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EFFECTS OF PHYSICAL ACTIVITY ON PHYSICAL SELF
PERCEPTION AMONG MIDDLE SCHOOL STUDENTS

A Project
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Education:
Kinesiology


by
Leonard Richard Magdaleno
March 2009

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March 2009

Approved by:



Hosung So, First Reader



Stephen Kinzey, Second Reader

March 27, 2009

Date

ABSTRACT

Lack of physical activity in the community has caused a wide range of health problems that include obesity, heart disease, eating disorders and depression. As a result, the focus of physical education and exercise science research has extended beyond a focus on skills acquisition and improvement and improved fitness to examinations of psychological constructs that might impact on physical activity and play a critical role in determining outcomes. Therefore, the purpose of this project was to review the effect of physical activity on physical self-perception on middle school students. A review of literature was conducted for this study to extensively find out effects of physical activity on physical self-perception. Results found that physical self-perception is an important mediator of outcomes in physical education. It contributes to improving levels of physical activity and skill development which is associated with physical education classes. The field of physical activity and physical education has become a major subject of interest to the extent that it might affect the quality of health, contributes to physical and psychological well-being, help enhance physical competence, and is a potential facilitator

of people's socialization. Last, this study discussed about how to improve physical self-concept through physical education in terms of self-enhancement strategy and skill development strategy.

ACKNOWLEDGMENTS

I owe many thanks to the people who have helped me along the way to completion of this project. I would like to acknowledge California State University San Bernardino, especially the Department of Kinesiology, for the opportunity to further my education as a professional. I would like to thank Dr. Hosung So for all of his input and support for this project.

I would also like to thank San Bernardino City Unified School District for their support in completing this project.

DEDICATION

This project is dedicated to my family for all of their love and support during my graduate study. I especially want to thank my wife, Rayna Magdaleno for her support and patience during this project. Your support and positive encouragement made the completion of my graduate study possible.

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CHAPTER ONE

INTRODUCTION

Introduction of the Project

Overweight and excessive weight gain among American youths has become one of the most serious health problems in America. For instance, obesity rates among American adolescents have tripled over the past 25 years. These rates show no signs of slowing down.

According to data from the 1999 to 2002 by the National Health and Nutrition Examination Survey (National Center for Health Statistics, 2005), 16.1% of U.S. adolescents, ages 12 to 19, are overweight which is an absolute increase of 5% since the 1988 to 1994 survey. The two major factors such as physical inactivity and sedentary lifestyles have contributed to obesity and may be fundamental risk factors of energy imbalance.

The medical complications of obesity caused by lack of physical activity have been well defined and justified weight loss recommendations for many individuals (Pi-Sunyer, 1993).

According to Yaker and Allison (1994), obesity-related stigma and discrimination can negatively affect self-worth,

body image appraisal, self-esteem, and other critical and psychological characteristics in obese individuals of all ages.

Furthermore, Faith, Fontaine, Cheskin, and Allison (2000) described that given the stigma of obesity, increasing attention is being paid to treatment methods to enhance self-acceptance and psychological well-being among obese individuals.

A study by French, Perry, Leon, and Fulkerson (1996) found that the correlation of the obesity index and self-esteem indicated a negative high correlation which is that as weight increase, self-esteem decreased. The authors concluded that increasing self-esteem may be an important factor in preventing or reversing obesity. The reason is that negative weight perceptions are particularly common among young adolescent.

However, according to Centers for Disease Control and Prevention (CDC, 2003), regular physical activity can help prevent obesity, heart disease, hypertension, diabetes, colon cancer, and premature mortality. In addition, physical activity is closely related with positive measures of well-being and has been an effective treatment or therapy for depression and anxiety (Bauman & Owen, 1999).

Physical activity, exercise, and fitness programs have excellent potential to improving self-acceptance and improving one's sense of physical competence (Sonstroem & Morgan, 1989).

Purpose of the Project

This project intended to review and identify effects of physical activity on physical self-perception that can be improved through physical education.

Scope of the Project

This project was mainly prepared for middle school physical education teachers and administrators who want to be informed on positive and promising effects of physical activity and physical education on students' physical self-perception and self-esteem.

In addition, this project was to overview of the effect of physical activity on physical self-perceptions. Differences in gender, ethnicity, age, and skill level that might have associated with physical activity and physical self-perception were excluded in this project.

Significance of the Project

It has been well documented that self-concept can be best improved by teaching and improving motor skills in physical education classes through physical activity, exercise, and fitness programs. However, the question "how can physical education improve students' self-concept and physical concept by providing physical activity, exercise, and fitness program" has not been clearly answered. In addition, understanding of physical self-perception and self-esteem, and effects of physical activity on physical self-perception and self-esteem would be an important task for physical educators to be able to prepare, design, and implement their physical education programs to the students. Physical education teachers can use this project as an important guide and information to understand and help their students build more positive self-perception and self-esteem.

Limitations of the Project

Some limitations of this project were the selection and availability of articles. Articles published in between 1990 and 2009 were only included in this project. The articles were retrieved from the university search

engines, such as ESCOHost, Illumina, ProQuest, ERIC and Wilson Web. The potential variables that can affect the association between physical activity and physical self-perception, such as gender difference, ethnicity, socioeconomic status, nutrition, genetic and heredity were not extensively discussed in this project.

Definition of Terms

- A. Physical self-concept is defined as "the perception that people have about themselves relative to physical self" (Cox, 2007, p.416).
- B. Self-esteem is "the level of global regard one has for the self" (Harter, 1993).
- C. The self-concept is defined and interpreted in many ways. It has been described as the "totality of the individual's thoughts and feelings with reference to himself as object" (Rosenberg, 1979, p. 7).

CHAPTER TWO

METHODS

This project was conducted using a review of literature method in order to examine the effects of physical activity and physical education on self-esteem.

Using a University search engine, the articles published in between 1990 and 2008 were retrieved from EBSCOhost, Illumina, ProQuest, and Wilson using databases from Academic Search Premier, SportDiscu, PsycINFO, and ERIC.

In addition, the articles were also selected from various peer-reviewed scientific journals and textbooks that include Journal of Teaching in Physical Education (JTPE), Journal of Education, Journal of Physical Education, Recreation, and Dance (JOPERD), QUEST, Intervention in School and Clinic, Psychology of Sport and Exercise, Journal of Teaching Education (JTE), Journal of Education, and Strategies.

The terms used for keyword search included physical self-perception, physical self, self-esteem, global self-esteem, self-efficacy and psychological benefits of physical activity. The articles found by keyword search

were then photocopied and compiled for the literature review.

CHAPTER THREE

REVIEW OF LITERATURE

The critical roles and benefits of physical activity in promoting health and preventing disease have become apparent over the last decades.

Developing and maintaining positive self-concept is a critical part of human development, and participation in physical activity and exercise can contribute to it. Developmentally, the adolescent years significantly constitute a unique developmental phase physiologically, socially, and psychologically when rapid biological changes (Brook-Gunn, 1986).

Various research findings on children and adolescents have shown that boys score higher on general physical self-concept than do girls.

For instance, as Marsh (1989) reported boys score higher on physical self-perceptions of physical ability and appearance than do girls. Marsh and Craven (1997) also found out that physical self-perception drops during early adolescence.

In making sense of exercise and physical activity behaviour, the concept of self is an important concept.

As Fox (1997) mentioned, participation and involvement in physical activity and exercise that can improve skill, knowledge, fitness, and health is closely tied to the improvement of self-perception. Consequently, such changes can be generalized to favourable views about the self that will lead to an improved sense of well-being (Berger & McInman, 1993).

The result of this finding has implications to continue exercise participation and involvement. According to Sonstroem (1998), if people improve their self-perceptions as a result of the involvement and participation in physical activity, this should result in more participation.

According to Craig, Russell, Cameron, and Beaulieu (1999), to understand this connection is very important. As found in their article, even though there are many health benefits of regular exercise, 63% of Canadian adults are not active enough to gain these benefits.

Physical self-concept has recently received major attention from exercise researchers (Sonstroem, 1998). The main focus of research was directed toward the relationship between the physical self and sport and exercise.

According to Sonstroem and Morgan's (1989) multi-

dimensional exercise and self-esteem model (EXSEM model), unlike the physical self, self-esteem is more global (i.e., how one feels about one's self overall) and/or more specific (i.e., body esteem, strength esteem). The model assumes that exercise first influences physical self-concept in such a way that people develop a higher degree of physical competence and physical acceptance. It will subsequently lead to heightened feelings of global self-esteem. Therefore, the path from exercise to self-esteem corresponds to the skill development. Improving physical competence and performance in physical activity and physical education should lead to a more positive self-concept. Consequently, fostering a healthy self-concept means improving physical competence first and self-concept second.

As described briefly, this model puts global self-esteem at the top in the EXSEM model, physical self-competence and physical acceptance in the middle, and physical competence at the lower level. The lower level elements feed into and affect global elements, but are related to the specific situation and context. Consequently, changes and improvement in physical fitness result in enhanced self-efficacy, bolstering physical

competence and increased global self-esteem.

Enhanced global self-esteem is hypothesized to be an automatic outcome of regular physical activity and exercise participation. However, focusing on self-esteem as solely global has not given researchers much understanding and information of psychological and social functioning in specific behavioral or situational contexts.

As described in Sonstroem & Morgan's (1989) article, the EXSEM model can help us understand the relationship between exercise and physical activity, and self-esteem.

In other words, the EXSEM allows researchers to investigate processes and pathways which are related to self-esteem change.

However, meta-analysis, a systematic approach to evaluating findings across studies by exploring the significance of findings can be used to better understand the relationship between physical activity and self-esteem.

Recently, there is only one published meta-analysis available that has examined the effect of exercise on self-concept in adults (McDonald & Hodgdon, 1991). This study has limitations that explored only global self-esteem and aerobic exercise and only included published studies.

There are strong evidences for physical activity as a

factor in reducing the risk of heart disease (Thompson, Buchner, Pina, Balady, Williams, & Marcus, 2003), osteoporosis (Todd & Robinson, 2003), diabetes (Kriska, 2003), and some forms of cancer (Friedenreich & Orenstein, 2002).

Additionally, evidence for the role of physical activity and exercise in psychological well-being also has documented, with research focusing on physical activity may be effective in treating and/or reducing the risk of depression and anxiety (Hall, Ekkekakis, & Petruzzello, 2002).

On the other hand, physical self-perception defined by Fox (1997) is an aspect of self-concept that is especially likely to be influenced by physical activity participation. It is more likely to be salient during adolescence (Ecklund & Bianco, 2000). It is also hypothesized to contribute toward the more integrative construct of global self-concept (Fox, 1999).

According to Crocker, Eklund, and Kowalski (2000), studies examining the relationship between physical activity and physical self-concept among adolescents appear to be supportive for the connection. However, methodological limitations weaken the argument.

According to Ekeland, Heian, Hagen, Abbott, and Nordheim's (2004) recent review of intervention studies among children and adolescents supported that increasing physical activity yields a short-term improvement in self-concept among youth.

In addition, according to Spence, McGannon, and Poon's (2005) recent meta-analysis, the results found out that adult participants showed a small but consistently positive effect of exercise on self-esteem.

CHAPTER FOUR

CONCLUSIONS

Despite the physiological and psychological benefits of physical activity and exercise, including reduced tension and depression, increased self-esteem, lowered risk of cardiovascular disease, better weight control, and enhanced functions of systems, only a relatively small percentage of children and adults participate in regular physical activity.

Research findings have demonstrated the link between physical activity and physical and psychological changes. Correlational evidence also suggests that physical activity is positively related to self-concept (Raustorp, Stahle, Gudasic, Kinnunen, & Mattsson, 2005).

Physical activity is associated with increased feelings of self-esteem and self-confidence (Buckworth & Dishman, 2002). As addressed by Marsh (1990) developing a healthy, positive self-concept is an important developmental task and life goal. Physical education teachers should therefore be sensitive in fostering a positive self-concept, particularly in children and adolescents.

Some studies found out that those who do a sport regularly have a high interest in physical exercise and assess their physical shape better than those who are not regular sports people and don't participate in physical activity, in turn, than those that do not do any sport at all (Moreno & Cervelló, 2005).

It is believed that our skills and abilities to interact with others play a part in determining how strongly we value and respect ourselves. Self-esteem is a measure of our self-worth both physically and emotionally, self-respect, and personal potential. Many people think that a positive self-image is important. But, few know how to achieve it.

Last, how can physical education improve students' self-concept? A young person's ability to stand up to peer pressure is greatly influenced by his or her self-esteem level. Children who have poor self-concepts will more readily let others make important decisions for them, because their need for peer acceptance is greater than their ability to make healthy choices. Therefore, those with higher self-esteem have confidence and control over their own lives and tend to make better decisions.

As briefly discussed in Dweck's (1999) study, there are two possible ways to improve students' self-concept through physical activity and physical education. One is the self-enhancement strategy, in which efforts focus on self-esteem (e.g., through praise and support). The other strategy is the skill development strategy that focuses on competence as self-concept is the result of cognitive and social construction processes. In physical education classes, the best way to influence self-concept might be by improving skill and motor competence and supporting experiences of success that will result in students' participation in physical activity and learning.

REFERENCES

- Bauman, A., & Owen, N. (1999). Physical activity of adult Australians: Epidemiological evidence and potential strategies for health gain. *Journal of Science Medicine and Sport, 2*, 30-41.
- Berger, B. G., & McInman, A. (1993). Exercise and the quality of life. In R. N. Singer, M. Murphey, & L. K. Tennant (Eds.), *Handbook of research on sport psychology* (pp. 729-760). New York: Macmillan.
- Brooks-Gunn, J. (1986). The relationship of maternal beliefs about sex typing to maternal and young children's behavior. *Sex Roles, 14* (12), 21-35.
- Buckworth, J., & Dishman, R. K. (2002). *Exercise psychology*. Champaign, IL: Human Kinestics.
- Centers for Disease Control and Prevention (CDC). (2003). *Prevalence of physical activity, including lifestyle activities among adults: United States, 2000-2001*. Retrieved July 26, 2008, from <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5232a2.htm>
- Cox, R. H. (2007). *Sport psychology: Concepts and applications* (6th ed.). New York: McGraw-Hill Company.
- Dweck, C. S. (1999). *Self-theories: Their role in*

motivation, personality, and development.

Philadelphia: Taylor & Francis.

Ecklund, R., & Bianco, T. (2000). Social physique anxiety and physical activity among adolescents. *Reclaiming Children and Youth, 9*(3), 139-142.

Ekeland, E., Heian, F., Hagen, K.B., Abbott, J., & Nordheim, L. (2004). Exercise to improve self-esteem in children and young people. *Cochrane Database System Review, 1*, CD003683.

Faith, M. S., Fontaine, K. R., Cheskin, L. J., & Allison, D. B. (2000). Behavioral approaches to the problems of obesity. *Behavior Modification, 24*, 459-493.

Fox, K. R. (1997). *The physical self: From motivation to well-being*. Champaign, IL: Human Kinetics.

Fox, K. R. (1999). The influence of physical activity on mental well-being. *Public Health Nutrition, 2*(3A), 411-418.

French, S., Perry, C., Leon, G., & Fulkerson, J. (1996). Self-esteem and changes in body mass index over 3 years in a cohort of adolescents. *Obesity Resource, 41*(10), 10-12.

Friedenreich, C., & Orenstein, M. R. (2002). Physical activity and cancer prevention: Etiologic evidence and

- biological mechanisms. *Journal of Nutrition*, 132(11 Suppl), 3456S-3464S.
- Hall, E., Ekkekakis, P., & Petruzzello, S. (2002). The affective beneficence of vigorous exercise revisited. *British Journal of Health Psychology*, 7, 47-66.
- Harter, S. (1993). Causes and consequences of low self-esteem in children and adolescents. In R. F. Baumeister (Ed.), *Self-esteem: The puzzle of low self-regard*. New York: Plenum.
- Kriska, A. (2003). Can a physically active lifestyle prevent type 2 diabetes? *Exercise and Sport Science Reviews*, 31(3), 132-137.
- Marsh, H. W. (1990). A multidimensional, hierarchical model of self-concept: Theoretical and empirical justification. *Educational Psychological Review*, 2, 77-172.
- Marsh, H. W., & Craven, R. (1997). Academic self-concept: Beyond the dustbowl. In G. Phye (Ed.), *Handbook of classroom assessment: Learning, achievement, and adjustment* (pp. 131-198). Orlando, FL: Academic Press.
- Moreno, J. A. & Cervelló, E. (2005). Physical self-perception in Spanish adolescents: Effects of gender

and involvement in physical activity. *Journal of Human Movement Studies*, 48, 291-311.

National Center for Health Statistics. (2005). *Prevalence of overweight among children and adolescents: United States 1999-2002*. Retrieved February 10, 2008, from <http://www.cdc.gov/nchs/products/pubs/pubd/hestats/overwght99.htm>

Pi-Sunyer, F. X. (1993). Medical hazards of obesity. *Annals of Internal Medicine*, 119, 655-660.

Rosenberg, M. (1979). *Conceiving the self*. New York: Basic Books.

Sonstroem, R. J., & Morgan, W. P. (1989). Exercise and self-esteem: Rationale and model. *Medicine and Science in Sports and Exercise*, 21, 329-337.

Spence, J. C., McGannon, K. R., & Poon, P. (2005). The effect of exercise on global self-esteem: A quantitative review. *Journal of Sport and Exercise Psychology*, 27, 311-334.

Thompson, P., Buchner, D., Pina, I., Balady, G., Williams, M., Marcus, B. (2003). *Exercise and physical activity in the prevention and treatment of atherosclerotic cardiovascular disease: A statement from the*

council on clinical cardiology (subcommittee on exercise, rehabilitation, and prevention) and the council on nutrition, physical activity, and metabolism (subcommittee on physical activity).

Circulation, 107:3109-3116 [PubMed: 12821592].

Todd, J., & Robinson, R. (2003). Osteoporosis and exercise. *Postgraduate Medicine Journal*, 79, 320-323.

Yuker, H. E., & Allison, D. B. (1994). Obesity: Socio-cultural perspectives. In L. A. Alexander-Mott, & D. B. Lumsden (Eds.), *Understanding eating disorders: Anorexia nervosa, bulimia nervosa, and obesity* (pp. 243-270). Philadelphia: Taylor & Francis.