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

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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.

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It is done…To God be the glory!

OKAFOR, U.A.C

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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.