

https://dspace.org/

Triaging for dysphagia in a public hospital medical emergency unit in Gauteng: a pilot study

Kater, Kelly-Ann

2018

https://hdl.handle.net/10539/27243

Kater, Kelly-Ann Robyn (2018) Triaging for dysphagia in a public hospital medical emergency unit in Gauteng : a pilot study, University of the Witwatersrand, Johannesburg, https://hdl.handle.net/10539/27243

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

Triaging for Dysphagia in a Public Hospital Medical Emergency Unit in Gauteng: A Pilot Study

Kelly-Ann Kater

May 2018

A research report submitted to the Department of Speech Pathology and Audiology

School of Human and Community Development

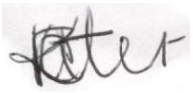
Faculty of Humanities

University of Witwatersrand, Johannesburg

In fulfilment of the requirements for the degree Master of Arts in Speech Pathology

Declaration

I hereby declare that this thesis is my own unaided work and that the assistance obtained has been only in the form of professional guidance and supervision. It is submitted for the degree Master of Arts in Speech Pathology to the Faculty of Humanities, Department of Speech Pathology and Audiology at the University of Witwatersrand, Johannesburg. It has not been previously submitted for any other degree or examination to any other university.



Kelly-Ann Kater

30 May 2018

Acknowledgements

This study has been gratifying and I have learnt many lessons along the way.

To my supervisor, Dr Jaishika Seedat: Thank you for your guidance throughout the research journey. Your time, effort, patience and words of encouragement are appreciated. Thank you for believing in me and encouraging me.

To the Heads of Department at the research site and research participants: Thank you for allowing me into your departments and taking the time to participate in my study. this research would not be possible without you.

To my colleagues and friends: Thank you for your ongoing support and words of encouragement.

To my family: Thank you for your ongoing encouragement and comforting words. Thank you for your patience and tolerance during moments of stress.

I would like to extend my heartfelt appreciation to all who believed in and have assisted in the competition of this study.

Table of Contents

Declaration	ii
Acknowledgements	iii
Table of Contents	iv
List of figures	viii
List of tables	ix
List of appendices	x
Abbreviations	xi
Abstract	xii
Key words	xii
Chapter 1	
1.1. Introduction	1
1.2. Rationale	2
Chapter 2: Literature review	
2.1. Dysphagia	6
2.2. Risk factors	7
2.2.1. Aspiration	7
2.2.2. Malnutrition	7
2.3. Causes of dysphagia	9
2.3.1. Dysphagia and cerebrovascular accident	10
2.3.2. Dysphagia and respiratory difficulties	12
2.3.3. Dysphagia and HIV/AIDS	13
2.3.4. Dysphagia and traumatic brain injury	16
2.4. Prevalence of dysphagia	17

2.5. Dysphagia management 18

2.6. Triaging in the emergency department 20

2.6.1. The South African health system 20

2.6.2. The South African triage scale 21

2.7. Evidence based practice 25

2.8. Triaging for dysphagia in the emergency department 26

2.9. Theoretical underpinning 27

2.10. Problem statement 28

Chapter 3: Methodology

3.1.Main aims 30

3.2.Objectives 30

3.3.Research design 30

3.4.Site 31

3.5.Population 33

3.5.1. Sampling strategy 33

3.5.2. Sample 34

3.5.2.1.Medical emergency department doctors 34

3.5.2.2.Patients 35

3.5.2.3.Sample size 35

3.6.Patient procedure upon admission to MEU 36

3.7.Research process 38

3.8.Data collection tools 40

3.8.1. Ethnography 40

3.8.2. Dysphagia triage checklist 41

3.8.2.1.Description of the dysphagia triage checklist 42

3.8.2.2.Administration of the checklist 43

3.8.2.3.Pass/fail criteria 43

3.8.3. Dysphagia screening 44

3.8.4. Retrospective record review 44

3.8.5. Self-developed questionnaire 45

3.9.Data analysis 45

3.9.1. Ethnography 45

3.9.2. Dysphagia triage checklist 46

3.9.3. Self-developed questionnaire 46

3.9.4. Retrospective record review 47

3.10. Ethical considerations 48

3.11. Validity 48

3.12. Reliability 50

3.13. Trustworthiness 50

Chapter 4: Results

4.1.Ethnography 53

4.2.Dysphagia triage checklist vs dysphagia screening 55

4.3.Feasibility 56

4.3.1. Retrospective record review 56

4.3.2. Medical emergency unit 57

4.3.3. Speech therapy department 59

4.4.Doctors perceptions 62

4.4.1. Self-developed questionnaire 62

4.5.Reliability 63

4.5.1. Cohen’s kappa 63

4.6.Validity 65

4.6.1. Content validity 65

4.6.2. Face validity 66

4.6.3. Concurrent validity 66

4.7.Sensitivity and specificity 67

4.8.Ethical considerations 68

4.8.1. Confidentiality 68

4.8.2. Non-maleficence 69

4.8.3. Beneficence 69

4.8.4. Informed consent and the right to withdraw 69

4.8.5. Anonymity 70

4.8.6. Recording and management of data 70

4.8.7. Trustworthiness 70

Chapter 5: Discussion 72

Chapter 6: Conclusion 80

6.1.Limitations 82

6.2.Contributions 84

6.3.Implications 85

6.4.Conclusion 86

References 88

Appendices 95

List of Figures

Figure 1: The public healthcare system structure 20

Figure 2: The triage protocol using the South African Triage Scale 23

Figure 3: The structure of the emergency department at CHBAH 32

Figure 4: Procedure for patients admitted to the medical emergency unit 36

Figure 5: The research process 38

Figure 6: Types of medical diagnoses treated in medical emergency unit 57

Figure 7: Overview of medical vs surgical vs trauma patients seen within the speech therapy department 59

Figure 8: Specific medical diagnoses of patients treated by speech therapy department 60

Figure 9: The recognition primed decision model 28

List of Tables

Table 1: Causes and symptoms of oropharyngeal and oesophageal dysphagia 9

Table 2: The South African Triage Scale colour chart 24

Table 3: Description of the research site 33

Table 4: Dysphagia triage results 55

Table 5: Results from the dysphagia screening 55

Table 6: Patients follow-up post medical emergency unit treatment 58

Table 7: Calculation of percentage agreement 63

Table 8: Sensitivity and specificity of dysphagia triage checklist 68

List of Appendices

A. Ethical clearance certificate obtained from Human Research Ethics Committee (Medical) 95

B. Dysphagia Triage Checklist 96

C. Self-developed electronic questionnaire for the medical emergency unit doctor 98

D. Request for participation by Chief Executive Officer/Medical advisory committee (MAC) 100

E. Consent by Chief Executive Officer/Medical advisory committee (MAC) 103

F. Request for participation by Head of department of the Speech Therapy department 104

G. Consent by Head of department of the Speech Therapy department 107

H. Request for participation by Head of department of the medical emergency unit 108

I. Consent by Head of department of the medical emergency unit 111

J. Request for participation by medical emergency unit doctor 112

K. Consent by medical emergency unit doctor 115

L. Ethnography Field Notes 116

M. Retrospective Record Review Data Collection 117

N. Patients referred to the speech therapy department 118

Abbreviations

AIDS: Acquired Immunodeficiency Syndrome

ASHA: American Speech and Hearing Association

BMH: Bheki Mlangeni Hospital

CHBAH: Chris Hani Baragwaneth Academic Hospital

CNS: Central Nervous System

CNS: Central nervous system

CVA: Cerebrovascular Accident

EBP: Evidence based practice

ED: Emergency Department

HIV: Human Immunodeficiency Virus

HOD: Head of Department

HPCSA: Health Professions Council of South Africa

ICD-10: International Classification of Disease- 10

MAC: Medical Advisory Committee

MDT: Multi-disciplinary Team

MEU: medical emergency unit

NCD: Non-communicable diseases

NHI: National Health Insurance

RCSLT: Royal College of Speech and Language Therapists

ROM: Range of Movement

SATS: South African Triage Scale

SEU: Surgical emergency unit

TB: Tuberculosis

TBI: Traumatic Brain Injury

TEU: Trauma emergency unit

TEWS: Triage Early Warning Scale

WHO: World Health Organisation

Abstract

Background: Dysphagia is a common cause of aspiration and subsequently a common cause of morbidity and mortality. Early detection and intervention of dysphagia is essential to reduce length of hospitalisation, degree of morbidity, hospital costs and the risk of pneumonia. It is estimated that 12% to 13% of patients in acute hospitals present with dysphagia. The emergency department (ED) being the first entry point for any patient into the hospital, on paper, this could be the most opportune time and space to triage a patient for dysphagia. Triaging of patients enables identification of patients at-risk for dysphagia.
Rationale: Early detection of dysphagia improves health outcomes. Triaging for dysphagia in the medical emergency unit (MEU) could facilitate identification of patients at risk for dysphagia, this in turn may enable early and appropriate referral to a speech-language therapist. It was important to explore these possibilities within the South African hospital context due to the limited number of speech-language therapists practicing in the public sector, the working hours of speech-language therapists in hospital settings as well as the high patient to therapist ratio.
Methodology: The aim of the study was to establish the reliability and validity of a self-developed dysphagia triage checklist and to determine its' feasibility in a medical emergency unit in a public hospital in Gauteng, South Africa. The following research aims were explored: 1) to establish the reliability of the dysphagia triage checklist, 2) to establish the validity of the dysphagia triage checklist, 3) to explore the feasibility of triaging for dysphagia within a medical emergency unit in South Africa, and 4) to document the perceptions of dysphagia triaging by the medical personnel involved in the implementation thereof. An exploratory sequential mixed method design was used. An initial ethnography of the ED informed the implementation of the dysphagia triage checklist. Dysphagia screening was completed as a measure of reliability and validity of the triage, and this was followed by a diagnostic assessment for participants who failed both the triage and screening. The diagnostic dysphagia assessments were completed by the resident speech-language therapist of the hospital. The study was conducted at Chris Hani Baragwanath Academic Hospital (CHBAH). All participating doctors were required to complete a questionnaire (electronically) at the final phase of the data collection. 16 doctors working in the MEU participated in the study and were recruited using purposeful sampling.
Data Analysis: Cohen's Kappa was used to determine the agreement between the dysphagia triage checklist and the dysphagia screening. Findings from the ethnography and the responses from the self-developed questionnaire were analysed using thematic analysis as well as descriptive statistics, specifically, measures of frequency**.**
Results: The dysphagia triage checklist was not reliable, valid or feasible in the South African context. It was however sensitive in the identification of patients at risk of dysphagia.
Implications of the study: The use of a dysphagia triage checklist may have implications for the safe implementation of oral diets, development of aspiration pneumonia, malnutrition, administration of oral medication and patient prognosis. Notwithstanding this, the current study confirmed that the MEU in a South African hospital is not a conducive environment for dysphagia triaging due the pace of work and high patient numbers in the ED, staff attitude and the consequent additional administration that accompanied the introduction of an additional procedure.

Key words: dysphagia, emergency unit, assessment, triage, speech therapy, evidence-based practice, dysphagia triage, dysphagia screening