

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Dr. Adrian Loerbroks  
adrian.loerbroks@medma.uni-heidelberg.de  
Embargoed until: Friday, March 6

***Research from the University of Heidelberg suggests that termination of an important interpersonal relationship and a disposition to experience stress may increase the likelihood of developing asthma in adult age.***

**Chicago, Illinois** – Asthma is a disease that makes breathing difficult. However very few studies have looked at personality traits or stressful life events as risk factors for the development of asthma in adults. Thus, we wanted to examine this research question.

We contacted 5,114 male and female adults living in Heidelberg (Germany) between 1992 and 1995. Participants reported if they suffer from asthma or not. Furthermore, they were asked to indicate stressful life events, which they have experienced during the last 5 years. The list of stressful events included unemployment, death of a close person, or termination of an important relationship.

Participants of the study also filled out questionnaires measuring personality factors that are related to the perception of and/or coping with stress (“extraversion” and “neuroticism”). We re-approached these participants about 8.5 years later (2002/2003) and asked them again if asthma had been diagnosed by a physician. We then analyzed whether a stressful life event or personality traits had increased the likelihood of developing asthma over the past 8.5 years.

As presented at the American Psychosomatic Society’s Annual Meeting, the only factors that were related to the development of asthma were the termination of an important relationship and neuroticism (an emotional instability and a predisposition to experience stress): Those participants who had terminated an important relationship were about twice as likely to develop asthma as those who had not. Moreover, the risk of developing asthma was increasing with increasing neuroticism.

Asthma is characterized by chronic inflammation of the airways. Stress and emotions have been shown to influence inflammatory processes. This would be a possible explanation of our findings. While this study provides new insights into how asthma may generally develop, the absolute risk of a given individual to develop asthma remained low irrespective of personality or life events.

###

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



AMERICAN  
PSYCHOSOMATIC  
SOCIETY

*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Alison Radcliffe

author [a.radcliffe@wayne.edu](mailto:a.radcliffe@wayne.edu)

Embargoed until: Friday March 6<sup>th</sup>, 2009

***Research from Wayne State University suggests that lack of emotional awareness and understanding in people with rheumatoid arthritis could increase symptoms.***

**Chicago, Illinois** - Do people with difficulty understanding or expressing their emotions have more pain and disability when they suffer from a chronic condition like rheumatoid arthritis? This emotional limitation, termed “alexithymia” (which means “lacking words for feelings”), is associated with poor health in some populations. In this study we tested whether alexithymia was associated with more pain and disability among people with rheumatoid arthritis, or whether general personality traits, such as openness, extroversion, and emotional stability were more important correlates. We had 264 adults with rheumatoid arthritis complete questionnaires that asked about their alexithymia, general personality, and health status (pain, physical functioning, social functioning, and mood). Although some general personality traits (emotional instability, introversion) correlated with poorer health status, this study showed that people who had difficulty identifying their feelings reported more pain and more impaired functioning. Furthermore, this emotional limitation was more important to health than were people’s general personality traits. These findings suggest that a lack of emotional awareness or understanding might increase pain and disability in people with rheumatoid arthritis, perhaps by interfering with their ability to manage stress, which could increase symptoms and worsen mood. It may be important for health care workers to understand patients’ emotional abilities, and interventions to increase emotional understanding might prove helpful to managing this disease.

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

###



**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Annelieke Roest  
Email address: A.M.Roest@uvt.nl  
Embargoed until: 05-03-2009

***Research from Tilburg University suggests that the adverse impact of Type D personality on prognosis differs for invasive versus non-invasive therapy after myocardial infarction.***

**Chicago, Illinois** - Type D personality is associated with increased morbidity and mortality in patients with coronary heart disease. Type D personality is defined by the combination of two personality traits: the tendency to experience negative emotions (*negative affectivity*) and inhibit self-expression in social interaction (*social inhibition*). In a sample of 474 myocardial infarction (MI) patients, we evaluated the effect of Type D at time of the hospitalization for MI on cardiac outcome. We also looked at the combined effect of type D and MI intervention type (invasive versus non-invasive) on outcome. During hospitalization for MI, we assessed patients on Type D using the Type D personality scale. We then followed them for a mean period of 1.8 years and determined cardiac outcome (cardiac death and/or recurrent MI).

Type D patients had a worse prognosis compared with non-Type D patients, controlling for the effects of factors known to affect prognosis (e.g., disease severity). Type D patients treated with non-invasive therapy had the worse prognosis, with an almost six-fold increased risk of adverse cardiac outcome compared with non-Type Ds who received invasive therapy. Type D patients experienced more symptoms of distress but distress could not explain the difference in outcome between Type D patients treated with invasive versus non-invasive therapy.

The results from this study indicate the need for future research directed to the identification of the underlying pathophysiological processes by which Type D contributes to prognosis after MI, especially in those treated with non-invasive therapy, and to the testing of behavioral interventions to alleviate the associated risk.

###

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



AMERICAN  
PSYCHOSOMATIC  
SOCIETY

*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Per M. Aslaksen and Magne Arve Flaten

[magne.flaten@psyk.uit.no](mailto:magne.flaten@psyk.uit.no)

Embargoed until: March 7<sup>th</sup> 2009

Pain in the brain: Research from the University of Tromsø, Norway, indicates that expectations about treatment reduces the pain signal to the brain

**Chicago, Illinois**

Expectations are part of almost all treatment, and some have argued that expectations alone may have a significant effect on symptoms like pain. Several studies have supported this idea, and have found that the administration of a sugar pill, i.e., a placebo-pill, with no effect of its own, may reduce pain if the recipient is told that it is a powerful painkiller.

Pain is a subjective experience, and is often recorded by asking the patient to verbally report how painful the experience is. Some have suggested that expectations do not reduce pain, but only affect the reporting of pain.

To investigate whether expectations reduced the feeling of pain, and not just the pain report, an experiment was performed where 43 subjects received moderate pain stimulation to the underarm. The brain's response to the painful stimulation was recorded as electrical activity by 32 electrodes placed across the scalp. This activity is correlated to the feeling of pain. Each subject was tested twice: one time where pain was applied several times, and one time where the same painful stimulation was applied, but inactive sugar capsules were administered with the information that they contained a powerful painkiller.

The results showed that the subjects reported less pain after receiving inactive capsules. Importantly, the brain's response was also reduced by the expectation of reduced pain. Thus, the expectation of reduced pain decreased the brain's response to a painful stimulus. This indicates that expectations reduced the pain signal to the brain, and that expectations may have physiological consequences that are beneficial for health

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: *Laura Cousino Klein, Ph.D.*

Phone Number/Email address: *814-883-8624, [lcklein@psu.edu](mailto:lcklein@psu.edu)*

Embargoed until: *Presentation date*

***Research from the Pennsylvania State University suggests that daily rhythms of the body's biological clock hormone, melatonin, are altered by amount of sleep and contribute to daily stress.***

**Chicago, Illinois** – Research from the Pennsylvania State University suggests that the less sleep you get at night, the more sleep hormone you have throughout the day, which can make you groggy in the morning, slow to wake up and more susceptible to being stressed throughout the day. We asked 34 hotel employees and their partners to provide 4 days of saliva samples, 4 times a day, for a total of 16 samples. Participants also reported how much sleep they got each night and the types of stressors they experienced each day. We analyzed the saliva for the sleep hormone, melatonin, which is believed to synchronize circadian rhythms and seasonal variations in biological functioning, including cortisol (a hormone believed to play a role in body weight regulation and the body's ability to cope with stress) and immune function.

We found that melatonin has a daily rhythm such that melatonin levels rise at bedtime to help induce sleep, and decrease in the morning and throughout the day, which reduces daytime sleepiness. Importantly, when people sleep less than they usually do, their melatonin levels are elevated in the morning, which makes it more difficult to wake up and leads to more experiences of stress throughout the day. These results suggest that having a bad day after a short night's sleep may be more than a psychological phenomenon. Melatonin may be one path through which losing sleep contributes to poor health outcomes such as cardiovascular disease and cancer.

###

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



AMERICAN  
PSYCHOSOMATIC  
SOCIETY

*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Bruce D. Naliboff

[naliboff@ucla.edu](mailto:naliboff@ucla.edu)

Embargoed until: Wed, March 4, 4:30pm

***Research from the UCLA Center for Neurobiology of Stress has shown that training in Mindfulness Meditation facilitates activity in brain networks involved in present moment awareness.***

**Chicago, Illinois** – There are a variety of forms of meditation. Some have practitioners focus on a specific object or word while others, like mindfulness meditation, encourage an accepting and open, present moment awareness. Presumably mindfulness meditation is effective in reducing stress and improving well-being through its ability to change how practitioners' brains function. Most studies of meditation have examined responses to specific activities like looking at words or pictures; however, techniques have now been developed to directly examine the brains 'default networks' or how various parts of the brain interact during rest or meditative practice. In the present study we performed functional magnetic resonance brain imaging (fMRI) scans on 20 healthy women who volunteered for research on meditation. One half of the subjects were studied before and one half of the subjects after attending an 8 week Mindfulness-Based Stress Reduction (MBSR) training course. Besides group classes, the MBSR training includes at least 45 minutes per day of mindfulness meditation practice. During the scanning session both the participants who had received the MBSR training and those who had not were instructed to rest for 5 minutes with eyes closed, being mindfully aware of their surroundings.

During the resting state the group trained in mindfulness meditation showed an increase in the connectivity (or the ability of the brain areas to work together) of several regions that are important in generating present moment awareness. These include the prefrontal cortex, the insula, and the inferior parietal cortices. In contrast the untrained subjects showed greater connectivity in a set of regions that are involved in narrative or rumination type thinking. These results for the first time document that during rest MBSR training can induce changes in the nature of self-referential thought processes, facilitating present-centered self-awareness and reducing ruminative type thinking. It is likely that these changes underlie at least part of the positive impact of meditation practice on well-being.

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



AMERICAN  
PSYCHOSOMATIC  
SOCIETY

*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: *Cathy A. Bykowski, M.A.*

*cbykowski@mail.usf.edu*

Embargoed until: *March 4, 2009*

***Research from the University of South Florida suggests that treatments for psychological distress may improve blood sugar control in diabetics.***

**Chicago, Illinois** – Individuals with diabetes report high rates of psychological distress, such as stress and depression. Those that experience the most distress tend to have the worst control over their diabetes and the highest levels of blood sugar. Poor diabetes control can lead to serious complications that affect many parts of the body including the kidneys, eyes, and nerves. Therefore, it is important to find ways to help people with diabetes control their disease. Some research suggests that decreasing distress will improve control over diabetes by reducing blood sugar levels. Numerous studies of treatments aimed at reducing psychological distress have been conducted with mixed results. Researchers at the University of South Florida analyzed the combined results of these studies to determine whether, in general, treatments for psychological distress improve diabetes control.

The researchers identified 26 randomized controlled trials. Each trial tested the effects of reducing psychological distress in people diagnosed with diabetes. All studies measured diabetes control using hemoglobin A1c, a blood test that measures the average blood sugar level over the previous 3 months. Their findings, presented at the American Psychosomatic Society Annual Meeting, revealed that treatments for psychological distress significantly reduced blood sugar. Overall, individuals who received treatment tended to have better control of their blood sugar than those who did not receive treatment. Diabetes control was improved when either psychosocial treatments or medications to treat distress were used. Results did not differ for people with type 1 compared to type 2 diabetes – people with both types of diabetes benefited from the treatments. These results suggest that medication and psychosocial interventions for reducing psychological distress can improve blood sugar control in those with type 1 and type 2 diabetes.

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

###

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Christopher G. Engeland, PhD  
engeland@uic.edu

Embargoed until: March 5, 2009

**Examination Stress Causes Hyper-Inflammation of the Oral Mucosa and Slows Healing**

**Chicago, Illinois** - Past research has shown that long-term stress slows healing in both skin and mucosal wounds. This delay in skin occurs, at least in part, because stress inhibits inflammation at the site of the wound. In mucosal wounds, it is unknown how stress affects inflammation. The University of Illinois at Chicago is currently investigating the effects of stress on healing rates and inflammation in oral mucosal wounds.

In a recent study, 65 dental students received a small circular wound (3.5mm in diameter) and a small longitudinal wound (1x5mm) on the hard palate of the mouth at two different time points: during university examinations and during summer vacation, periods of relative stress and non-stress.

The circular wound was videographed daily to assess closure. A biopsy (2x5mm) was obtained from the longitudinal wound at the 6<sup>th</sup> and 24<sup>th</sup> hour following wounding, which represented the early and late stages of the inflammatory process. The expression in tissue of eight genes involved with inflammation was determined from these biopsies.

This research confirmed that wound closure was delayed during university examinations compared to summer vacation. Interestingly, the stress during examinations was associated with a state of hyper-inflammation in normal unwounded tissue and higher inflammatory responses in wounded tissue.

As stated earlier, stress has been associated with reduced inflammation in skin wounds. The present finding that stress can increase inflammation in wounds is unique and may be specific to mucosal tissues. This suggests that attempts to improve healing by altering inflammatory responses should be made in a tissue-specific manner. What may improve healing in one tissue type may possibly worsen healing in a different tissue type. It is also interesting that the degree of inflammation in unwounded tissue was indicative of healing rates following injury.

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



AMERICAN  
PSYCHOSOMATIC  
SOCIETY

*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: info@psychosomatic.org • www.psychosomatic.org

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Cédric Lemogne

cedric.lemogne@orange.fr

Embargoed until: March, the 5<sup>th</sup>, 2009

***Research from the Paris Descartes University and INSERM suggests that covert hostility may account for the increased mortality associated with depressive mood.***

**Chicago, Illinois** – Previous research in large population-based samples taught us that hostile or depressed individuals are prone to premature death. Because hostility and depression may be linked, the association between depressive mood and premature death could be explained by an increased hostility rather than by mood per se. This question has important public health implications, as preventive and therapeutic interventions may need to target more specific mechanisms (e.g. reducing hostility through therapy) rather than treating only depression.

In the present research, we addressed this question in the GAZEL cohort, a very large sample of 20,625 employees of the French national gas and electricity companies. Questionnaires were mailed in 1993 to assess reactive and neurotic hostility, which correspond to the behavioural (e.g. physical or verbal aggressiveness) and the emotional (e.g. resentment or suspicion) components of hostility, respectively.

After a mean follow-up of 15 years, we found that depressive mood predicted mortality in the GAZEL cohort, even when excluding external causes of death (i.e. accidents or suicides) and taking into account the role of age, sex, education level, obesity, alcohol consumption, and smoking. However, this association was dramatically reduced, and indeed disappeared, when we took into account neurotic hostility. In other words, the increased mortality associated with depression was almost entirely explained by neurotic hostility, rather than by depressive mood per se.

These results highlight the need to explore the underlying mechanisms linking neurotic hostility and mortality. A particular focus on modifiable mechanisms is warranted, as prevention and therapeutic strategies should address the processes through personality is associated with health, rather than personality per se.

###

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: info@psychosomatic.org • www.psychosomatic.org

**Release from American Psychosomatic Meeting, Chicago, Illinois**

*Contact: Carrington Rice, M.A.*

*Author email address: rice3@umbc.edu*

*Embargoed until: March 7, 2009*

***Research from the University of Maryland, Baltimore County suggests that hopelessness is associated with silent vascular brain disease among healthy older adults.***

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

**Chicago, Illinois** – We have found that higher levels of hopelessness are associated with vascular, or blood vessel-related, brain disease in healthy older adults. Importantly, the vascular brain disease was “silent,” meaning that participants reported no symptoms of the brain disease. Silent vascular brain disease is associated with increased risk of multiple poor health outcomes, including future stroke and dementia. We asked each of the 76 healthy older men and women in our sample to complete a questionnaire assessing his or her current level of hopelessness. Examples of these questions are “I look forward to the future with hope and enthusiasm” and “I can look forward to more good times than bad times.” Participants also underwent magnetic resonance imaging (MRI), a medical imaging technique used to visualize the structure of their brains. The brain scans were then rated by a neuroradiologist for signs of vascular disease. We found that higher levels of hopelessness were significantly related to these ratings of vascular disease. That is, individuals reporting greater lack of hope also displayed the greatest amounts of silent vascular brain disease. This relation between hopelessness and vascular brain disease went beyond other factors (e.g., demographic, biomedical, and lifestyle factors) that are known to contribute to vascular changes in the brain. These findings suggest that hopelessness is an important psychological correlate of vascular brain disease, even among healthy older adults.

###



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: info@psychosomatic.org • www.psychosomatic.org

**Release from American Psychosomatic Meeting, Chicago, Illinois**

*Contacts: Danielle Roubinov (droubinov@asu.edu)*

*Melissa Hagan (melissa.hagan@asu.edu)*

*Linda Luecken (lluecke@asu.edu)*

*Embargoed until: March 4, 2009*

***Research from Arizona State University suggests that the use of a variety of different negotiation strategies in response to a stressful conflict situation may not be as beneficial as use of fewer strategies***

**Chicago, Illinois** – It is generally assumed that being more flexible when negotiating a difficult interaction is better, but this may not be the case if the situation cannot be resolved. To test this, we observed a sample of 65 undergraduate students role-playing a stressful task with a “neighbor” (portrayed by a research assistant (RA)). Participants were told that the neighbor was playing music too loudly and were instructed to ask the neighbor to turn down his/her music. During the interaction, the RAs followed a script of uncooperative responses such that the task could not be resolved.

We categorized the verbal responses of participants during the task into 7 types of negotiation strategies (e.g., Problem-Solving, Aggressive/Threatening). Individuals who used a smaller set of strategies were considered less “flexible” than those who used a greater variety of strategies. We also looked at the intensity of participants’ facial expressions of anger and/or frustration. Lastly, we measured participants’ biological response to the task using cortisol, a stress hormone.

As presented at the American Psychosomatic Society Annual Meeting, our results indicated that greater flexibility may not be the healthiest approach. Unlike less flexible participants, those who tried a greater variety of responses showed more intense facial expressions of anger and frustration. Cortisol levels in more flexible participants also reflected an unhealthier biological response to stress than the less flexible participants.

The results suggest that in an uncontrollable situation, individuals who use a smaller variety of verbal responses to stress may have more favorable outcomes than those who use a greater variety of responses. Although being flexible in how you respond to different situations may be beneficial, continuously trying different ways to work out the same situation may lead to greater anger, frustration, and an unhealthier biological response.

###

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: *Els Clays*

*els.clays@UGent.be*

Embargoed until: March 6, 2009

***Research from the Universities of Ghent and Brussels (Belgium) suggests that the perception of job stressors is related to measures of heart rate variability.***

**Chicago, Illinois** – There is ample evidence to consider psychosocial work factors as independent risk factors of coronary heart disease. On the other hand, our understanding of the physiological pathways in this relation is incomplete. Classical coronary risk factors such as elevated blood pressure can not fully account for the relation between job stress and coronary heart disease. More recently it was hypothesized that disturbances of the autonomic nervous system with its sympathetic and parasympathetic mechanisms might mediate the relation. Increased heart rate and reduced heart rate variability are considered as valid measures of cardiac autonomic dysfunction.

A sample of 653 healthy male workers aged 40-55 years was included in the Belgian Physical Fitness Study. We asked the participants about their perception of work stressors by means of self-administered questionnaires. The questions dealt with physical and psychosocial job stressors such as general satisfaction with working conditions, complaints about physical working conditions, responsibility at work, work rhythm and social relations at the workplace. We collected data on heart rate variability by means of 24-hour ambulatory ECG recordings during regular everyday activities.

As presented at the American Psychosomatic Society Annual Meeting, we found that the perception of work stressors was positively related to mean heart rate over 24 hours. On the other hand, elevated work stressors were associated with lower PNN50 (percentage of differences between adjacent normal RR intervals > 50 ms), a measure of the parasympathetic component of heart rate variability.

To sum up, an accumulation of physical and psychosocial job stressors was related to higher heart rate and reduced heart rate variability in a population of healthy middle-aged males. These findings support the idea that disturbances of the autonomic nervous system and its parasympathetic component in particular may play a role in the link between work stress and coronary heart disease.

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Sarah Conklin  
author [sconklin@allegheny.edu](mailto:sconklin@allegheny.edu)  
Embargoed until: 3/4/09

***Research from Allegheny College suggests that long-chain omega-3 fatty acid supplementation may decrease negative mood in young adults.***

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

**Chicago, Illinois-** 36 college students were randomly assigned to receive either 1.4 grams of long-chain omega-3 fatty acids (EPA and DHA) or a matched placebo for three weeks. The experiment was double-blind so the participants and researchers were unaware of who was in each condition until the conclusion of the experiment.

Participants completed questionnaires about their recent mood (negative mood such as neuroticism, anxiety and depression) before and following 3 weeks of supplementation. Results showed that participants in the omega-3 condition, but not the placebo, had significantly decreased neuroticism and depression scores following supplementation.

These findings suggest that acute and low dose supplementation with omega-3 fatty acids may decrease depression and neuroticism in young adults not recruited for psychopathology. Other research has demonstrated the potential therapeutic benefits of omega-3 fatty acids in participants with various clinical disorders such as major depression and bipolar disorder. To the best of our knowledge, this small study is the first to suggest potential mood benefits for individuals not recruited for psychopathology.



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: info@psychosomatic.org • www.psychosomatic.org

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Frank C. Bandiera, MPH

frankbandiera@aol.com

Embargoed until: Thursday, March 05, 2009

***Research from the University of Miami suggests that secondhand smoke exposure is related with an increased risk for depression.***

**Chicago, Illinois** – We used two secondary databases with 1,813 participants from the National Health and Nutrition Examination Survey (NHANES) and 43,311 participants from the Behavioral Risk Factor Surveillance System (BRFSS). **We found that never smokers who reported depression had higher levels of secondhand smoke exposure.** These findings are important because depression is a major cause of morbidity, mortality, and reduced worker productivity. Other studies have shown that banning smoking in workplaces and other public settings leads to immediate reductions in disease burden in workers and the public-at large. However, no previous studies have looked specifically at the impact smoking bans at home and at work might have on depression. Interventions designed to eliminate smoking in the home are also needed. Modest financial incentives to prevent smoking at home already exist, most directly through owner and renter insurance rates, which are typically higher for smokers. However, public health campaigns and similar interventions that promote greater awareness of the negative consequences associated with smoking and secondhand smoke are also warranted to encourage individuals to stop smoking at home. The key message in the current study that is relevant for policy makers, employers, and individuals is that secondhand smoke exposure is related to an increased risk for depression.

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

###

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Dr Felix Beacher  
author f.beacher@bsms.ac.uk  
Embargoed until: 4 March 2009

***Research from the Brighton and Sussex Medical School, UK, suggests that a history of fainting is associated with differences in brain anatomy, including in brain regions known to be involved in the regulation of blood pressure.***

**Chicago, Illinois**

As presented at the American Psychosomatic Society Annual Meeting:

Fainting is a common condition, affecting up to 40% of people over the course of their lifetime. Fainting is often related to anxiety, for example at the sight of blood. The immediate cause of fainting is a sudden drop in blood pressure, resulting in a critical reduction of blood flow to the brain. While fainting is not usually a serious condition, the costs of treating fainting are high. However, no previous study has examined whether a history of fainting is associated with differences in brain anatomy.

In a study funded by the charity the Wellcome Trust, we used computerized analysis of MRI brain scans to compare brain anatomy in adults with and without a history of fainting. We were particularly interested in whether fainting would be associated with differences in brain regions involved in the regulation of blood pressure. We also used questionnaires to test for a relationship between anxiety levels.

We found that individuals with a history of fainting had significantly reduced volumes of gray matter within two regions of the brainstem, the medulla and midbrain. Other studies have shown that these regions are involved in the regulation of blood pressure. Further, within all the people we studied, decreases in the size of the medulla were associated with greater frequency of fainting. We also found that current anxiety levels and fainting frequency were related to volume of the caudate, a brain region implicated in anxiety behaviours.

Our findings suggest firstly that the size of particular brainstem regions is related to a person's vulnerability to fainting, via differences in blood pressure regulation. Secondly, the occurrence and frequency of fainting is also affected by the volume of the caudate.

Our findings increase our understanding of why people faint by showing differences in brain anatomy. Further, some people are more likely to faint due to a neurological vulnerability to anxiety symptoms.

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Floortje Mols

Author email address: F.Mols@uvt.nl

Embargoed until: March 5<sup>th</sup> 2009

***Prostate cancer patients managed expectantly report comparable health related quality of life and less symptom burden than radiotherapy patients up to 10 years after diagnosis, even after controlling for comorbidity and clinical disease progression. These results were presented at the American Psychosomatic Society Annual Meeting.***

**Chicago, Illinois**

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

Patients diagnosed with localized low-risk prostate cancer are often faced with difficult decisions regarding treatment options. Localized prostate cancer can be treated with curative treatment or managed expectantly with active surveillance. The often indolent nature of these low-risk localized prostate cancers suggests that patients could be over-treated with curative treatment at diagnosis, and its associated complications could impair quality of life.

Researchers from Tilburg University and the Comprehensive Cancer Center South in the Netherlands recently evaluated data from a population-based Cancer Registry in which 71 prostate cancer survivors who fitted the criteria for active surveillance were matched with 71 survivors treated with external beam radiotherapy of similar demographic and clinical characteristics. These patients filled out questionnaires 5-10 years after diagnosis, which were then analysed to predict the impact of management strategy at diagnosis on long-term health related quality of life and symptom burden.

Patients managed expectantly reported a health related quality of life comparable to those treated with radiotherapy. However, radiotherapy patients reported poorer bowel function and more bother with bowel function. Additionally, they had more problems with getting an erection compared to active surveillance patients. Health related quality of life of active surveillance patients was comparable to an age- and sex-matched normative population up to 10 years since diagnosis. Despite the assumption that undergoing radiotherapy decreases or eradicates possible disease progression while active surveillance patients live with untreated cancer and therefore risk disease progression, both groups had similar numbers of patients with clinical disease progression requiring active treatment since initial diagnosis until time of study.

Although quality of life of patients managed expectantly was comparable to those treated with radiotherapy or a normative population, psychological distress might not. This should be investigated in future studies.

###



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Frank Zimmermann-Viehoff, MD

[frank.zimmermann@charite.de](mailto:frank.zimmermann@charite.de)

Embargoed until: March 04th

***Espresso - but not decaffeinated espresso - increases parasympathetic control of the heart in habitual coffee consumers.***

N  
E  
W  
S  
R  
E  
L  
E  
A  
S  
E

### **Chicago, Illinois**

Coffee is among the most widely consumed beverages in the world. Potential harmful or beneficial health effects are controversially discussed.

Besides the pharmacological action of caffeine, unspecific effects on the organism are expected, because coffee drinking is highly ritualized and associated with individual expectations and prior learning processes. Aim of our study was to investigate short-term effects of espresso and decaffeinated espresso on the autonomic nervous system. To do this, we recorded heart rate variability, a measure of respiratory-related fluctuations of heart rate, before and after the consumption of caffeinated or decaffeinated espresso. Measurement of heart rate variability allows for estimation of the activity of the vagal nerve, a part of the parasympathetic nervous system. The vagal nerve originates in certain regions of the brain and is bidirectionally connected to the heart. Vagal influences protect the heart, e.g. from arrhythmias and sudden cardiac death. Additionally, reduced heart rate variability is associated with all-cause mortality and cardiovascular risk factors such as hypertension, diabetes and obesity.

36 healthy habitual coffee-consumers and 39 non-habitual coffee-consumers were enrolled in the study. All subjects participated in 3 laboratory sessions. In the verum condition, a double espresso was administered, whereas decaffeinated espresso was administered in the placebo condition. To control for context effects such as changes due to resting or the laboratory surroundings, subjects received water in a second control condition.

We found that the habitual consumers showed a significantly higher increase of heart rate variability following espresso consumption compared to decaffeinated espresso or water, indicating a shift of the autonomic nervous system into the direction of relaxation. Heart rate variability response in the non-habitual consumers was not significantly different across the three conditions. The observed effect may be due to pharmacological or psychological mechanisms (conditioning, expectation). Differences between habitual and non-habitual consumers could be explained by habituation with regard to sympathetic effects of caffeine in the habitual consumers or differences in conditioning or expectations.



AMERICAN  
PSYCHOSOMATIC  
SOCIETY

*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Frank Zimmermann-Viehoff, MD

[frank.zimmermann@charite.de](mailto:frank.zimmermann@charite.de)

Embargoed until: March 04th

***Results from the Stockholm Female Coronary Risk study (FemCorRisk) suggest that depressive symptoms are associated with reduced parasympathetic control of the heart***

**Chicago, Illinois**

Depressive symptomatology is associated with increased risk for Coronary heart disease (CHD) and unfavourable outcome in patients with established CHD. Women with manifestations of CHD below the age of 65 are known to have a worse prognosis compared to men of the same age. Also, depression is generally more frequent in women than in men. The Stockholm Female Coronary Risk study was designed to identify physiological and psychosocial factors that influence the course of cardiovascular disease in women. Our study addressed the question which mechanisms play a role with regard to the “brain-heart-axis”, linking negative emotions with cardiovascular risk.

266 female patients who were admitted for an acute coronary syndrome in the greater Stockholm area were investigated. Each subject had recordings of heart rate for 24 hours, from which heart rate variability, a measure of respiratory-related fluctuations of heart rate, was derived. Heart rate variability allows for estimation of the activity of the vagal nerve, a part of the parasympathetic nervous system. The vagal nerve originates in certain regions of the brain and is bidirectionally connected to the heart. Vagal influences protect the heart, e.g. from arrhythmias and sudden cardiac death. We found that women with two or more depressive symptoms had reduced heart rate variability compared to women with no or only one depressive symptom. Thus, depressive symptoms were associated with reduced parasympathetic protection of the heart already at a subclinical level. Female CHD patients with depressive symptoms should therefore be carefully diagnosed and specific treatment should be offered.

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Hilary Tindle, MD, MPH

tindleha@upmc.edu

Embargoed until: 3/4/09

**RESEARCH FROM UNIVERSITY OF PITTSBURGH SUGGESTS OPTIMISTIC WOMEN LIVE LONGER, WHILE CYNICAL-HOSTILE WOMEN DIE EARLIER**

**Chicago, Illinois**

Close to 100,000 healthy women from the NIH-funded Women's Health Initiative study were asked about their levels of optimism and cynical-hostility. Optimism was defined as the expectation that good, rather than bad, things will happen, and cynical-hostility was defined as general mistrust of other people. Women participating in the study were followed for an average of eight years.

The study found that optimists (compared to pessimists) were 14 percent less likely to die from any cause. Optimists (compared to pessimists) were 30% less likely to die from coronary heart disease-related causes.

On the other hand, women who were the most cynical-hostile (compared to those who were the least cynical-hostile) were 16% more likely to die from any cause. Women who were the most cynical-hostile were also 23% more likely to die from a cancer-related cause.

In this study, optimism and cynical-hostility were not directly compared. Rather, optimists were compared to pessimists, while women with a high degree of cynical-hostility were compared with those with a low degree of cynical-hostility. However, the effects of optimism and cynical-hostility were independent of each other, meaning that even after taking into account a woman's degree of cynical hostility, the health effects of optimism did not change. (The reverse was also true: even after taking into account a woman's degree of optimism, the health effects of cynical hostility did not change.)

Interestingly, results for optimism and cynical-hostility appeared more pronounced in the 7,994 black women surveyed. Compared to pessimistic black women, optimistic black women had a 33 percent reduction in risk of death from any cause, and a 44 percent reduction in risk of cancer-related death.

Alternatively, compared to the least cynical-hostile black women, the most cynical-hostile black women had a 62 percent increase in risk of death from any cause and a 142 percent increase in risk of cancer-related death. These results need to be interpreted with caution, because of the relatively low number of black women surveyed.

The results of this study confirm and extend prior research. It is the largest study to date showing the effects of optimism and cynical-hostility on longevity in women. However, the results do not establish that optimism or cynical hostility cause the health outcomes. Rather, the results demonstrate an association between these psychological factors and length of life over 8 years of follow up. More research is needed to study whether treatment designed to increase optimism or decrease cynical-hostility would lead to better health outcomes.

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: *Henriët van Middendorp*

*h.vanmiddendorp@uu.nl*

Embargoed until: *March 6, 2009*

***It hurts to be sad and angry, especially when you are already in pain!***

**Chicago, Illinois**

Patients with complex pain syndromes, such as fibromyalgia, often experience sadness or anger, due to stressful life experiences as well as family, friends, or health professionals suggesting that the pain is exaggerated or not real. It has long been known that patients with fibromyalgia respond with amplified pain to physical stimuli such as touch or cold. But is it also possible that sadness or anger increase their pain? In a study funded by the Dutch Arthritis Association, researchers from Utrecht University in The Netherlands examined whether patients also respond with increased pain to negative emotions. In an experiment, the researchers asked women with fibromyalgia as well as women from the general population to recall a significant event from their own lives that made them very sad or very angry. Natural pain as well as pain induced by an electrical current were measured before and after the induction of each emotion. Both anger and sadness increased pain in women with fibromyalgia and women from the general population, and the women with fibromyalgia reported a stronger increase in pain to sadness. The study, as presented at the American Psychosomatic Society Annual Meeting, confirms the suggestion that negative emotions can amplify pain. Because pain is the primary symptom of fibromyalgia, and sadness and anger are commonly experienced in fibromyalgia and other chronic pain syndromes, these findings are relevant for the education to and management of pain. It suggests that stress-reducing and emotion regulation techniques may help improve pain in women who suffer from a chronic pain condition.

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Hope Walker

[hopewalker@psych.ubc.ca](mailto:hopewalker@psych.ubc.ca)

Embargoed until: March 4<sup>th</sup>, 2009

***Research from the University of British Columbia suggests that family asthma management is linked to biological indicators of disease in children***

**Chicago, Illinois**

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

Asthma is one of the most common childhood diseases in the United States, and symptoms can be affected by a number of physical, environmental and social factors. This study, as presented at the American Psychosomatic Society Annual Meeting, tested how the ways in which families manage their asthma and what children believe about asthma would predict disease-relevant biological markers over time in children with asthma.

We interviewed 74 children with asthma and their parents about asthma management and asthma beliefs. To test links to objective health measures, we measured lung function, blood cell counts, and hormone levels at two time points, 18 months apart.

We found that children who believed asthma to be an episodic (rather than chronic) illness had poorer knowledge about asthma, less proactive strategies for dealing with an asthma attack, and worse adherence to asthma medications. These children also displayed worsening immune profiles over time. Children with poorer asthma management strategies also displayed worsening lung function over time, and reduced levels of a hormone that inhibits asthma inflammation.

Overall, our results suggest that targeting understanding and management of asthma in children, may have important implications for asthma outcomes in children with asthma.



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: info@psychosomatic.org • www.psychosomatic.org

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: *Ilona S. Yim*

author email address: *ilona.yim@uci.edu*

Embargoed until: *March 7, 2009*

***Research from the University of California suggests that women who have higher levels of a hormone produced by the placenta may be at higher risk to develop Postpartum Depression***

**Chicago, Illinois**

Postpartum depression is a serious disorder that affects up to one in five women after delivery, and risk factors include a history of depression, stressful life events, a lack of social support, low self-esteem and depression, anxiety or stress during pregnancy.

According to a study presented at the American Psychosomatic Society Annual Meeting, a hormone produced by the placenta known as placental corticotropin releasing-hormone (pCRH) may be useful as a predictor for postpartum depression as well. Ilona S. Yim, Ph.D., of the University of California, Irvine, and colleagues studied this hormone in 100 pregnant women who visited two southern California medical centers during the study period. Blood samples were taken at 15, 19, 25, 31 and 37 weeks' gestational age, and symptoms of depression were assessed at the last four pregnancy visits and again an average of 8.7 weeks after delivery.

Of the 100 women, 16 developed postpartum depressive symptoms. Three-fourth of those women, the study concludes, could have been identified in mid-pregnancy based only on their pCRH levels when they were 25 weeks pregnant. The predictive capability of the hormone levels increased when midpregnancy depressive symptoms were also assessed.

“We do not know which factors may precipitate the surge in pCRH, but some evidence suggests an association between elevated cortisol [stress hormone] early in pregnancy and increased pCRH late in pregnancy,” the authors write. “Our study has important clinical and theoretical implications,” they continue. “If our results are replicable, it may be considered useful to implement a pCRH PPD screen into standard prenatal care. Because blood draws to screen for gestational diabetes are typically performed at 24 to 28 weeks' gestational age, a potential PPD screen could be completed at the same time. In addition, a better understanding of the role of pCRH in the pathophysiologic mechanism leading to PPD may contribute to the development of preventions targeted at this rather common disorder.”

This study was supported by the National Institute of Child Health and Human Development and was published in the February issue of the Archives of General Psychiatry.

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



AMERICAN  
PSYCHOSOMATIC  
SOCIETY

*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: info@psychosomatic.org • www.psychosomatic.org

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: *Juan Francisco Roy, PhD*

+34-667-220-285 (Spain) / *curro@unizar.es*

Embargoed until: *March 7, 2009*

***Results from the ZARADEMP Project suggest that acute myocardial infarction contributes to an increased long term risk of depression in the elderly general population.***

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

**Chicago, Illinois** – By the year 2020, ischemic heart disease (as myocardial infarction) and depression (unipolar) are projected to reach 1st and 2nd place according to the World Health Organization ranking of disability adjusted life years (DALYs) for all ages and both sexes. DALYs are calculated as the sum of the years of life lost due to premature mortality and disability for the specific illness in the population. Moreover, recent studies have shown that clinical depression raises the risks for early death after a heart attack. Therefore, the implications of a myocardial infarction-depression longitudinal association of the two most common morbidities are of prime interest for global public health.

**About the study** – As presented at the American Psychosomatic Society Annual Meeting researchers from the ZARADEMP Project assessed clinically relevant depression and the patient's history of previous acute coronary syndrome (angina and myocardial infarction) from interviews in 4,803 persons older than 55 years in the city of Zaragoza, Spain. Our elders were then evaluated two and five years after. We found that those who presented a previous episode of myocardial infarction had a four times increased risk for a new depression diagnose five years after the first evaluation compared with those that had no history of myocardial infarction.

These results from the ZARADEMP project suggest that it may be very important for counselors working with people with myocardial infarction, as in cardiac rehabilitation programs, were also to focus on depression even two to five years after a myocardial infarction episode. Therefore, new cardiac events and patients' death might be prevented and their quality of life greatly improved.

###

This study as presented emerges from a several-years collaborative research between the following institutions: *Hospital Clínico Universitario*, University of Zaragoza and the National Centre of Biomedical Network Research (CIBERSAM) in Zaragoza, Spain, and the Interdisciplinary Center for Psychiatric Epidemiology from the University of Groningen (The Netherlands).



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: info@psychosomatic.org • www.psychosomatic.org

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Prof. Dr. Joachim E. Fischer  
jfischer@medma.uni-heidelberg.de

Embargoed until: March 7, 2009

***Research from the University of Heidelberg, Germany, suggests that imbalance from efforts to rewards at work and the physiological ability to adapt to stress may be related only in workers aged 35 to 44 years.***

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

**Chicago, Illinois** – The heart’s normal rhythm is far from regular. In fact, when the heart rhythm becomes more regular and less variable, ones risk of negative health consequences increases. Stress at work has been associated with an increased risk of heart disease but the mechanisms are not completely clear.

We decided to investigate whether work stress is related to heart rate variability (HRV) in male and female employees. Our specific aim was to find out whether the relation between work stress and HRV varies between different age groups. An increase of knowledge regarding this relation could help to identify employees who are particularly likely to be physically affected by psychosocial work stress.

To this end, we measured work stress and HRV in 591 employees of a large airplane manufacturer. Work stress was measured by two different questionnaires. HRV was measured for 24 hours by ambulatory devices.

As presented at the American Psychosomatic Society’s Annual Meeting, one of the work stress questionnaires (the “Job Demand Control” questionnaire) showed no relation with HRV. The other questionnaire (“effort-reward-imbalance”) was related to a decreased HRV during the working day in employees aged 35-44. However, there was no relation between work stress and HRV in younger (17-34 years) or older workers (45-65 years).

According to our findings, an imbalance of efforts and rewards at work can therefore be associated with a decreased ability of the organism to adapt to stress in workers of 35-44 years. This could possibly be explained by the fact that members of the age group 35-44 years have different career perspectives or career attitudes.

###



AMERICAN  
PSYCHOSOMATIC  
SOCIETY

*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: info@psychosomatic.org • www.psychosomatic.org

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Jessica Gerfen, MS [jessica.gerfen@my.rfums.org]

Embargoed until: March 7, 2009

***Rosalind Franklin University research shows that chronic pain patients with pronounced PTSD symptoms are more likely to believe that they are helpless to control their pain; beliefs that may in turn influence greater feelings that pain is interfering with their lifestyle***

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

**CHICAGO, IL** – Chronic pain patients tend to report interference in fully participating in and enjoying social activities, work, family and recreation due to their pain. In addition, research also indicates that Post-Traumatic Stress Disorder (PTSD) patients may have the greatest problems with pain affecting their lifestyles.

In this study of 249 chronic pain patients, it was found that as the number of PTSD symptoms increased, the more pain interfered with patient everyday functioning.

PTSD symptoms may first lead to beliefs that patients are helpless to cope with pain or that their pain is an overwhelming catastrophe. These perceptions or beliefs may, in turn, affect their everyday functioning. We hypothesized that catastrophic interpretations and feeling helpless to control pain may be mechanisms linking PTSD symptoms to pain interference.

Results also suggested that PTSD symptoms were related to greater pain helplessness perceptions and greater catastrophic appraisals about pain. Although we found that PTSD symptoms were related to difficulty in everyday functioning, this effect was not due to the belief that chronic pain is a catastrophe.

PTSD symptoms and pain catastrophizing appeared to affect pain interference through a common link. Alternatively, results suggested that more PTSD symptoms were related to greater perceptions of pain helplessness, which were in turn related to greater complaints that pain interferes with day-to-day functioning. For chronic pain patients, PTSD symptoms stemming from a traumatic event may interfere with everyday life, partially through the effects these symptoms have in increasing patient perceptions that they are helpless to control their pain.

*Rosalind Franklin University of Medicine and Science is a national leader in interprofessional medical and healthcare education, comprising the Chicago Medical School, College of Health Professions, Dr. William M. Scholl College of Podiatric Medicine and School of Graduate and Postdoctoral Studies.*

###



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Jennifer E. Graham

[jeg32@psu.edu](mailto:jeg32@psu.edu)

Embargoed until: March 7, 2009

***Research from the Pennsylvania State University suggests that pain and alcohol use may significantly disrupt the sleep of young adults who have chronic pain.***

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

**Chicago, Illinois** - We asked our sample of 307 male and female undergraduate students to complete a 60-minute questionnaire. Participants reported whether or not they experienced chronic pain, defined as pain that is either constant or coming and going for at least 3 months. They also answered questions designed to assess current pain severity, depressed mood, perceived stress (the feeling of being unable to cope with negative life events), scholastic stress (worries about academics and related issues), sleep quality, general health indicators, and other health-related behaviors (such as exercise and alcohol use).

Eighty-nine participants reported chronic pain from a variety of sources, including injury (40%), disease (15%), migraine (18%), and menstrual (13%), and in a variety of locations. We found that participants with chronic pain had higher depressed mood, perceived stress, and pain severity, and fatigue than those without chronic pain. Pain severity and alcohol use significantly accounted for the quality of sleep among those with chronic pain. In contrast, depressed mood and perceived stress accounted for the quality of sleep among those without chronic pain. In addition, individuals with both chronic pain and high perceived stress had the worst sleep quality compared to others.

These findings suggest that pain severity and alcohol use may disrupt sleep quality among those experiencing even minor chronic pain.

It is important to consider contributors to sleep quality because individuals who get inadequate sleep, even young persons, are at risk of health impairment that can lead to chronic disease. In fact, young adults are in the process of establishing what will be long-term patterns of sleep. In such individuals, poor sleep may also lead to a cycle of depressed mood, pain, and maladaptive responses to stress.



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Sarah Conklin PhD

author email: [sconklin@allegheny.edu](mailto:sconklin@allegheny.edu)

Embargoed until: 3/7/09

N  
E  
W  
S  
R  
E  
L  
E  
A  
S  
E

***Research from Allegheny College suggests that acute and low dose supplementation of long-chain omega-3 polyunsaturated fatty acids reduces cardiovascular reactivity to mental stress.***

**Chicago, Illinois** - Our sample of 36 college students were randomly assigned to one of two treatments and received supplementation for 21 days of either long-chain omega-3 fatty acids (1.4 grams EPA & DHA) or corn oil (placebo). Prior to and following the supplementation period, participants completed a mentally strenuous arithmetic task. During this stress task, the participant's heart rate, mean arterial blood pressure, systolic, and diastolic blood pressure were monitored. The deviation in these values from a resting baseline is referred to as cardiovascular reactivity. The two groups did not differ from one another at the baseline appointment on all measures of reactivity.

Following supplementation participants in the omega-3, but not the placebo group, showed significant reductions in cardiovascular reactivity to mental stress. Specifically, mean arterial pressure, a variable that takes into account both systolic and diastolic blood pressures, exhibited the most noticeable changes.

Individuals exhibiting high levels of cardiovascular reactivity to mental stress tend to be at an increased risk for cardiovascular morbidity. Given this, any means of attenuating cardiovascular reactivity to mental stress could arguably be deemed cardioprotective. Our data indicate that even short term and low dose supplementation of omega-3 polyunsaturated fatty acids can produce an attenuating effect on mean arterial blood pressure reactivity.

Considering that cardiovascular disease is currently the leading cause of death in the United States, the prevention and treatment of cardiovascular morbidity is of the utmost importance. Omega-3 polyunsaturated fatty acids could prove to be an inexpensive and effective part of prevention strategies and should be considered as a viable option in maintenance of heart health.

**Release from American Psychosomatic Meeting, Chicago, Illinois**

*Contact: KH Ladwig*

*author email address: ladwig@helmholtz-muenchen.de*

*Embargoed until: March 4, 2009*

A genome wide associations study in 1,405 adults offers new insights into mechanisms of adverse affectivity and cardiovascular risks.

**Chicago, Illinois** - People with a distressed personality are identified as Type D individuals.

These people typically experience a combination of negative affectivity and social inhibition, constitute about a quarter of the population, and are at increased risk for cardiovascular disease.

The reason for the link between the adverse personality type and heart disease risk is unknown. We used a genome wide association study (GWAS) approach to form new hypotheses about the mechanisms of this disease risk. Our study used genomic information from 1405 adults to look for associations between Type D personality and common genetic variations.

Individuals living in the Augsburg region in southern Germany were recruited into the MONICA KORA F3 500K Study and genotyped using the Affymatrix Gene Chip Human Mapping 500K Array Set. The Type-D phenotype was assigned to 27.7% of the study participants using the Type-D Scale-14 (DS-14), a standard measure of negative affect and social inhibition. Over 300,000 single nucleotide polymorphisms (SNPs) in approximately 1400 adults were screened for associations with Type-D.

We found associations between Type D and many genetic variations that occurred in or near genetic regions important for immune function and neuronal plasticity. Type D individuals were more likely to have genetic variations in some gene regions that are involved in how cells communicate with each other and adapt. Seven genetic loci that were associated with Type D personality also have reported associations with bipolar disorder, autism, chronic fatigue, hypertension, diabetes and inflammation; an indication that common pathways may be involved in several psycho-somatic pathologies.

###

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: info@psychosomatic.org • www.psychosomatic.org

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Kristen H. Sorocco, Ph.D.

Kristen-sorocco@ouhsc.edu

Embargoed until: March 6, 2009

***Risk factors for alcoholism and increased drinking behaviors at one-year follow-up:  
Findings from the Oklahoma Family Health Patterns Project.***

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

**Chicago, Illinois** – The major hypothesis of the Oklahoma Family Health Patterns Project is that alcoholism is most likely to occur in family history positive individuals who have behavioral characteristics that increase their risk. We examined one-year follow-up data on drinking behavior in 177 healthy participants with and without a family history of alcoholism enrolled in the Oklahoma Family Health Patterns Project, a long-term study on risk for substance abuse. Both positive family history and personality variables, such as behavioral disinhibition and negative emotionality traits, have been shown to be risk factors for the development of substance use disorders. Across the sample, there was a significant increase in the percentage of individuals reporting daily/weekly alcohol consumption from screening to one-year follow-up. Although family history groups did not differ in quantity of alcohol consumed one year later, risk groups were significantly different in reports of risky drinking behaviors. In the past 30 days, a greater percentage of family history positive individuals reported drinking five or more drinks on one occasion and drinking with the intention to get drunk. Increased risky drinking behavior was even more pronounced in family history positive individuals with disinhibitory personality characteristics. As presented at the American Psychosomatic Society Annual Meeting, findings suggest that family history status and certain personality traits are associated with a clustering of risky drinking behaviors across time. Funding for this research is from the National Institute of Alcohol Abuse and Alcoholism and the U.S. Department of Veterans Affairs.

###



**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Krista C. van den Broek

CvdBroek@uvt.nl

Embargoed until: March 7, 2009

***Levels of Anxiety and Depressive Symptoms in Patients with an Implantable Defibrillator remain Relatively Stable in the First Year Following Implantation***

**Chicago, Illinois** - Implantation with an implantable cardioverter defibrillator (ICD) is the treatment of choice in patients who have experienced life-threatening arrhythmias and in patients at increased risk for these arrhythmias. An ICD monitors the heart rhythm and delivers low or high-voltage therapy (i.e. a shock) in case of life-threatening arrhythmias. Approximately half to a third of these patients experience anxiety and depressive symptoms following ICD implantation, but little is known about the course of these distress symptoms.

Our sample of 312 ICD patients completed questionnaires on anxiety and depressive symptoms shortly after implantation and 2 and 12 months post-implantation. Type D personality was also measured. This personality type is characterized by experiencing negative emotions (across time and situations), such as worry and irritability, paired with non-expression of these emotions, that is, Type Ds do not talk about their negative emotions.

As presented at the American Psychosomatic Society Annual Meeting, we found that anxiety and depressive levels remained relatively stable in the first year following ICD implantation. However, particularly within the course of depression, some minor changes were observed. Regarding anxiety, four groups were found, that is one group with continuously very low levels of anxiety, one group with low levels, one with mild levels, and one with chronic severe levels of anxiety. Similar groups were observed in depressive patients. Type D patients often belonged to the group with mild and severe levels of distress.

These findings suggest that it may be important to identify Type D patients and ICD patients with mild and severe levels distress, as these levels tend to be chronic. Psychological intervention may be needed to lower distress levels in these patients.

###

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



AMERICAN  
PSYCHOSOMATIC  
SOCIETY

*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Karen Weihs, M.D.

[weihs@email.arizona.edu](mailto:weihs@email.arizona.edu)

Embargoed until: 3/4/09

***Research from the Arizona Cancer Center suggests that oxytocin reduces growth of human breast cancer cells in a mouse model***

**Chicago, Illinois –**

Researchers at the University of Arizona wanted to know what biologic differences could explain the findings that breast cancer patients who feel more closeness and support from family and friends have reduced rates of recurrence and death from breast cancer. They designed an experiment with mice to test their idea that the “bonding hormone”, oxytocin, might slow the growth of human breast cancer cells in laboratory mice. If that was the case, it would provide a clue to answering their question about social support and breast cancer outcomes. The Arizona scientists were building on experiments done by an Italian laboratory showing oxytocin reduced the growth of human breast tumor cell in Petri dishes. They linked this with research done by Dr. Kathy Light at the University of Utah, who found that women who receive more hugs or warm touch from their partners, and feel more satisfied with their relationships, have higher oxytocin levels. They reasoned that if better relationships result in higher oxytocin, and higher oxytocin slows breast tumor growth, then differences in oxytocin might explain the effects of close relationships on breast cancer outcomes.

To begin to test this hypothesis, they compared the growth of implanted human breast tumor cells in mice when the mice received treatment with either an oxytocin containing tablet or a placebo tablet. They also investigated the effects of different living conditions on the oxytocin levels of the mice, by randomly assigning them to cages with three other mice or cages where they lived alone. All of the mice were females. After the mice reached puberty, human breast tumor cells were implanted and three days later each mouse received either an oxytocin releasing pellet or a placebo pellet. The researchers found that mice receiving oxytocin treatment had higher levels of oxytocin and lower levels of the stress hormone, cortisol in their blood stream. Tumors grew more slowly in mice receiving oxytocin than those receiving placebo treatment. There was a trend for tumors to grow more slowly in mice living in group than in single cages, as well.

The mystery of how close friends and family improve the prognosis for breast cancer patients remains unsolved, but these results suggest further investigation of oxytocin in women with breast cancer might provide additional information to address that question.

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



AMERICAN  
PSYCHOSOMATIC  
SOCIETY

*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: info@psychosomatic.org • www.psychosomatic.org

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Kristin A Zernicke

k.zernicke@ucalgary.ca

Embargoed until: March 6, 2009

***Mindfulness-Based Stress Reduction improves quality of life for patients with Irritable Bowel Syndrome.***

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

**Chicago, Illinois** – Researchers at the University of Calgary are reporting preliminary findings from an ongoing study evaluating the impact of a Mindfulness-Based Stress Reduction (MBSR) program on quality of life in patients with Irritable Bowel Syndrome (IBS). The MBSR program involves eight weekly group meetings to learn and practice meditation techniques and gentle yoga stretches. While MBSR has been demonstrated to reduce stress and symptoms of disease in a variety of chronic illnesses, this is the first time the program is being evaluated for gastrointestinal problems. IBS is a chronic, functional disorder of the lower gastrointestinal tract characterized by abdominal pain, diarrhea and constipation, flatulence, and bloating. The symptoms associated with this relatively common chronic syndrome may be extremely stressful, and can significantly affect a person's quality of life and daily functioning. Current treatments for IBS include medications and changes to diet, but even among those who respond to these interventions, many continue to suffer from debilitating symptoms, decreasing their quality of life. In the present study, fifteen patients have completed the stress reduction program to date and have been compared with a group of fourteen patients who are waiting to start the program. All of the participants are asked to report their current quality of life before and after completing the MBSR program (or during an eight week period before starting the MBSR program for the comparison group). Compared with patients waiting to begin the program, those who attended the Mindfulness-Based Stress Reduction program reported a significant improvement in their overall quality of life and daily functioning, with such benefits as improved personal relationships, increased activity, and decreased worry related to health issues. The findings of this study support the use of Mindfulness-Based Stress Reduction as a viable treatment option for patients suffering with the daily life challenges associated with Irritable Bowel Syndrome.

###



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

*Contact: Mat Gregoski*

*Author email address: [matg2005@uga.edu](mailto:matg2005@uga.edu)*

*Embargoed until: March 4, 2009*

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

***Research from the Medical College of Georgia suggests that in school stress reduction programs help reduce risk for essential hypertension among adolescents with elevated blood pressure.***

**Chicago, Illinois** – African American adolescents at increased risk for future development of hypertension participated in a 3 month school based intervention. Those with high normal blood pressure levels (i.e. 75<sup>th</sup> -95<sup>th</sup> percentile for age, height, and sex) were invited to participate in the study. 181 participants were randomly assigned to one of four treatment groups taught by their health education instructors at school: Health Education (participants received dietary and exercise guidance materials), Breathing Awareness Meditation–BAM (participants practiced BAM for 10 minute sessions each day during school health classes and at home), a cognitive behavioral stress related coping skills training program, or a combination of both BAM and the cognitive behavioral program. Those who received BAM showed the largest decreases in their 24 hour systolic and diastolic blood pressure levels. They also showed the greatest improvement in sodium handling based upon overnight urinary excretion rates. Further follow-up is needed to determine whether this simple relatively cost free stress reduction technique, if maintained over time, will result in a decreased rate of hypertension development.



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: *Manuela Martinez*

*Manuela.Martinez@uv.es*

Embargoed until: *6<sup>th</sup> march 2009*

N  
E  
W  
S  
R  
E  
L  
E  
A  
S  
E

**COURSE OF RECOVERY OF THE IMPACT OF INTIMATE MALE PARTNER VIOLENCE ON PHYSICAL HEALTH OF WOMEN**

**Chicago, Illinois** - We asked our sample of 91 women that had been exposed to intimate male partner violence (IPV) self-report the incidence of 35 physical symptoms such as headache, faintness, constant fatigue, vaginal pain, nausea, chest pain, shortness of breath, pruritus, etc. in two times, separated by a period of three years. First, we analyzed the impact of IPV in Time 1 on physical health in women exposed to either physical/psychological IPV or only to psychological IPV. We also included a control group of women not exposed to IPV. The results, as presented at the American Psychosomatic Society Annual Meeting, indicated that women exposed to IPV had higher amount of physical symptoms than control ones. Importantly, psychological IPV alone was as detrimental on physical health as when concomitant to physical IPV. This is a very important finding because psychological violence has received less attention than physical violence and is considered to have less impact on health.

Secondly, we analyzed the course of the incidence of the symptoms after a period of three years. The results indicated that, in Time 2, women exposed to IPV had a significant reduction in the amount of symptoms, while there was no change in control women. However, the recovery was higher in those women exposed to physical/psychological IPV than in those exposed to only psychological IPV. The factors that contributed to the reduction were the cease of the violence, the separation from the batterer and the social support. On the contrary, maintenance of the psychological IPV, victimization for other aggressors, and life events reduced the likelihood of the recovery. Importantly, women exposed to physical IPV took more actions to separate from the batterer and to get the cease of the violence than women exposed to only psychological IPV.

In conclusion, it is very important for counselors working with women exposed to IPV to consider psychological IPV very detrimental for women's health, and to help women to escape from IPV, not only from physical but also from psychological IPV. On the other hand, follow-up studies are necessary to guide the design of intervention programs with women exposed to IPV. Finally, these findings corroborate the role of the health system in the identification of these women in the medical practice, which will allow the social services to intervene in order to help the women.



AMERICAN  
PSYCHOSOMATIC  
SOCIETY

*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: info@psychosomatic.org • www.psychosomatic.org

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: *Martin Sliwinski, PhD*

*mjsliwin@syr.edu*

Embargoed until: *March 5, 5:15 pm*

***Research from Syracuse University suggests that rumination is a critical link between stress and impaired cognition.***

**Chicago, Illinois** –

As presented at the American Psychosomatic Society Annual Meeting, a study conducted at Syracuse University suggests that rumination is a critical link between stress and cognitive health. We assessed the association between stress and cognitive function in a diverse sample of 318 adults aged 20 to 80. We measured stress in two ways; by the total number of negative life events (e.g., divorce, job loss) experienced during the previous year, and by the amount of subjective stress experienced during the previous month. We also asked individuals to report on their tendency to ruminate, defined as the experience of negative, worrisome and intrusive (unwanted) thoughts. Individuals also completed a thorough battery of cognitive tests assessing reasoning ability, working memory (the mental process of holding information in attention), and mental processing speed.

Individuals who reported more negative life events and higher levels of subjective stress scored lower on tests of reasoning, working memory and mental processing speed. We also found that individuals with ruminative tendencies scored lower on all the cognitive tests, and that ruminative tendencies accounted for the relationship between stress and cognitive function.

These findings support the “perseverative cognition hypothesis”, which predicts that intrusive thoughts mediate the relationship between and negative health outcomes by prolonging affective and physiological activation in response to stressors. The current study extended this hypothesis by showing that ruminative thought processes mediate the relationship between life stress and cognitive health.

These results are important because they point to rumination as a key psychological pathway by which stress can impair reasoning and information processing which in turn may impact important decision making and self-care behaviors.

###

N  
E  
W  
S  
R  
E  
L  
E  
A  
S  
E



AMERICAN  
PSYCHOSOMATIC  
SOCIETY

*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: info@psychosomatic.org • www.psychosomatic.org

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Nadine Bekkouche  
Nadine.bekkouche@usuhs.mil

Tel: 240-678-5303

Embargoed until: March 7th

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

***Chest pain reports in patients at risk for CAD reflects personality, not physiology.***

**Chicago, Illinois**

As presented at the American Psychosomatic Society Annual Meeting, we recruited 727 patients from the Montreal Heart Institute's Nuclear Medicine Department. Patients underwent a standard exercise test to assess for myocardial ischemia, which is a lack of blood flow to the heart, and a serious risk factor for heart attack. Patients also reported if they had any chest pain during the exercise, an early warning sign of ischemia. Afterwards, patients filled out a questionnaire evaluating their levels of trait "symptom reporting." This trait refers to the tendency to notice and report physical symptoms, regardless of physiological state. We wondered about the relationship between symptom reporting, pain and ischemia in these patients.

Patients who reported pain on the test tended to be high in symptom reporting. Patients who had ischemia tended to have *lower* symptom reporting scores than those who did not have ischemia. This result may reflect the fact that a patient who typically reports a lot of symptoms and has a few other risk factors for CAD may simply be more likely to get referred than a person who tends to report fewer physical symptoms. Even more interesting, those patients who suffered from "silent ischemia", or ischemia in the absence of pain, displayed a trend towards having the lowest scores on this measure of symptom reporting.

This study suggests that chest pain reports are not related to the presence of ischemia in these patients but rather, to the psychological trait of symptom reporting.

###

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Nancy Henry, University of Utah doctoral student in psychology

Cellular (801) 573-2218, nancy.henry@psych.utah.edu

Embargoed until: midnight CST, Thursday, March 5, 2009

***Heart Hazards of Woeful Wives:***

***Depression Ties Marital Strain to Cardiac Risks in Women, Not Men***

**Chicago, Illinois** – Women in strained marriages are more likely to feel depressed and suffer high blood pressure, obesity and other signs of “metabolic syndrome,” a group of risk factors for heart disease, stroke and diabetes, University of Utah psychologists found.

The same study found men in strained marriages also are more likely to feel depressed, yet – unlike women – do not face an increased risk of metabolic syndrome, which is characterized by five symptoms: hypertension, obesity around the waistline, high blood sugar, high triglycerides and low levels of HDL, which is “good cholesterol.”

“We hypothesized that negative aspects of marriages like arguing and being angry would be associated with higher levels of metabolic syndrome,” says the study’s first author, Nancy Henry, a doctoral student in psychology. “We further anticipated that this relationship would be at least partly due to depressive symptoms.”

“In other words, those who reported experiencing more conflict, hostility and disagreement with their spouses would more depressed, which in turn would be associated with a higher risk of heart disease due to metabolic syndrome,” she adds. “We found this was true for wives in this study, but not for husbands.”

Psychology Prof. Tim Smith, a study co-author, says: “There is good evidence they [women] should modify some of the things that affect metabolic syndrome – like diet and exercise – but it’s a little premature to say they would lower their risk of heart disease if they improved the tone and quality of their marriages – or dumped their husbands.”

Nevertheless, “the immediate implication is that if you are interested in your cardiovascular risk – and we all should be because it is the leading killer for both genders – we should be concerned about not just traditional risk factors [such as blood pressure and cholesterol] but the quality of our emotional and family lives,” Smith says.

Henry, Smith and their colleagues used a polling firm and newspaper ads during 2001-2005 to recruit 276 couples married an average of 20 years and from ages 40 to 70.

Each couple filled out several questionnaires for both a larger study of marriage and heart disease and for Henry’s study. The questionnaires included 10 scales: three to assess positive aspects of marriage quality, such as mutual support, emotional warmth and friendliness, and confiding in each other; three scales to measure negative aspects of marital quality such as arguments, feelings of hostility and extent of disagreement over various topics such as kids, sex, money and in-laws; and four scales to gauge symptoms of depression (not necessarily full-blown clinical depression).

Each couple also went to a university clinic, where their waists and blood pressure were measured and they were given lab tests for “good” cholesterol, fasting glucose and triglycerides. Together, those data determined if a study participant had metabolic syndrome. They also underwent a screening test designed to exclude any couple that already had cardiovascular disease.

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Dr. Priya Chaudhri, Ph.D.

Author: [pchaudhri@gmail.com](mailto:pchaudhri@gmail.com)

Embargoed until: March 7<sup>th</sup>, 2009

***Research from the University of San Diego suggests that behavioral treatments such as biofeedback and psychotherapy leads to more favorable physiological improvements and depression recovery in cardiovascular disease patients than medication alone.***

**Chicago, Illinois** - We asked our sample of 60 patients who have been diagnosed with cardiovascular disease and depression to participate in a treatment designed to reduce depression and increase heart rate variability. Heart rate variability (the beat to beat fluctuations in heart rate) is significantly lower in cardiac patients and a major risk factor for morbidity and mortality. Depression occurs in up to 65% of cardiovascular disease patients and disrupts physiological recovery placing them at a three-fold increase risk of cardiac reoccurrence. Despite the high prevalence and risk that depression and low heart rate variability carry, the treatment options are limited. Our intervention consisted of 8-weeks of biofeedback treatment (heart rate variability breathing retraining) and psychotherapy (dialectical behavioral) in conjunction to Zoloft antidepressant medication. Biofeedback treatment was implemented using a portable non-invasive device known as the StressEraser that is designed to increase heart rate variability via breathing retraining. Dialectical behavioral psychotherapy focused exclusively on depression recovery. We compared these treatment effects to a standard of care group that only received Zoloft antidepressant medication.

We examined depression levels and heart rate variability for both groups at 8-weeks and at a 12-week follow-up visit. Clinical depression was assessed using two measures that provide a diagnosis and severity of depressive symptoms. Patients also provided us with a physiological assessment of heart rate variability at laboratory visits.

We found that biofeedback and psychotherapy in combination with Zoloft was remarkably more effective in reducing depression and improving heart rate variability than antidepressant medication alone. These patients had better physiological recovery and depression remission immediately after the intervention and were able to maintain these benefits at the follow-up assessment. These findings are important to the field because it illustrates an effective treatment option for cardiovascular disease patients who commonly experience depression. Being that these risk factors carry strong implications for morbidity and mortality, these results could have promising effects on preventing the development or worsening of cardiovascular disease. Early intervention to address these physical and emotional risk factors could lead to more favorable disease course and quality of life.

It may be very important for psychologists and cardiologists to collaborate together and identify at risk patients and intervene accordingly. Being that cardiac patients are at heightened risk of experiencing depression and diminished heart rate variability early intervention and recovery may lead to significant physiological and emotional benefits.

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Dr. Peter Gianaros

[gianarospj@umpc.edu](mailto:gianarospj@umpc.edu)

Embargoed until: March 7, 2009

***Research from the University of Pittsburgh suggests that high levels of inflammation are associated with reduced brain tissue volume.***

**Chicago, Illinois** - C-reactive protein (CRP) is produced by the liver and fat cells. CRP also circulates throughout the body at high levels during periods of inflammation. Interestingly, high levels of CRP appear to predict a person's risk for developing cardiovascular and cerebrovascular diseases. Recent research findings also suggest that high levels of CRP may negatively affect white matter tissue in the brain, a type of tissue that is important for insulating and repairing neurons and for connecting different brain regions. The deterioration of white matter tissue is specifically implicated in the development of diseases that impair cognitive and emotional functioning, such as Alzheimer's disease. To further explore the relationships between CRP and white matter tissue, 68 otherwise healthy community volunteers aged 32-54 years were tested. The volunteers had their blood drawn for CRP measurement and had a structural magnetic resonance image (MRI) taken of their brain. In analyses that controlled for several confounding factors, such as age, sex, race, years of education, waist circumference, resting systolic blood pressure, smoking, and alcohol use, it was shown that individuals with higher levels of CRP had lower levels of white matter tissue volume in several areas of the brain that are important for cognitive and emotional functioning, particularly brain areas in the prefrontal cortex. These findings may be relevant for understanding how high levels of CRP may relate to medical and psychiatric diseases through neurobiological pathways.

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

###



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Peter A. Hall, Ph.D.

[pahall@healthy.uwaterloo.ca](mailto:pahall@healthy.uwaterloo.ca)

Embargoed until: March 27, 2009

***Research from the University of Waterloo suggests that cognitive abilities may predict physical activity patterns.***

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

**Chicago, Illinois** - In this study we examined the association between individual differences in brain-based cognitive abilities and physical activity patterns across several different age groups. We tested the hypothesis that those with stronger executive abilities (i.e., those cognitive abilities that facilitate self-control and goal pursuit) would engage in higher levels of physical activity over the course of a week than those with weaker executive abilities. Our reasoning was that brain-based self-control abilities may facilitate higher activity levels in the presence of minor (but pervasive) barriers to performance of physical activity behavior, and the temptations to remain inactive that are characteristic of modern living environments.

We recruited 208 community-dwelling adults and divided the sample into several age groups. Using hip-mounted electronic motion sensors to measure physical activity and a computer-based reaction time task to assess executive abilities, we found that those with stronger executive abilities did indeed engage in more physical activity over the course of the 7-day period of the study. The influence of executive ability on physical activity seemed to increase with advancing age. These findings are important in two ways: 1) they suggest that physical activity patterns may not be all about motivation and related psychological constructs, but instead may be explained by an interaction of these with some brain-based cognitive abilities, and 2) they suggest that maintaining high levels of physical activity in older adults may depend on protecting cognitive abilities, especially those that are involved in self-control of behavior.

###



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: info@psychosomatic.org • www.psychosomatic.org

**Release from American Psychosomatic Meeting, Chicago, Illinois**

*Contact: Roland von Känel, MD*

*author email address: roland.vonkaenel@insel.ch*

*Embargoed until: March 4, 2009*

**“Night-time Vagal Cardiac Control and Plasma Fibrinogen Level in Working Men and Women”**

Research from the University of Bern Switzerland suggests that factory workers who have reduced night-time vagal activity have thicker blood in the morning putting them at risk of a heart attack and stroke

**Chicago, Illinois** - We investigated 559 male and female employees between 17-63 years of an airplane manufacturing plant in Sothern Germany. All subjects were hooked up with an electrocardiogram to assess heart rate variability. Heart rate variability designates the physiological fluctuation in length of intervals between consecutive heart beats. The root mean square of successive differences in beat-to-beat intervals of heart rate during the night period (night-time RMSSD) were computed as a heart rate variability index of parasympathetic or vagal control of the heart. We also collected fasting blood samples on the following morning to measure the concentration of fibrinogen in plasma. Fibrinogen is an important protein in that relatively increased circulating levels indicate enhanced inflammation and coagulation (i.e. “thickened blood”). Several meta-analysis have shown that fibrinogen is a prospective risk factor for heart attacks and stroke even when controlling for demographic factors and traditional cardiovascular risk factors such as hypertension and diabetes. We found that relatively lower night-time vagal activity was significantly associated with relatively increased morning fibrinogen levels in men and women combined. Analysis by gender revealed that this relationship was stronger in women than in men. All relationships held significance even when controlling for established cardiovascular risk factors. We conclude that decreased function of the vagus nerve might contribute to heart attacks and stroke via eliciting a proinflammatory and procoagulant state.

###

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: info@psychosomatic.org • www.psychosomatic.org

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Petra Hoen

P.W.Hoen@student.rug.nl

Embargoed until: March 7, 2009

***Only somatic symptoms of depression are associated with progression of heart disease:  
implications for treatment***

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

**Chicago, Illinois** - Depressive patients with heart disease have a higher chance of developing new cardiovascular disease or even cardiac death. Unfortunately, depression is defined as a syndrome consisting of nine possible symptoms (such as low mood, fatigue or concentration problems). As a result it is not clear which symptoms are responsible for this effect and which should be targeted for treatment. We therefore asked: which of these specific symptoms are associated with a poor cardiac prognosis?

We asked over 1000 patients to participate in our study and asked them to fill in a self reported checklist which measures the presence of the 9 depressive symptoms. We divided depressive symptoms in two categories: cognitive symptoms (low mood, lack of interest, worthlessness, concentration problems, and suicidal ideation) and somatic symptoms (fatigue, appetite problems, sleeping difficulties, and psychomotor changes). We conducted annual telephone interviews with the participants, asking specifically about hospitalization for heart trouble.

We found that patients with somatic symptoms had a higher chance of developing cardiovascular disease but not patients with cognitive symptoms. These findings suggest that improving the somatic symptoms of depression may be a powerful tool in reducing the cardiac effects of depression in patients with heart disease. It is also possible that treatments focused on somatic symptoms, like exercising, can have more impact on decreasing cardiovascular events than traditional therapies, like psychotherapy and antidepressants in which these symptoms are not specifically targeted.

###



AMERICAN  
PSYCHOSOMATIC  
SOCIETY

*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: *Robert Kelsey, Ph.D.*

*rkelsey@utm.edu*

Embargoed until: *March 6, 2009*

***Research from the University of Tennessee Health Science Center in Memphis suggests that cardiovascular responses to stress in African-American adolescents and young adults are associated with common genetic variations in alpha-adrenergic receptors.***

**Chicago, Illinois** - African-Americans have a greater risk for developing high blood pressure and related cardiovascular diseases than other ethnic groups in the United States. Previous research has shown that cardiovascular responses to stress are greater in African-Americans than in Caucasians, and that these stress responses are heritable and predict the development of high blood pressure.

Robert M. Kelsey, PhD, associate professor, Department of Pediatrics, Division of Cardiology at the University of Tennessee Health Science Center (UTHSC), led a team of researchers who studied cardiovascular responses in 500 healthy young African-American males and females during standard laboratory stressors, including video games, mental arithmetic, and cold exposure. The researchers collected genetic samples with cheek swabs to determine common variations in the genes for alpha-adrenergic receptors. These receptors are involved in blood pressure regulation and the response to environmental stress.

The study found that African-American females with a common genetic variation in one type of alpha-adrenergic receptor showed greater increases in heart rate during stress compared to responses in males with the same genetic variation. In addition, both males and females who displayed a common genetic variation in another type of alpha-adrenergic receptor showed greater constriction of blood vessels during stress.

These findings indicate that common variations in genes involved in the control of blood pressure are associated with cardiovascular responses to stress in young African-Americans. An important finding is the ability to identify significant associations between genes and cardiovascular responses to stress that are related to the development of high blood pressure. These results will allow researchers to refine and personalize strategies for early prevention and treatment of cardiovascular disease, especially in vulnerable groups such as African-Americans.

As the flagship statewide academic health system, the UT Health Science Center is focused on a four-tier mission of education, research, clinical care and public service, all in support of a single goal: to improve the health of Tennesseans. Offering a broad range of postgraduate training opportunities, the main campus is located in Memphis and includes six colleges: Allied Health Sciences, Dentistry, Graduate Health Sciences, Medicine, Nursing and Pharmacy. UTHSC has additional College of Medicine and College of Pharmacy campus locations in Knoxville and a College of Medicine campus in Chattanooga. For more information, visit [www.utm.edu](http://www.utm.edu).

###

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: info@psychosomatic.org • www.psychosomatic.org

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: *Rebecca L. Reese, M.A.*

*rlreese@wustl.edu*

Embargoed until: *March 7, 2009*

***Research from Washington University in St. Louis suggests that feelings of hopelessness after a cardiac event can be predicted by factors such as age, income, chronic disease history, and symptoms of depression.***

**Chicago, Illinois** – Hopelessness, or negative expectations about oneself or one’s future, is believed to increase the risk of death in patients with heart disease. However, little is known about the factors that may contribute to feelings of hopelessness in cardiac patients. A new study from Washington University in St. Louis finds that such factors as a patient’s age, history of chronic illness, income, and level of depression predict hopelessness several weeks after hospitalization for a heart attack.

The researchers interviewed 179 patients shortly after they were hospitalized. Six weeks later, their level of hopelessness was measured. Younger patients and those who had multiple chronic illnesses were more vulnerable to hopelessness. Patients who reported low income also tended to be more hopeless. However, the strongest predictor of hopelessness was the patient’s level of depression while hospitalized. This suggests that treatment of depression may be the most promising way to combat feelings of hopelessness in heart patients.

###

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



AMERICAN  
PSYCHOSOMATIC  
SOCIETY

*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: info@psychosomatic.org • www.psychosomatic.org

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Ranak Trivedi, PhD

Ranak.trivedi@duke.edu

Embargoed until: March 6, 2009

***Research from Duke University Medical Center suggests that hypertensive patients that do not take medications as prescribed are also less likely to follow lifestyle recommendations, suggesting a “non-adherent” subtype***

**Chicago, IL** –Recent research from Duke University Medical Center suggests that hypertensive patients that do not follow a prescribed medication regimen are less likely to follow diet, exercise, and smoking cessation recommendations, suggesting a “non-adherent” subtype of hypertensive patient. These results were presented by Ranak Trivedi, PhD, at the American Psychosomatic Society Annual Meeting.

Six hundred and thirty-six hypertensive patients were asked if they took their medications, smoked, measured their blood pressure at home, and if they had difficulty following dietary and exercise recommendations. Results using latent class analysis indicated the presence of two distinct subtypes, “adherent” and “non-adherent”, based on whether patients were more or less likely to follow recommendations. Non-adherent patients were more likely to be male, younger, less educated, unemployed. Non-adherent individuals were also more likely to report financial difficulties, emotional stress, poorer health, and less time spent in leisure activities. Marital status, ethnicity, and social support did not appear to impact adherence.

Clinical guidelines recommend taking prescribed medications and making multiple lifestyle changes to control hypertension. However, adherence to recommendations is poor, contributing to poorly controlled hypertension. Interventions aimed at improving adherence typically target each behavior individually (e.g., smoking cessation); however, such interventions are time-consuming, costly, and fail to account for the overlap of adherence to different recommendations. Our results support the use of interventions that may improve outcomes by impacting behaviors simultaneously, even though their impact on each isolated behavior may be too small to detect individually. Such an approach is potentially both efficient and cost-effective.

###

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

*Contact: Roland von Känel, MD*

*author email address: [roland.vonkaenel@insel.ch](mailto:roland.vonkaenel@insel.ch)*

*Embargoed until: March 5, 2009*

Abstract title:

**“Relationship Between Objective and Subjective Sleep Quality and Biomarkers of Atherosclerosis in Alzheimer Caregivers and Non-Caregiving Controls”**

Research from the University of California San Diego suggests an association between poor sleep and enhanced coagulation and inflammation activity in elderly individuals

**Chicago, Illinois** – It has been shown that individuals who sleep poorly are at increased risk to develop cardiovascular diseases such as a heart attack. Caregivers of a demented spouse experience chronic stress, sleep particularly poorly, and run also a higher risk of developing cardiovascular disease. Coagulation and inflammation processes play a key role in atherosclerosis, which describes the process of narrowing of a heart vessel ultimately leading to a heart attack. Ninety-seven elderly Alzheimer caregivers and 48 non-caregiving men and women volunteered for the study. Sleep quality reported on the Pittsburgh Sleep Quality Index and objective measures of sleep estimated from wrist actigraph [watch-like device measuring movement] were assessed. In addition, concentrations of markers of inflammation and coagulation in the blood were measured. Results suggest poorer sleep quality in caregivers than in controls. In all participants, there was an association between relatively poorer subjective sleep quality and relatively higher plasma levels of fibrin D-dimer and von Willebrand factor. Whereas D-dimer indicates activation of the entire coagulation system, von Willebrand factor is a marker of endothelial dysfunction and damage involved in the atherosclerotic process. Objectively assessed shortening of sleep duration was associated with higher levels of inflammatory factors interleukin-6 and C-reactive protein in caregivers relative to controls. These findings suggest that poor sleep is associated with enhanced coagulation activity in elderly people and increased inflammation activity in dementia caregivers. This provides one possible explanation for the increased cardiovascular risk in poor sleepers in general and in dementia caregivers in particular.

###

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: info@psychosomatic.org • www.psychosomatic.org

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Sarah Conklin, PhD.

sconklin@allegheny.edu

Embargoed until: 03/04/2009

***Research from Allegheny College suggests that supplementation with omega-3 fatty acids, fish oil, may help reduce anxiety as shown by an increase in left hemisphere brain activation***

**Chicago, Illinois** –

Research on long-chain omega-3 fatty acids has shown many beneficial physiological effects in both humans and animals, and are obtained in diet primarily from cold water fish. While most research has focused on cardiovascular benefits, such as decreasing triglycerides and cholesterol, other work has investigated potential psychiatric value. Previous studies have suggested that supplementation may help improve mood in individuals with clinical diagnoses such as major depressive disorder and bipolar disorder.

In other work, cerebral asymmetry, the physiological difference in activation between the left and right brain hemispheres, is correlated with mood and personality traits. People who tend to be more positive show greater left hemisphere compared to right hemisphere activation. Taking this into consideration, the aim of our study was to investigate the effects of long chain omega-3 supplementation on cerebral asymmetry and mood in a sample of young adults.

Generally healthy college students (n=37) were randomly assigned to either two capsules (1.4g long-chain omega-3 fatty acids) or two capsules of a matched placebo (n=15) daily for three weeks. Before receiving the supplements, participants completed questionnaires and an electroencephalography (EEG) assessment to measure cerebral asymmetry. After three weeks, participants were reassessed.

We found that participants who received long-chain omega-3's showed decreased anxiety symptoms along with an increase in left hemisphere asymmetry over the parietal lobe whereas these effects were not seen in the placebo group. This suggests that low dose supplementation with long chain omega-3 fatty acids may help reduce anxiety and increase left hemisphere activation in healthy young adults. These findings, along with the FDA recommendation for supplementation with omega-3 fatty acids for heart health, suggest not only physiological but also psychological benefits.

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: *Stuart Derbyshire*

author [s.w.derbyshire@bham.ac.uk](mailto:s.w.derbyshire@bham.ac.uk)

Embargoed until: *March 6, 2009*

***Research from the University of Birmingham, UK, suggests that people can experience pain in an arm that is not theirs and when looking at pictures of injuries.***

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

**Chicago, Illinois** – A significant number of people suffer from constant pain without any observable disease or injury that can account for their pain. Subsequently it is believed that psychological mechanisms might produce pain without actual disease or injury. But how? Anecdotally, St. Teresa of Avila reported being visited by an angel in the 16<sup>th</sup> century who thrust a large spear into her stomach creating an ‘intense pain’. More recently, a British builder jumped down onto a 6 inch nail and went to hospital complaining of severe pain. After removal of his boot the nail was revealed to have passed directly between his toes; his foot was entirely uninjured. Also, a patient with clinical pain following nerve damage reported his pain to flare when he saw his wife accidentally cut herself with a kitchen knife. These various anecdotes show that psychological mechanisms, including expectation, belief, imagery and association, can cause pain.

In our lab we have used several techniques to produce pain without involving an obviously painful stimulus. One of our techniques involves the ‘rubber arm illusion’. This involves a volunteer placing their actual arm behind a screen, where they cannot see it, and looking at a rubber arm placed where their real arm could be. The experimenter strokes the volunteer’s real arm and the rubber arm in unison and, surprisingly, the volunteer starts to feel the stroking as coming from the rubber arm rather than their real arm. Similarly if the rubber arm moves in unison with the volunteer’s actual arm the volunteer feels the movement as coming from the rubber arm. If we then move the rubber arm out of step with the volunteer’s actual arm there is a mismatch between expectation and observation, which some volunteers describe as unpleasant and painful.

Another of our techniques involves pictures of injury. Volunteers view a series of pictures that depict broken and dislocated limbs and other painful events. Around one-third of the volunteers report feeling a pain in the same location as the injury they are viewing. Using brain imaging we have been able to record brain activity while these volunteers experience this ‘shared pain’ sensation. Their brain activity looks like that of a person experiencing pain because of a burning probe. Overall our findings support the idea that events not typically considered painful can cause the brain to generate pain. The absence of injury or disease in at least some patients with pain is maybe not surprising.

###



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

*Contact: Sonja Entringer*

*author email address: [sentring@uci.edu](mailto:sentring@uci.edu)*

*Embargoed until: March 5<sup>th</sup>, 2009*

***Research from the University of California, Irvine suggests that higher levels of stress hormones during pregnancy are associated with shorter pregnancy duration..***

**Chicago, Illinois** - One of the most important public health issues in maternal-child health are adverse pregnancy and birth outcomes related to shortened pregnancy duration/preterm birth and reduced fetal growth/low birth weight. Several lines of animal and human evidence suggest that maternal psychosocial stress-related processes in pregnancy represent an important risk factor for adverse birth outcomes and subsequent child and adult health outcomes. One possible underlying mechanism for the link between psychosocial stress and adverse pregnancy outcomes is the activation of one of the major maternal stress systems – the hypothalamic-pituitary-adrenal (HPA) axis, which leads to the secretion of the stress hormone cortisol. In our study we asked 33 pregnant women to collect 7 saliva samples per day over a four-day period in their natural everyday setting, and cortisol concentrations were then measured in these samples. Since cortisol release varies over the day (the production is highest in the morning and lowest in the evening), time of collection of each of the samples was recorded electronically. We found that higher cortisol concentrations immediately after awakening and throughout the day were associated with a shorter pregnancy duration. This could mean that women who deliver earlier experience more psychosocial stress, resulting in higher cortisol levels during pregnancy. Assessing repeated salivary cortisol samples in pregnant women's natural environments (as opposed to a laboratory setting) may be a useful tool to improve the prediction of adverse birth outcomes.

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

###



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: info@psychosomatic.org • www.psychosomatic.org

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Sidra Goldman

sidragoldman@berkeley.edu

Embargoed until: March 4, 2009

***Researchers from UC Berkeley and University College London find that psychological distress is correlated with markers of systemic inflammation in healthy young adults.***

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E

**Chicago, Illinois** – We used 2006 data from the Health Survey for England, a large and nationally representative survey of the English population, to determine whether higher levels of psychological distress are related to an increased in chronic inflammation within our sample of 1,268 young (ages 16-32) healthy men and women. Previous research has shown that psychological distress often predicts various markers of inflammation in older people and heart disease patients, but it is unclear whether the same relationship holds in young, disease-free populations.

Participants completed the General Health Questionnaire-12, which assesses behavioural and psychological functioning and is a good measure for diagnosed depression, anxiety, and chronic stress. They also provided blood samples that were analyzed for fibrinogen and C-reactive protein (CRP). High levels of these proteins serve as markers of chronic, low-grade inflammation in the body, and they often increase risk of heart disease. Participants additionally supplied information about their age, ethnicity, medical history, body mass index, medication use, smoking and drinking habits, and cholesterol levels.

As presented at the American Psychosomatic Society Annual Meeting, we found that increasing levels of psychological distress were significantly related to higher levels of fibrinogen, even after controlling for the characteristics listed above. Young people who were severely distressed had fibrinogen levels 20% higher than psychologically healthy people. We found no relationship between psychological distress and CRP. These findings imply that psychological distress may affect inflammatory processes in young adulthood, and could play a role in the later development of chronic diseases such as atherosclerosis and cancer.



AMERICAN  
PSYCHOSOMATIC  
SOCIETY

*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Sarah E. Hampson

[sarah@ori.org](mailto:sarah@ori.org)

Embargoed until: March 5, 2009

***Research suggests that women's risk for heart disease has origins in their personality traits 45 years earlier***

**Chicago, Illinois** – In a unique study, researchers have linked personality assessments from elementary school children 45 years ago to medical and psychological examinations of these same individuals, now middle-aged adults. Preliminary examination of Framingham cardiovascular risk scores indicate that girls who were assessed as being less conscientious (e.g., irresponsible, careless, not persevering) and more hostile (e.g., rude, spiteful, not considerate) are at greater risk for coronary heart disease in middle age. No boys' personality traits were related to their later risk for heart disease or reporting having had heart disease.

“Previous research has identified hostility in adults as a risk factor for heart disease,” notes Oregon Research Institute (ORI) senior scientist and study Principal Investigator Sarah Hampson, Ph.D. “Our study goes further by suggesting that, from childhood, hostility may have detrimental effects on the cardiovascular system for women.”

Researchers from ORI and Kaiser Permanente Center for Health Research, Hawaii are collaborating on this longitudinal study, funded by the National Institute on Aging. From 1959-1967, elementary-school teachers on two islands in Hawaii assessed the personality traits of the children in their classrooms. Since 1998, ORI and Kaiser Permanente researchers have been searching for these children, who are now middle-aged adults. Eighty-three percent of the original sample of over 2,400 has been located, and 70% of those located have participated in follow-up studies. Over 1,300 individuals have completed questionnaires, and over 600 have come to the Kaiser clinic in Honolulu for an examination that includes measures of cardiovascular risk.

These findings indicate that gender could be an important moderating factor in life course pathways from childhood personality to cardiovascular morbidity and mortality. Interventions to reduce childhood hostility and increase childhood conscientiousness may lead to reductions in subsequent heart disease for women.

###

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Sarah Pressman  
[pressman@ku.edu](mailto:pressman@ku.edu) or 412-512-0382  
Embargoed until: March 4<sup>th</sup>, 2009

*KU/Gallup study finds that emotions drive health around the world, even among the hungry and homeless*

**Chicago, Illinois.** New research from the University of Kansas and Gallup provides conclusive evidence for the first time that positive emotions are essential to health for people around the world, regardless of their life circumstances. The findings will be presented today at the annual meeting of the American Psychosomatic Society in Chicago.

“We’ve known for a while now that emotions play a critical role in physical health,” said Sarah Pressman, assistant professor of psychology at KU and a Gallup senior research associate. “But until recently, most of this research was conducted only in industrialized countries. So we couldn’t know whether feelings like happiness or sadness matter to the health of people who have more pressing concerns—like getting enough to eat or finding shelter. But now we do.”

The findings are based on data from the Gallup World Poll, a study of adults in more than 140 countries, providing a representative sample of 95% of the world’s population. The data sample included responses from 150,000 adults. Participants reported on their positive and negative affect, indicating to what extent they felt emotions like happiness and enjoyment or worry and sadness. They also reported on their physical health—including health problems, pain, fatigue and health satisfaction—and answered questions about whether their most basic needs were being met. Specifically, they were asked whether they had gone without food or shelter over the last year, and whether they felt unsafe regularly (e.g., had they been assaulted or robbed).

Pressman said that the study clearly indicated that positive emotions correlate with better health, even after accounting for unmet basic needs and negative emotions. Likewise, negative emotions consistently predicted the worst health. Interestingly, the link between emotion and health was even stronger than the link between basic needs (like going without food) and health. This impact of emotion on health persisted even in those who had gone without food and shelter, and this link between positive emotion and health was actually stronger in the poorest countries.

The relationship between emotion and health appears to be a worldwide phenomenon, and it is clear that even amongst those who are struggling to survive, happiness matters.

Find more on the Gallup World Poll at <http://www.gallup.com/video/106357/Introducing-Gallup-World-Poll.aspx>.

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: info@psychosomatic.org • www.psychosomatic.org

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Sarah L. Szanton, PhD, CRNP

sszanton@son.jhmi.edu

Embargoed until: March 7, 2009

**Johns Hopkins Researchers See Potential Disease Risk Impact of Biological Link between Psychological and Oxidative Stress**

**Chicago, Illinois** - The findings of a cross sectional analysis of 453 participants in the Healthy Aging in Neighborhoods of Diversity across the Life Span (HANDLS) study suggest there may be identifiable cellular pathways by which psychological stress amplifies cardiovascular and other age-related disease risk.

As presented at the American Psychosomatic Society Annual Meeting, we measured psychological stress in three different ways and found that for each measure, those who reported higher psychological stress had, on average, higher levels of a cellular marker for disease risk called oxidative stress. The measures of psychological stress were: self-report of racial discrimination, answers to the “perceived stress scale,” and poverty status (<125% of the federal poverty level). Oxidative stress (which has been implicated in advanced aging, cancer, and heart disease) remained associated with psychological stress even adjustment for age, diabetes status, smoking status, and cholesterol levels. Participants had a mean age of 49 years; 74% were African-American; and 54.5% were women.

This is the first study that has found this link in a large population of diverse participants with adjustments for disease states and other causes of oxidative stress. The HANDLS study is conducted by the National Institute of Aging.

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: Sarah Yager

[syager@psych.ubc.ca](mailto:syager@psych.ubc.ca)

Embargoed until: *March 4, 2009*

***Research from the University of British Columbia suggests that increased oxidation of lipid molecules may explain the relationship between depression and increased incidence and progression of cardiovascular disease.***

**Chicago, Illinois** – Depression is associated with increased incidence and progression of cardiovascular disease (CVD). Oxidative damage to fat molecules (lipids) is one of the key early events leading to arteriosclerosis, the hardening of arteries that marks the onset of CVD. The purpose of our study was to compare levels of oxidized lipids in depressed and non depressed individuals, in order to determine whether increased oxidation of lipid molecules may be one way that depression leads to heart disease.

Our study sample included 145 volunteers. Seventy-three participants met criteria for clinical depression, and made up our depressed group. Our non depressed group consisted of 72 participants that were free of mental illness. All volunteers were physically well at the time of the study. We collected a small blood sample from the volunteers and measured levels of 8-isoprostaglandin- $F_{2\alpha}$  (8-iso-PGF $_{2\alpha}$ ), a commonly used marker of oxidative damage to lipids.

Our analyses revealed that the depressed participants had over two times the oxidative damage to lipids than the non depressed participants. The relationship between depression and lipid oxidation remained significant while controlling for other possible differences between the groups, such as age, gender, ethnicity, smoking, alcohol use, body mass index, etc. Our findings, as presented at the American Psychosomatic Society Annual Meeting, suggest that oxidative damage to lipid molecules may represent a mechanism by which depressed individuals become more vulnerable to arteriosclerosis and its clinical outcomes.

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E



*Dedicated to the Integration of Biological, Psychological and Social Factors in Medicine*

6728 Old McLean Village Drive • McLean, VA 22101-3906 • (703) 556-9222 • FAX (703) 556-8729 • email: [info@psychosomatic.org](mailto:info@psychosomatic.org) • [www.psychosomatic.org](http://www.psychosomatic.org)

**Release from American Psychosomatic Meeting, Chicago, Illinois**

Contact: *Tiffany Brakefield*  
*tiffany.brakefield@my.rfums.org*  
Embargoed until: March 4, 2009

***Rosalind Franklin University research suggests that fear of pain in chronic pain patients may be related to use of opioid-based analgesic medication***

**Chicago, Illinois** – Chronic pain and analgesic drug use are strongly linked. Use of opioid-based medications is a continuing controversy because of the potential for misuse and addiction. Another problem is that chronic pain patients using opioid-based medications often report higher pain levels than non-opioid users despite reliable analgesic effects of these substances. It may be that opioid users are characterized by certain beliefs and feelings of pain that underlie both use of these substances and their elevated pain reports.

We hypothesized that appraisal of pain as an overwhelming catastrophe and/or fear and worry about experiencing pain would explain the link between use of opioid-based medications and paradoxically higher pain severity.

In this study of 249 chronic pain patients, we found that reported use of opioid-based medication was related to greater pain intensity, and also to greater fear and worry about pain. Viewing pain as a catastrophe was not related significantly to use of opioids. Further analyses showed that level of pain severity reported by patients could be partly explained by how much they feared and worried about their pain.

These findings reveal that at least some chronic pain patients taking opioid-based medications report greater pain than patients not using these substances. Findings also imply that some patients who take opioid-based analgesics are also intensely worried about pain. It is this connection – use of opioids and fear of pain – that may explain why opioid medication users may report greater pain intensity.

As presented at the American Psychosomatic Society Annual Meeting, patients may turn to more powerful analgesics, such as opioids, as an attempt to reduce pain that they may magnify in perception because they find pain so fear provoking and aversive.

*Rosalind Franklin University of Medicine and Science is a national leader in interprofessional medical and healthcare education, comprising the Chicago Medical School, College of Health Professions, Dr. William M. Scholl College of Podiatric Medicine and School of Graduate and Postdoctoral Studies.*

###

N  
E  
W  
S  
  
R  
E  
L  
E  
A  
S  
E