

Changes in knee pain, perceived need for surgery, physical function and quality of life after dietary weight loss in obese women diagnosed with knee osteoarthritis

Kamary Coriolano
Queen's University, Canada

The objective of this study was two-fold: 1) to investigate whether weight loss is associated with a reduction in perceived need for Total Knee Replacement surgery due to decrease in knee pain and improvement in function, 2) to identify what percentage of weight loss is associated with reduction in knee pain to a point where the need for surgery could be prolonged or alleviated. 34 subjects were recruited into the study. Women between 40 and 65 years old with morbid obesity ($BMI \geq 35 \text{ kg/m}^2$) and osteoarthritis of the knee were pre-selected. Participants completed the Western Ontario and McMasters (WOMAC) Universities index, The Short Form Health Survey (SF-36); 6-Minute Walk Test and Timed Up and Go at baseline and participants were enrolled into a weight loss program, for a 6 month period. Repeated measures ANOVA revealed that at 6 weeks of diet the mean body weight reduction of 9.5%, was followed by a significant reduction ($p=.015$) in WOMAC scores and ($p=.038$) SF-36 sub score of physical function. At 3 months of diet a significant reduction of 16.5% in body weight corresponded to a significant decrease of 37% in knee pain and 50% in perceived need for surgery.

These results suggest that an initial loss of 16.5% of body weight for obese individuals was significant enough to reduce pain and postpone patient's intent to have surgery in 50%.

Biography

Kamary Coriolano is currently completing his PhD at Queen's University, Canada. He has a unique set of competencies to enable the achievement of present and future objectives. He was trained as a Physiotherapist in Brazil and obtained two Master's degrees in Canada that combine knowledge achieved through academic work in rehabilitation and health care management. His current and main focus is to establish proper conservative methods to improve quality of life and promote behavioral change particularly for obese individuals who require total knee replacement surgery.

5ldskc@queensu.ca