

UNIVERSITI TEKNOLOGI MARA

**FACTORS RELATED TO OUTCOME
OF ANTERIOR CRUCIATE
LIGAMENT RECONSTRUCTION
REHABILITATION IN MALE: FEAR
OF RE-INJURY, QUALITY OF LIFE
AND PATIENT EDUCATION**

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Thesis submitted in fulfillment
of the requirements for the degree of
Doctor of Philosophy

Faculty of Sports Sciences and Recreation


March 2016

AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

There have been very limited studies conducted on subjective outcome with regard to psychological factor, quality of life (QOL) and patient education after anterior cruciate ligament reconstruction (ACLR) rehabilitation among male involved in recreational activities. This study investigated fear of re-injury, QOL and patient education after ACLR rehabilitation. The purposes were (1) to determine the correlation between fear of re-injury and functional activity performance; (2) to determine the correlation between QOL, fear of re-injury and functional activity performance; (3) to identify the determinants of QOL concerning patients' background, fear of re-injury and functional activity performance; (4) to explore patients' experience in patient education by patient-physiotherapist face-to-face interaction on ACLR rehabilitation; and (5) to explore patients perception of patient education related to QOL after ACLR rehabilitation. A cross-sectional survey was conducted on 60 participants recruited by convenient sampling. They completed background information form, IKDC, KOOS and Lysholm, Tampa Scale of Kinaesiophobia and ACL-QOL after 14 to 16 weeks of ACLR rehabilitation. Data were analysed by Pearson and Spearman correlation including multiple linear regression. For phenomenological design, interview guide was used to conduct interviews on 10 participants taken by purposive sampling. The transcriptions were analysed by thematic network analysis. In the multi-method design, quantitative and qualitative studies were performed concurrently. The TSK and KOOS-symptoms revealed a very weak correlation ($r = -.155$) and QOL with all variables had mainly positive with strong correlation ($r = .490$ to $.717$). Only TSK showed negative correlation. Multiple regression model was significant [$F(11,48) = 27.5, p < .001$] with the predictors explaining 59.5% of the variation in QOL. Only KOOS-pain and KOOS-sport/recreation were the significant contributors to QOL. The network on interpersonal interaction in face-to-face teaching and the holistic approach in QOL described the usefulness of patient education. Three significant contributions to physiotherapy practice are identified. To improve the proficiency of practice, the creation of a specific checklist is essential to assess physical and psychological profile with the potential to improve QOL after ACLR rehabilitation. Furthermore, head of physiotherapy department need to impose a regulation on physiotherapists to use a standardised reading materials to promote adherence to patient education on ACLR rehabilitation. Finally, the Holistic Rehabilitation Strategy (HRS) model is applicable to education and research in physiotherapy and sport-related injury management of ACLR. Future research include (1) a survey by using a larger sample size to compare QOL, functional performance and fear of re-injury between male and female (2) a focus group for patients' perception on patient education reading material developed from the present study and its inter-relation with empowerment in functional, psychological and social wellbeing; and (3) the development of a multi-component questionnaire to evaluate the HRS model. The reading material may enhance efficiency in rehabilitation time frame by motivating patients in self-management of ACLR rehabilitation. Additionally, the HRS model is applicable to the enhancement of physical and psychological outcome as well as the planning of ACLR rehabilitation protocol.

ACKNOWLEDGEMENTS

In the name of ALLAH, The Compassionate and the Merciful.

It is certainly not possible to complete this doctoral thesis without the support of the kind people around me.

First and foremost, it gives me an immense debt of gratitude to express my sincere thanks to my supervisor Associate Professor Dr. Rozita Abdul Latif, for her constant and excellent guidance. She always makes the time to listen to the little problems and roadblocks that unavoidably crop up in the course of completing my PhD. Not forgetting the advice and friendship from my second supervisor, Dr Ajau Danis, who has given his support to both my academic and personal level, for which I am extremely grateful.

I am most indebted to Dr Azmi Abd. Latif, the orthopedic surgeon from Hospital Pusrawi, who allows me to recruit participants for data collection. This is the most valuable and core for the study of this thesis.

I greatly appreciate and would like to acknowledge Mr Buserah Salleh, the Head of Physiotherapy Department, Hospital Pusrawi, and his colleagues, who had tirelessly shared interesting ideas and helping me with the recruitment of participants for this research.

My utmost appreciation is to all participants who were involved in this study. Their time and support is greatly appreciated.

My great appreciation also goes to these prominent individuals at UiTM: Dr. Hamzah Fansuri Hassan, Dean of Faculty of Health Sciences, Associate Professor Dr. Mohd. Hanafiah Abidin, Dean of Faculty of Sport Science and Recreation (FSR), Datin Dr. Hj. Sarina Md. Yusof, the former Head of Post-graduate Studies (FSR) and Dr Mahenderan Appukutty, Head of Post-graduate Studies (FSR).

Thank you to all extended family members who have given me their support.

I dedicate this work especially to my late father, mother, father-in-law and mother-in-law because they all made me who I am.

Especially to my dear children: Eddy, Bee (*Allahyarham*), Ateh and Dolly, Wan, Fatin, Ira, Durrah, Hakimi, Habib and Qassarrah, thank you so much for the understanding, support and patience, as always.

Last but certainly not the least, my heartfelt gratitude goes to my beloved husband, Tuan Hj. Yaacob Abu Bakar, for his much needed personal patience and sacrifice in every possible way. For his love and kindness, I am forever indebted.

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