



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





شبكة المعلومات الجامعية



شبكة المعلومات الجامعية

التوثيق الالكتروني والميكرو فيلم

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون أية تغيرات



يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %



شبكة المعلومات الجامعية



بعض الوثائق الأصلية تالفة



شبكة المعلومات الجامعية



بالرسالة صفحات
لم ترد بالأصل

HISTORICAL REVIEW OF PHYSICAL THERAPY FOR OSTEOPOROSIS IN GERIATRICS

Essay

Submitted in Partial Fulfillment of the Requirements for the
Master Degree in Physical Therapy for Cardiopulmonary
Disorders and Geriatrics

BY

ABDIN ABD ELMAKSoud MOHAMED MAZROUA

B.Sc. in Physical Therapy Cairo University (1990)

Department of physical therapy for cardiopulmonary

Disorders and Geriatrics

Faculty of Physical Therapy

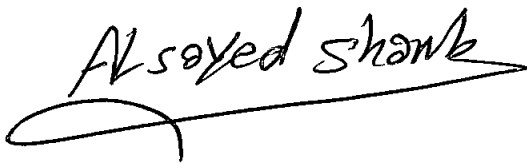
Cairo University

2007

B
1-CAN

Supervisors

Prof. Dr. Al Sayed A. Shanb
Assistant Professor of Physical Therapy for Cardiopulmonary
Disorders and Geriatrics
Faculty of Physical Therapy , Cairo University

A handwritten signature in black ink, reading "Al sayed shanb", with a long horizontal flourish extending to the right.

Prof. Dr. Sayed Mesheal El Sayed
Professor of Applied Statistics
Institute of Statistical Studies and Research , Cairo University

Dr. Akram Abd El Aziz
Lecturer of Physical Therapy for Cardiopulmonary
Disorders and Geriatrics
Faculty of Physical Therapy , Cairo University

ACKNOWLEDGMENT

First and foremost, I would like to kneel thanking for ALLAH, the most beneficial that enabled me to conduct this work, as a part of his generous help throughout life.

I am deeply indebted to **Prof. Dr. Al Sayed A. Shanb** , Assistant Professor of Physical Therapy for Cardiopulmonary Disorders and Geriatrics, Faculty of Physical Therapy, Cairo University, for his great support and advice that gave me the confidence and encouragement to start and complete this study as the best as I could do.

Words fail to express my gratitude, respect and appreciation to **Prof. Dr. Sayed Mesheal El Sayed** Professor of Applied Statistics , Institute of Statistical Studies and Research , Cairo University , for his sincere supervision, valuable advice, constructive criticism and continuous support.

I am profoundly grateful to **Dr. Akram Abd El Aziz** , Lecturer of Physical Therapy for Cardiopulmonary Disorders and Geriatrics, Faculty of Physical Therapy, Cairo University, for his kind help, constant encouragement, constant supervision and advice.

Finally, I would like to thank my colleagues in the department for their sincere support and kind help .

Dedication

**To my parents
To my wife
To my children**

Historical review of physical therapy for osteoporosis in geriatrics .
Abdin Mazroua : Cairo University , Faculty of Physical Therapy. 2007 Thesis
M.sc, Physio Therapy for Cardiopulmonary Disorders and Geriatrics .
Supervisors : Prof. Dr. Al Sayed A. Shanb, Assistant Professor of Physical
Therapy for Cardiopulmonary Disorders and Geriatrics, Faculty of Physical
Therapy, Cairo University. Prof. Dr. Sayed Mesheal, Professor of Applied
Statistics Institute of Statistical Studies and Research , Cairo University. Dr.
Akram Abd El Aziz, Lecturer of Physical Therapy Cardiopulmonary
Disorders and Geriatrics, Faculty of Physical Therapy, Cairo University.

Abstract

This article is a review to provide evidence based practice of physical therapy for osteoporosis in geriatrics . Search was made over Medline Library , Cochrane library , Ovid library , and National Institute for Health and Clinical Excellence for studies of physical therapy for patient physical therapy for osteoporosis in geriatrics using a variety of key words. Such results are presented in specific technique in six area for physical therapy intervention .

" Therapeutic exercises, fall management, life style - patient education, pain management, therapeutic modalities and psychology , fracture " .

Using level of evidence the Scottish intercollegiate guide lines network (SIGN), The level of evidence behind intervention for each technique was presented and discussed. From this review a series of clinical and research recommendations were driven to optimize the physical therapy management.

Keywords: Osteoporosis, physical therapy, weight bearing exercise .

Contents

List of Appendices	ii
List of Abbreviations	iii
Chapter I Introduction	1
Statement of the problem	8
Purpose of the study	8
Significance of the study	8
Limitations	9
Chapter II Review Methodology	10
2.1 Data search	11
2.2 Formation of results database.	14
2.3 Articles Selections	16
2.4 The Appraisal Process	17
2.5 Expanding search results .	18
2.6 Data Extraction and Synthesis	19
Chapter III: Review Results	20
3.1 Therapeutic exercises.	21
3.2 Fall management.	34
3.3 life style- patient education	50
3.4 Therapeutic modalities .	66
3.5 Pain management	76
3.6 Psychology and fractures .	85
Chapter IV: Discussion and conclusion	91
Chapter V: Recommendations	105
References	106

List of Appendices

Appendix 1	Appraisal Tools	127
Appendix 2	Type of the study	128
Appendix 3	Appendix 3 Methodology Checklist 1: Systematic Reviews & Meta-analyses	129
Appendix 4	Appendix 4 Methodology Checklist 2 : Randomized Controlled Trials	130
Appendix 5	Methodology Checklist 3: Cohort Studies	133
Appendix 6	Recommendation Level Tool	136
Appendix 7	Evidence tables	137

LIST OF ABBREVIATIONS

AB	Able-bodied
ABM	Axial bone mass
ADL	Activity daily living
AROM	Active range of motion
BFR	Bone formation rate
BMC	Bone mineral content
BMD	Bone mineral density
BPTI	Benefit physical therapy intervention
CW	Continence wave
DEXA	Dual energy x-ray absorptiometry
EMS	Electrical Muscle Stimulation
FME	Fall management exercises
FECS	Functional electrical stimulation
HRT	Hormone replacement therapy
Lab	Laboratory
LBP	Low back pain
LLLT	Low-level laser therapy
LSOP	Life style osteoporosis
LTC	Long-term care
MDD	Major depressive disorder
MEE	Mechanical energy expenditures
MSK	Musculoskeletal
NNT	Number needed to treat
NPRC	Newcastle pain relief clinic

ORX	Orchidectomized
ORM	One repetition maximum
PEMF	Pulsed electromagnetic fields
PENS	Pre Cutaneous electrical nerve stimulation
PMW	Post menopausal woman
PRE	Progressive resistance exercise
PT	Power training group
PUS	Pulsed ultrasound
QCT	Quantitative Cat Scan
RCT	Randomized controlled trial
RDAs	Recommended daily allowance
RES	Resistance training group
REST	Restricted environmental stimulation therapy
RRs	Relative risks
SCI	Spinal cord injury
SMF	Static magnetic fields
SMS	Self management strategies
ST	Strength training
TC	Tai chi
TENS	Transcutaneous electrical nerve stimulation
VR	Vestibular rehabilitation
WBE	Weight bearing exercise
WBV	Whole body vibration
WHO	World health organization

CHAPTER 1

INTRODUCTION