more common in those with a history of depression (22% vs 9%, p=0.04), although recent metabolic control (HbA1c) was not different between depressed and non-depressed groups. This association also was unrelated to race, BMI, and smoking. These data indicate that histories of depression and poor pregnancy outcomes are associated in diabetic women. This association possibly related to accelerated diabetic complications in depressed women or to behavioral effects of depression during pregnancy. 

The effects of depression and its treatment on diabetic pregnancy deserve prospective evaluation.

EFFECTS OF TREATMENT ADHERENCE ON METABOLIC CONTROL AND QUALITY OF LIFE IN DIABETIC PATIENTS
Isabel Silva, Psychology, Porto University, Praxis XII BID'2190, Porto, Portugal; Jose Ribeiro, Psychology, Porto University, Porto, Portugal; Helena Caetano, Helena Ramos, Endocrinology, Santo António General Hospital, Porto, Portugal

The aim of this study was to examine the effects of treatment adherence on metabolic control and on quality of life of diabetics.

A cohort of 200 individuals (123 females; 36.8% with Type 1 diabetes; 62.7% with chronic complications; aged between 18 and 94 years; 75.25% unmarried; 4.5% divorced and 5.8% widowed) was studied.

Patients answered to the Diabetes Self-Care Activities Questionnaire and to the Quality of Life Scale for Diabetic Patients in the context of a personal interview. Metabolic control was measured in terms of glycosylated hemoglobin.

We found that self-care activities aren't significantly related with metabolic control, nor with quality of life. No significant correlation was found between adherence related with diet adherence (R=0.16, p=0.00), and the presence of chronic complications is positively related with adherence to diet (R=0.25, p=0.02) and physical activity (R=0.23, p=0.01). This study also suggested that adherence is related with Worry about family and friends' future (R=0.15, p=0.05) and with Satisfaction with changes in life because of diabetes (R=0.44, p=0.00). Insulin adherence is related with Satisfaction with health care (R=0.20, p=0.02) and with Sex life (R=0.20, p=0.00), while adherence to oral medication is related with Satisfaction with control over life (R=0.25, p=0.01). Self-reporting adherence is related with Satisfaction with changes in life because of diabetes (R=0.10, p=0.01) and with financial independence. The results suggest that patients with better metabolic control have better results in Health Transition (R=0.49, p=0.00), Physical Functioning (R=0.45, p=0.00), Role Physical (R=0.51, p=0.00), Role Emotional (R=0.21, p=0.00), Mental Health (R=0.14, p=0.00), Vitality (R=0.50, p=0.00), Satisfaction with control over life (R=0.28, p=0.00) and Satisfaction with changes in life because of diabetes (R=0.40, p=0.00).

CIMINIMIZED PARASYMPATHETIC FUNCTION IN TYPE 1 DIABETES: MODERATING THE RELATIONSHIP BETWEEN PSYCHOLOGICAL DISTRESS AND RESTING EPIPHYSIOLOGICAL LEVELS
I. Kurniawati, J. Kitten, A. Rosencwaig, N. Henry, N. Santala, J. Sylver, N. Olson, Science and Psychology, Umeå, Sweden

Previous research has shown that diminished parasympathetic (PNS) function is associated with Type 1 diabetes mellitus (DM) predicted greater psychological distress and cardiac ateriovascular functional abnormalities. Furthermore, reduced parasympathetic function (EPF) has been linked to cardiovascular disease pathology. The purpose of the present study was to assess whether there is a relationship between distress and PNS level, and whether this relationship is moderated by PNS function. The study assessed 42 DM and 35 healthy control subjects (36 men and 6 women, age=22.9±1.7 years). DM subjects were without a history of major DM or coronary complications. These groups (DM, DM control) were derived on the basis of DM status and PNS output (during a paced deep breathing procedure) control and DM 1 groups had similar PNS levels, while the DM 2 group evidenced a decreased PNS levels.

The DM group had elevated anxiety, anger, and preconceived stress (p<0.05), and a trend toward higher depression scores (p=0.06) relative to the other two groups. Although there were no group differences in EPF, regression analyses indicated that the relationship was significantly moderated by the following psychosocial measures and EPF: POMS Depression (R=2.27), Anger (R=1.18), Fatigue (R=-0.36), Total Mood Distress (R=-2.23); and Spiegelberger Anger-out (R=-1.90). The mediation by groupings is explained by significant differences on each of these measures between the DM group and control groups. POMS Depression (R=-5.4), Anger (R=-5.3), Fatigue (R=5.4), Total Mood Distress (R=4.7); and Spiegelberger Anger-out (R=1.90), whereas no mediation was found between the DM control and control groups. These findings indicate that DM persons with diminished PNS function are further distinguished by increased psychological distress and a positive relationship between psychological factors and EPF levels.

Key to posters Abstracts 133–138: Gastrointestinal Disorders

133 ARE COLORECTAL MALIGNITY AND PERCEPTION IN HUMAN REALLY CONDITIONED?
Mokuloy Kanzaawe, Behavioral Medicine, Masasalsho Endo, Pharmacology, Tshwane University Graduate School of Medicine, Sandals, Miyagi, Japan; Kichido Yamanak, Masasalsho Endo, Cytology and Radiodetecapla Center, Tshwane University, Sandals, Miyagi, Japan

Gastrointestinal motility and perception are altered by psychophysiological stress in human. However, conditioned response of colonic motility and perception in human was not fully examined. We tested our hypothesis that colonic food contractions, tone, and perception are conditioned with transcutaneous electrical nerve stimulation (TENS).

Healthy male subjects (n=9, mean age: 24±1 years) participated in this study. A cylindrical polyethylene bag was inserted to rectosigmoid junction. A computer-driven barostat technique was used to measure the colonic function, which consisted of mean bag volume, number of phasic volume event (PVE), and perception thresholds. Subjects were given conditioning of food bolus presentation (CS) and following TENS at the back of the left hand as unconditioned stimulus (US). After 5 CS-US pairings, the same CS-US (7 mA period), the CS-US (5 mA period), and the only CS (0 mA period) were followed in randomized order. Number of PVE after stimulation was significantly higher during food-related stimulation at all the periods, respectively (p<0.05). The bag volume after stimulation was significantly smaller than that before stimulation at the CS-US period (p<0.05) and had tendency to be significant during the only CS period (p=0.1). The discomfort threshold at the end of the study was significantly decreased compared with that at the beginning of the study (p=0.05).

These results suggested that the conditioned stimulus altered colonic food contractions with minor increase in colorectal tone in human. DEErected discomfort threshold of the colonic function may also reflect, at least in part, visceral sensitization with conditioning.

134 INCREASED LEVELS OF ANXIETY SUBMITTED TO ESOPHAGAEAL MANOMETRY
Dan L. Dumitrascu, Teoivan 0glof, Third Medical, University of Medicine and Pharmacy, Cluj, Romania

Background and aim: Increased anxiety has been reported in patients submitted to endoscopy, particularly when it was carried out for the first time. Esophageal manometry (EM) is a widely used method investigation recently introduced also in this country. It has a certain degree of invasiveness. Data on its psychosomatic impact are however scarce. Therefore we looked for anxiety in Romanian patients submitted to EM.

Method: 40 consecutive patients referred to EM for different esophageal symptoms filled the Spielberguer's STA test just before entering the manometry room and before receiving the usual explanations. The questionnaire provides information on anxiety as a state, i.e. at the moment of investigation (STA I) and as a trait, i.e. of everyday (STA II). The subjects were 24M/26F, aged 15-75 years, mean±SD: 42±16 years. As controls were 30 healthy controls (HC) (15M/15F, aged 20-64 years, mean±SD: 40±11). Statistical: two-tailed test for paired values.

Results: The STA I scores expressed as mean (SEM) were 44.3±10 in the group submitted to EM vs. 34.3±3 (p<0.05). The STA II scores were 46±9 in the group submitted to EM vs. 42±3 (p<0.05). Thus, anxiety as a state has higher scores in patients submitted to EM than in controls, while anxiety as a trait is normal. There were no significant differences in respect to the etiology of the esophageal lesions.

Conclusion, These data suggest that in patients submitted to EM, the level of anxiety is increased due to the stress produced by the investigation, not due to esophageal symptoms. Medical approach should be addressed to this anxiety generated by esophageal manometry.

135 ACCULTURATION IN JAPAN AND GASTROENTEROPATHY
Suk-Shin NcL, Nobuki Nagai, Tetsuro Kato, Junji Takai, Psychosomatic medicine, Kagoshima University Hospital, Kagoshima, Kagoshima, Japan

Loss of appetite, constipation, vomiting are the first symptoms of anorexia nervosa (AN). Uncontrolled eating (UE) is a major risk factor for the development of AN. Recent evidence suggests that a genetic and environmental factor is important. Since both diseases were reported for the first time in England, it has mainly come to set in Japan. The incidence and prevalence have increased in the 20th century. In these days, these diseases have been reported to be rare to Asia and Africa. On the other hand, AN was seen by non-white people who came to Japan, and few UE patients seen in these emigrated to Israel from Asia. Those have suggested that AN and UE tend to be influenced by acculturation. Japan is now westernized country from the mid-19th century. Relation of these diseases and acculturation is clarified from.25