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Effects of Rock Steady Boxing on Parkinsons Patients

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OBJECTIVE

Rock Steady Boxing's (non-profit organization) program goal is improving Parkinson's patients' quality of life through a non-contact, boxing-based fitness class. The purpose of this study was to investigate the effects of Parkinson's patients perceived improvement on proprioception from one hospital-based Rock Steady Boxing Program. The program was led by athletic trainers and physical therapists.

DESIGN and SETTING

Descriptive survey. Independent variable: Parkinson's patients' stage of Parkinson's and gender. Dependent variable: their perceptions of their improvements. Survey distributed via hard copy by class instructor.

PARTICIPANTS

A convenience sample of 26 participants was used with a 69%(N=18) return rate. 61%(n=11) were males, 33%(n=6) were females, and 0.05%(n=1) were missing values. Stage of Parkinson's disease: 39%(n=7) were Stage 2(moderate), 33%(n=6) were Stage 1(mild), and 28%(n=5) were missing values. The program was conducted 3 days a week, 100%(n=18) participated 3 days. Patients participated between 1-8 years in the program.

INTERVENTION

13 question survey instrument: 12 questions collected quantitative data and 1 question collected qualitative data. Face validity and content validity was established. College IRB and Hospital IRB was approved. Quantitative descriptive statistics (frequency counts and percentages) and Pearson Chi Square Test (variable: gender) and Kruskal Wallis Tests

(variable: Parkinson's stage) were used. Alpha level was set at $p=0.05$ *a priori*.

MAIN OUTCOME MEASURE

Likert scale survey was used with one fill in the blank question.

RESULTS

50%(n=9) of participants chose "Agree" while 44%(n=8) chose "Disagree"/"Strongly Disagree" on improved balance. 94%(n=17) chose "Strongly Agree"/"Agree" on improved coordination. 94%(n=17) chose "Strongly Agree"/"Agree" on improved walking. There was no statistically significant difference between stage 1 and stage 2 Parkinson's patients. 100%(n=7) Stage 2(moderate) patients "Strongly Agree"/"Agree" the program improved independence at home. 100%(n=6) patients with stage 1(mild) "Strongly Agree"/"Agree" their coordination has improved. There was no statistically significance difference between the difference in male and female participants. 61%(n=1) male and 27.6% (n=5) females "Strongly Agree"/"Agree" with improving their coordination. 66.7%(n=12) of patients "Strongly Agree"/"Agreed" and 11.1%(n=2) "Disagreed" their memory improved. 71%(n=12) "Strongly Agree"/"Agree" the program decreased the number of falls. 90%(n=16) "Strongly Agree"/"Agree" physical exercise has slowed their progression of Parkinson's disease. 100%(n=18) "Strongly Agree"/"Agree" with the statement that they enjoyed the class.

CONCLUSION

The results of this study show Rock Steady Boxing Program has several positive effects on the Parkinson's patients. Athletic Trainers

teaching these classes offer their unique skills and benefit Parkinson's patients in this program.

KEY WORDS: *Parkinson's Disease, Proprioception, Rock Steady Boxing Program, Stage 1 and 2 Parkinson's Disease*