



MALMÖ HÖGSKOLA

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Sport and physical activity is really quite amazing. If we only do physical exercise on a regular basis and in balanced doses – *quantum satis* – we'll feel better for the moment, we'll preserve health and welfare over the life cycle, and we'll live longer and better lives. (And if we keep a healthy diet, we'll maintain a healthy BMI.) So far, so good. But if we haven't kept up our diet and exercise as we should, or if it hasn't helped – and it doesn't always help – physical activity might be prescribed for palliative purposes. A two-hour walk can counter, and possibly even cure, some back problems, for example. And not only somatic complaints react positively to exercise and other forms of physical activity. There is evidence that a variety of mental disorders can be alleviated by exercise, such as depression and transitory anxiety, and possibly also self-perception and self-esteem can be improved. There is some research going on in this area, and an overview of the current state of knowledge is offered in the second edition of Larry Leith's *Foundations of Exercise and Mental Health (Fitness Information Technology)* – the first edition was published in 1994. We asked Erwin Apitzsch for a review, and we were presented with a thorough examination of the contents of the book, which our reviewer found very useful, and he suggests that many others – students and researchers, but also to some extent practitioners – will find it beneficial. But our reviewer is not entirely happy, and apparently for good reasons. In a number of respects, generally regarded as important within academic research, the book seems to be a rush job, for example with regard to referencing and proof reading.

Useful overview – shame about the references

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*Larry M. Leith***Foundations of Exercise and Mental Health: Second Edition**

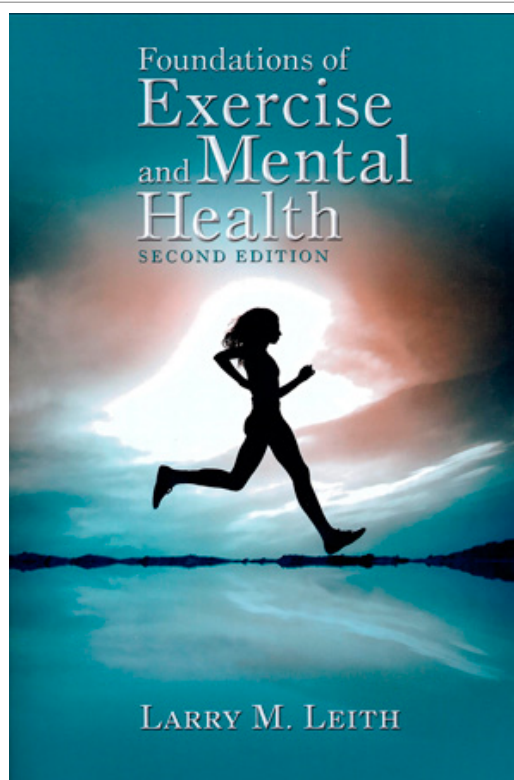
315 pages, pb.

Morgantown, WV: [Fitness Information Technology](#) 2010

ISBN 978-1-935412-00-7

This is the second edition of *Foundations of Exercise and Mental Health*, updating the first edition published in 1994. The author, Larry Leith, is Professor in the Department of Physical Education and Health at the University of Toronto, and has published numerous articles within health psychology.

Following the introduction, the book covers six chapters relating exercise to depression, anxiety, self-concept/self-esteem, personality, and mood. The two concluding chapters cover Exercise Assessment and Prescription, and Present Status and Future Directions. The chapters relating exercise to psychological concepts contain objectives of the chapter, definition of the concept under study, a literature review, a table of empirical



research, prescription guidelines, directions for future research, summary and conclusions, discussion questions, and suggested readings. The introduction gives a background to exercise and psychological states, and provides an overview of the endorphin, monoamine, thermogenic, and distraction hypotheses, which have been advanced as possible mechanisms to explain improved mental health following participation in an exercise programme.

The purpose of the book is to thoroughly examine the potential of exercise to impact positively on the mental health of the participant. So, what do we know today? Exercise programmes appear to be associated with significant reductions in depression and transitory anxiety, and with significant mood improvements. With regard to self-concept/self-esteem the results appear quite inconsistent, although two-thirds of the studies reviewed reported significant changes following participation in an exercise programme. Inconsistent results have also been reported for the relationship between exercise and improvements in personality. Relatively few empirical studies have been conducted on self-concept/self-esteem and personality during the last decade, but the author claims that interest is starting to shift back in the direction of more research in these areas in the future because self-concept/self-esteem has the potential to be impacted by exercise in a shorter period of time, and exercise has excellent potential to impact personality traits such as extraversion, anxiety, tough-mindedness, independence, and self-control. The exact mechanisms explaining the relationship between exercise and depression (the endorphin and monoamine hypotheses have been most frequently cited); exercise and anxiety (the thermogenic and distraction hypotheses are the most viable alternatives); exercise and self-concept/self-esteem (the self-efficacy/skill mastery hypothesis and the self-perception/self-identity hypothesis appear to provide the best explanation); and exercise and personality (perceptions of physical change may be important) have not been clearly established.

In order to further our understanding of the field of exercise and mental health, several directions for research are proposed. True experimental studies possessing good internal and external validity using randomised trials are called for to overcome methodological problems. Getting the kind of people involved in exercise that need it most, is another area of concern as well as the challenge to ensure long-term involvement of those who have been attracted to an exercise programme. More research is also needed for using exercise as an adjunct therapy for a number of psychological disorders. Finally, the author calls for longitudinal studies, performed over several years, comparing samples of regular exercisers and non-exercisers in terms of the incidence of mental disorders. It is now time to turn our attention to the potential use of physical activity in prevention of mental disorders, not only as a means of treatment.

” *The introduction gives the framework and the two concluding chapters provide the basic components of fitness and summarises the current state of knowledge regarding the exercise and mental health relationship.*

I like the structure of the book. The introduction gives the framework and the two concluding chapters provide the basic components of fitness and summarises the current state of knowledge regarding the exercise and mental health relationship. The chapters in between can be read separately, depending on the special interest of the reader. The book is a fantastic source for researchers looking for areas to explore further. The author has ambitiously indicated important areas that need more research. The numerous references on each topic provide an easy access for the prosperous researcher, and the extensive tables of empirical research provide a valuable overview. I would say that graduate students and researchers are the primary target groups of this publication. However, the prescription guidelines are very useful for practitioners, but my advice is that they should not restrict themselves to just follow the guidelines, but read more about the reasons behind them in order to provide explanations if required by exercise participants.

The main weakness of the book is the inconsistent use the word “recent”. To my knowledge there is no commonly recognised definition of “recent” with regard to research, but it is confusing to read that “recent research” means “conducted from 1980 to present” (page 7), “in view of recent suggestions (meaning 1983; page 37), and “new research” (meaning 1986; page 65), which indicates that “recent” may date back as long as 24-30 years. Another example is “[a]s recently as 1988, Xanax was the third most frequently administered drug in the United States” (page 64). I would be very surprised if statistics from 1988 is the latest available information. Similarly, it is misleading to state “research conducted to date” (meaning 1989; page 198), “induce panic attacks in anxiety neurotics is still prevalent in the field of psychiatry” (meaning 1986; page 91), “remains as either an explicit or implicit goal of modern therapies” (meaning 1979; page 111) when the book is printed in 2010.

On the other hand, 1986 is indicative of “early” findings: “Study? is needed to verify these early findings (page 77). I would like to suggest that the use of “recent” with regard to scientific results should be restricted to studies published within 10 years prior to the present publication.

Although the author does not claim to cover the current situation of the relationship between exercise and mental health globally, I think a broader perspective than the North American would have been appreciated by many readers in the world. In the present edition we are given statistics concerning mental health in the United States 1984. I presume that more contemporary data are available. Statistics from other countries would be an interesting addition. Another example is the psychodynamic approach to personality. Very few studies have been published in

North America using this approach (page 152). Therefore, a literature search in Europe could have added to this section of the book.

Although I am generally pleased with the structure of the book, I would have appreciated a state of the art at the end of each chapter. Occasionally, the author states “No one empirical study was located since the publication of the first edition of Foundations of Exercise and Mental Health” (Leith, 1994). However, this is unfortunately not done consequently.

There are a number of missing references. A non-systematic check revealed references in the text which are missing in the reference list, for example, Balog, 1983 (page 66), Lox, McAuley, & Tucker, 1995 (page 121), Cox, 1996 (page 149), Cox 1998 (page 151), Engels, Currie, & Lueck, 2002 (page 212), and Collingwood, Sunderlin, Reynolds, & Kohl, 2000 (page 262).

The proof reading has occasionally failed. Names are misspelt, for example, Hassman et al., (page 34) shall read Hassmén et al., Dismman (page 106) shall read Dishman, Heinzehnan & Bagley (page 117) shall read Heinzelman & Bagley, Caron et al., (page 126) shall read Carron et al., Some references are incomplete, for example, Alfermann (page 124) shall read Alfermann & Stoll, Cox, 2004 (page 256) shall read Cox, Thomas, Hinton, & Donahue, and some references are inconsistent, for example, Lauren, Verrault, & Lindsey (page 262) versus Laurin, Verrault, & Lindsey in the reference list, Stringer (page 262) versus Stinger, Weuve, Kang, Manson, Breteler, Ware, & Grodstein (page 266) versus Weuve, Kan, Manson, Breteler, Ware, & Grodstein.

Some minor language errors: “Ten male and seven females” (page 81) shall read “Ten males?”, “Within-group comparisons overtime” (page 186) shall read “? over time”. Tae Kwon-Do (page 118) or Taekwondo (page 187)?

The conclusion of the following sentences is not logical: There was not a single occurrence of a panic attack (Morgan & O’Connor, 1989). Despite this evidence to the contrary the concern that exercise can induce panic attacks in anxiety neurotics is still prevalent (Barlow, 1988). How can “still” be justified as the statement (1988) precedes the previous statement (1989)?

“?a minimum of three or four times per week” (page 195) does not make sense. I would prefer “Minimum three times per week” or “About three to four times per week”.

Exercise is a wonderful activity. Not only is it associated with the improvement of a number of unwanted deficiencies, it can most likely prevent the kind of deficiencies noted above, and even release creative thoughts. At least this is my experience when I practice cross-country skiing and jogging.

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