UNIVERSITI TEKNOLOGI MARA

RISK FACTORS FOR LOW BACK PAIN IN HEALTHY SCHOOL CHILDREN

SITI AISYA BINTI AWANG @ SEMAIL

Project submitted in fulfilment of the requirements for the degree of

Bachelor (Hons.) Of Environmental Health And Safety Faculty of Health Sciences

JULY 2015

DECLARATION BY STUDENT

Project entitled "Risk factors for low back pain in healthy school children" is a presentation of my original research work. Wherever contributions of others are involved, every effort is made to indicate this clearly, with due reference to the literature, and acknowledgement of collaborative research and discussions. The project was done under the guidance of Mr. Abdul Mujid Bin Abdullah as Project Supervisor. It has been submitted to the Faculty of Health Sciences in partial fulfilment of the requirement for the Degree of Bachelor in Environmental Health and Safety (Hons).

Student's Signature:

(Siti Aisya Binti Awang @ Semail) 2011650622 920718-03-6048

Date: 6/71 2015

ACKNOWLEDGEMENT

In the name of Allah, The Most Gracious, The Most Merciful

Alhamdulillah. All praises to Allah for the strengths and His blessing in completing this project which required a lot of effort from many people that are incredibly meaningful to me.

Firstly, I wish to express my sincere gratitude to my superb supervisor Mr. Abdul Mujid Bin Abdullah for your continued support and guidance. Thank you for all your help, constant support and continuous encouragement throughout this project. Without his advice and guidance it would be a lot tougher to complete this project.

My appreciation also goes to all the Environment lecturers who have guided, help, advice and correct my oversight during my presentation and regarding many aspects of this project. Moreover, thank you to all of lab assistants and for their guidance and pretty cooperation regarding the laboratory equipment.

Next, thanks to my fellow juniors and friends for helping me when conducting this project during interview session. Besides, I also would like to thanks to HS223 member group for their excellent cooperation, inspirations and supports during this study. This experience with all you guys will be remembered as important memory for me to face the new chapter of my incoming life. Most important, thanks to all the respondents, primary school children and their parents because consents to participate in this study and give the very good cooperative.

Lastly, a special thanks to my parents, and family members who have always supported me and encouraged me. I appreciate everything that you all do for me.

Without all of these people, my project would not been completed.

Thanks all. May Allah bless all of you!

TABLE OF CONTENTS

TITLE PAGE	
DECLARATION OF STUDENT	ii
APPROVAL BY SUPERVISORS	iii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENTS	v
LIST OF TABLES	viii
LIST OF FIGURES	ix
LIST OF PLATES	X
LIST OF APPENDICES	xi
LIST OF ABBREVIATIONS	xii
ABSTRACT	xiii
ABSTRAK	xiv

CHAPTER ONE : INTRODUCTION

,

1.1 Background of study		1
1.2 Problem statement		3
1.3 Study Justification		5
1.4 Objective		
1.4.1 General objective		8
1.4.2 Specific objective	the second and the	8
1.5 Hypothesis		8
1.6 Selection criteria	i -	
1.6.1 Inclusive criteria		9

1.6.2 Exclusive criteria	9
1.7 Conceptual framework	10

1.8 Flow chart of study	11
1.9 Definitions	

1.9.1 Conceptual definitions	12
1.9.2 Operational definitions	13

ABSTRACT

Risk Factors for Low Back Pain in Healthy School Children

Introduction: Low back pain among primary school children has been reported by several literatures due to backpack carriage. The purpose of this study was to investigate the personal, mechanical and psychosocial risk factor that contributes to low back pain among primary school children in Puncak Alam. Methodology: A cross – sectional study was conducted among 74 primary school children aged 10 years old (Year 4) and 11 years old (Year 5). The selection of the samples was based on simple random sampling and volunteered basis. A weighing scale and height meter were used to measure weight and height while Modified Nordic questionnaire was used to identify prevalence and symptom of low back pain. In addition, the International Physical Activity Questionnaire was used to identify physical activities of school children and lastly, psychosocial factors were assessed by using Strength and Difficulties Ouestionnaire which covered young people's behaviour, emotions and relationships. Result: The personal factor (BMI) and mechanical factors (sport activities participation, housework activities, carrying the school bag weight more than 10 % of body weight) were significant association with low back pain, p – value < 0.01. The psychosocial factor shows strong association with low back pain due to all categories in psychosocial (emotional problem, conduct problem, hyperactivity, peer problem, prosocial problem) were significantly associated with low back pain, p - value < 0.05. Conclusion: Psychosocial factor is the most contributing factor compared to personal and mechanical factors due to significant association with all categories and low back pain.

Keywords: Low back pain, body mass index, physical activity, school bag weight, psychosocial