
2116 Board #311 June 2 9:00 AM - 10:30 AM
Comparing Quality-of-life, Roles, And BMI In Two Clinical Populations Participating In Supervised Exercise
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We have previously demonstrated that exercising patients with type 2 diabetes have higher quality-of-life (QOL) and lower BMI versus non-exercising patients. The clinical literature also indicates that exercise enhances health and well-being of cancer patients. Exercise has been shown to decrease cancer-related fatigue, nausea, and pain. Patients who exercise generally experience higher health-related QOL.

PURPOSE: To examine differences in QOL, roles, and demographics in two clinical populations (i.e. cancer, type 2 diabetes) engaged in supervised exercise.

METHODS: We recruited exercising cancer patients from a clinical facility in Morgantown, West Virginia. To evaluate QOL and roles, we used the following assessments: (1) Satisfaction with Life Scale (SLS) and; (2) Role Checklist (RC). An independent t-test was used to determine demographic and response differences between supervised exercising cancer patients in this study and supervised exercising type 2 diabetes patients from our previous study. The Pearson product moment correlation was used to examine relationships between demographic and survey data from both clinical populations.

RESULTS: There were no demographic differences between cancer patients (n=9; mean age = 62y ± 8) and type 2 diabetes patients (n=12; mean age = 59y ± 12). Cancer patients were more satisfied with life (p=0.04), had obtained more important things in life (p=0.03), and were more likely to not change anything about their lives (p=0.02) versus patients with diabetes. Cancer patients, who reported less fatigue, were able to complete more of their daily activities (r= -0.78, p=0.01), got more of what they wanted out of life (r= -0.69, p=0.04), and participated in more hobbies (r= -0.71, p=0.03).

CONCLUSIONS: This study determined that QOL was higher in the cancer exercise group versus the diabetes exercise group. This may have been due to the likelihood that the cancer patients had more time to commit to an exercise regimen, and had more personal support, which may have contributed to higher exercise compliance levels. Future research should: (1) evaluate the extent to which clinical populations differ in terms of exercise compliance, and; (2) identify which common motivational factors may improve exercise and activity compliance across a spectrum of clinical populations.

2117 Board #312 June 2 9:00 AM - 10:30 AM
Physical Activity, Quality Of Life, And Medical Problems In HIV Positive Substance Users
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PURPOSE: People with the Human Immunodeficiency Virus (HIV) frequently report a high incidence of medical problems, low quality of life (QOL), and sedentary lifestyles. We examined the effect of increased weekly walking on medical outcomes and QOL in HIV positive substance users.

METHODS: Researchers collected data on 24 HIV positive DSM-IV substance users (n=13 men; n=11 women) at baseline and 2 months. The Functional Assessment of the Human Immunodeficiency Virus (FAHI) was administered to assess QOL as related to global function, acceptance of illness, capacity to work, coping skills and self esteem; the medical composite score of the Addiction Severity Index (ASI) to assess the severity of medical problems commonly impacted by substance use; and the Paffenbarger Physical Activity Questionnaire (PPAQ) to determine weekly walking distance. Regression analysis in Stata v. 11.1 determined if changes in weekly walking distance predicted QOL and medical outcomes from baseline to 2 month follow-up.

RESULTS: As subjects increased daily walking from baseline (1.08 ± 0.79 miles) to 2 months (1.30 ± 1.05 miles), ASI medical composite scores decreased (B = -0.50, p = .03). Changes in weekly walking also trended (B = .42, p = .08) toward higher global functioning with an increase in FAHI functional scores.

CONCLUSIONS: Participants who increased their walking distance reported a reduction in the severity of medical problems and a trend toward improved QOL. Additional monitoring over another 2 month period will determine if these favorable relationships persist.

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2118 Board #313 June 2 9:00 AM - 10:30 AM
The Prescription Of Exercise To Counter Autonomic Dysfunction In Rheumatoid Arthritis Patients
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PURPOSE: The purpose of this study was to determine whether a 12 week low volume endurance exercise program have a significant beneficial effect on the autonomic function as measured by heart rate variability indicators

METHODS: It was a randomized, controlled 12 week exercise intervention (45 minutes, 2 to 3 times a week) consisting of warm-up exercises, strengthening exercises, aerobic exercises and a cool-down period which included stretching. The study protocol was approved by the Ethical committee of the University of Pretoria and volunteers (control group: n=8, experimental group: n=19) gave written consent, HRV was determined by calculation of HRV indicators with time domain, frequency domain and non-linear analysis. The Wilcoxon signed-rank test (95% confidence level), were used to determine the significance of differences between pre and post measurements.

RESULTS: All indicators of parasympathetic heart rate control (RMSSD, pNN50,SD1 and HFnu) increased (although not statistically significantly due to small participant numbers and large inter-individual differences), with between 15% and 51%, while the indicator of autonomic balance (LF/HF) indicated a 59% lower sympathetic branch influence on heart rate.

CONCLUSION: Although this was a small study, the results do suggest that autonomic dysfunction in RA patients may be countered by the prescription of a low level endurance exercise program.