Effect of Continuous and Alternate Pace Endurance Training on Selected Physical and Physiological

Variables of Long-Distance Runners

लंबी दूरी के धावकों के चयनित भौतिक और शारीरिक चरो पर निरंतर और वैकल्पिक गति सहनशीलता प्रशिक्षण का प्रभाव।

A

Thesis

Submitted for the Award of the Ph.D. degree of

PACIFIC ACADEMY OF HIGHER EDUCATION AND RESEARCH UNIVERSITY

By

Warli Sunitaben Jivanbhai

वारली सुनीताबेन जीवनभाई Under the Supervision of

Dr. Hemant Pandya

Dr. Ashok Kumar Saha

Associate Professor

Principal
Pacific College of Physical Education,
Udaipur
PAHER University, Udaipur

S.P.B. English Medium College of Commerce, Surat, Gujarat



FACULTY OF PHYSICAL EDUCATION
PACIFIC ACADEMY OF HIGHER EDUCATIONAND
RESEARCH UNIVERSITY, UDAIPUR

2023

DECLARATION

I, Warli Sunitaben Jivanbhai, S/o Shri Jivanbhai D. Warli, resident of 11, Swamiatmanand Society, Ramnagar, Rander Road, Surat – 395005 Gujarat, hereby declare that the research work incorporated in the present thesis entitled, "Effect of Continuous and Alternate Pace Endurance Training on Selected Physical and Physiological Variables of Long-Distance Runners", (लंबी दूरी के धावको के चयनित भौतिक और शारीरिक चरो पर निरंतर और वैकल्पिक गति सहनशीलता प्रशिक्षण का प्रभाव।) is my original work. This work (in part or in full) has not been submitted to any University for the award or a Degree or a Diploma. I have properly acknowledged the material collected from secondary sources wherever required.

I solely own the responsibility for the originality of the entire content.

Date:

Signature of the Candidate

FACULTY OF PHYSICALEDUCATION

PACIFIC ACADEMY OF HIGHER EDUCATION ANDRESEARCH UNIVERSITY, UDAIPUR CERTIFICATE

It gives me an immense pleasure in certifying that the thesis "Effect of Continuous and Alternate Pace Endurance Training on Selected Physical and Physiological Variables of Long-Distance Runners", (लंबी दूरी के धावकों के चयनित भौतिक और शारीरिक चरो पर निरंतर और वैकल्पिक गति सहनशीलता प्रशिक्षण का प्रभाव।) and submitted by WARLI SUNITABEN JIVANBHAI is based on the research work carried out under my guidance. He / she have completed the following requirements as per Ph.D. regulations of the University;

- (i) Course work as per the university rules.
- (ii) Residential requirements of the university.
- (iii) Regularly presented Half Yearly Progress Report as prescribed by the university.
- (iv) Published / accepted minimum of two research paper in a refereed research journal.I recommend the submission of thesis as prescribed/notified by the University.

Date: Name and Designation of Supervisor

Dr. Hemant Pandya Principal

Pacific College of Physical Education Udaipur

FACULTY OF PHYSICALEDUCATION

PACIFIC ACADEMY OF HIGHER EDUCATION ANDRESEARCH UNIVERSITY, UDAIPUR CERTIFICATE

It gives me an immense pleasure in certifying that the thesis "Effect of Continuous and Alternate Pace Endurance Training on Selected Physical and Physiological Variables of Long-Distance Runners", (लंबी दूरी के धावको के चयनित भौतिक और शारीरिक चरो पर निरंतर और वैकल्पिक गति सहनशीलता प्रशिक्षण का प्रभाव।) and submitted by WARLI SUNITABEN JIVANBHAI is based on the research work carried out under my guidance. He / she have completed the following requirements as per Ph.D. regulations of the University;

- (v) Course work as per the university rules.
- (vi) Residential requirements of the university.
- (vii) Regularly presented Half Yearly Progress Report as prescribed by the university.
- (viii) Published / accepted minimum of two research paper in a refereed research journal.I recommend the submission of thesis as prescribed/notified by the University.

Date: Name and Designation of Supervisor

Dr. Ashok Kumar Saha Associate Professor

S.P.B. English Medium College of Commerce, Surat, Gujarat

COPYRIGHT

I, Warli Sunitaben Jivanbhai, hereby declare that the Pacific Academy of Higher Education and Research University, Udaipur, Rajasthan, shall havethe rights to preserve, use and disseminate this dissertation entitled, "Effect of Continuous and Alternate Pace Endurance Training on Selected Physical and Physiological Variables of Long-Distance Runners", (लंबी दूरी के धावको के चयनित भौतिक और शारीरिक चरो पर निरंतर और वैकल्पिक गित सहनशीलता प्रशिक्षण का प्रभाव।) in print or in electronic format for the academic research.

1	n	9	1	Δ	•
			ш.	т.	_

Place:

Signature of Candidate

ACKNOWLEDGMENT

First and foremost, I would thank God for helping me to fulfil my dream throughout the time.

I express my sincere gratitude to the authorities of Pacific Academy of Higher Education and Research University, Udaipur for giving me the opportunity to work on this study and for the valuable impetus and facilities made available to him for carrying out this study successfully.

Whole hearted thanks to **Dr. Hemant Pandya**, my guide for his sincere cooperation and direction, without which, I could not have accomplished my work I am immensely grateful for his very timely and continuous suggestions to solve my problems. He has always been a source of inspiration and encouragement.

I also extend my sincere thanks to **Dr. Ashok Saha**, Associate Professor, S.P.B. English Medium Commerce College, Surat for his guidance and moral support throughout.

I also extend my sincere thanks to **Dr. Jignesh Tandel,** Assistance Professor, Sir K.P. College of Commerce, Surat for his valuable help in selecting a research problem as well as for timely assistance and suggestion throughout the study.

I also take opportunity to thanks **Dr. Hemant Kothari**, Dean of Pacific Academy of Higher Education and Research University, Udaipur. **Dr. Shivoham Sing**, Pacific Academy of Higher Education and Research University, Udaipur. Who have guided me in my Course work study.

I would also take opportunity to have sincere thanks to the principal, management, administrative staff Mr. Manharbhai Patel and Mr. Dhaval Patel, sports students and my colleagues for their support during the research.

Moreover, I cannot refrain from thanking Pri. Soyeb Murad, Dr. Mohmod Dhupli, Dr. Parixit Ichchhaporiya, Dr. Tanvi Tarpara, Dr. Hetal Dhimmar, Dr. Umesh Patel, Dr. Mayur Patel, Mr. Tarun Gamit, Mr. Chhagan Asariya and Mr. Dhanjay Yadav for their support during the research.

I am deeply thankful opportunity to all the Principal, Physical Education teachers and lectures and Student for their constant for helping me in my data collecting through questioner.

Last, but not the least, specific mention must be made to my father **Shree Jivanbhai Warli** & my Mother **Smt. Mangliben Warli** and my father-in-law **Shree**. Sankarbhai Warli and Mother-in-law **Smt. Kusumben Warli**, My. Husband **Pratik Warli** my daughter **Panishka Warli**, who gave me constant and ever ending inspiration and moral support. My brother, sister and friend who not only inspired and assisted me but also took over my share of domestic chores to enable me to complete my study.

Lastly, I would thank each and every one who have helped me in my study, throughout the period.

WARLI SUNITA

DEDICATEDTO



DEDICATED

My Beloved Parents

And

Family

Whom I Love the Most

Who were behind the screen for my present study.