

## **The influence of illness intrusiveness and the marital relationship on glycemic control and psychosocial adaptation of individuals with diabetes**

**P.M. Trief<sup>1\*</sup>, C.L. Himes<sup>2</sup>, R.L. Orendorff<sup>1</sup>, R.S. Weinstock<sup>3</sup>**

*1 SUNY Upstate Medical University, Syracuse*

*2 Syracuse University, Syracuse*

*3 SUNY Upstate Medical University & Veterans Affairs Medical Center, Syracuse*

Coping with chronic illness has been shown to be positively affected by marital support, and negatively affected by marital conflict, for individuals with chronic illness. The purpose of the study was to explore whether marital illness intrusiveness and marital adjustment relate to physical (glycemic control) and/or psychosocial outcomes for individuals with diabetes. Married adults treated with insulin (N=78) were recruited. Subjects completed 4 measures of Health-Related Quality of Life (HRQL) Diabetes Quality of Life Scale (DQOL), MOS Health Survey (SF-36), Positive and Negative Affect Scale (PANAS), Problem Areas in Diabetes Scale (PAID). They also completed 4 marital relationship measures-Dyadic Adjustment Scale (DAS), Perceived Criticism Scale (PCS), Personal Assessment of Intimacy in Relationships (PAIR), Illness Intrusiveness Rating Scale (IIRS). Glycemic control (HbA1C) and demographic data were gathered from charts. Controlling for demographic variables, ordinary least squares regression models were estimated for each set of HRQL and marital relationship measures. In addition, logistic regression models were estimated to examine the relationship between marital quality and glycemic control. Results found that scores on the IIS, DAS and PAIR were consistently related to HRQL measures. IIS scores were negatively related to DQOL ( $p=.0001$ ) and positive affect ( $p=.006$ ), and positively related to the PAID ( $p=.0001$ ). DAS and PAIR scores were positively related to DQOL ( $p=.0009$ ,  $p=.0140$ ), positive affect ( $p=.0006$ ,  $p=.0011$ ) and negatively related to PAID ( $p=.0006$ ,  $p=.0079$ ). The IIS and DAS were consistently predictive of SF-36 subscale scores and better DAS scores also related to better glycemic control. Perceived criticism was less likely to relate to HRQL. We conclude that marital adjustment and intrusiveness can have a significant impact on quality of life, possibly on glycemic control. We support the importance of examining the dyadic context of diabetes and exploring the value of couples-focused psycho-educational interventions.

## **Brush handwriting treatment of emotional problems in patients with Type II Diabetes**

**Henry S.R. Kao<sup>1,2\*</sup>, Ding Bao-Kun<sup>2</sup>, Cheng Sze-Wung<sup>1</sup>**

*1 Chinese Language Cognitive Science Research Centre and Department of Psychology, The University of Hong Kong, Hong Kong*

*2 Mental Health Hospital and Department of Medical Psychology, China Medical University, Shenyang, China*

A connection between stress and diabetes has been found. Researchers have advocated a behavioural

approach, which involves biofeedback and relaxation training in the treatment of diabetic patients. Kao and his colleagues (2000) found that practising Chinese calligraphy or brush handwriting (BHW) can facilitate cognitive functioning, calm down emotions, and improve certain behavioural and clinical disorders in Alzheimer's patients, children with attention deficit/ hyperactivity disorder (ADHD), autistic children and schizophrenic patients. The present study aimed to demonstrate whether BHW can help patients with type II diabetes to release stress and anxiety. Sixteen participants diagnosed as type II diabetes and sixteen healthy controls subjects received BHW treatment or drawing treatment, which both lasted for 45 minutes. On the basis of the State-Anxiety Inventory (S-AI), patients significantly improved on measures of state anxiety (SA) in both the BHW and drawing treatment conditions. In addition, BHW and drawing also showed a positive effect on SA in the healthy controls.

On the other hand, using the Profile of Mood States (POMS), participants showed a significant reduction in the tension-anxiety, depressed-dejection and confusion-bewilderment after BHW and a reliable increase on the tension-anxiety, depressed-dejection and fatigue after drawing.

This study is the first to establish a specific alternative model of treatment to help diabetic patients. It is originated from a traditional Chinese conceptualisation of the body and the mind as with special reference to the intervention of behavioural and psychosomatic symptoms of diabetes. It has its theoretical basis in the psychogeometric properties of Chinese character vis-à-vis its motor execution involved in BHW. Some practical as well as theoretical implications of this research will be addressed in the presentation.

## **Track: AIDS/HIV**

### **Providing nurturance, unprotected anal receptive sex and viral load in HIV+ gay men on HAART: A boomerang for re-infection?**

**D. Dixon<sup>1\*</sup>, M. Antoni<sup>2</sup>, P. Theodore<sup>2</sup>, J. Gonzalez<sup>2</sup>, M.A. Fletcher<sup>3</sup>, N. Schneiderman<sup>2</sup>**

*1 University of Miami, Miami*

*2 University of Miami, Coral Gables*

*3 University of Miami School of Medicine, Miami*

This study examined a model of psychosocial factors associated with HIV sexual risk behavior, including unprotected anal sex, and viral load among 46 HIV+ gay men on Highly Active Anti-Retroviral Therapy (HAART). Social support was measured with the Nurturance subscale of the Social Provisions Scale (SPS). Sexual risk behavior was assessed via structured interview. Plasma samples were used to determine HIV viral load via quantification with branched DNA (bDNA) signal amplification techniques. The results showed that, within the context of primary sexual relationships, nearly 70% of sexually active participants reported unprotected anal-receptive sex with ejaculation, indicating increased risk for re-infection with HIV. Approximately 80% reported

unprotected anal-insertive sex with ejaculation with primary partners, conferring greater risk for HIV transmission. Higher levels of viral load were associated with increased anal-receptive ( $r=.55$ ,  $p<.05$ ) but not anal-insertive ( $r=.21$ , n.s.) sex with ejaculation with primary partners. Hierarchical regression analyses showed that greater nurturance was associated with increased unprotected anal-receptive sex with ejaculation with primary sexual partners, even after controlling for age and level of education (RSO CHG=.60,  $p<.001$ ). However, nurturance was not significantly associated with anal-insertive sex with ejaculation with primary partners after controlling for the effects of age and education. Within the context of non-primary sexual relationships, there were no significant associations among viral load, social support (nurturance) and unprotected anal-insertive or anal-receptive sex with ejaculation. The findings suggested that interventions designed to reduce HIV sexual risk behaviors among HIV+ gay men on HAART may need to consider that the specific social support provision of nurturance may actually facilitate HIV-related sexual risk taking, at least within the context of primary sexual relationships, and thereby create a "boomerang" effect for re-infection, including concomitant increases in viral load and subsequent faster disease progression.

### **Extra-relationship resources, source of social support, and HIV sexual risk behavior in Hispanic women**

**D.A. Dixon<sup>1\*</sup>, M. Antoni<sup>2</sup>, M. Peters<sup>3</sup>, J. Saul<sup>4</sup>, N. Schneiderman<sup>2</sup>**

<sup>1</sup> University of Miami, Miami

<sup>2</sup> University of Miami, Coral Gables

<sup>3</sup> Albert Einstein College of Medicine, Bronx

<sup>4</sup> Center for Disease Control and Prevention, Atlanta

This study examined a model of psychosocial factors associated with HIV sexual risk behavior, including condom use, among Hispanic women at self-reported heterosexual risk for HIV infection. Data were collected via structured interviews for 187 Puerto Rican women, aged 18-35, who attended a comprehensive health clinic in the Bronx, New York. The results showed that over 64% of participants reported unprotected vaginal sex and nearly 69% reported unprotected anal sex with primary sexual partners. Higher levels of unprotected vaginal sex were associated with lower educational level ( $r=-.27$ ,  $p<.001$ ), fewer employment resources ( $r=-.34$ ,  $p<.001$ ), living with the husband or boyfriend ( $r=.37$ ,  $p<.001$ ), residing with children ( $r=.19$ ,  $p<.01$ ), heightened negative mood ( $r=.21$ ,  $p<.01$ ), and greater tangible ( $r=.21$ ,  $p<.01$ ) and total ( $r=.14$ ,  $p<.05$ ) support from the husband or boyfriend. Hierarchical regression analyses showed that the association between greater tangible support and decreased condom use during vaginal sex persisted even after controlling for educational and employment resources, living with the husband or boyfriend, and residing with children (FD (1,181)=15.25,  $p<.001$ ). The relationship between increased negative mood and decreased condom use during vaginal sex was mediated by employment resources, after controlling for educational level and instrumental support from the husband or boyfriend (FD (1,181)=5.72,  $p<.05$ ). The findings suggested that interventions designed to facilitate HIV protective sexual behaviors may need to consider the role of extra-relationship resources in

addition to potential socio-cultural factors related to couples interactions among populations of urban women identified at increased heterosexual risk for HIV infection.

### **Is peer education an effective tool for HIV prevention among gay men in London? Findings from a controlled trial**

**J. Elford\*, G. Bolding, M. Maguire, L. Sherr**

Royal Free and University College Medical School, University College London, UK

Camden and Islington Community Health Services (NHS) Trust, London, UK

The effectiveness of many HIV prevention programmes among gay men is unknown. The objective of this study was to evaluate, by means of a controlled trial, the impact of a community-based peer-led HIV prevention initiative among gay men in London, UK. Drawing on a diffusion of innovation model, a peer-led HIV prevention programme was developed among gay men using one of five gyms in central London. The gyms provided discrete environments where the intervention could be introduced into some gyms while others served as controls. The intervention focused on sexual risk behaviour, HIV testing and steroid-injecting behaviour. Information on outcome variables was collected by means of self administered questionnaires distributed in all gyms at baseline (September 1997) and follow up. For the study population as a whole, between baseline (Sept 1997,  $n=1000$ ) and 18 month follow up (Mar 1999,  $n=800$ ), the percentage of men reporting *status-unknown* unprotected anal intercourse (UAI) remained constant (14%); the percentage of men ever-tested for HIV increased from 73% to 79%; the percentage of steroid injectors who said they knew enough about administering steroids not to do themselves any harm increased from 68% to 86%; needle/syringe sharing was rarely if ever reported by steroid injectors. No significant differences were found between intervention and control gyms in the rate of change of any of these outcome variables at follow up. In the intervention gyms 3% of men said they had spoken to a peer educator in the previous 3 months. Peer education did not appear to be an effective tool for HIV prevention among gay men in central London gyms due to the lack of diffusion. Barriers to effective communication may be specific to the gym environment.

### **HIV treatments optimism and sexual risk behaviour among gay men in London**

**J. Elford\*, G. Bolding, M. Maguire, L. Sherr**

Royal Free and University College Medical School, University College London, UK

Camden and Islington Community Health Services (NHS) Trust, London, UK

Has HIV treatments optimism led to complacency around safer sex? To answer this question we examined HIV treatments optimism and its association with sexual risk behaviour in London gay men. An anonymous questionnaire was completed by gay men attending sports centres in central London in March/April 1999 regarding their HIV status, unprotected anal intercourse