



Jun-2010

Recent Findings from Research by Bridgewater Faculty and Librarians

Barbara Bond

Bridgewater State University, barbara.bond@bridgew.edu

Lydia Burak

Bridgewater State University, lburak@bridgew.edu

Robert Cicerone

Bridgewater State University, rcicerone@bridgew.edu

Brian Frederick

Bridgewater State University, brian.frederick@bridgew.edu

Martin Grossman

Bridgewater State University, mgrossman@bridgew.edu

See next page for additional authors

Recommended Citation

Bond, Barbara; Burak, Lydia; Cicerone, Robert; Frederick, Brian; Grossman, Martin; and Leone, James (2010). Recent Findings from Research by Bridgewater Faculty and Librarians. *Bridgewater Review*, 29(1), 11-14.

Available at: http://vc.bridgew.edu/br_rev/vol29/iss1/8

Recent Findings from Research by Bridgewater Faculty and Librarians

Authors

Barbara Bond, Lydia Burak, Robert Cicerone, Brian Frederick, Martin Grossman, and James Leone

Recent Findings from Research by Bridgewater Faculty and Librarians

A

great deal of the research conducted by faculty and librarians at Bridgewater State College is presented by them at professional conferences and meetings. In the spring 2009 semester alone, the college's Center for the Advancement of Research and Teaching (CART) supported more than 70 faculty members and librarians who wished to travel to present papers at such meetings. Presenting papers not only makes the findings of research public, it also puts academics in touch with others who share their special interests and expertise. But, like findings published in professional journals, papers presented at professional conferences are rarely available to a wider audience.

We have selected just a few of the many conference papers recently presented by Bridgewater faculty members and librarians and summarized them briefly here. We hope in future editions of Bridgewater Review to make conference presentation findings a regular feature.

There is a great deal of evidence that how one copes with breast cancer can influence not just the quality of a patient's life, but actual medical outcomes. Research into coping strategies has, not surprisingly, focused on the most common forms of the disease. But of the



200,000 women whom the American Cancer Society estimates will be diagnosed with breast cancer each year, 1–6% will suffer with Inflammatory Breast Cancer (IBC), a particularly deadly and little studied variety. **Barbara Bond** of the Department of Social Work and some colleagues conducted extensive interviews with ten women as they attempted to cope with their diagnosis, treatment and lives with IBC. Bond found that, unlike women who have more common forms of breast cancer, women with IBC did not have access to a large and well-established literature on their disease. As a result, they were forced to do their own research, leading them to develop a sense of being the experts at their own disease. This “active/behavioral” coping strategy, in turn, helped these women with the “intrapyschic” goal of coming to terms with the cognitive and emotional challenges of fighting the disease. The positive benefits of feeling like an expert may be especially important given the feeling among these women with IBC that they did not “fit in” with existing breast cancer support groups because non-IBC group members were frightened by their more aggressive cancer and treatment.

—Dr. Barbara Bond, Assistant Professor of Social Work, presented a paper entitled “Inflammatory Breast Cancer: The Orphan Disease,” at the Association of Oncology Social Workers 2009 Conference in Savannah, Georgia. Her co-investigators in the research were April Connolly and Susan Ascí, also of Bridgewater State College.

Do you recall ever being told by your school coach to “take a lap?” Perhaps it was the storied “Drop and give me ten.” Most likely you had done something to displease the coach and the exercise was punishment. **Lydia Burak** of the Department of Movement Arts, Health Promotion and Leisure Studies along with department colleagues Karen Richardson and Maura Rosenthal, examined the use of exercise as punishment, suspecting its pervasive use by coaches, physical education teachers and fitness professionals. They measured the attitudes, intentions, beliefs and behaviors of 345 college Physical Education majors, finding that 43% reported that they had used exercise as punishment, as had 91% of their coaches and 43% of their teachers. They discovered that students supported their intentions to use exercise as punishment with four beliefs about the practice. They believed that using exercise as punishment can 1) improve the attitudes of



students and athletes; 2) lead to improved fitness levels; 3) teach sports and exercise participants that there are consequences to their actions and that 4) the use of exercise as punishment does not lead to the avoidance of exercise. Applying the Theory of Reasoned Action, Burak and her colleagues conclude that these students' clear intentions to use exercise as punishment can be accounted for by their positive attitudes towards the behavior in combination with their belief that they would receive social approval for it.

—Dr. Lydia Burak, Professor in the Department of Movement Arts, Health Promotion and Leisure Studies, presented these findings in a paper titled “Using Exercise as Punishment/Behavior Management: Examination and Prediction” at the 2009 Convention of the American Alliance for Health, Physical Education Recreation and Dance in Tampa, Florida. Her co-investigators in the research were fellow MAHPLS department faculty members Karen Richardson, Associate Professor and Maura Rosenthal, Assistant Professor.

Recent earthquakes in Haiti and Peru have focused the attention of the world on efforts to predict and mitigate the damage done by these deadly natural disasters. Robert Cicerone of the Department



of Earth Sciences and some colleagues recently conducted a survey of published scientific findings on earthquakes (sometimes called a “meta study”) in order to identify and catalog precursors of earthquakes. These precursor anomalies are deviations from normal geophysical background measurements. The study found three clear patterns linking precursor events. First, they concluded that the largest precursor anomalies tended to occur before the largest earthquakes. That is, the intensity of precursor events was correlated with the intensity of the earthquakes. Second, they found that the frequency of precursor anomalies tended to increase as the time of the earthquake approached. Last, it was found that precursor anomalies tended to concentrate close to the epicenter of the earthquakes they preceded. Though information about the size, timing and location of precursor events are useful in building physical models for predicting earthquakes, the authors warn that there are many other factors that still must be effectively fitted to prediction models.

—Dr. Robert Cicerone, Associate Professor in the Department of Earth Sciences, presented the original paper on this data at the Fall Meeting of the American Geophysical Union in San Francisco, California in December, 2000. Subsequent to that, he published these findings in the journal *Tectonophysics* in 2009 under the title “A Systematic Compilation of Earthquake Precursors.” His co-investigators were John Ebel of the Department of Geology and Geophysics at Boston College and James Britton of Weston Geophysical in Lexington, Massachusetts.

Elected representatives must balance a range of factors when they decide how to vote on legislation. We expect that they will represent the interests of the people who put them in office, their consciences and ideologies and the interests of the even larger population of people who did not vote for them. They also sometimes vote to support the interests of the people with whom they personally identify. Among the congressional groups that meet to pursue common legislative objectives there are Black, Hispanic and women’s caucuses. Brian Frederick of the Department of Political Science has been interested in the impact of gender on the policy voting records of US Senators. Until recently, he reports, most



studies looking at the roll-call voting behavior of female legislators have investigated this phenomenon at the state legislative level and for the US House of Representatives. Such studies have found no significant relationship between gender and a representative’s roll-call voting record. However, with the number of female senators continuing to increase, it became possible for him to study the influence of gender in predicting the roll-call voting behavior of US Senators over several recent Congresses. He found that male and female senators representing the same state had very similar voting records on the basic left-right policy dimension. However, when he examined votes on issues of concern to women, female senators tended to be more supportive than the male senators they replaced, and male senators tended to be less supportive than the female senators they replaced. Frederick also concluded that given the fact that the national parties are deeply divided over women’s issues, it can be expected that electing Democrats to the Senate, no matter their gender, will produce a massive swing in support for women’s issues.

—Dr. Brian Frederick, Assistant Professor in the Department of Political Science presented these finding in a paper titled *Gender Turnover and Roll Call Voting in the U.S. Senate at the Midwest Political Science Association Conference in Chicago, Illinois in April of 2009.*

The Chinese economy is the second or third largest in the world (depending on how you measure it) and the fastest-growing by any measure. It deserves the attention it has been getting. And the reach of Chinese economic activity has been extended by the long history of Chinese migration to every corner of the globe.



According to **Martin Grossman** of the Department of Management, most academic inquiry has focused on the economies of Southeast Asia, where the largest overseas Chinese populations reside. Relatively little has been written specifically addressing the American Chinese business experience. Professor Grossman has been examining this branch of the Chinese diaspora, focusing on the networking behaviors among professionals, including those who have most recently emerged in the high tech sector. Grossman notes that in traditional Chinese societies, personal trust, social capital and regional affiliations play major roles in providing predictable and stable economic transactions. With core values rooted in Confucian thought, the Chinese idea of *guanxi* encapsulates the notions of social capital, relationship and connection. In looking at the operation of Chinese business communities in America, he finds that *guanxi*, while still important, is no longer sufficient among Chinese American professionals. Skill and technological competence, increasingly important in the knowledge economy, is not guaranteed through such networks. Indeed, Grossman contends that the *guanxi* system can at times be counterproductive, since such social ties can blind its participants to new technological breakthroughs and even compel them to attend to relationships at the cost of technical advantage.

—*Dr. Martin Grossman, Associate Professor in the Department of Management, presented these findings in a paper titled "American Chinese Business Networks and the Economic Growth of China" at the 4th International Conference of Institutes and Libraries for Chinese Overseas Studies in Guangzhou, China in May of 2009.*

Every American knows that if you want to do something good for your health you should eat well and exercise. The health-care industry has been unanimous in delivering this message to us for a very long time. However, as **James Leone** of the Department of Movement Arts, Health Promotion and Leisure Studies notes in a recent study, exercise may also have little-known harmful effects for some people. According to Leone, physical activity increases the metabolic demand for nutrients to support the body's cells and systems. Persons with subclinical (suspected but not detected) or latent celiac disease may be at an increased risk for negative health effects due to their body's inability to keep up with the metabolic demands created by their physical activity. (Celiac disease is an inherited autoimmune disease in which the lining of the small intestine is damaged, mainly



from eating gluten.) Leone notes that health-care professionals, such as athletic trainers or primary-care physicians, are often the first people an athlete may consult concerning gastrointestinal issues. His study has led him to promote discussion of the prevalence of celiac disease, development of recognition and management strategies, and preparation of healthcare professionals for thorough clinical assessment when screening for celiac disease in athletes and physically active individuals.

—*Dr. James Leone, Assistant Professor in the Department of Movement Arts, Health Promotion and Leisure Studies, presented these findings in a paper titled "Celiac Disease in Physically Active Populations: Is Good Health in Athletics an Underlying Under-Recognized Concern?" at the Tenth International Celiac Disease Symposium in Amsterdam, The Netherlands in April, 2009.*