# ATTITUDES AND DETERMINANTS OF LUMBAR PUNCTURE ACCEPTABILITY AMONG CAREGIVERS AT THREE HOSPITALS IN ZAMBIA.

By

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A dissertation submitted to the University of Zambia School of medicine in partial fulfilment of the requirements for the Degree of Master in Public Health (MPH)

December, 2009

## **DECLARATION**

I Lynette Munachoonga Har	npande, hereby declare that this o	dissertation is the product of
my own work, and that it has	s not been previously submitted f	or a degree, diploma or
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We the undersigned have rea	nd this dissertation and have appr	oved it for examination:
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#### **CERTIFICATE OF APPROVAL**

This dissertation of Lynette Munachoonga Hampande is a	approved in partial fulfilment of
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#### **ABSTRACT**

Lumbar puncture (LP) acceptability is a problem at Arthur Davison Hospital, *Ndola* Central and *Kitwe* Central Hospitals, evident by a growing trend of lumbar puncture refusals over a four year period (2003-2006). Obtaining Cerebral Spinal Fluid by LP for microscopic examination is essential in the diagnosis of Central Nervous System infections and inflammatory conditions such as meningitis.

The study aimed at determining attitudes and determinants of LP acceptability among caregivers at three tertiary hospitals in Zambia. An explorative study design was conducted at three health care facilities; Arthur Davison Children's Hospital, *Kitwe* and *Ndola* Central Hospitals from November, 2008 to April 2009. Some of the variables in the study were attitudes towards lumbar puncture, knowledge of lumbar puncture and educational level. A total of 584 caregivers were recruited through purposive sampling. The sample size was calculated using EPI INFO version 6 at 95 percent confidence level. Data was collected using structured interview schedules and analysed using SPSS 11.6 and EPI INFO software packages.

The majority, (93.5 %) of the respondents had negative attitudes towards LP. They would not accept LP to be performed on themselves, neither would they recommend a patient to undergo LP for fear that they or their patient would die. There was no significant association between education level and advising a patient to undergo LP, (p = 0.642). 66 % of the respondents revealed that they would not accept LP because the outcome of LP is death. The study also revealed that majority, (56 %) of the respondents lacked knowledge on LP hence this influenced decision making.

It is recommended that the Ministry of Health should rigorously disseminate information to members of the public on the importance of this diagnostic procedure through the

#### media in order

to strengthen its use in hospitals. Further, the Ministry of Health should bridge the gap between

Resident Medical Doctors and consultants, in order to build capacities of the former so that they

are able to perform LP. Health care providers at all levels should also endeavour to increase

awareness of the role of LP in their institutions. The study must be conducted on a larger scale in

order to allow for generalization of results.

## **DEDICATION**

To my husband Cornwell who has endured my absence from home, encouraged and supported me throughout my study; my son Mainga and daughter Mutinta for their support throughout my studies.

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#### LIST OF ABBREVIATIONS

ADH - Arthur Davison Children's' Hospital

AIDS - Acquired Immunodeficiency Syndrome

CAT - Cryptococcal Antigen Test

CFR - Case fatality rate

CNS - Central Nervous System

CSF - Cerebral spinal fluid

CSO - Central Statistics Office

CT - Computed Tomography

EPI INFO - A word – processing, database and statistics program for

**Public** 

Health

 $H_20$  - Water

HIV - Human Immunodeficiency Virus

HMIS - Health Management Information System

IEC - Information, Education and Communication

ICP - Intracranial Pressure

K - Kwacha

KCH - Kitwe Central Hospital

KDHMB - Kitwe District Health Management Board

LP - Lumbar puncture

MoH - Ministry of Health

NCH - *Ndola* Central Hospital

NDHMB - *Ndola* District Health Management Board

NHSP - National Health and Strategic Plan

\$ - Dollar

SPSS - Statistical Package for Social Science

TB - Tuberculosis

X<sup>2</sup> - Chi Square