http://somatosphere.net/2013/10/in-the-journals-october-2013-part-22.html

In the journals: October 2013 (Part 2/2)

2013-10-28 17:52:22

By Francis Mckay

Hi all, here's the second part of the journal roundup for this month for Journal of Ethnobiology and Ethnomedicine, Journal of the History of Medicine and Allied Sciences, Philosophy, Ethics, and Humanities in Medicine, and Psychosomatic Medicine.

Journal of the History of Medicine and Allied Sciences

Pneuma–Fire Interactions in Hippocratic Physiology (Eugenio Frixione)

Hippocratic treatises written in the late fifth and early fourth centuries BCE contain some of the earliest conjectures known concerning the physiological roles of the pneuma, or "breath," that was supposed to be involved in various functions within human and animal bodies. A cross-referenced survey of these texts suggests that the contemporary theories on the subject may have gone far beyond the well-known attribution of epilepsy and other diseases to disorders in the flow of pneuma within the vessels. A pattern of co-dependent interplay between air-pneuma and fire-heat is evident among the different sources, despite disagreements of the authors on general outlook and other matters. The mutual engagement of those two elements, in turn, is found woven into elaborate mechanisms to explain, with a cause-to-effect approach, vital processes such as the regulation of body temperature through respiration, embryonic growth through morphogenetic differentiation, and even plant germination. Viewed in a historical context, these features suggest that Hippocratic speculation about pneuma may be representative of a conceptual bridging step, i.e., a stage intermediate between some seminal precedents of Presocratic thought and the more mature Aristotelian and Hellenistic theories.

Doctors in Ancient Greek and Roman Rhetorical Education (Craig A. Gibson)

This article collects and examines all references to doctors in rhetorical exercises used in ancient Greek and Roman schools in the Roman Empire. While doctors are sometimes portrayed positively as philanthropic, expert practitioners of their divinely sanctioned art, they are more often depicted as facing charges for poisoning their patients.

[The First Lady Almoner: The Appointment, Position, and Findings of Miss Mary Stewart at the Royal Free Hospital, 1895–99 (Lynsey T. Cullen)]

This article examines the professional roots of the hospital almoner, a position which has been widely neglected in medical history. The first almoner was Miss Mary Stewart, a former Charity Organization Society employee, appointed at the Royal Free Hospital of central London in 1895. The Royal Free was a charitable hospital which offered free medical treatment to patients considered morally deserving but unable to afford medical care elsewhere. The role expected of Stewart was to means test patients in order to ensure that only those deemed “appropriate” received free medical treatment, and to establish the extent to which the hospital was being abused by those who could afford to contribute toward their medical care. While in office, Stewart continually reshaped the role of almoner. She fashioned the position into that of a medical social worker and undertook such duties as referring patients to other means of medical and charitable assistance, visiting patients’ homes, and training almoners for positions at other voluntary hospitals. Through the examination of Mary Stewart’s Almoners Report Book, this article considers the circumstances of her appointment, the role she performed, and the findings of her investigations.

[Kinderheilkunde and Continental Connections in Child Health: The “Glasgow School Revisited”—Again (Lawrence T. Weaver)]

The last two hundred years or so have seen the transformation of medical practice from a clinical art to the application of science to the diagnosis and treatment of disease. There has been a historical debate about how the use of technology and discoveries of the laboratory have become integrated within medical practice. In trying to understand the evolution of “scientific medicine,” this has generally focused on the tensions between the differing cultures, persons, and professions of the “laboratory” and “clinic” and sought to explain how they were resolved within specific institutions. This paper looks again at the “Glasgow School” (the subject of a number of seminal papers on this subject) and the forces that shaped it, by exploring the career of Leonard Findlay, whose training in Glasgow,

and in Berlin (where he worked in a department in which science and medicine were integrated), defined a style of clinical medicine that formed the model for a new sort of university department of medicine in which clinicians and scientists worked side by side, albeit under the leadership of the former. As a clinician exposed in Berlin to the emerging new sciences of nutrition, microbiology, and immunology, which were particularly relevant to the care of sick children, Findlay created in Glasgow a department of medical pediatrics, which owed less to local factors, figures, and forces and more to his experience in Germany.

German Battle Casualties: The Treatment of Functional Somatic Disorders during World War I (Stefanie Caroline Linden and Edgar Jones)

World War I witnessed the admission of large numbers of German soldiers with neurological symptoms for which there was no obvious organic cause. This posed a considerable challenge for the military and medical authorities and resulted in an active discussion on the etiology and treatment of these disorders. Current historiography is reliant on published physician accounts, and this represents the first study of treatment approaches based on original case notes. We analyzed patient records from two leading departments of academic psychiatry in Germany, those at Berlin and Jena, in conjunction with the contemporaneous medical literature. Treatment, which can be broadly classified into reward and punishment, suggestion, affective shock, cognitive learning, and physiological methods, was developed in the context of the emerging fields of animal learning and neurophysiology. A further innovative feature was the use of quantitative methods to assess outcomes. These measures showed good response rates, though most cured patients were not sent back to battle because of their presumed psychopathic constitution. While some treatments appear unnecessarily harsh from today's perspective and were also criticized by leading psychiatrists of the time, the concentration of effort and involvement of so many senior doctors led to the development of psychotherapeutic methods that were to influence the field of psychiatric therapy for decades to come.

Translating Leprosy: The Expert and the Public in Stanley Stein's Anti-stigmatization Campaigns, 1931–60 (Heather Varughese John)

This article examines three campaigns through which patient activist Stanley Stein sought to combat the stigmatized connotations of the word "leprosy." In 1931, soon after starting the first patient newspaper at the U.S. national leprosy hospital at Carville, Stein became convinced of the

necessity of finding an alternative to “leprosy.” His ensuing campaign to promote the use of the words “Hansen’s Disease” to describe the condition from which he and fellow Carville patients suffered became his most passionate and life-long project. In the 1950s, Stein became involved in efforts to change the translation of “leprosy” in the Bible. Finally, in 1960, he waged a campaign to de-stigmatize encyclopedia entries on leprosy. These campaigns illustrate how even elevation of the medical expert and a seeming disdain for the public can function as a protest of medical authority and reveal a presumption that a significant degree of authority actually resides with the public.

Philosophy, Ethics, and Humanities in Medicine

Neuroethics, confidentiality, and a cultural imperative in early onset Alzheimer disease: a case study with a First Nation population (Shaun Stevenson, B Lynn Beattie, Richard Vedan, Emily Dwosh, Lindsey Bruce and Judy Illes)

The meaningful consideration of cultural practices, values and beliefs is a necessary component in the effective translation of advancements in neuroscience to clinical practice and public discourse. Society’s immense investment in biomedical science and technology, in conjunction with an increasingly diverse socio-cultural landscape, necessitates the study of how potential discoveries in neurodegenerative diseases such as Alzheimer disease are perceived and utilized across cultures. Building on the work of neuroscientists, ethicists and philosophers, we argue that the growing field of neuroethics provides a pragmatic and constructive pathway to guide advancements in neuroscience in a manner that is culturally nuanced and relevant. Here we review a case study of one issue in culturally oriented neuroscience research where it is evident that traditional research ethics must be broadened and the values and needs of diverse populations considered for meaningful and relevant research practices. A global approach to neuroethics has the potential to furnish critical engagement with cultural considerations of advancements in neuroscience.

Is acting on delusions autonomous? (Jann E Schlimme)

In this paper the question of autonomy in delusional disorders is investigated using a phenomenological approach. I refer to the distinction between freedom of intentional action, and freedom of the will, and develop phenomenological descriptions of lived autonomy, taking into account the distinction between a pre-reflective and a reflective type. Drawing on a case report, I deliver finely-grained phenomenological descriptions of lived autonomy and experienced self-determination when acting on delusions. This analysis seeks to demonstrate that a person with delusions can be described as responsible for her behaviour on a 'framed' level (level of freedom of intentional action), even though she is not autonomous on a higher ('framing') level (level of freedom of the will), if, and only if, the goods of agency for herself and others are respected. In these cases the person with delusions is very nearly comparable to people in love, who are also not free to choose their convictions, and who could also be rightly held responsible for the behaviour flowing from their convictions.

Psychosomatic Medicine

Effects of Medical Comorbidity on Anxiety Treatment Outcomes in Primary Care (Laura Campbell-Sills, Murray B. Stein, Cathy D. Sherbourne, Michelle G. Craske, Greer Sullivan, Daniela Golinelli, Ariel J. Lang, Denise A. Chavira, Alexander Bystritsky, Raphael D. Rose, Stacy Shaw Welch, Gene A. Kallenberg, and Peter Roy-Byrne)

Objective: To evaluate the effects of medical comorbidity on anxiety treatment outcomes.

Methods: Data were analyzed from 1004 primary care patients enrolled in a trial of a collaborative care intervention for anxiety. Linear-mixed models accounting for baseline characteristics were used to evaluate the effects of overall medical comorbidity (two or more chronic medical conditions [CMCs] versus fewer than two CMCs) and specific CMCs (migraine, asthma, and gastrointestinal disease) on anxiety treatment outcomes at 6, 12, and 18 months.

Results: At baseline, patients with two or more CMCs (n = 582; 58.0%) reported more severe anxiety symptoms (10.5 [95% confidence interval {CI} = 10.1–10.9] versus 9.5 [95% CI = 9.0–10.0], p = .003) and anxiety-related disability (17.6 [95% CI = 17.0–18.2] versus 16.0 [95% CI

= 15.3–16.7], p = .001). However, their clinical improvement was comparable to that of patients with one or zero CMCs (predicted change in anxiety symptoms = ?3.9 versus ?4.1 at 6 months, ?4.6 versus ?4.4 at 12 months, ?4.9 versus ?5.0 at 18 months; predicted change in anxiety-related disability = ?6.4 versus ?6.9 at 6 months, ?6.9 versus ?7.3 at 12 months, ?7.3 versus ?7.5 at 18 months). The only specific CMC with a detrimental effect was migraine, which was associated with less improvement in anxiety symptoms at 18 months (predicted change = ?4.1 versus ?5.3).

Conclusions: Effectiveness of the anxiety intervention was not significantly affected by the presence of multiple CMCs; however, patients with migraine displayed less improvement at long-term follow-up.

Randomized Controlled Trial of Mindfulness-Based Stress Reduction for Prehypertension (Joel W. Hughes, David M. Fresco, Rodney Myerscough, Manfred H. M. van Dulmen, Linda E. Carlson, and Richard Josephson)

Objective: Mindfulness-based stress reduction (MBSR) is an increasingly popular practice demonstrated to alleviate stress and treat certain health conditions. MBSR may reduce elevated blood pressure (BP). Treatment guidelines recommend life-style modifications for BP in the prehypertensive range (systolic BP [SBP] 120–139 mm Hg or diastolic BP [DBP] 80–89 mm Hg), followed by antihypertensives if BP reaches hypertensive levels. MBSR has not been thoroughly evaluated as a treatment of prehypertension. A randomized clinical trial of MBSR for high BP was conducted to determine whether BP reductions associated with MBSR exceed those observed for an active control condition consisting of progressive muscle relaxation (PMR) training.

Methods: Fifty-six men (43%) and women (57%) averaging (standard deviation) 50.3 (6.5) years of age (91% white) with unmedicated BP in the prehypertensive range were randomized to 8 weeks of MBSR or PMR delivered in a group format. Treatment sessions were administered by one treatment provider and lasted approximately 2.5 hours each week. Clinic BP was the primary outcome measure. Ambulatory BP was a secondary outcome measure.

Results: Analyses were based on intent to treat. Patients randomized to MBSR exhibited a 4.8-mm Hg reduction in clinic SBP, which was larger than the 0.7-mm Hg reduction observed for PMR (p = .016). Those randomized to MBSR exhibited a 1.9-mm Hg reduction in DBP compared with a 1.2-mm Hg increase for PMR (p = .008). MBSR did not result in larger decreases in ambulatory BP than in PMR.

Conclusions: MBSR resulted in a reduction in clinic SBP and DBP compared with PMR.

Effects of Feedback on the Perception of Inspiratory Resistance in Children With Persistent Asthma: A Signal Detection Approach (Andrew Harver, Harry Kotses, Jennifer Ersek, Charles Thomas Humphries, William S. Ashe, Jr, and Hugh R. Black II)

Objective: Accurate perception of asthma episodes increases the likelihood that they will be managed effectively. The purpose of the study was to examine the effect of feedback in a signal detection task on perception of increased airflow obstruction in children with persistent asthma.

Methods: The effect of feedback training on the perception of resistive loads was evaluated in 155 children with persistent asthma between 8 and 15 years of age. Each child participated in four experimental sessions that occurred approximately once every 2 weeks, an initial session followed by three training sessions. During the initial session, the threshold resistance to breathing was determined for each child. Subsequently, each child was randomly assigned to one of two resistive load training conditions in a signal detection paradigm: training with immediate performance feedback or training with no performance feedback.

Results: The threshold resistance to breathing, determined in the initial session, was equivalent between groups. Children in the feedback condition discriminated more accurately between both the presence and the absence of increases in the resistance to breathing (206 [48] versus 180 [39] correct responses, p

Conclusions: Feedback training results in improved perception of respiratory sensations in children with asthma, a finding with implications for strategies of asthma self-management.

The Association of Depressive Symptoms and Pulmonary Function in Healthy Adults (Heather M. Ochs-Balcom, William Lainhart, Anna Mnatsakanova, Luenda E. Charles, John M. Violanti, Michael E. Andrew, Jo L. Freudenheim, Paola Muti, Maurizio Trevisan, Cecil M. Burchfiel, and Holger J. Schünemann)

Objective: Chronic lung disease is exacerbated by comorbid psychiatric issues and treatment of depression may improve disease symptoms. We

sought to add to the literature as to whether depression is associated with pulmonary function in healthy adults.

Methods: In 2551 healthy adults from New York State, we studied the association of depression via the Center for Epidemiologic Studies Depression scale (CES-D) scale score and forced expiratory volume in 1 second (FEV1) and forced vital capacity (FVC) using general linear models and a cross-sectional design.

Results: We identified statistically significant inverse trends in FEV1, FVC, FEV1%, and FVC% by CES-D category, especially in ever-smokers and men. When adjusted for covariates, the difference in FEV1 and FEV1% for smokers with more than 18.5 lifetime pack-years from CES-D scores 0 to 3 to 16 or more (depressed) is approximately 0.25 l and 5.0% (adjusted p values for trend are .29). Among patients only, decreased preejection period (anger-pain threshold: r = 0.31, p = .018) and total peripheral resistance in response to negative emotions (anger-pain tolerance: r = 0.35, p = .025; sadness-pain threshold: r = 0.51, p

Conclusions: These data suggest that the ANS is not hyporesponsive to elicited emotions in fibromyalgia; however, patients with a larger pain response showed an ANS response pattern reflecting heightened ?-adrenergic and reduced ?-adrenergic reactivity. Future research should test whether a specific ANS response pattern to emotions is a consequence of increased pain or whether it amplifies pain.

A Life-Style Physical Activity Intervention and the Antibody Response to Pneumococcal Vaccination in Women (Joanna E. Long, Chris Ring, Jos A. Bosch, Francis Eves, Mark T. Drayson, Rebecca Calver, Vanessa Say, Daniel Allen, and Victoria E. Burns)

Objective: To assess whether a life-style physical activity intervention improved antibody response to a pneumococcal vaccination in sedentary middle-aged women.

Methods: Eighty-nine sedentary women completed a 16-week exercise (physical activity consultation, pedometer, telephone/e-mail prompts; n = 44) or control (advisory leaflet; n = 45) intervention. Pneumococcal vaccination was administered at 12 weeks, and antibody titers (11 of the 23 contained in the pneumococcal vaccine) were determined before vaccination and 4 weeks and 6 months later. Physical activity, aerobic fitness, body composition, and psychological factors were measured before and after the intervention.

Results: The intervention group displayed a greater increase in walking behavior (from mean [standard deviation] = 82.16 [90.90] to 251.87 [202.13]) compared with the control condition (111.67 [94.64] to 165.16 [117.22]; time by group interaction: F(1,68) = 11.25, p = .001, ?2 = 0.14). Quality of life also improved in the intervention group (from 19.37 [3.22] to 16.70 [4.29]) compared with the control condition (19.97 [4.22] to 19.48 [5.37]; time by group interaction: F(1,66) = 4.44, p = .039, ?2 = 0.06). However, no significant effects of the intervention on antibody response were found (time by group ?2 for each of the 11 pneumococcal strains ranged from 0.001 to 0.018; p values all >.264).

Conclusions: Participation in a life-style physical activity intervention increased subjective and objective physical activity levels and quality of life but did not affect antibody response to pneumococcal vaccination.

Racial Differences in Heart Rate Variability During Sleep in Women: The Study of Women Across the Nation Sleep Study (Martica H. Hall, Kellie Middleton, Julian F. Thayer, Tené T. Lewis, Christopher E. Kline, Karen A. Matthews, Howard M. Kravitz, Robert T. Krafty, and Daniel J. Buysse)

Background: Heart rate variability (HRV) differs markedly by race, yet few studies have evaluated these relationships in women, and none have done so during sleep (sHRV).

Methods: We addressed these gaps by examining sHRV in women of African American, Chinese American, or European American origin or descent (mean [standard deviation] age = 51.2 [2.2] years).

Results: HRV during Stage 2 non–rapid eye movement (NREM) and rapid eye movement (REM) sleep differed significantly by race after adjusting for possible confounders. Normalized high-frequency HRV was significantly lower in European American compared with African American and Chinese American participants (European American NREM = 0.35 [0.01], REM = 0.23 [0.01]; African American NREM = 0.43 [0.02], REM = 0.29 [0.02]; Chinese American NREM = 0.47 [0.03], REM = 0.33 [0.02]; p values