

UNIVERSITY OF WISCONSIN-LA CROSSE

Graduate Studies

GROWTH OF RPE DURING RESISTANCE TRAINING

A Manuscript Style Thesis Submitted in Partial Fulfillment of the Requirements for the
Degree of Master of Science in Clinical Exercise Physiology

Jeena Lucas-Komarek

College of Science and Health

December, 2011

GROWTH OF RPE DURING RESISTANCE TRAINING

By Jeena Lucas-Komarek

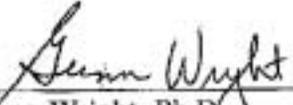
We recommend acceptance of this thesis in partial fulfillment of the candidate's requirements for the degree of the Master of Science in Clinical Exercise Physiology.

The candidate has completed the oral defense of the thesis.



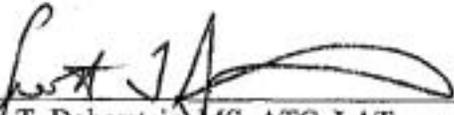
Carl Foster, Ph.D.
Thesis Committee Chairperson

3/24/11
Date



Glenn Wright, Ph.D.
Thesis Committee Member

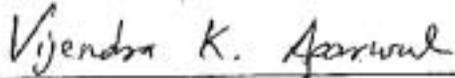
3/24/11
Date



Scott T. Doberstein, MS, ATC, LAT
Thesis Committee Member

3/24/11
Date

Thesis accepted



Vijendra K. Agarwal, Ph.D.
Associate Vice Chancellor for Academic Affairs

4/14/11
Date

ABSTRACT

Lucas-Komarek, J.L. Growth of RPE during resistance training. MS in Clinical Exercise Physiology, December 2011, 42 p. (C. Foster)

Purpose: This study was conducted to understand teleoanticipation throughout various resistance training sets using the Rating of Perceived Exertion (RPE) scales. **Methods:** Twenty-one men performed four sets for bench press and leg press consisting of a 5 repetition maximum (RM), 10RM, 20RM, and 30RM. RPE was measured after each repetition. **Results:** The results showed that regardless of the number of repetitions completed, RPE increased throughout each set in a linear fashion. When normalized to the relative number of repetitions, RPE had scalar properties, and there was a strong correlation between RPE and repetitions. **Conclusion:** This study reinforced that the RPE scale can be used to measure intensity during resistance training. Since RPE was strongly correlated to the relative number of repetitions, this suggests that teleoanticipation occurs during resistance training as in aerobic training. Regardless of the number of repetitions, the brain recruits the anticipated muscle fibers and develops a pacing strategy in order to complete the task at hand.

ACKNOWLEDGMENTS

I would like to first send a special thanks to Dr. Carl Foster for serving as my chairperson and for all the devoted hours spent reading and revising. I also want to thank my subjects. If it were not for your dedication and cooperation, I would not have been able to successfully complete my study. To my best friend and future husband, Richie, I want to thank you for all of your patience and support while I was working on my study. You are not only understanding, but very encouraging in all that I do. Lastly, I would like to thank my family and friends who have always been there for me.

TABLE OF CONTENTS

	PAGE
LIST OF FIGURES.....	vi
LIST OF APPENDICES.....	vii
INTRODUCTION.....	1
METHODS.....	5
Table 1. Descriptive Characteristics of Subjects.....	5
RESULTS.....	8
Table 2. Experimental Data for each Trial.....	8
DISCUSSION.....	15
REFERENCES.....	18
APPENDICES.....	19

