

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

Perceptions and Determinants of Healthy Eating in High Performing Male Adolescent Rugby Players

A thesis presented in partial fulfilment of the requirements for the degree of

Master of Science
in
Nutrition and Dietetics

Massey University, Albany
New Zealand

Emily Grace Stokes
2017

Abstract

Background: Rugby is a competitive sport in New Zealand, with the leading team, the All Blacks, ranked first in the world. Since nutrition plays an important role in sports performance, understanding how to facilitate young high-performing rugby players to eat healthy will help to optimise their performance. Research is lacking regarding perceptions and determinants of healthy eating for young rugby players, both in New Zealand and internationally. This study aimed to explore perceptions and determinants of healthy eating for high performing male adolescent rugby players living in New Zealand.

Methods: Perceptions and determinants were explored using semi-structural individual interviews. Participants were 20 male high-performing rugby players aged 16 to 18 years. Interviews were recorded and transcribed for thematic analysis of themes.

Results: Perceptions of healthy eating included balance and variety, portions according to energy needs and specific foods. Numerous determinants of healthy eating were described including factors related to the general lifestyle of an adolescent, including peers, family and food availability, cost, convenience and taste of food. Sports-specific determinants relating to participants' athletic lifestyles were sports performance, motivation to perform, team culture and the timing, amount and types of food on the gastrointestinal tract. Some determinants were both general and sports-specific including the media, physical appearance and feeling good.

Conclusion: High-performing male adolescent rugby players living in New Zealand have a good general understanding of the meaning of a healthy diet. A range of determinants influence the diet of these young rugby players, including general and sports-specific determinants from the macro-level, social and physical environment, as well as individual factors. Further research is required to explore the determinants of healthy eating in high-performing male adolescent rugby players both in New Zealand and internationally.

Acknowledgements

I am grateful for all the people who have supported me during this research project and who were an integral part in helping me complete it.

Firstly, I would like to thank my main supervisor, Kathryn Beck, who was supportive during every step of this research project, always encouraging me to do my best and stay on track. Without her support and positive attitude, this research would not have been possible. Kathryn was especially helpful with her nutrition and dietetics expertise as well as knowledge in sports nutrition, helping to pave the way for the focus of this study.

Thank you to Roger Hughes for supporting me with the nitty-gritty of qualitative research methods and thematic analysis, providing valuable insight into qualitative data, who without his valuable support, the interviews and qualitative analysis would not have been as succinct. Roger was also valuable in the editing of the research manuscript, helping to guide the focus of the study and pushed me to critically think about the data.

I would like to also thank Dave Shaw for taking time to coordinate participants for this study who was a valuable contact to the rugby teams recruited. To the participants, thank you for taking time to participate in this study, you were integral to this study. Also, many thanks to the rugby coaches and sports management from the schools for letting me conduct the study and welcoming me into your school environment.

Thank you to my close friends and classmates who were my back-bone, providing emotional support throughout the course. A big thank you to my parents, who without I would not be where I am, studying what I love - thank you for inspiring me to work hard and never give up.

Table of Contents

Abstract	ii
Acknowledgements	iii
List of Tables	vi
List of Figures	vi
Abbreviations	vi
Chapter One: Introduction	1
1.1 Background and Justification for the Research	1
1.2 Research Aim, Objectives and Hypothesis	2
1.3 Structure of the Thesis	3
1.4 Researchers' Contributions	4
Chapter Two: Literature Review	5
2.1 Healthy Eating	5
2.1.1 What is considered healthy eating?	5
2.1.2 Perceptions of healthy eating	6
2.1.3 Adolescents' perceptions of healthy eating	6
2.1.4 Athletes' perceptions of healthy eating	8
2.2 Facilitators and Barriers to Healthy Eating	8
2.2.1 Facilitators and barriers to healthy eating for adolescents	12
2.2.2 Facilitators and barriers to healthy eating for athletes	17
2.3 Nutrition Practices.....	24
2.3.1 Nutrition practices of adolescents living in New Zealand	24
2.3.2 Nutrition practices of rugby players and adolescent rugby players	26
2.4 Adolescent Rugby Players' Supplement Use.....	29
2.5 Conclusion	29
Chapter Three: Research Study Manuscript	31
Abstract	31
Introduction	32
Methods	33

Emily Stokes
13100926

Results	36
Discussion.....	45
Strengths and Limitations	50
Conclusion	51
Acknowledgements.....	52
Chapter Four: Conclusion and Recommendations	53
4.1 Overview and Achievement of the Aims and Objectives of the Study	53
4.2 Strengths of the Study.....	54
4.3 Final Recommendations and Conclusions.....	54
5.0 References.....	56
6.0 Appendices.....	64
Appendix A: Participant Information Sheet	64
Appendix B: Participant Consent Form	67

List of Tables

Table	Title	Page
1.1	Researchers' contributions to this study	4
1	Questions used to promote discussion in the individual interviews	36
2	Characteristics of participants	37
3	Dietary intake of participants	38

List of Figures

Figure	Title	Page
2.1	Ecological Model showing the determinants of eating behaviour	9
1	Diagram depicting the main themes of healthy eating as general, sport-specific and overlapping sport-specific and general determinants	41

Abbreviations

Abbreviation	Meaning
ADI	Athlete Diet Index
AES	Australian Eating Survey
AIS	Australian Institute of Sport
AMDR	Acceptable Macronutrient Distribution Range
CARDIA	Coronary Artery Risk Development in Young Adults study
EAGNZA	Eating and Activity Guidelines for New Zealand Adults
GI tract	Gastrointestinal tract
NZANS	New Zealand Adults Nutrition Survey
SSB	Sugar sweetened beverages
UK	United Kingdom
USA	United States of America