

These findings suggest that the continual practice of this simplified yogic respiratory exercise generates activation of the anti-oxidant ability of circulating blood cells, resulting in not only a stress-free mental state but also, gradually, an oxidant stress-free physical state. We anticipate that this simplified yogic respiratory exercise will be useful and applied in many clinical and health care situations in which anti-aging effects are needed, especially in the prevention of the occurrence of cancer. As conventional yogic respiratory exercise has also been shown to activate cellular immunity, we would like to propose this newly developed Isometric Yogic Breathing Exercise as an important method to re-activate a latent ability, such as anti-oxidant ability, related to the harmonization which humans naturally possess.

Keywords: yoga breathing anti-aging oxidant stress

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ADHERENCE IN PATIENTS OF A RENAL PROTECTION PROGRAM IN CALI, COLOMBIA

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Introduction: Adherence to treatment is defined as having patient's active participation in treatment based on responsibility, awareness and diagnosis. In chronic diseases, patient's compliance involves appropriate use of medications and services, and lifestyle changes like following a proper diet and exercise.

Methodology: We performed a cross-sectional study with 277 adult patients in a renal protection program at a private primary health care network in Cali Colombia, selected by simple random sampling from March 2010 to July 2011. Adherence was assessed with an instrument of 20 questions based on the questionnaire for adherence to treatment of hypertension developed by Universidad Javeriana Cali's group of Psychology, Health and Quality, which was modified to include adherence to treatment of diabetes. The clinical status and diagnosis was obtained from medical records and a questionnaire was designed for socio-demographic variables. Outcomes of interest were adherence to treatment according to: medication use, attendance to appointments, completing laboratory tests, performing physical activity, consumption of more than one carbohydrate per meal (among other questions), adjusted by demographic variables, disease type and stage KDOQI (Kidney Disease Outcomes Quality Initiative).

Results: 64% of patients were female, average age was 56 years; 76% of patients gained less than 2 current legal monthly wage (718 dollars / month); 72% of patients were hypertensive; 28% had diabetes or diabetes and hypertension; 70% of patients were married or lived in company with a steady partner; 93% of patients reported taking all prescribed medicines; 92% of patients reported always attended program's follow up appointments; 98% reported always to perform the laboratory tests requested; 77% reported doing physical activity in the last month and 73% of patients reported consumption of more than one carbohydrate per meal. Gender differences in attendance to follow-up appointments and physical activity were: 96% of men said always attended visits vs. 90% of women ($p=0.03$); and 84% of men had physical activity in the last month compared to 73% of women ($p=0.03$).

Conclusion: Patients with chronic disease report high adherence to traditional care (medications, follow up visits and lab tests) and greater difficulty to adhere to lifestyle changes. Women reported lower physical activity than men.

Keywords: Adherence, Renal/urologic Disorders, Chronic Illness, Health Behavior Change, Primary Care, Diet, Exercise, Treatment

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Conflict of Interest: Funded by Departamento Administrativo de Ciencia, Tecnología e Innovación Colciencias Republica de Colombia

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ONE SIZE FITS ALL: COMMUNICATING THE UNKNOWN IN HEALTH PROMOTION

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Recently, there has been a call for an integrated conceptual model to better understand the communication of health information to patients and consumers (Longo, 2005). Of particular interest to the current research project is the identification of factors that influence attention to health information in order to develop innovative methods for communicating such information. In practise, health promotion campaigns tend to exist under a one size fits all framework. That is, most public health campaigns highlight the negative effects of engaging in risky behaviours. An examination of this method with 303 community participants revealed attention to health risk information differed across two health threats. Participants were randomly assigned to receive information about heart health or road behaviours. Participants in the heart health condition remembered significantly more risk information than participants in the road behaviours condition ($t(292)=-4.35, p=.00$). In interpreting these findings it is hypothesised that there is an unknown component inherent to some health threats that impacts on attention to risk information. These unknown components are perceived to be outside of personal control hence attention to information may be redundant. For example, risk on the road is also a function of other people's behaviour which an individual cannot control. Research is now exploring this idea by examining perceptions of

controllability across a number of health threats. It appears that health promotion campaigns should not operate on a one size fits all approach if increased attention to preventative information is the desired outcome.

Keywords: health behaviours, health communication, health promotion

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USING HASHTAGS TO SPREAD HEALTH BEHAVIOR AMONG TWITTER USERS

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Both healthy and unhealthy habits can spread through social networks. Online social networks may have a particularly high potential to spread health behavior given that two-thirds of internet users visit them regularly. Hashtags that encourage users to engage in a health behavior are appearing on Twitter. The purpose of this study is to report the activity of 7 healthy hashtags on Twitter as well as discuss the characteristics of hashtags that seemed to have higher dissemination potential. Two healthy hashtags were started by company users (Runner's World and The Today Show) and 5 were started by individual users. Runner's World (182,000 followers) hosted #RWrunstreak which was a challenge to run/walk at least 1 mile per day from Thanksgiving to New Year's Day in 2011. The challenge attracted ~614 users in 2 months and an average of 132 (SD=42) tweets per day. The Today Show health correspondent, Joy Bauer (14,000 followers) started the #TodayJoyChallenge on January 1, 2012 which involved reporting weight loss progress throughout January. This challenge attracted 97 users in across 28 days and an average of 6 (sd=5) tweets per day. #PlankADay, #TwitterRoadRace, #candyfree, and #31in31 were started by individual users (400-2,000 followers). #PlankADay was started by the first author and involves completing and tweeting an abdominal exercise each day. #PlankADay attracted 3,076 users in 10 months and an average of 302 (sd=112) tweets per day. #Twitterroadrace involved a commitment to run a 5K on January 21, 2012 and April 28, 2012. It attracted 737 users over 94 days and an average of 38 (sd=99) tweets per day. #Candyfree involved a commitment to give up candy for a self-assigned period of time. It attracted 44 users over 53 days (6/week) and an average of 4 (sd=3) tweets per day. #31in31 involved completing 31 workouts in the 31 days of January. It attracted 32 users over 34 days and an average of 6 (sd=3) tweets per day.

Health hashtags appear to have the potential to spread across users when initiated by either individual or company users. Some are time-limited, some are event-specific, while others are open-ended. Hashtags that involve reporting the completion of a health behavior (e.g., a run or a plank) had the most activity. Hashtags that involve reporting the absence of a behavior (i.e., #candyfree) or do not focus on a discrete behavior (#todayjoychallenge) had the least activity. Time-limited activities did not have fewer users than open-ended ones ($p=.42$). Frequency of tweets predicted total users ($p<.001$) but number of followers of the initiator did not ($p=.93$).

The authors will discuss features of health hashtags that may promote dissemination.

Keywords: social network analysis, technology

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A CROSS-SECTIONAL STUDY OF THE PREVALENCE OF MULTIPLE RISK FACTORS FOR CARDIOVASCULAR DISEASE (CVD) IN OVERWEIGHT OR OBESE GENERAL PRACTICE PATIENTS.

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Background: Cardiovascular disease (CVD) is a major cause of mortality and is associated with modifiable and non-modifiable risk factors. Those with multiple risk factors are at increased risk of developing CVD. There is limited data on the prevalence of multiple risk factors in those overweight or obese, particularly in the primary care setting. Given this, it is important to quantify the prevalence of multiple risk factors in overweight and obese primary care patients and determine whether body mass index (BMI) category is independently associated with increased risk factors.

Methods: This cross-sectional study was set in a random sample of general practices in three Australian cities from July 2010 to December 2011. Patients aged 18 years or older who consented to participating in the study completed a portable, touchscreen computer questionnaire, assessing self-reported weight, height and non-modifiable risk factors (age, sex, family history of heart disease, ethnicity, personal history of heart disease and stroke). Modifiable risk factors including metabolic (high blood pressure, high cholesterol and type 2 diabetes) and lifestyle (smoking, alcohol consumption and inadequate physical activity) were also reported. The proportion and 95% confidence interval (CI) of patients in each BMI category with zero, one, two or three or more risk factors were calculated. An adjusted multivariate Poisson regression was conducted in order to determine association between BMI and increased number of risk factors.

Results: 3,341 patients (86% consent rate) from 12 general practices participated. Those who were underweight were excluded, resulting in only 3,254 participants in the final analyses. 31% [95% CI 27, 35] of obese patients had three or more risk factors compared to 19% [95% CI 17, 21] of overweight and 10% [95% CI 8.4, 13] of normal weight patients. Being obese increased the risk (IRR:1.6 [95% CI 1.5, 1.7]) of having multiple risk factors more than all the non-modifiable risk factors examined.

Conclusion: Overall, a significant proportion of those who are obese have three or more risk factors. This suggests that general practice is an important setting for care and management of metabolic and lifestyle risk factors, particularly in those obese.