

**EVALUATION OF A SCHOOL-BASED PEER-LED EDUCATION
PROGRAM FOR ADOLESCENTS WITH ASTHMA IN JORDAN**

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**A thesis submitted in accordance with the total requirements for admission to the
Degree of Doctor of Philosophy**

**Faculty of Nursing, Midwifery and Health
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August, 2009

Certificate Of Authorship/Originality

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

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Acknowledgements

I wish to express my deepest appreciation to several people, whose great guidance, advice, and support deserve special mention. It is a pleasure to convey my gratitude to all of them.

In the first place, I would like to record my gratitude to my principal supervisor, Associate Professor Robyn Gallagher (Associate Professor in Chronic and Complex Care, Co-ordinator of Honours Research Program, Faculty of Nursing, Midwifery, and Health, University of Technology, Sydney). She provided constant supervision, advice, and guidance from the very early stage of this research. Above all and most importantly, she provided unwavering encouragement and support both professionally and personally, which exceptionally inspired and enriched my growth as a student and a researcher. I am indebted to her more than she knows.

I gratefully acknowledge my co-supervisor, Professor Jackie Crisp (David Coe Professor in Child and Adolescent health, Faculty of Nursing, Midwifery, and Health, University of Technology, Sydney, Sydney Children's Hospital) for her advice, supervision, and crucial contribution to this thesis. Her involvement has triggered and nourished my intellectual maturity as a student to think "outside the box", which enriched this thesis.

Many thanks go in particular to my field supervisor, Dr. Smita Shah (Director, Primary Health Care Education and Research Unit, Sydney West Area Health Service, and Clinical Senior Lecturer, Faculty of Medicine, The University of Sydney). Her advice, passion, and contribution made her the backbone of this research. She generously provided me with materials and resources crucial to the research. She also prepared me through intensive training to be a research leader in Jordan. Without her support in various ways, the study would have been impossible. I am looking forward to more future collaborative work with all my supervisors.

I would like to acknowledge Jordan University of Science and Technology for providing the opportunity to complete my postgraduate study and offering financial support. I also would like to acknowledge University of Technology, Sydney for providing the Doctoral Scholarship to support the research when I least expected it. The study would not have occurred without this financial assistance.

I also wish to express my appreciation to the research assistants, who were very helpful in co-facilitating training workshops and data.

I also would like to acknowledge Professor Madeleine King (Visiting Scholar Visiting Professor, University of Technology, Sydney, Chair in Cancer Quality of Life, The University of Sydney) for her significant assistance in data analysis.

I also would like to thank Jessica Roydhouse (researcher and consultant) for her editorial assistance to the thesis.

I also wish to express my gratitude to all the students who participated in this research, as well as my deep appreciation to the principals and teachers at the participating schools.

I owe my deepest appreciation to my sister, Sabah, and her husband, Mohammed Khair, for providing thoughtful, endless support. Sabah, with her sense of humour and belief in faith, was the missing piece in my "Journey".

My parents deserve special mention for their unwavering support and prayers. My father, Adnan, has always believed in me and inspired me to do my best. My mother, Kefa, provided me with comfort and peace when I most needed them during my stay away from home. My special thanks to my brother, Mohammed, and my sister, Heba, for assistance in data management.

Words fail me to express my heartfelt appreciation of my husband, Mohammed, whose dedication, love, and support has taken a load off my shoulder. He unselfishly accompanied me to Australia, giving me the chance to complete my study and fulfil my passion toward nursing. My gorgeous children, Joud and Farouk, thank you from the bottom of my heart for your love, goodwill, and humour during my study. Beautiful Jasmine, thank you for unconsciously motivating me to complete my study, when you independently decided to join our family during the peak of my candidature!

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Abstract

Background: Adolescent asthma, despite being prevalent and having the potential to negatively impact quality of life, can be adequately managed using the support of peer-led education initiatives within the school context. Such programs acknowledge the social importance of peers and schools in shaping adolescents' health-related behaviours, utilising the universal influence of peers in a positive way.

Aim: The aim of this study was to determine the effect of a peer-led asthma education program (Triple A – Adolescent Asthma Action) on asthma-related quality of life, knowledge of asthma management, and self-efficacy to resist smoking among students with asthma attending high schools in Jordan by three months post intervention.

Methods: A cluster-randomised controlled trial was conducted in 4 high schools in Irbid, Jordan, on students with asthma ($n = 261$) in years 8, 9, and 10. Students in the two intervention schools ($n = 132$) were involved in TAJ (Triple A in Jordan) over three weeks, whereas students in the two control schools ($n = 129$) were not involved in any intervention. The trial followed a pilot study that was used to determine whether Triple A was needed and feasible, with adaptations made to adjust for the Jordanian high school context. As the cluster design was used and three baseline covariates were found, a SAS.PROC.MIXED adjusted model was used to account for these issues.

Results: The average age of the students with asthma was 15.2 years ($SD = 1.23$), and the majority were male (56.7%), with almost one third of all the participating students (27.7%) reporting being smokers. Approximately 70% had a professional asthma diagnosis, and the remainder reported recent wheezing in the last 12 months, but had not been diagnosed with asthma by a health care professional. In fact, the proportion of students with asthma in the whole sample proved larger than expected, as asthma symptoms were prevalent (17.15%). The program was well-received by students and school staff and modifications were minimal. The TAJ program resulted in significant improvement in all outcomes measured in students with asthma. Compared to the control group, students with asthma in the intervention schools had statistically and clinically significant improvements in quality of life (mean difference = 1.35, 95%

CI = 1.04 – 1.76), better asthma-related knowledge (mean difference = 1.62, 95% CI = 1.15 – 2.19), and higher self-efficacy to resist smoking (mean difference = 4.63, 95% CI = 2.93 – 6.35) at three months follow-up. In particular, the TAJ group had most improvement in quality of life in the symptom sub-domain scores (change in score = 0.97, $p < 0.02$) in comparison to the activities and the emotions domains.

Conclusion: The school-based peer-led education program (TAJ) has been shown to be successful in promoting the health of adolescents with asthma in Jordan. Triple A proved adaptable and effective in another culture and context and may have potential for other health-related issues for adolescents. It is crucial that health promotion programs like TAJ are implemented for adolescents in Jordan.