

**RETURN TO DRIVING AFTER
MUSCULOSKELETAL DISORDERS: DEVELOPING
A NIGERIAN MUSCULOSKELETAL DISABILITY
INDEX**

BY

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**A THESIS SUBMITTED TO THE SCHOOL OF
POSTGRADUATE STUDIES, UNIVERSITY OF LAGOS, IN
PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
AWARD OF DOCTOR OF PHILOSOPHY (Ph.D) DEGREE IN
ERGONOMICS/INDUSTRIAL PHYSIOTHERAPY**

JULY, 2013.

DECLARATION

With the exception of duly acknowledged references, I hereby declare that this research work was carried out by me at the Department of Physiotherapy, College of Medicine of the University of Lagos, Nigeria under my supervisors and has not been submitted to any other institution for the purpose of obtaining another degree.

.....

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SCHOOL OF POSTGRADUATE STUDIES

UNIVERSITY OF LAGOS

CERTIFICATION

This is to certify that the thesis:

‘Return to Driving After Musculoskeletal Disorders: Developing a Nigerian
Musculoskeletal Disability Index’

Submitted to the School of Postgraduate Studies, University of Lagos for the award of the
degree of

DOCTOR OF PHILOSOPHY (Ph.D)

Is a record of original research work carried out

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DEDICATION

This thesis is dedicated to all Nigerian victims of weak road traffic regulation and policy who lost their lives or that of their loved ones to road traffic crashes; and to those who suffered varying degrees of deformities and injuries from driving without clinical fitness and certification.

Then, to those brilliant road traffic safety regulators who lost their lives on the course of duty, ensuring safer road safety standards in Nigeria.

ACKNOWLEDGEMENTS

He who started the good work has been faithful to complete it. Indeed, He is worthy of all adoration, majesty and praise. He is God. To Him be all the glory!

I acknowledge and appreciate all respondents in this study: patients, healthcare practitioners and senior field operations and research officers of the Federal Road Safety Corps (FRSC) for their patience and understanding while they participated in the study.

I thank my Head of Department, mentor and lead supervisor, Professor SRA Akinbo, for his devotion and guidance in the course of this study, and for discovering my potentials through a time-lined and role-modelled mentorship. To my second supervisor Dr DO Odebiyi, I say a big thank you for your thorough guidance and patience. To my former Head of Department and role model, Dr OA Olawale, I say a big thank you for your support during my study and for those salient technical details.

I am most grateful to the Provost College of Medicine University of Lagos Professor FT Ogunsola, the immediate past Provost, Professor 'Wole Atoyebi, the Deputy Provost, Prof A Okonlawon and the Dean, Faculty of Clinical Sciences Professor FEA Lesi for taking interest in me and for their encouragement throughout the course of my programme. I also appreciate the Dean School of Postgraduate Studies Professor LO Chukwu, the Sub-Dean Dr EA Adedun, Dean Faculty of Basic Medical Sciences, Professor OO Adeyemi, Professor EE Ekanem, Dr AA Osinubi, Dr NM Ibeabuchi, Dr F Duru and Dr WL Adeyemo for their constructive critique which added to the quality of this work.

I appreciate the Corps Marshal and Chief Executive of the FRSC Osita Chidoka, OFR, for his interest in this study and for granting express approval to proceed with the study among the officers of the corps in all FRSC Commands throughout Nigeria. Many thanks

to the Deputy Corps Marshal and Head of Policy, Research and Statistics (PRS), O Omidiji, Corps Commander L Chukwu, Engr KC Igwe (DCC) and M Audu (ACC) and other staff of the PRS Department, FRSC HQ, Abuja. I immensely appreciate Corps Commanders J Agwu and H Omeje (both Lagos State Sector Commander and Head of Operations (FRSC) respectively at the time of this study) and other officers from the Lagos Sector Command for their support during the validation of the study instrument and data collection. I also thank my colleague, Route Commander O. Alegbeleye (PT) of the FRSC Clinic, Abuja and Deputy Route Commander JT Ahom, FRSC HQ, Abuja for all the logistics assistance.

I appreciate the Medical Directors and Heads of the Out-patient Departments of the institutions where the study took place, particularly the National Orthopaedic Hospitals in Igbobi-Lagos, Enugu and Kano) for granting a quickened ethical approval for the study to proceed in their respective centres. I also thank the following Consultant Surgeons/ Lecturers who participated at various stages of the study either during the validation of the instruments, focus group meetings and subjects recruitment: Dr O Eyesan, Dr O Obianyo, Dr O Kanu, Dr GO Enweluzor, Dr A Badmus and Dr O Ugwoegbulem. I also thank Dr JC Ezeh (Physiotherapist and Senior Orthopaedic Registrar) for all logistic assistance.

I am very grateful to my teachers, in particular to the grand master Professor IO Owoeye (FNSP), doyen of physiotherapy Prof. GI Odia (FNSP) and erudite Neuro-Physiotherapist, Pastor CB Aiyejusunle. I salute my colleagues in the Department of Physiotherapy, CMUL/LUTH who painstakingly read and critiqued this work at different stages and also participated in focus group meetings to develop the study instruments. They include the Departmental Postgraduate Coordinator, Dr BA Tella, Dr AI Aiyegbusi, Dr CA Gbiri, Dr OA Osho, Dr AK Akodu, HA Aweto, OBA Owoeye, OA Ajiboye (Deputy Director of

Physiotherapy) and AM Akinfeleye (PT). I thank you for all your ideas and support which added value to this product. I also acknowledge other colleagues and PhD scholars especially Squadron Leader NV Esionye-Uzodinma and Mrs O Akanle for their support and prayers. I appreciate other members of staff of the Physiotherapy Department: Mrs M Umeh, Mrs E Isong, Mrs E Ogunnubi, Mr A Ogunbamise, Mr S Jegede, Mr O King, Mr K Abioye and Mrs O Udemeh. I equally thank Mr TO Akeju, S Agbetile, K Okhiria, Mrs R Odubu and other staff of the School of Postgraduate Studies, as well as Mr O Olaleye, OS Olowe, Mrs A Soyoye, J Zannu and other staff of the Postgraduate Unit, CMUL, for their immense support.

I thank all my professional colleagues and others from whom I have learned so much through service on the National Executive Council of the Nigeria Society of Physiotherapy, the West Africa Physiotherapy Union (WAPU) and the Healthcare Providers' Association of Nigeria (HCPAN). In particular, I appreciate Dr BN Birabi (FNSP), Col (Dr) PO Mogbo (FNSP), FO Faniran (FNSP), Dr EB John and Dr A Akinwuntan for being great mentors and role models. Many thanks to other colleagues who were instrumental for a successful data collection at the various study centres across Nigeria, especially Mrs A Foluwashade, Mr R Sarafadeen, Mrs P Imo, Mr O Orjinta, Mrs N Chigbo, O Osuji and Mr T Alade (PTs). My immense appreciation also goes to my other colleagues: Chris, Ruth, Yewande and Chinonye (PTs) for the instant and full ICT support, and to Mrs T Oladoyin (PT).for being my wonderful proof-reader.

To the Chairman (Dr (Chief) Sunny Kuku) and fellow members of the Golden Jubilee Anniversary Committee of the CMUL, I thank you all for sharing and keeping up the passion of a renewed and greater College of Medicine of the University of Lagos. I also

acknowledge fellow members of the International Road Traffic Research Network (RTIRN) for the exposure gained as one of the few Nigerian members on the network.

My unreserved appreciation goes to my family. My wife, NJC and my bundles of joy, Favour and Treasure...you are my inspiration and I love you all. To my octogenarian but ever strong MUM, Madam Sussan Okafor, I thank you for your love and prayers. To my siblings Dr UB Okafor of the Nigerian Foreign Mission, Bro Ken, Bro Kanma, Bro Henry, Aunty Victoria, Aunty Gloria and Ogoo, with their respective families, I thank you all and may God bless all yours, Amen.

Finally, to the ever-green memory of my Dad, Late Chief JO Okafor (Justice) and my eldest brother, Late Mr Charles Okafor (Akaluo-Omee), I pray to live up to your wishes for me.

It is done...To God be the glory!

OKAFOR, U.A.C

July, 2013

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ABSTRACT

BACKGROUND / OBJECTIVE: Returning to driving is a major concern to individuals who stopped driving due to health problems or other reasons as many see the ability to drive again as a crucial index of recovery. Not much is known about the extent to which individuals who present with musculoskeletal disorders, injury or surgery return to driving and the evaluation they receive prior to return as studies are sparse on the subject matter. This study aimed to determine the factors predicting return to driving after musculoskeletal disorders, and to develop a Driving Musculoskeletal Disability Index (DMDI) to determine suitability of return to driving after musculoskeletal disorders, injury or surgery.

METHODOLOGY: Three independent surveys involving patients (n=320), healthcare practitioners (n=355) and road traffic safety regulators (n=300) were polled. Patients who drove before their musculoskeletal disorders, injury or surgery were recruited from the three Nigerian National Orthopaedic Hospitals. The healthcare practitioners comprised Orthopaedic Surgeons / Senior Registrars, Physiotherapists and Occupational Therapists across Nigeria's six geo-political zones while the road traffic regulators comprised Senior Field Operations and Research Officers of the Federal Road Safety Commission across Nigeria with a minimum of two years field experience in the corps.

RESULT: Knowledge scores on return to driving after musculoskeletal disorders showed that healthcare practitioners had a fair knowledge (125, 41.8%), the practitioners and regulators had a positive attitude whereas a good practice score was shown by the practitioners (259, 86.6%). The patients exhibited poor knowledge (122, 60.7%), negative attitude (126, 62.4%) and poor practice (160, 79.6%) towards return to driving regulation in Nigeria (p= 0.0001). Logistic regression analysis showed that gender and severity of

injury were predictors of return to driving following musculoskeletal disorders, injury or surgery. A DMDI was developed with predictive validity of 86% (sensitivity) and 80% (specificity) as a clinical tool to determine suitability of returning to driving after musculoskeletal disorders, injury or surgery in Nigeria.

CONCLUSION: Healthcare practitioners had a fair knowledge and good practice; the regulators had a positive attitude whereas the patients had poor knowledge, negative attitude and poor practice towards return to driving policy and regulation in Nigeria. The study further showed that gender and severity of injury are predictors of return to driving after musculoskeletal disorders, injury or surgery. A Driving Musculoskeletal Disability Index (DMDI) was developed as an outcome measure with psychometric property to determine suitability of returning to driving after musculoskeletal disorders, injury or surgery in Nigeria.

KEY WORDS: Musculoskeletal Disorders, Return to Driving, Driving Musculoskeletal Disability Index, Nigeria.