums and Hospitals for The Insane* (London: Churchill, 1847), pp. 8-9; Thomas S. Kirkbride, *On the Construction, Organization, and General Arrangement of Hospitals for the Insane* (New York: Arno Press, 1973; reprint of the 1880 edition), pp. 25-27; Mental Health Branch Department of Health Services and Hospital Insurance, *A Summary of the Growth and Development of Mental Health Facilities and Services in BC 1850-1970* (Vancouver: British Columbia Mental Health Branch, 1970).

³ Geertje Boschma, Marlee Groening and Mary Ann Boyd, “Psychiatric and Mental Health Nursing from Past to Present,” in: *Psychiatric Nursing for Canadian Practice*, eds. Wendy Austin and Mary Ann Boyd (Philadelphia: Lippincott Williams and Wilkins, 2008), pp. 3-17; Kirkbride, *On the Construction, Organization, and General Arrangement of Hospitals for the Insane*, pp. 269-272).

popularization and public funding of centralized mental health hospitals saw peak numbers of institutionalized patients as a widespread phenomenon in the Western World. For example, the provincial mental hospital in British Columbia, Riverview Hospital, saw an astounding peak population of 4,630 patients in 1951.⁴

The Move towards Deinstitutionalization

Treatment of mental illness away from institutions and into communities was a major shift in thought that became widespread in the mid-twentieth century. Western Europe, the United States, Australia, and Canada were only a handful of world regions to undergo mental health care reforms that included goals to decentralize mental health care.⁵ Controversy arose over large institutions as critics underscored the lack of scientific evidence supporting institutional care. They argued that institutionalizing individuals had become an alternate way of dealing with dissenters and putting away “undesirables”.⁶

Rapid growth of the asylum population had introduced problems of overcrowding and raised many ethical questions about the quality and effectiveness of non-therapeutic, custodial care, further fuelling the controversy. Questions about long-term effects of institutionalization on both patients and families also came under scrutiny. Dramatic increases in operational and maintenance costs of institutions were additional factors which led to the move towards decentralizing mental health services.⁷

⁴ British Columbia Mental Health and Addiction Services, *History*, 2008; retrieved 10 January 2009 (<http://www.bcmhas.ca/AboutUs/History.htm>).

⁵ Pat Armstrong et al., *Exposing Privatization: Women and Health Care Reform in Canada* (Aurora Ontario: Garamond Press, 2002); Walid Fakhoury and Stefan Priebe, “The Process of Deinstitutionalization: An International Overview,” *Current Opinion in Psychiatry* 15 (2002), pp. 187-192.

⁶ James E. Moran and David Wright, *Mental Health and Canadian Society: Historical Perspectives*, (Montreal & Kingston: McGill-Queen’s University Press, 2006); Marina Morrow, “Mental Health Reform, Economic Globalization and the Practice of Citizenship,” *Canadian Journal of Community Mental Health* 23 (2004): 39-50; Gerald N. Grob, “The Transformation of Mental Health Policy in Twentieth-Century America,” in: *Psychiatric Cultures Compared: Psychiatry and Mental Health Care in the Twentieth Century: Comparisons and Approaches*, eds. Marijke Gijswijt-Hofstra, Harry Oosterhuis, Joost Vijsselaar and Hugh Freeman (Amsterdam: Amsterdam University Press, 2005), pp. 141-161.

⁷ David Wright, Shawn Day, Jessica Smith, and Nathan Flis, “A Janus-like Asylum: The City and the Institutional Confinement of the Mentally Ill in Victorian Ontario,” *Urban History Review* 36 (2008), pp. 43-52.

Specifically, the rapid expansion and growth of facilities increased demand to hire more staff to accommodate the growing numbers of institutionalized patients made deinstitutionalization very attractive.

A principle that heavily influenced the call for change in mental health treatment was that of *normalization*, advocated by Wolf Wolfensberger (b. 1934). Wolfensberger, a renowned mental retardation research scientist at the Nebraska Psychiatric Institute in the United States, defined *normalization* as the importance of exposing a patient to an as normal environment as possible while receiving therapeutic mental health treatment. *Normalization* emphasizes the importance of inclusion into a community and social integration (versus social isolation which was a hallmark of institutional care) as essential to treatment and recovery from mental illness and the eventual goal of reintroducing the individual as a functional member of society.⁸ In addition, the advent of new therapies and medications that helped to control symptoms was thought to better allow for the option of treating the mentally ill within their own communities, in as a “normal” an environment as possible⁹.

Changes in the current approaches to mental health care that were beginning to take place in other parts of the world also prompted the Canadian Mental Health Association’s thorough examination of the state of mental health care in Canada.¹⁰ This was carried out as part of the Royal Commission on Health Services, a national review of the health of Canadians.¹¹ Resulting from this inquiry was the *More for the Mind* report published in 1963 that describes in detail the existing patterns of psychiatric care and identifying gaps in existing services in Canada. Recommendations made in the report to transform mental health care approaches and services were driven by the committee’s idiom, the “*McNeel Ideal*” which stated that psychiatric treatment should cause minimal disruption to a patient’s life; the ideal shared by the deinstitutionalization movement as a whole.¹² The *McNeel Ideal* placed

⁸ Wolf Wolfensberger, *Principle of Normalization in Human Services* (Toronto, Canada: National Institute on Mental Retardation, 1972).

⁹ Boschma, Groening, and Boyd, *Psychiatric and Mental Health Nursing from Past to Present*, p. 11.; Grob, *The Transformation of Mental Health Policy in Twentieth-Century America*, p. 146.

¹⁰ James D. Griffin, “More for the Mind: The Canadian Mental Health Association Report and its Implications,” *American Journal of Psychiatry* 121 (1964), pp. 446-450.

¹¹ Canadian Mental Health Association Ontario, *History of CMHA*, 2008; retrieved 15 March 2009 (http://www.ontario.cmha.ca/inside_cmha.asp?cID=7620).

¹² Griffin, *More for the Mind*, p. 448.