

https://dspace.org/

An evaluation of the paediatric physiotherapy curricula of three South African universities

Vachiat, Aamena

2013-05-29
http://hdl.handle.net/10539/12738

Downloaded from a DSpace repository. https://dspace.org/

An evaluation of the paediatric physiotherapy curricula of three South African universities

Aamena Vachiat

A research report submitted to the Faculty of Health Sciences, University of the Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of Master of Science.

Johannesburg 2012

ABSTRACT

Paediatric rehabilitation is currently becoming an independent sub-discipline of physiotherapy (Helders *et al*, 2003). South Africa has a population pyramid resembling other developing countries with one-third of the population being children younger than 14 years (Saloojee & Pettifor, 2005). To date no national audit of paediatric content of physiotherapy programmes in South Africa has been conducted. The United States has spent almost 18 years on methods to ensure adequate content of paediatric physiotherapy and standardisation of training in programmes across the country.

The main aim of this study was to determine whether the paediatric physiotherapy curricula of three South African universities equipped students with the basic knowledge of the variety of paediatric diagnoses seen by physiotherapists at the Chris Hani Baragwanath hospital.

The study was divided into two phases. Phase 1 analysed paediatric diagnoses treated by physiotherapists at the Chris Hani Baragwanath hospital in 2010. Phase 2 evaluated the content of the paediatric physiotherapy curricula of the University of the Witwatersrand, the University of Limpopo and the University of Pretoria.

A retrospective review of the physiotherapy statistics at the Chris Hani Baragwanath hospital was used to record the types of diagnoses referred for paediatric physiotherapy assessment and treatment. The 2010 statistics of paediatric diagnoses referred for physiotherapy management at the Chris Hani Baragwanath hospital were as follows:

- Total number of patients seen by physiotherapists = 36490
- Total number of paediatric patients seen by physiotherapists = 8093
- Amount of time spent in treating all patients = 149331 hours
- Amount of time spent in treating paediatric patients = 33101 hours

More than a fifth of patients referred for physiotherapy intervention at the Chris Hani Baragwanath hospital in 2010 were paediatric patients (22,03%). The large number of paediatric patients treated by physiotherapists at the Chris Hani Baragwanath

hospital in 2010 highlights the need to include paediatrics as an independent module within the physiotherapy curriculum.

University A was the only university that had an independent block and lecturer dedicated to paediatrics. Due to limited time available in undergraduate physiotherapy programmes, a minimum of the fifteen most common diagnoses seen at the Chris Hani Baragwanath hospital could be included in the curricula of universities in South Africa namely; burns, developmental delay, cerebral palsy, ICU, lower limb fracture, acute lung disease, early intervention, neurosurgery, pneumonia, congenital, routine pre/post operation, haemophilia, TB, head injury and meningitis. Not one of the 15 most frequently seen diagnoses, seen by physiotherapists in 2010, were simultaneously covered by all three universities as recorded by the explicit documented curriculum.

Areas that were well covered by all three universities included certain standardised assessments, such as the Gross Motor Function Measure (GMFM) and the Gross Motor Function Classification Scale (GMFCS) and certain diagnoses, such as cerebral palsy (CP). All three universities incorporated a research based approach in their respective curricula.

This study has highlighted the need for an independent paediatric module within physiotherapy curricula and has provided a preliminary framework for paediatric diagnoses within physiotherapy undergraduate degrees.

ACKNOWLEDGEMENTS

I would like to thank the following people for their contribution to this research report:

Dr Joanne Potterton for her guidance and support.

Mrs Juliana Freeme for her input.

The physiotherapy staff working in paediatrics at the Charlotte Maxeke Johannesburg Academic hospital, Rahima Moosa Mother and Child hospital and the Chris Hani Baragwanath hospital for their invaluable contribution to the formulation of the questionnaire.

The paediatric physiotherapy lecturers at the University of Witwatersrand, University of Limpopo and the University of Pretoria for their input on the current status of the paediatric physiotherapy modules at their respective universities.

DECLARATION

I declare that this research report is my own unaided work, except to the extent indicated in the reference citation and acknowledgements. It is being submitted in partial fulfilment of the requirements of the degree of Master of Science (Physiotherapy) at the University of the Witwatersrand. It has not been submitted before for any other degree or examination in any other university.

Aamena Vachiat

.....day of.....2012

To my family

TABLE OF CONTENTS

	Page
ABSTRACT	**ii**
ACKNOWLEDGEMENTS	**iv**
DECLARATION	**v**
DEDICATION	**vi**
TABLE OF CONTENTS	**vii**
LIST OF TABLES	**x**
LIST OF FIGURES	**xi**
Chapter 1 – INTRODUCTION	**1**
1.1 Background	1
1.2 Problem Statement	3
1.3 Research Question	3
1.4 Aim	3
1.5 Objectives	4
1.6 Significance of the study	5
Chapter 2 – LITERATURE REVIEW	
2.1 Introduction	6
2.1.1 Research setting	6
2.2 Elements in physiotherapy curricula design	8
2.3.1 Curricula development	9
2.3 Paediatric course structure	12
2.4 The need for paediatric physiotherapy to be taught as an independent sub-discipline of physiotherapy	13
2.4.1 Paediatric philosophy	13
2.4.2 Paediatric science	14
2.4.3 Paediatric technique	15

2.5 The International Classification of Function 17
2.6 Paediatric diagnoses treated by physiotherapists 18
2.7 Levels of evidence supporting physiotherapy intervention 36
2.7.1 Evidence Based Practice (EBP) 36
2.7.2 Levels of evidence 37
2.8 The Clinical Practice Improvement (CPI) approach 45
2.9 Standardised assessment tools used by physiotherapists 46
2.10 Conclusion 48

Chapter 3 – METHODS

3.1 Location 48
3.2 Ethical considerations 48
3.3 Sample selection 48
3.4 Methodology Phase 1 (Paediatric Statistics) 49
3.5 Methodology Phase 2(Curricular content) 50
3.6 Statistical Analysis 51

Chapter 4 – RESULTS 53

Chapter 5 – DISCUSSION 65

Chapter 6 – CONCLUSION 75

REFERENCES 76

APPENDICES

Appendix I Ethical clearance 86

Appendix II Consent form from the superintendant of Chris Hani Baragwanath hospital 87

Appendix III Data Collection Form 88

Appendix IV Consent forms for heads of departments 89

Appendix V Information sheet 91

Appendix VI Questionnaire 93

Appendix VII Combined questionnaire responses of the three

universities 100

Appendix VIII Curricula outlines of the three universities 109

Appendix IX An analysis of the relationship between the lecturer's perspective of the paediatric content of the curriculum and the documented university curriculum paediatric curriculum 115

Appendix X Analysis of all paediatric diagnoses seen by physiotherapists in 2010 125

Appendix XI The fifteen paediatric diagnoses most frequently seen by physiotherapists at the Chris Hani Baragwanath hospital 127

Appendix XII Paediatric diagnoses seen by physiotherapists at the Chris Hani Baragwanath hospital in 2010 that were not included in the syllabus of the three universities (percentage of total number of patients seen provided in brackets) 128

LIST OF TABLES

TABLE 2.1 Table to highlight the current levels of evidence that exist in the physiotherapeutic interventions available in treating various paediatric diagnoses 37

TABLE 4.1 Table to represent the proportion of paediatric patients treated by physiotherapists with regard to number and time in 2010 53

TABLE 4.2 Five most important paediatric diagnostic groups taught 54

TABLE 4.3 Five most important assessment tools covered 56

TABLE 4.4 Summary of the structure of the paediatric modules taught at the universities 58

TABLE 4.5 An analysis of the relationship between the responses documented via the questionnaire and the documented explicit university paediatric curricula outline of the paediatric diagnoses included in the curriculum 62

TABLE 4.6 A comparison between the five most frequent diagnoses seen at the Chris Hani Baragwanath hospital and the five important diagnoses taught at the universities 63

TABLE 4.7 The five most important patient diagnoses taught at the universities that were not included in the top 15 diagnoses seen at the Chris Hani Baragwanath hospital 64

LIST OF FIGURES

Figure 4.1 Diagram to represent the fifteen paediatric conditions most frequently seen by physiotherapists at the Chris Hani Baragwanath hospital. 54

Figure 4.2 Graph to represent the different types of standardised assessments covered at the three universities. 56

Figure 4.3 Graph to illustrate the extent of incorporation of Evidence Based Practice (EBP) in university curricula. 57

Figure4.4 Graph to represent whether various paediatric topics were included in the paediatric modules of the three universities. 59

Figure 4.5 Graph to illustrate whether the fifteen most common paediatric diagnoses seen by physiotherapists in 2010 were recorded in the explicit curricula of the three universities. 60