

**CRITICAL EVALUATION OF THE INFLUENCE OF IDEAL
CLINIC STATUS ON THE QUALITY OF PRIMARY CARE
SERVICES PROVISION IN ETHEKWINI DISTRICT,
SOUTH AFRICA**

Ntombifuthi Norah Mazibuko

Student Number: 19550352

Thesis submitted in fulfillment of the requirements for the
Doctoral Degree in Nursing

Faculty of Health Sciences

Durban University of Technology

Supervisor: Prof. TSP. Ngxongo

Co-supervisor: Dr DG. Sokhela

Date: 17 October 2024

DECLARATION

This is to certify that the work is entirely my own and not that of any other person, unless explicitly acknowledged (including citation of published and unpublished sources). The work has not previously been submitted in any form to the Durban University of Technology or to any other institution for assessment or for any other purpose.



Signature of student

17 October 2024
Date

Approved for final submission



Prof. TSP Ngxongo
RN, RM, D Nursing

17 October 2024
Date



Dr DG. Sokhela
RN, RM, D Nursing

17 October 2024
Date

ABSTRACT

Introduction and background

As the global world commits to achieving universal health coverage by 2030, there is a growing acknowledgement that optimal cannot be delivered by simply ensuring the coexistence of infrastructure, medical supplies and providers. Improvement in delivery requires deliberate focus on quality of health services that include providing effective, safe, people-centered care that is timely, equitable, integrated and efficient. Global quality reports note that billions of people will not gain from potential universal coverage benefits unless improvements in health system quality are realised. In South Africa, several quality improvement initiatives have been implemented, the Ideal Clinic Realisation and Maintenance initiative being the latest initiative aimed at improving quality services provision, especially at primary care level as the entrance point into the system. Research on improved quality provision in facilities with ideal status is thus crucial to providing quality health services for all South Africans based on their needs, irrespective of socio-economic status.

Aim of the study

The study aimed to critically evaluate the influence of Ideal Clinic status on the quality of primary health care service provision in eThekweni District, South Africa, thereby proposing an Ideal Clinic practice framework that will enhance an improved quality of healthcare service provision in primary health care facilities.

Objectives of the study

The objectives of the study were to determine the current practices of providers and the status of user records in ideal primary facilities; to explore the perspectives of healthcare providers regarding the influence of Ideal Clinic status on quality of patient care; to ascertain the perspectives of the health care users on the quality of care received in facilities with ideal status; and, to propose an Ideal Clinic practice framework that can be used to enhance improved quality healthcare service provision in primary health care facilities irrespective of Ideal Clinic status.

Methodology

A convergent parallel design, where both qualitative and quantitative methods were used to collect data within a short period to avoid potential threats to validity. The quantitative data collection consisted of (n = 360; 88.8%) retrospective record reviews of adult clinical records and (n = 45; 11.1%) children's records and a self-administered questionnaire from (n = 54; 85.7%) professional nurses and (n = 9; 14.2%) facility operational managers. The qualitative data collection consisted of semi-structured interviews with (n = 8) healthcare providers to explore their perspectives regarding the influence of Ideal Clinic status on the quality of care provision to healthcare users and (n = 14) healthcare users. The perspectives of the healthcare users regarding the quality of care received in facilities with ideal status were ascertained. Data analysis of the quantitative data was via descriptive and inferential statistics, and the qualitative analysis was via thematic analysis. The two data strands were analysed independently and inferences made from each strand were synthesized to form conclusions about the findings. The results of the two separate analyses were mixed for an overall interpretation of the findings.

Findings

Although the PHC facilities included in the study had been awarded Ideal Clinic status, it was evident that Ideal status did not automatically translate to quality of care in most facilities. There were important care assessments that had been inadequately performed or not done at all. These included physical examinations that were not performed, poor or no documentation on clinical records, shortage of medical supplies, and lack of training and support for staff.

Recommendations

Recommendations are of a short-term nature and can be achieved with buy-in from the policy makers. Long-term recommendations include renovation of primary health care facilities to cater for the full package of primary health care services, human resources and medical equipment.

Conclusion

Based on the findings, a practice framework was developed to provide structure using evidence-based practices on interventions that would assist policy makers and implementers to engage in relevant actions for improving quality service provision irrespective of the Ideal Clinic status.

Keywords: Ideal Clinic, Primary health care, Quality of care domains, Clinical Microsystems Model, Health care providers, Health care users, Adult caregivers, facility streams, Ideal Clinic Realisation and Maintenance.

DEDICATION

I dedicate this thesis to God Almighty, who is my Lord and Saviour Jesus Christ, who gives me life and protects me every minute. I thank You God . . .

To my spiritual father Rev. Seth MandleZulu Mtaka from Thy Kingdom Come Ministries, a branch of Pentecostal Holiness Church, who was and still is a pillar of my spiritual life, your encouraging words kept me going.

To my late father, who could neither read, write nor had permanent employment, but had the foresight to give me education: Lala kahle . . . Manzezulu, Muna, Phuthini, Mgabhiwamafu aphansi naphezulu ngiyabonga. My mother; Makhumalo, who never got over my hard work all the time "Kanti wena uphumula nini ngempela?", yet encouraging me to do everything so that when I finally rest, everything is done.

My five sisters and four brothers who never got over my studies all the time "Usufundela nathi phela wena" and these supportive words were ever in my heart during my journey of studying. My late two sisters who passed on so early in their lives. I know that they are always watching me from above. May their beautiful souls rest in eternal peace.

I will not forget my one and only son Lungelo Talent, whom God denied me a chance of holding. I know you are at peace in the bosom of God the Father. "Lala kahle Mzimela, Doyi, Lwandle". You will always be in my heart.

ACKNOWLEDGEMENTS

- I would like to thank God Almighty for granting me the opportunity to realise my potential as well as the strength to embark on this journey.
- Durban University of Technology - Pre-Doctoral Programme: thank you for the great opportunity. Prof. Mgutshini, Prof. Jinabhai and Prof. Greeff – thank you for the extensive support during this programme.
- I would like to acknowledge the following two outstanding individuals:
 - The Promoter of my research project, Professor T. S. P. Ngxongo, your continuous guidance, encouragement, valued feedback, support and dedication to the project is highly appreciated. Your motivation kept me going this far, I could not have asked for a better supervisor. Thank you for your support.
 - Dr S. Sokhela, Co-promoter of the project, for making time in your busy schedule to read and correct my work and being physically there for me when I needed an immediate comment, answer and guidance. You listened to me even if I was not in my senses, your emotional and psychological support cannot go unnoticed, God bless you. Dr H. Gill, the statistician, thank you for the guidance and support.
- A special thank you to:
 - My colleagues in the Post Graduate Nursing Department at Durban University of Technology, for your support and making me to see the reason in every step of my journey.
 - The Department of Health both District and Provincial levels, eThekweni Municipal Health Unit, PHC area managers as well as Facility Managers for allowing me to conduct the study in their facilities, the professional nurses, who agreed to participate in my study, your support is highly appreciated. To all patients who participated in the study, thank you so much.
- All my friends and the church members whom I could call at any time of the day and lament about how tough things were and request prayers. You did just that and prayed and encouraged me. May the Almighty God bless and keep you.

TABLE OF CONTENTS

DECLARATION	i
ABSTRACT	ii
DEDICATION	v
ACKNOWLEDGEMENTS.....	vi
TABLE OF CONTENTS.....	vii
LIST OF TABLES	xv
LIST OF FIGURES	xvi
LIST OF APPENDICES	xvii
GLOSSARY OF TERMS	xix
ACRONYMS.....	xxii
CHAPTER OUTLINE	xxiv
CHAPTER 1: OVERVIEW OF THE STUDY	1
1.1 INTRODUCTION TO AND BACKGROUND OF THE STUDY	1
1.2 LEVELS OF HEALTH CARE IN SOUTH AFRICA	3
1.2.1 PRIMARY LEVEL OF CARE.....	3
1.2.2 SECONDARY LEVEL OF CARE	4
1.2.3 TERTIARY LEVEL OF CARE	4
1.2.4 CENTRAL LEVEL OF CARE	4
1.2.5 SPECIALISED LEVEL OF CARE.....	4
1.3 OVERVIEW OF THE SYSTEM IN SOUTH AFRICA	6
1.4 HEALTHCARE REFORMS IN SOUTH AFRICA.....	10
1.4.1 Primary health care re-engineering	10
1.4.3 Ideal Clinic Realisation and Maintenance	12
1.5 PROBLEM STATEMENT.....	16
1.6 AIM OF THE STUDY	18
1.7 STUDY OBJECTIVES	18
1.8 RESEARCH QUESTIONS.....	18
1.8.1 Broad question.....	19
1.8.2 Sub-questions	19

1.9 RESEARCH DESIGN	19
1.10 SIGNIFICANCE OF THE STUDY	20
1.11 CHAPTER SUMMARY	20
CHAPTER 2: LITERATURE REVIEW	21
2.1 INTRODUCTION	21
2.2 DATA SEARCH STRATEGIES.....	22
2.3 DEFINING QUALITY	24
2.4 THE DOMAINS OF QUALITY.....	25
2.5 GLOBAL VIEW OF QUALITY IN PRIMARY HEALTH CARE	28
2.6 QUALITY OF PRIMARY HEALTH CARE IN AFRICA	31
2.7 QUALITY OF PRIMARY HEALTH CARE IN SOUTH AFRICA	34
2.8 ACCREDITATION OF HEALTH CARE FACILITIES IN SOUTH AFRICA	35
2.9 QUALITY IMPROVEMENT REFORMS IN SOUTH AFRICA.....	36
2.10 PROGRESS MADE TO IMPROVE QUALITY	36
2.11 CHAPTER SUMMARY	38
CHAPTER 3: FRAMEWORK GUIDING THE STUDY	39
3.1 INTRODUCTION	39
3.2 OVERVIEW OF FRAMEWORKS USED TO GUIDE SCIENTIFIC RESEARCH PROJECTS.....	39
3.3 MODELS CONSIDERED TO USE AS FRAMEWORK TO GUIDE THE STUDY.....	40
3.3.1 Avedis Donabedian's Model.....	41
3.3.2 The Clinical Microsystems Model.....	43
3.3.2.1 Operationalisation of the Clinical Microsystems Model	48
3.4 CHAPTER SUMMARY	49
CHAPTER 4: RESEARCH METHODOLOGY	50
4.1 INTRODUCTION	50
4.2 PHILOSOPHICAL UNDERPINNING OF THE STUDY	50
4.2.1.1 Pragmatism as a paradigm that informed the study.....	51
4.3 RESEARCH DESIGN	52
4.3.1 Quantitative research design	53
4.3.2 Qualitative research design.....	54

4.3.3 Mixed methods design	54
4.3.3.1 Mixed methods design used in the study	55
4.3.3.2 Mixed methods approaches considered for the study	55
4.3.3.2.1 Convergent parallel approach	58
4.3.3.2.2 Parallel databases variant adopted for the current study	59
4.4 STUDY SETTING	60
4.4.1 Primary health care facilities	62
4.5 IDENTIFICATION OF DATA COLLECTION SITES.....	63
4.6 THE STUDY POPULATION	64
4.7 STUDY PARTICIPANTS.....	65
4.7.1 Quantitative data strand	65
4.7.2 Qualitative data strand	65
4.8 SAMPLING OF STUDY SITES.....	66
4.8.1 Qualitative sampling.....	67
4.8.2 Quantitative sampling.....	68
4.8.2.1 Clinical records.....	69
4.8.2.2 Healthcare providers	69
4.9 RECRUITMENT OF PARTICIPANTS.....	69
4.9.1 Recruitment of healthcare providers	70
4.9.2 Recruitment of healthcare users	70
4.9.3 Identification of clinical records	71
4.10 INCLUSION AND EXCLUSION OF STUDY PARTICIPANTS	71
4.11 DATA COLLECTION INSTRUMENTS.....	72
4.11.1 Qualitative data collection instrument.....	72
4.11.2 Quantitative data collection instruments.....	73
4.11.2.1 Questionnaire.....	73
4.11.2.2 Checklists.....	73
4.12 PRE-TESTING OF THE DATA COLLECTION INSTRUMENTS	74
4.13 DATA COLLECTION PROCESS.....	76
4.13.1 Qualitative data collection	76
4.13.2 Quantitative data collection	78
4.13.2.1 Data collection from retrospective record reviews.....	78
4.13.2.2 Data collection from questionnaire to HCPs.....	79
4.14 DATA ANALYSIS.....	79

4.14.1 Qualitative data analysis	79
4.14.2 Quantitative data analysis	80
4.15 MIXING OF DATA SETS FROM THE TWO STRANDS	82
4.16 DEVELOPMENT OF IDEAL CLINIC PRACTICE FRAMEWORK	83
4.17 EVALUATION OF THE FRAMEWORK	84
4.18 RESEARCH RIGOUR	84
4.18.1 Research rigour (qualitative strand)	85
4.18.2 Research rigour (quantitative strand)	87
4.18.2.1 Reliability and validity	87
4.18.2.2 Homogeneity.....	88
4.18.2.3 Heterogeneity	88
4.18.2.4 Attrition.....	89
4.19 ETHICAL CONSIDERATIONS	89
4.19.1 Study approval	89
4.19.2 Respect for persons	89
4.19.3 Beneficence	90
4.19.4 Justice	91
4.20 CHAPTER SUMMARY	91
CHAPTER 5: PRESENTATION OF QUANTITATIVE RESULTS	92
5.1 INTRODUCTION	92
5.2 OVERVIEW OF DATA ANALYSIS	92
5.2.1 Preparation of data analysis.....	92
5.2.2 Description of the sample.....	93
5.2.3 Testing of reliability of measurement.....	93
5.2.4 Exploratory analysis of the data	93
5.3 RESPONSE AND ATTRITION RATES.....	94
5.4 SAMPLE REALISATION.....	94
5.4.1 Study sites	94
5.4.2 Clinical records	95
5.4.3 Healthcare providers (n=63).....	96
5.5 CHARACTERISTICS OF THE STUDY RESPONDENTS.....	96
5.5.1 Characteristics for clinic records	96
5.5.2 Characteristics of healthcare providers	96
5.6 PRESENTATION OF RESULTS	98

5.6.1	Practices of healthcare providers in ideal PHC facilities	98
5.6.2	Analysis results for adult healthcare user records.....	106
5.6.2.1	Results on each aspect verified for completeness on adult clinical records	107
5.6.3	Analysis results for child user records.....	109
5.6.3.1	Results on each aspect verified for completeness on child clinical records	110
5.7	CHAPTER SUMMARY	112
CHAPTER 6: PRESENTATION OF QUALITATIVE FINDINGS		113
6.1	INTRODUCTION	113
6.2	OVERVIEW OF QUALITATIVE DATA ANALYSIS	113
6.3	SAMPLE REALISATION FOR THE STUDY SITES, PARTICIPANTS AND DATA SOURCES	113
6.3.1	Data Collection sites	114
6.3.2	Interview sessions.....	114
6.3.3	Interviews with healthcare providers	114
6.3.4	Interviews with healthcare users	115
6.4	Themes that emerged from interviews.....	115
6.4.1	Theme 1: Staff establishment	116
6.4.1.1	Sub-Theme 1.1: Staff training and support	116
6.4.1.2	Sub-Theme 1.2: Staff allocation.....	118
6.4.1.3	Sub-Theme 1.3: Patient workload.....	119
6.4.2	Theme 2: Physical space in facilities.....	120
6.4.2.1	Sub-Theme 2.1: Non-availability of waiting areas.....	120
6.4.2.2	Sub-Theme 2.2: Inadequate medical supplies and equipment.....	121
6.4.2.3	Sub-Theme 2.3: Shortage of medicines	122
6.4.2.4	Sub-Theme 2.4: Inadequate and unhygienic ablution facilities	123
6.4.3	Theme 3: Facility organisation and patient flow	123
6.4.3.1	Sub-Theme 3.1: Lack of direction for different facility activities.	124
6.4.3.2	Sub-Theme 3.2: Clinical records and replacements	125
6.4.3.3	Sub-Theme 3.3: Package of services and service days	126
6.4.4	Theme 4: Experience of care at PHC facilities	126

6.4.4.1	Sub-Theme 4.1: Long waiting times for services	127
6.4.4.2	Sub-Theme 4.2: Nature of consultation	127
6.4.4.3	Sub-Theme 4.3: Negative staff attitudes.....	128
6.4.4.4	Sub-Theme 4.4: Patient satisfaction with services.....	129
6.5	RESEARCH RIGOUR	130
6.6	CHAPTER SUMMARY	131
CHAPTER 7: MIXING OF DATA AND DISCUSSION OF FINDINGS.....		132
7.1	INTRODUCTION	132
7.2	OVERVIEW OF DATA MIXING	132
7.3	DISCUSSION OF MIXED RESULTS.....	134
7.4	STUDY SETTING AND PARTICIPANTS.....	135
7.5	MIXING AND DISCUSSION OF DEMOGRAPHIC CHARACTERISTICS	136
7.6	DISCUSSION OF MIXED AND TRIANGULATED STUDY FINDINGS	139
7.6.1	Purpose.....	141
7.6.2	Processes and patterns	141
7.6.3	Professionals	148
7.6.4	Patients	152
7.7	CHAPTER SUMMARY	155
CHAPTER 8: DEVELOPMENT OF PRACTICE FRAMEWORK TO ENHANCE IMPROVEDQUALITY OF SERVICE PROVISION AT PHC FACILITIES IN ETHEKWINI DISTRICT		157
8.1	INTRODUCTION	157
8.2	SUMMARY OF FINDINGS FROM THE CURRENT STUDY	157
8.2.1	Staff establishment, allocation, training and support.....	158
8.2.2	Physical space, medical supplies equipment and unhygienic ablution facilities	158
8.2.3	Facility organisation, patient flow, clinical records and replacements	159
8.3	PRACTICE GAPS IDENTIFIED BY THE STUDY	159
8.4	NEED FOR AN IDEAL CLINIC PRACTICE FRAMEWORK TO ENHANCE QUALITY OF HEALTHCARE SERVICE PROVISION IN PHC FACILITIES	162

8.5	PROCESS OF DEVELOPING PRACTICE FRAMEWORKS	163
8.5.1	Literature review and evidence-based guidelines	163
8.5.2	Review of existing indicators for measuring quality of care	164
8.5.3	Identification and consultation with experts/stakeholders.....	164
8.5.4	Modified Delphi process to refine and validate the framework	165
8.5.5	Evaluation, update and improvement of Practice Framework	165
8.6	VALIDATION AND EVALUATION OF THE FRAMEWORK.....	166
8.7	CHAPTER SUMMARY	167
CHAPTER 9: PRESENTATION OF THE PRACTICE FRAMEWORK TO ENHANCE IMPROVED QUALITY OF HEALTHCARE SERVICE PROVISION IN PHC FACILITIES IN ETHEKWINI DISTRICT.....		
9.1	INTRODUCTION	168
9.2	TITLE OF THE IDEAL CLINIC PRACTICE FRAMEWORK	168
9.3	TARGET AUDIENCE FOR THE IDEAL CLINIC PRACTICE FRAMEWORK	168
9.4	PURPOSE OF THE IDEAL CLINIC PRACTICE FRAMEWORK	169
9.5	OBJECTIVES OF THE IDEAL CLINIC PRACTICE FRAMEWORK.....	169
9.6	RATIONALE FOR THE IDEAL CLINIC PRACTICE FRAMEWORK	170
9.7	LEGISLATION APPLICABLE FOR THE IDEAL CLINIC PRACTICE FRAMEWORK	171
9.7.1	Acronyms	172
9.7.2	Glossary of terms	172
9.8	DESCRIPTION OF THE IDEAL CLINIC PRACTICE FRAMEWORK ..	176
9.9	IMPLEMENTATION STRATEGY	177
9.9.1	Staff establishment.....	177
9.9.2	Physical space in PHC facilities	178
9.9.3	Facility organisation and patient flow	178
9.10	ROLE-OUT AND STRATEGY IMPLEMENTATION PLAN	179
9.11	RECOMMENDED REVIEW AND EVALUATION.....	180
9.12	CHAPTER SUMMARY	180
CHAPTER 10: SUMMARY, LIMITATIONS, RECOMMENDATIONS AND CONCLUSIONS		
10.1	INTRODUCTION	181

10.2 SUMMARY OF STUDY	181
10.2.1 Overview of study.....	181
10.3 SUMMARY OF FINDINGS BASED ON STUDY OBJECTIVES.....	183
10.3.1 Determine the current practices of healthcare providers in ideal primary facilities	183
10.3.2 Determine the status of healthcare user records in ideal facilities	183
10.3.3 Explore the perspectives of healthcare providers regarding the influence of Ideal Clinic status on the quality of patient care	184
10.3.4 Ascertain the perspectives of the healthcare users on the quality of care received in facilities with ideal status.....	184
10.3.5 Propose an Ideal Clinic Practice Framework to enhance an improved quality healthcare service provision in PHC facilities irrespective of Ideal Clinic status	184
10.4 LIMITATIONS OF THE STUDY	185
10.5 UNIQUE CONTRIBUTION OF THE STUDY AND FRAMEWORK	185
10.6 RECOMMENDATIONS.....	186
10.6.1 Policy formulation.....	186
10.6.2 Review and implementation	187
10.6.3 Nursing practice	187
10.6.4 Education and training	187
10.6.5 Further research.....	188
10.7 CONCLUSIONS	188
REFERENCES	190
APPENDIXES.....	204

LIST OF TABLES

Table 1.1: Ideal Clinic categories.....	14
Table 2.1: Search terms	23
Table 4.1: Research objectives indicating the need for mixed methods approach	53
Table 4.2: Selection of PHC facilities.....	64
Table 5.1: Sample realisation for the study sites and respondents.....	96
Table 5.2: Age distribution and years of experience for HCP respondents.....	97
Table 5.3: Average number of responses for all seven categories	99
Table 5.4: Participant responses for effectiveness of care	100
Table 5.5: Timeliness of care.....	103
Table 6.1: Sample realisation for the study sites, participants and data sources	115
Table 6.2: Summary of themes and sub-themes	116
Table 7.1: Themes, sub-themes and quality processes.....	134
Table 7.2: Age distribution and years of experience for all health care providers	138
Table 8.1: Summary of reviewers' comments during the two rounds of the Delphi process.....	167
Table 9.1: List of acronyms used in discussion of the Ideal Clinic practice framework.....	172

LIST OF FIGURES

Figure 1.1: Levels of in South Africa.....	5
Figure 3.1: Donabedian’s model of quality.....	43
Figure 3.2: The CMM model.....	47
Figure 4.1: The convergent parallel approach	58
Figure 4.2: Convergent parallel-databases.....	60
Figure 4.3: KwaZulu-Natal showing eleven districts	61
Figure 4.4: KwaZulu-Natal showing eThekweni’s sub-districts	62
Figure 4.5: Schematic presentation of the steps followed to identify the PHC facilities	67
Figure 5.1: Schematic presentation of sample realisation of PHC facilities	95
Figure 5.2: Results for safety of care	101
Figure 5.3: Results for people-centredness care	102
Figure 5.4: Results for integration of care	104
Figure 5.5: Results on equity of care	105
Figure 5.6: Results ofor efficiency of care.....	106
Figure 5.7: Overall state of completeness of adult records.....	107
Figure 5.8: Results for the state of recorded information on biographic, health assessment and details of HCPs.....	109
Figure 5.9: Overall completeness of child records	110
Figure 5.10: State of recorded information on biographic, assessment and details of HCPs on child’s clinical records	112
Figure 7.1: Representation of interrelationships within the 5 Ps of the CMM...	140
Figure 8.1: The process followed for the development of practice framework .	166
Figure 9.1: Manzezulu’s Ideal Clinic Practice Framework to enhance improved healthcare provision in PHC facilities	Error! Bookmark not defined.

LIST OF APPENDICES

Appendix 1: Full Ethics Approval	210
Appendix 2a): Request letter to eThekwini District Manager	211
Appendix 2b): Permission letter from eThekwini District Manager.....	212
Appendix 3a): Request letter to KZN Provincial Department of Health.....	213
Appendix 3b): Permission letter from KZN Provincial Department of Health ...	214
Appendix 4a): Request letter to Head of Health eThekwini Municipality	215
Appendix 4b): Permission letter from Head of Health eThekwini Municipality .	216
Appendix 5: Piloting data collection tools report	217
Appendix 6: Sample of request to access PHC facility	218
Appendix 7: Information letter and consent for professional nurses	219
Appendix 8a): Information letter and consent for users' record review (English)	220
Appendix 8b): Information letter and consent for users' record review (IsiZulu)	221
Appendix 8c): Information letter and consent for user's interview (English)....	222
Appendix 8d): Information letter and consent for user's interview (IsiZulu)....	223
Appendix 9: Letter of support from Statistician	224
Appendix 10a): Checklist for child record review	225
Appendix 10b): Checklist for adult record review.....	226
Appendix 11: Questionnaire for Professional nurses and managers	227
Appendix 12a): Interview guide for Professional nurses	228
Appendix 12b): Interview guide for Healthcare users (English)	229
Appendix 12c): Interview guide for Healthcare users (IsiZulu).....	230
Appendix 13a): Record review data analysis report: whole sample (Adult records)	231
Appendix 13b): Record review data analysis report: whole sample (Child records)	232
Appendix 14a): Record review data analysis report Authority A (Adult records)	233
Appendix 14b): Record review data analysis report Authority A (Child records)	234

Appendix 14c): Record review data analysis report Authority B (Adult records)	235
Appendix 14d): Record review data analysis report Authority B (Child records)	236
Appendix 15: Summary of findings for the study based on theoretical framework	237
Appendix 16: Data analysis: face to face semi-structured interview with health care provider	238
Appendix 17: Data analysis: face to face semi-structured interview with health care user	239
Appendix 18: Data analysis: face to face semi-structured interview with adult caregiver	240
Appendix 19: Letter to request expert participation in review process of Practice Framework	241
Appendix 20: Statement of confidentiality for experts	242
Appendix 21: Template for experts' comments on ideal clinic Practice Framework	243

GLOSSARY OF TERMS

Accreditation: a formal process by which a recognised body assesses and recognises that a facility meets applicable pre-determined and published standards. Accreditation standards are usually regarded as optimal and achievable and are designed to encourage continuous improvement efforts within accredited organisations (World Health Organization [WHO], Organisation for Economic Co-operation and Development [OECD], International Bank for Reconstruction and Development [IBRD] and World Bank [WB] 2018: 87).

Acute stream: means the physical space in the health facility where users (HCUs) with short-term illnesses are being assessed, screened and treated (South Africa, National Department of Health [NDoH] 2020a: 2).

Clinical audits: a quality assurance tool that seeks to monitor and improve the quality of clinical practice, user care and outcomes through the systemic review of care against explicit standards.

Clinical governance: a concept used to improve management accountability and provision of quality. It incorporates clinical audits, clinical risks management, service user involvement, professional development, clinical effectiveness research and development and the use of information system (WHO 2018a: 48).

Chronic stream: refers to the physical space in the facility where HCUs with long-term illnesses are monitored and given treatment by providers (South Africa, NDoH 2020a: 2).

District health system: refers to a network of primary care health facilities that deliver a comprehensive range of promotive, preventive and curative services to a defined population with active participation of the community and under the supervision of a district hospital and district health management team (WHO and UNICEF 2020: ix).

Essential medicines: defined by WHO and UNICEF (2020: ix) as medicines that satisfy the priority needs of the population and are selected based on public health relevance, evidence on efficacy, safety and comparative cost-effectiveness.

Facility streams: wards or spaces where the services are provided, and inspection occurs.

First level of care: regarded as an entry point into the system at the interface between services and community; when the first level of care satisfies several quality criteria, it is called primary care (WHO and UNICEF 2020: ix).

Ideal clinic: a clinic with good infrastructure, adequate staff, adequate medicines and supplies, good administrative processes, with sufficient bulk supplies. A clinic that uses applicable clinical policies, protocols and guidelines and harnesses partner and stakeholder support (South Africa, NDoH 2020a: 1).

Infrastructural component: the sixth component in ideal clinic initiative which refers to physical space in the facility and its routine maintenance, essential equipment, furniture and bulk supplies.

Maternal, child and women's health stream: is the physical space in the facility where maternal, child and women's health preventive and promotive services are rendered.

People-centered health service: An approach to care that consciously adopts the perspectives of individuals, families and communities, and sees them as participants as well as beneficiaries of trusted health systems that respond to their needs and preferences in humane and holistic ways (WHO 2018b: 67).

Primary re-engineering: an initiative by NDoH to improve health outcomes at PHC level using a district health system as an institutional vehicle for delivery of PHC services. It uses three facility streams, namely, ward-based outreach, school health and district-based specialist (South Africa, NDoH 2017: 32).

Priority areas: The six most critical areas linked to National Core Standards for patient-centered care include staff attitude, cleanliness, waiting times, availability of medicines and infection prevention and control (South Africa, NDoH 2020a: 2).

Tracer medicine/medical supplies: essential medicines/supplies as per Essential Drug List or formulary (South Africa, NDoH 2020c: xvii).

Universal health coverage: all individuals and communities receive the health services they need including: promotive, preventive, protective, curative,

rehabilitative as well as palliative care of effective and sufficient quality without experiencing financial hardships (WHO and UNICEF 2020: xix).

ACRONYMS

Acronym	Full Term
AIDS	Acquired immunodeficiency syndrome
ACGs	Adult caregivers
CMM	Clinical Microsystems Model
CINAHL	Cumulative index to nursing and allied health literature
CHCs	Community health centers
EDL	Essential drug list
DHS	District health system
DUT	Durban University of Technology
GDP	Gross domestic product
HPRS	Health patient registration system
HCPs	Healthcare providers
HCU	Healthcare users
HIV	Human immunodeficiency virus
IBRD	International Bank for Reconstruction and Development
ICT	Information communication technology
IMCI	Integrated management of childhood illnesses
ICRM	Ideal clinic realisation and maintenance
ICSM	Integrated clinical services management
KZN	KwaZulu-Natal
LMICs	Low and middle-income countries
MCWH	Maternal, child and women's health
NCS	National core standards
NDoH	National Department of Health
NGO	Non-Governmental Organisation
NHI	National Health Insurance
PHC	Primary Health Care
PHCPI	Primary health care performance initiative
Ps	Purpose, Professionals, Patients, Processes and Patterns
SANC	South African Nursing Council
OECD	Organisation for Economic Co-operation and Development

OHSC	Office of Health Standards Compliance
RtHB	Road-to-Health booklet
SDGs	Sustainable development goals
UHC	Universal health coverage
UNICEF	United Nations Children’s Emergency Fund
USA	United States of America
WHO	World Health Organisation
WB	World Bank
WISN	Workload indicators of staffing need

CHAPTER OUTLINE

Chapter no	Title	Contents
Chapter 1	Overview of the study	Presents the introduction and background, aim, objectives, research questions, problem statement and significance of the study.
Chapter 2	Literature review	Present literature review covering global, regional and local view of quality in primary.
Chapter 3	Theoretical Framework guiding the study	Discusses overview and operationalisation of theoretical framework.
Chapter 4	Research Methodology	Presents research design, approaches, philosophical underpinning, study setting, participants, sampling methods, data collection process and mixing of data.
Chapter 5	Presentation of quantitative results	Presents an overview of data analysis, sample realisation and presentation of results.
Chapter 6	Presentation of qualitative findings	Presents an overview of qualitative data analysis, sample realisation and research rigour.
Chapter 7	Mixing of data and discussion of findings	Presents an overview of data mixing and discusses mixed and triangulated study findings.
Chapter 8	Development of an Ideal Clinic Practice Framework to enhance quality care provision in PHC facilities	Shows steps followed in developing and reviewing of Ideal clinic practice framework.
Chapter 9	Presentation of Practice Framework	Presents purpose, objectives, rationale, description and implementation strategy of ideal clinic practice framework.
Chapter 10	Summary, limitations and conclusions	Presents summary the whole study, limitations and recommendations.

CHAPTER 1:

OVERVIEW OF THE STUDY

1.1 INTRODUCTION TO AND BACKGROUND OF THE STUDY

The primary health care (PHC) approach is a strategy that was formulated and promoted by the World Health Organization (WHO) and United Nations Children's Emergency Fund (UNICEF) at the 1978 International Conference in Alma Ata, where PHC was defined as: "essential care based on practical, scientifically sound and socially acceptable methods and technology, made universally accessible to individuals and families in the community through their full participation and at a cost that the community and the country can afford" (World Health Organization [WHO], United Nations Children's Emergency Fund [UNICEF] and Joint Report 1978: 3).

Later, in 1994, the Institute of Medicine in the United States of America (USA) added other dimensions to the definition of PHC that were not part of the 1978 PHC concept, namely: the relationship between primary care facilities, the family, the community and public health needs and roles; care that focuses on measurements, improvement of effectiveness and health outcomes as well as patient satisfaction, and the participation of individuals in health care decision making (WHO 2018b: 8). The added dimensions led to the revised and more inclusive definition of PHC which includes the provision of integrated, accessible services by healthcare providers who are accountable for addressing a large majority of personal needs, developing a sustained partnership with healthcare users (HCUs), and practicing in the context of family and community. The USA definition of PHC is in line with the WHO's overall vision of a public health system which is set up "to promote greater health and well-being in a sustainable way, while strengthening integrated public health services and reducing inequities" (WHO 2018b: 8).

PHC was later defined by WHO and UNICEF (2022: viii) as a whole-of-society approach to health that combines three components, namely: multisectoral policy and action; empowered people and communities; and, primary care and essential public health functions as the core of integrated health services. When the three components

are brought together PHC creates the foundation for the achievement of universal health coverage (UHC) and health-related sustainable development goals (SDGs). The primary care approach is believed to help countries equitably maximise the level of and distribution of and well-being by focusing on individuals' and communities' needs and preferences (WHO 2022: viii). Public health systems are more than the pyramid of publicly owned facilities that deliver personal services, they also incorporate all public, private and voluntary entities that contribute to the delivery of essential public health services within a jurisdiction. The WHO further defines overall health system goals as "improving health and health equity in ways that are responsive, financially fair and make the most efficient use of available resources".

The definition of health is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO 1978: 1). This definition has evolved to denote health as "a resource for everyday life, shelter, food, education, income and stable eco-system, sustainable resources and equity as requirements that enable one to attain health". It also highlights the common value of health and the common dangers of disease faced across society. Health includes the ability of people to change or cope with the environment and social determinants. The understanding of health as a resource for everyday life aligns with the modern definition of well-being which describes it as a balance between the resources a person has access to and the challenges a person faces in daily life (Corbin *et al.* 2021: 65).

The term 'well-being' relates to people's ability to reason and live meaningful lives according to their aims. The definition depicts health as being a basic human right and is enshrined as such in various chapters of the 1996 constitution of the Republic of South Africa (Act 108 of 1996). The constitution emphasises the decentralisation of health service delivery to districts, hence "the District Health System" (DHS) which is the vehicle and organisational framework for the delivery of PHC. The PHC approach has been combined with the DHS in what has become known as district-based PHC. Some of the objectives of the DHS were to attain equity in comprehensive and effective services, community participation, and decentralisation of health services. The district-based PHC model of provision necessitated changes in the organisation of systems and distribution of services. The resources were rearranged into different levels according to the expertise that would be available at each level (South Africa 2003: 40). The public system was therefore divided into levels where people could access

different types of services. Figure 1.1 depicts the sequence of levels of care in the South African health system.

1.2 LEVELS OF HEALTH CARE IN SOUTH AFRICA

South Africa is one of the many countries that embraced the 1978 Alma Ata Declaration on PHC. The main tenets of the declaration were: health as a human right; community-driven decisions influencing their health; services close to where people live, and; coordinated efforts across society to create health (Rasanathan and Evans 2020: 801). Based on these tenets, the South African government reorganized the system into three levels, namely: primary, secondary and tertiary care levels. The levels are in accordance with the expertise of the health care to be rendered by different specialists.

1.2.1 PRIMARY LEVEL OF CARE

The primary level of care, also called PHC, is the first level of care and is regarded as an entry point to the South African health system that is freely available to all populations regardless of their economic state. It is nurse-driven and contracted as well as fully employed medical practitioners only visit the PHC facilities on specific days to consult the HCUs with complicated health conditions that cannot be attended to by nurses.

The set-specific referral pathways per PHC area are meant to cater for the HCUs that need urgent in the absence of medical practitioners and those needing a secondary level of care. The primary level of care includes a nurse-driven full-PHC package of services that are mainly rendered in five-day, eight-hour facilities and those community health centers (CHCs) that are specialised in seven-day, 24-hour facilities. CHC services include maternity, accident and emergency as well as up to thirty admission beds where HCUs can be observed for a maximum of 48 hours, be discharged or be referred to the next level of care. Primary level services cover a comprehensive range of preventive, promotive, curative, rehabilitative as well as referral to secondary and tertiary care, thereby providing the possibility for continuity of care. This level of service focuses on individuals, families and communities. Primary disease preventive strategies are directed at health risks and social and environmental factors that influence disease progression (Dookie and Singh 2017: 2).

1.2.2 SECONDARY LEVEL OF CARE

The secondary level of care is the first point of referral for most of the HCUs from PHC or CHC facilities that need a higher level of care. It consists of the district and regional level facilities. The services at district facilities are mostly directed and provided by medical practitioners. The provision of services at this level of care is also shaped by the needs of the population served, however, the services provided include inpatient and outpatient care, basic diagnostic and laboratory services, treatment and care, counseling and rehabilitation, as well as operating theatre services which are mainly provided by generalist providers. The referral system is two-way, which is either up to the tertiary level or downward referral back to the primary level depending on the needs of the HCUs.

1.2.3 TERTIARY LEVEL OF CARE

The tertiary level of care is a highly specialised level of services. Access to such facilities is per a special appointment system arranged by the secondary level of providers. Services are rendered by different specialists who also support the secondary facilities.

1.2.4 CENTRAL LEVEL OF CARE

This level of care is a quaternary or an extension of tertiary care, which is attached to a medical school. It is mainly responsible for training health professionals and medical research. Health services that are provided are highly specialised and include experimental medicine and procedures, and specialised surgeries.

1.2.5 SPECIALISED LEVEL OF CARE

The fifth level of care is an extremely specialised level of care that provides a vertical range of services. Specialised services include acute, sub-acute and chronic care.

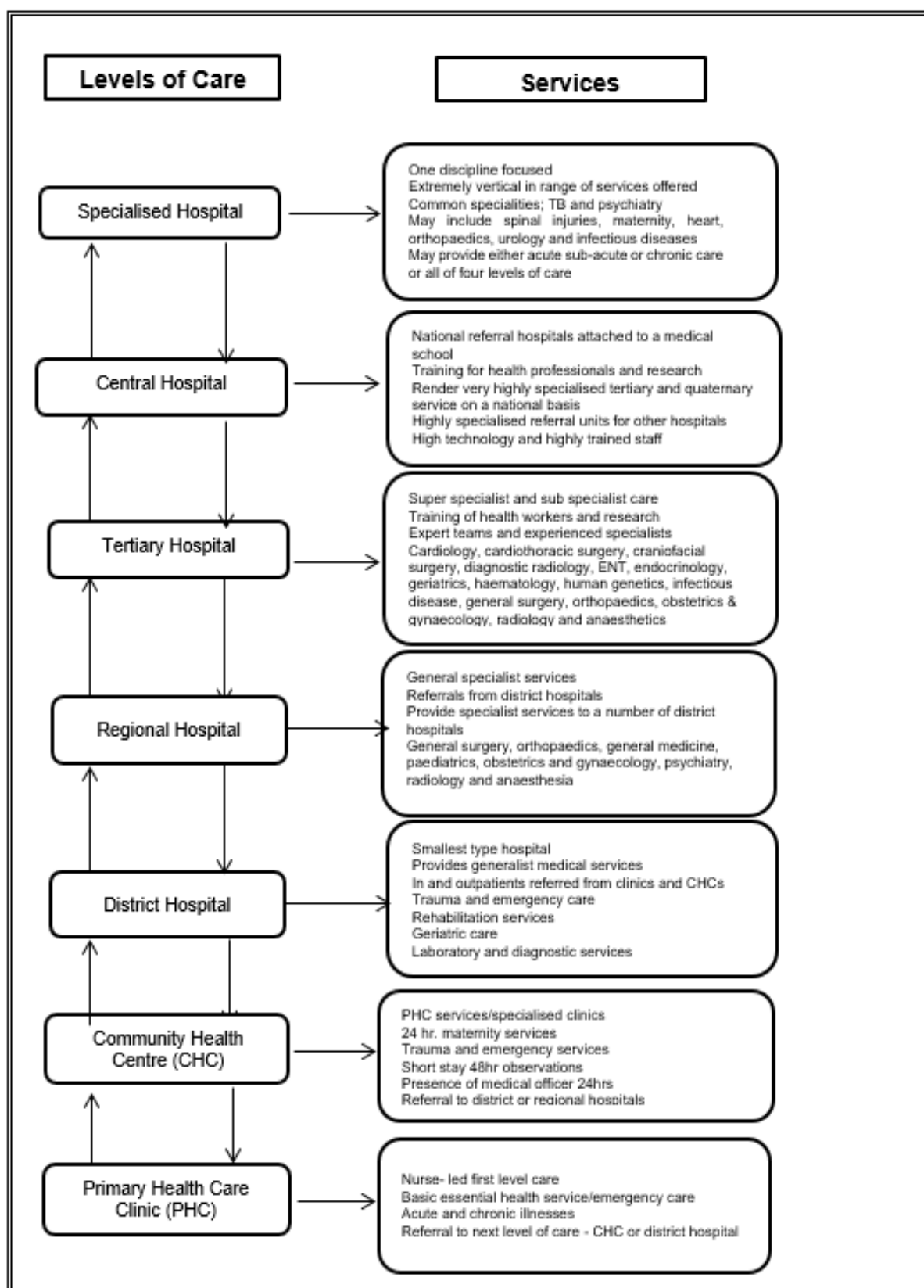


Figure 1.1: Levels of in South Africa
Source: South Africa, NDoH (2011: 29)

1.3 OVERVIEW OF THE SYSTEM IN SOUTH AFRICA

The South African system is two-tiered, consisting of a resource-constrained public health sector that provides care for approximately 83% of the population and a highly resourced private sector that caters to 17% of the population that has health insurance or financial resources (Muthathi and Rispel 2020:2). The public health sector consists of PHC and CHC services which are free to all communities regardless of health insurance, secondary services at district or regional level and tertiary services where a minimal fee is paid according to an individual's economic status, and central and specialised services which are at the highest level and can be accessed by all HCUs through the prescribed public referral system. The WHO (2018c: 12) states that out-of-pocket spending for services should be as little as possible to facilitate equitable access to high-quality services by uninsured HCUs. The private health sector mainly consists of privately owned general and specialised services where access is limited to individuals with health insurance or those who can afford cash payments.

Despite the South African government spending 8.9% of its gross domestic product (GDP) on health (more than any other African country), the South African health system has been characterised as fragmented and inequitable due to the huge disparities that exist between the public and private health systems (South Africa, NDoH 2017: 20). Half of the South African GDP expenditure occurs within the private health sector which serves a small proportion of the population. Likewise, a skewed distribution of key professionals between private and public health sectors and between urban and rural areas puts a strain on public health sector service provision for the majority of the population. The South African government adopted the PHC approach aiming to achieve the UHC mainly for the uninsured 83% of the population. The approach is based on the WHO principles of accessibility, availability, affordability, equity and acceptability of health services aiming to achieve UHC. Universal health coverage is when all people and communities use quality promotive, preventive, curative, rehabilitative and palliative services they need without being exposed to financial hardships (WHO 2018a: 8).

Based on the UHC principles, PHC services in South Africa are extended by those of CHCs which are more comprehensive and are provided over extended hours, with medical practitioners being part of the daily service provision. During the 2018 Astana

Declaration, the international heads of state, including South Africa, committed themselves to building sustainable PHC with improved outcomes and accessibility for all the people, enhancing capacity and infrastructure (Peu *et al.* 2020: 120). Adhering to the WHO principles, the PHC system in South Africa consists of more than 3 000 healthcare facilities that are complemented by community-based services such as environmental health, school health services, and community health worker services (Hunter *et al.* 2017: 111).

According to the National Department of Health (NDoH) (2019: 11), most of the population cannot afford private healthcare services and need to access public health via the congested and understaffed PHC facilities, contributing to slower and less responsive services. Currently, South Africans are using PHC and CHC facilities in increasing numbers to access the public system, with PHC visits increasing from 67 million in 1998 to 128 million in 2013 (Hunter *et al.* 2017: 111). Despite the increase in public utilisation, the public health sector has fallen from second to fourth on the list of spending priorities. Consequently, major health system challenges have occurred in this sector, including long waiting times, unclean and congested facilities, negative staff attitudes and compromised safety and security for both healthcare providers (HCPs) and HCUs of the services (Malakoane *et al.* 2020: 2).

In South Africa, public health services are a concurrent function of both national and provincial governments. The national government is responsible for policy development, resource allocation, and monitoring and evaluation, whereas the provincial government is the main policy-implementing agency. Local government is responsible for municipal health services, defined in the National Health Act of 2003 as environmental health services. In large metropolitan municipalities like eThekweni in KwaZulu-Natal (KZN), the local government still owns and manages PHC facilities and employs professionals to render clinical services (Muthathi and Rispel 2020: 2). The delivery of quality healthcare is a constitutional obligation in South Africa and all people living in this country are entitled to quality services. As a result, South Africa introduced the National Health Insurance (NHI) scheme in 11 pilot districts which lays the foundation for providing mandatory services to fulfil the obligation of providing quality health services to the majority of its population. Districts like uMgungundlovu, uMzinyathi and Amajuba from KZN were among the piloted districts (EThekweni Municipality 2017: 12).

The interventions in pilot districts include contracting general practitioners with the aim of increasing the number of general medical practitioners at PHC facilities, thus improving the quality and acceptability of care. The Ideal Clinic Realisation and Maintenance (ICRM) strategy was also introduced to increase the quality of services through the establishment of PHC minimum health standards. Adherence to the established minimum health standards is attained through monitoring of quality care provision at PHC facilities. The WHO, Organisation for Economic Co-operation and Development (OECD), International Bank for Reconstruction and Development (IBRD) and World Bank (WB) (2018: 30) define quality of care as the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge. This means that quality can be measured, is aimed at health improvements, and should reflect the desires of key stakeholders such as HCUs and communities. Shisana *et al.* (2019: 70) believe that because quality is defined differently by various stakeholders, HCPs tend to emphasise the technical quality of care such as adherence to treatment protocols, infection prevention and successful treatment outcomes. Policymakers and health care managers focus on health system performance, value for money and population-level outcomes, yet HCUs are more concerned with their experience in public facilities such as unhygienic conditions, discourteous staff, unavailability of essential medicines and derelict facilities to mention a few.

Much as health outcomes have improved in South Africa in the past decades, the new realities at hand which include the changing health needs of populations, growing public expectations, and ambitious new health goals, continue to raise the bar for the system to produce quality health outcomes and greater social value (Kruk *et al.* 2018: 1196). These authors further state that low- and middle-income countries (LMICs) like South Africa need a high-quality health system that optimises health care by delivering services that improve and maintain health and are valued as well as trusted by HCUs. Therefore, quality is no longer the purview of the elite or aspiration for some distant future but should be the nucleus of all health systems. Shisana *et al.* (2019: 70) emphasise that the burden of poor quality is felt more acutely in LMICs as a result of factors such as poverty, sub-optimal governance and resource limitations.

South Africa, as a middle-income country, is also experiencing the growing public expectation to produce quality health outcomes and greater social value. As a result,

the delivery of quality is enshrined in its constitution as one of the human rights (Maphumulo and Bhengu 2019: 1). The NHI policy also stipulates that PHC facilities are the gateway to the next levels of the public health system and HCUs can only bypass such facilities for certain emergencies that require immediate hospital care (NDoH 2019: 11). However, HCUs are concerned about quality issues in PHCs such as safety hazards, variable standards of care, limited resources and inadequate referral procedures that impact service provision. The NDoH (2015: 4) also states that 50% of people still bypass PHC facilities and go straight to the first-level hospital outpatient departments where they perceive health services as better than those offered at PHC level.

The South African government has introduced several developments and programmes to improve healthcare efficiency, safety and quality of delivery and access for all HCUs at PHC level (Maphumulo and Bhengu 2019: 1). Such developments or strategies include PHC re-engineering, National Core Standards (NCS) for health establishments, the ICRM and the NHI. The NDoH has committed itself to a negotiated service delivery agreement (NSDA) to improve the health status of the entire population, thus contributing to the government's vision of "a long and healthy life for all South Africans". To accomplish such a vision, the NDoH has identified 'strengthening health system effectiveness' as one of the four strategic outputs that the health sector must achieve (South Africa, NDoH 2014: 3). Linked to the outputs is the major target of re-engineering the health system to be based on the PHC approach with the emphasis on promotive and preventive care. The PHC approach has been the underlying philosophy of the South African health system for more than 28 years, yet the quality of provision at PHC facilities remains a challenge.

Dugani, Veillard and Evans (2018: E454) state that PHC facilities require ongoing assessment of their functional capacities in terms of infrastructure, supplies, equipment, information and financial flow as well as supportive management. After ensuring that functional capacities are deployed, measuring and improving the quality of care delivered, such as clinical efficiency, comprehensiveness and interpersonal quality of care should be evaluated for its effectiveness. The co-existence of the functional capacities does not guarantee the delivery of high-quality PHC services, hence the South African PHC health system has undergone several reforms in terms

of clinical effectiveness, comprehensiveness of care and interpersonal quality to deliver better clinical outcomes.

1.4 HEALTHCARE REFORMS IN SOUTH AFRICA

South Africa has committed itself to several reforms designed to improve the quality of governance in the system and service delivery, especially at the primary care level. Such health reforms include PHC re-engineering as with the introduction of the NCS for health establishments in 2011 (South Africa, NDoH 2017: 32). The purpose of developing a common definition of quality of care which should be found in all health establishments and the introduction of Ideal Clinic initiatives in 2013 in recognition of the need and importance of improving quality of care in public health facilities (Bresick, Von Pressentin and Mash 2019: 109).

1.4.1 Primary health care re-engineering

The primary re-engineering aimed at re-designing the PHC health system has included: the creation of district clinical specialist teams that focus on maternal and child health as well as the introduction of community workers in ward-based outreach teams to strengthen community-based health promotion, disease prevention and home-based care; school health services; and, family medicine specialists placed at district hospitals and CHCs. The objective of this re-engineering is to increase access to health services by the general public and improve the quality of health services (South Africa, NDoH 2017: 32). The strategy is based on an NSDA by the then minister of health Dr Aaron Motsoaledi to overhaul the system and improve its management. The NSDA sets out a plan to achieve the government's goal of "a long and healthy life for all".

PHC re-engineering is seen as the key to the success of the NSDA implementation process and seeks to shift the PHC system from a passive, curative, vertically and individually oriented system to a more proactive, integrated and population-based approach. This approach is focused on improving PHC infrastructure and access to care by all individuals (Bresick, Von Pressentin and Mash 2019: 110). Among the core principles of PHC re-engineering is attaining population-oriented, focused on meeting the priority health needs of geographically coherent populations, including good quality essential care. Later, the contracting of private health practitioners at the non-

specialist level was added as the fourth stream, with the aim of improving the quality of health service provision at the primary care level (South Africa, NDoH 2017: 32).

1.4.2 National Core Standards for health establishments

The NDoH has shown a commitment to providing good quality care to the population of South Africa by developing the National Core Standards (NCS) for health establishments through the Office of Health Standards Compliance (OHSC) in 2008. The OHSC is an independent regulatory body responsible for monitoring the quality of health care services in all health facilities (South Africa, NDoH 2020d: 3). The development of NCS was accomplished in consultation with the private sector and non-governmental organisations (NGOs) as stakeholders, and the standards form the basic requirements for quality and safe care. The NCS were finalised and implemented in 2010/11 so should be found in all health facilities in South Africa as a guide to the public, managers and staff at all levels. The NCS are a benchmark against which the health establishments are assessed, gaps identified and strengths appraised, and provide a framework for national certification of public health establishments (Shisana *et al.* 2019: 72). Where there are gaps or non-compliance to set standards, quality improvement plans are developed to mitigate the identified gaps (NDoH 2011: 8). The NCS are based on the National Health Act (No. 61 of 2003) which states that services provided should take into account the Constitution of the Republic of South Africa (South Africa 1996). The NCS reflect what is expected and required to deliver decent and safe quality care. The NDoH identified six priority areas that were fundamental to the provision of safe and decent care, namely: values and staff attitudes; cleanliness; waiting times; patient safety and security; infection prevention and control; availability of basic medicines and supplies (NDoH 2011: 15). Health establishments have to put measures in place to comply with these quality areas because they are fundamental to the provision of safe and decent.

The findings of the 2011 NCS compliance audit of about 4000 health facilities in South Africa revealed that PHC facilities had difficulty complying and sustaining the achieved NCS despite the support and ongoing assessments of these facilities, hence the Ideal Clinic initiative was changed to the ICRM programme to address the problem of non-compliance and sustainability standards at PHC facilities (Muthathi and Rispel 2020: 6).

1.4.3 Ideal Clinic Realisation and Maintenance

The Ideal Clinic initiative is a quality improvement strategy launched by the NDoH in 2013 as a way of systematically improving and correcting deficiencies in PHC facilities. The initiative followed the outcome of an audit by OHSC in 2011-2012 on the state of PHC facilities. Later, the Ideal Clinic initiative was modified into the ICRM, emphasising the need to maintain the achieved status because the qualification of Ideal Clinic status does not warrant such a standard forever.

The ICRM is the latest reform that recognises the need and importance of improving and maintaining the quality of care in public health facilities. Quality improvement is a change process that should lead to better patient health outcomes and better system performance in terms of care and professional development, however, there is noticeable fragmentation and limited impact of the quality improvement initiatives in terms of user outcomes (Shisana *et al.* 2019: 76). The PHC facilities find it difficult to sustain the achieved Ideal status due to various challenges such as budgetary constraints, change of managers and increased patient load (Muthathi and Rispel 2020: 13). According to Massyn, Pillay and Padarath (2019: 24), the improvement and maintenance of quality in the service delivery process at facilities is important in achieving positive health outcomes.

The ICRM is a quality improvement initiative by the government that aims to revitalise and maintain the quality of infrastructure, human resources, good governance and equipment for PHC facilities. The goal is to systematically transform all PHC facilities in order to meet national health standards in preparation for the full functioning of the NHI policy (South Africa, NDoH 2020a: 2). An 'ideal clinic' is defined by the NDoH as: "a clinic with good infrastructure in terms of physical condition and spaces, essential equipment, information and communication tools; adequate staff, medicines and supplies; good administrative processes and adequate bulk supplies". Such a clinic uses applicable clinical policies, protocols and guidelines as well as partner and stakeholder support to ensure the provision of quality and comprehensive healthcare services to the community (South Africa, NDoH 2020a: 1). Ideal clinic status is determined by the OHSC which is a statutory body tasked with monitoring compliance to the norms and standards of health care delivery. The Ideal Clinic has ten components, namely:

- Administration
- Integrated clinical services management
- Pharmaceuticals and Laboratory
- Human resources
- Support services
- Infrastructure and bulk supplies
- Health information management
- Communication
- District health system support
- Implementing partners and key stakeholders

There are 33 sub-components and 238 elements that are used to score facility performance (South Africa, NDoH 2020a: 30). Elements are weighted as non-negotiable vital elements where there might be loss of life if the elements are not achieved; vital elements which directly affect service delivery and clinical care of HCUs; essential elements which are processes and structure that indirectly affect the quality and safety of clinical care; and, important elements that affect the quality of the environment in which health care is provided (South Africa, NDoH 2020a: 145). Each element is scored according to facility performance. The responsibility of achieving these elements is allocated either to the health facility, district, provincial or national departments of health. Each facility manager takes full responsibility for ensuring that all elements are achieved by facilitating the acquisition of resources from the relevant responsible departments. For a facility to obtain an Ideal Clinic status the minimum percentages for all non-negotiable vitals should be achieved at 100%; vitals at 60% to $\geq 80\%$; essential and important elements at 50% to $\geq 70\%$ as determined by OHSC (South Africa, NDoH 2020a: 2). The assigned status can be Platinum, Gold or Silver, the latter being the lowest scored (South Africa, NDoH 2020a: 1). Table 1.1 indicates the different categories of ideal status according to the weights allocated to elements. It is expected that facilities with platinum status provide the highest quality care to their population as compared to the facilities with silver status.

Table 1.1: Ideal Clinic categories

Weights	Silver	Gold	Platinum
Non-negotiable Vitals (3 elements)	100%	100%	100%
Vital Elements (53 elements)	60 - 69%	70 - 79%	≥80%
Essential Elements (104 elements)	50 - 59%	60 - 69%	≥70%
Important Elements (78 elements)	50 - 59%	60 - 69%	≥70%

Source: Ideal clinic manual version 19 (South Africa. Department of Health 2020a:155)

The rapid scaling up and sustaining of ICRM has been hampered by factors such as key human resource shortages; slow infrastructure improvements; poor financial and supply chain management practices. If these factors are not addressed, this can interfere with the quality of healthcare services (Matsoso *et al.* 2018: 1153). According to the National Facilities Baseline Audit conducted by the NDoH in 2012, less than 20% of the public health facilities had an infrastructure that was suitable for Ideal Clinic purposes (South Africa, NDoH 2015: 20). Infrastructure is one of the quality components of the Ideal Clinic and all the elements are non-negotiable vital elements so non-achievement can result in loss of life. The current study intends to focus on element six of the Ideal Clinic initiative which is infrastructure. Component six has four sub-components embedded in it. These sub-components are: physical space and routine maintenance; essential equipment and furniture; bulk supplies; information communication technology (ICT) infrastructure and hardware (South Africa, NDoH 2020a: 143). The last aspect of the infrastructure component, namely, ICT, will not be part of the study. Eleven vital elements with non-compliance directly affecting service delivery and clinical care of patients are also embedded in infrastructure.

The integrated clinical services management (ICSM) component specifies that a facility should be re-organised into designated fully furnished consulting areas or facility streams (Fs) for acute, chronic and preventive health services with adequate staff in each stream. This will help the patient flow and provide appropriate care. Adequate physical space and its maintenance will help patients to be consulted, examined and counseled in privacy. Improvement in facility space leads to improved services and population health outputs and outcomes (South Africa, NDoH 2020a: 13).

Although ICRM has had a positive impact in improving some elements of the Ideal Clinic, the progress is uneven, with a reported 56% of facilities meeting the Ideal Clinic criteria. The qualification of Ideal Clinic status does not warrant such a standard forever, therefore ongoing maintenance and improvement of quality in the service delivery process at facilities is important.

According to Muthathi and Rispel (2020: 18) and Massyn, Pillay and Padarath (2019: 24), approximately 25% of the 56% of facilities that were ICRM compliant had already lost their ideal status. Loss of Ideal Clinic status results in a decline in quality services rendered to HCUs. Thus, the provision of quality health care in PHC facilities becomes important despite the ideal status. According to the Ideal Clinic progress report, on the 31 (5%) out of 607 facilities identified and piloted to be ideal in 2020/2021, such facilities only scored 78% compliance with infrastructure. The 31 facilities were given special financial and resource support. Therefore, the 78% compliance is not representative of what is happening in most unsupported PHC facilities in eThekweni District. About 19% of elements embedded in component six were non-compliant (South Africa, NDoH: 2021: 2).

The infrastructure-related elements of the ICRM show that in March 2016, compliance with the OHSC element “clinic space accommodates all services and staff” in terms of adequate space both in size, functional layout and patient flow remains low at 58% in the 141 facilities that were audited in KZN (Hunter *et al.* 2017: 120). The physical space is of particular importance for the implementation of the ICSM model because this allows a comprehensive service that is delivered via the three facility streams of care, namely: acute, chronic and mother, child and women’s health (MCWH). The challenge in implementing facility re-organisation has been inadequate and inappropriate facility infrastructure to support the three Fs of care. Inadequate physical space of the facility in relation to the population being served leads to poor adherence to infection control protocols; possible drug stockouts due to the inadequate storage capacity of bulk supplies; cleanliness issues as well as long waiting times for the HCUs. Staffing levels and allocation also depend on the availability of physical space at the facility.

Inadequate essential medical equipment and staffing in PHC facilities as required in component six of ICRM contributes to delays in clinical care and referral of HCUs from

PHC facilities to the next level of care. Therefore, the physical infrastructure of the health facilities has an important impact on both the ability of the healthcare providers (HCPs) to perform their duties and healthcare users' (HCUs) satisfaction (WHO and UNICEF 2020: 35). Effective infection prevention and control measures in PHC facilities are at the foundation of quality care. These measures ensure that all services are provided in a clean and safe environment which is essential to maintain the health providers as well broader population. Without such standards, HCUs are placed at higher risk of acquiring infections while seeking care, thus resulting in medical litigations that are expensive to pay. According to Bresick, Von Presentin and Mash (2019: 113), the physical infrastructure of facilities should enhance trust between people, communities and health system, which means that health facilities need to be responsive to medical, cultural and religious needs of the HCUs. This entails creating comfortable waiting spaces and physical structures that ensure privacy.

Despite the agenda for quality and significant annual expenditure as specified by ICRM, health system shortcomings continue to endanger the health and lives of SA citizens in terms of prolonged waiting time (76% of user's time in the facility is spent waiting), and ageing infrastructure that is not fit for the purpose poses a health hazard for both providers and users. According to Gray and Vawda (2018: 6), Bresick, Von Presentin and Mash (2019: 113) and the NDoH (2015: 9), any health system shortfalls result in loss of confidence among HCUs. Dissatisfaction with service quality has escalated medico-legal claims, burdening both health services and healthcare professionals. The current study evaluated the influence of Ideal Clinic status in terms of facilities' infrastructure components namely: physical space, essential equipment, furniture and supplies and quality provision as experienced by HCUs in Ideal Clinics. Recommendations to overcome challenges associated with impediments to quality improvement and establishment of a modified Ideal Clinic framework that will enhance an improved quality provision in PHC facilities irrespective of Ideal Clinic status, are presented.

1.5 PROBLEM STATEMENT

Since the dawn of democracy in South Africa in 1994, almost three decades ago, improved access to services is noticeable and PHC services are free for all people. There are also guidelines and protocols that indicate the referral pathways as to how

and where HCUs can be referred from PHC facilities for continuity of care. However, the South African health system is still facing challenges with regard to poor quality of primary health services in the form of deteriorating, inappropriate and inadequate infrastructure which is indicated by 80% of PHC facilities. Such facilities are not suitable for the purpose of service provision, with inadequate medical equipment, inadequate supply of essential medicines and other consumables, negative staff attitudes and unprofessional behaviour of providers (NDoH 2015: 9). Inadequate physical space and congestion in PHC facilities, poor adherence to infection control protocols, drug stock-outs due to storage capacity of bulk supplies, cleanliness issues, negative staff attitudes as well as long waiting times for the HCUs are still a major concern (Hunter *et al.* 2017: 119). Despite the ICRM initiative as a recent quality improvement strategy by NDoH, and the majority of PHC facilities achieving ideal status, PHC service users are dissatisfied with service provision. In the Presidential Health Summit held in 2018, among the concerns highlighted were negative user experience, dirty, unhygienic and unsafe healthcare facilities that adversely impacted user experiences, lack of standardised cleaning materials and equipment as well as long waiting times with a maximum of seven hours spent waiting at primary care facilities (South Africa, NDoH 2018: 7).

The South African health system's challenges continue to endanger the health and lives of its citizens with major deficiencies in the quality of care provision such as an inadequate disease surveillance system. Shisana *et al.* (2019: 74) found that one in two individuals (48.7%) with hypertension were unscreened and undiagnosed and 23% were screened and results were not interpreted. The HCUs with diabetes were insufficiently screened for complications and co-morbidities due to a lack of medical equipment. Aikman (2019: 55) attests that the lack of resources in the South African public system contributes to staff burnout, resulting in poor quality care.

Furthermore, poor and inadequate clinical record keeping at PHC level due to lack of space to keep clinical records adds to medico-legal litigations that cost the health system financially in the form of claim payments. In 2019, malpractice medical litigations and claims increased by 24.6% compared to the period 2009 - 2015 (Shisana *et al.* 2019: 73-74).

The researcher is an experienced professional provider and has observed that most PHC facilities were built to cater for minor ailments and well-baby services. As a result, they have limited space in terms of the disease burden and population they now service. The limited number of consulting rooms results in an inadequate number of providers that are allocated in facilities in relation to the catchment population served. Storage of supplies and medication are also inadequate to service the HCUs. Congested, unhygienic facilities with long waiting times that interfere with quality care provision are a major concern for HCUs. Poor quality services provision especially at PHC level, results in a loss of confidence in HCUs which escalates medico-legal claims, burdening both health services and professionals irrespective of the 2013 Ideal Clinic initiative to improve quality (Bresick, Von Presentin and Mash 2019: 113). Though eThekweni district is well endowed with a high number of PHC facilities, there is a slow achievement of critical health outcomes and sub-optimal HCU satisfaction with the quality of care that undermines such investment (eThekweni DHP 2018/19: 2). The current study intends to assess if the Ideal Clinic status does translate to an improved quality clinical service provision for HCUs at PHC level in terms of availability of physical space in the facility, cleanliness, waiting times, functional medical equipment, availability of medicines, as well as clinical records.

1.6 AIM OF THE STUDY

The study aimed to critically evaluate the influence of Ideal Clinic status on the quality of PHC service provision in eThekweni District, South Africa, thereby proposing an Ideal Clinic framework that will enhance an improved provision in PHC facilities.

1.7 STUDY OBJECTIVES

The objectives of the study were to:

- Determine the current practices of HCPs in Ideal PHC facilities.
- Determine the status of healthcare user records in Ideal PHC facilities.
- Explore the perspectives of providers regarding the influence of Ideal Clinic status on the quality of patient care.
- Ascertain the perspectives of HCUs on the quality of care received in PHC facilities with Ideal status.

- Propose an Ideal Clinic practice framework that can be used to enhance improved quality healthcare provision in primary health care facilities irrespective of Ideal Clinic status.

1.8 RESEARCH QUESTIONS

1.8.1 Broad question

What influence does Ideal Clinic status have on quality provision in PHC facilities in eThekwin District?

1.8.2 Sub-questions

- What are the current practices of providers in ideal PHC facilities?
- What is the status of HCU records in Ideal Clinics?
- What are the perspectives of providers regarding the influence of Ideal Clinic status on the quality of care they provide to users?
- What are the perspectives of HCUs regarding the quality of care received in clinics with ideal status?
- What Ideal Clinic practice framework can be used to enhance improved quality healthcare care provision in primary health care facilities irrespective of Ideal Clinic status.

1.9 RESEARCH DESIGN

A mixed methods design was used to conduct the study because one data source would be insufficient to answer the research questions. A fixed mixed methods core design in which the use of quantitative and qualitative methods is predetermined and planned was used (Creswell and Plano Clark 2018: 52). This method was used because the question posed needed both exploratory and confirmatory data to be answered. A combination of both qualitative and quantitative approaches provides a more complete understanding of a research problem than either approach by itself (Creswell and Creswell 2021: 14; Creswell and Plano Clark 2018: 52). Based on the mixed methods design, the researcher collected and analysed data, integrated the findings and drew conclusions using both qualitative and quantitative approaches in a

single study. The purpose was to gain a broad and deep understanding of the subject and affirmation of study findings (Polit and Beck 2021: 586).

1.10 SIGNIFICANCE OF THE STUDY

This study can help to overcome possible biases inherent in the current quality improvement initiative and assist in establishing a better understanding of the state of clinical quality as experienced by HCUs. Ideal Clinic status does not automatically translate to quality health care provision; therefore, this study examined the actual clinical care in PHC facilities in relation to ideal status. The findings will add a patient-centric perspective on the Ideal Clinic initiative model to enhance an improved quality as expected by users regardless of the ideal status. The views and recommendations of HCUs will add value to the modified Ideal Clinic initiative. The findings of this study will also assist providers to provide clinical services as per the needs and expectations by HCUs regardless of the Ideal status of the clinic.

1.11 CHAPTER SUMMARY

This chapter presented the background of the study which discussed the system of South Africa, system reforms and quality improvement initiatives. The latest quality improvement initiative, ICRM, its components and elements were discussed. The problem statement outlined the challenges in ideal PHC service quality despite the ideal status. The aim and objectives were presented, which are to explore the influence of Ideal Clinic status, especially the infrastructure component, on the quality care provision in Ideal Clinic facilities. The next chapter is the literature review.

CHAPTER 2:

LITERATURE REVIEW

2.1 INTRODUCTION

As indicated in Chapter 1, the ICRM strategy was introduced in South Africa as a quality development and maintenance initiative that aims to revitalise the quality of health care, infrastructure, human resources, good governance and equipment for PHC facilities. The goal was to systematically transform all PHC facilities into Ideal Clinics to meet national health standards (South Africa, NDoH 2020a: 2). The implementation and maintenance of ICRM to enhance quality provision at PHC level remains problematic for both HCUs and HCPs and its effects on the quality of care is a matter of debate, hence this study. In this regard, there is a need for a thorough literature review to find out what is already known about this phenomenon – the influence of Ideal Clinic status on the quality of PHC services provision for HCUs.

This chapter presents various findings from relevant literature sources that were reviewed to support the importance of conducting the current study. A research literature review is defined by Fink (2019: 6) as “a systematic, explicit and reproducible method for identifying, evaluating and synthesising the existing body of completed and recorded work produced by researchers, scholars and practitioners”. Hart (2018: 4) extends the definition of literature review to include interrogating and scrutinising the chain of reasoning other researchers have used and the evidence they have offered to support their argument. The purpose of conducting a literature review is to discover the most recent and relevant information about a particular phenomenon. In the current study, the literature review revealed how quality was assessed, improved and maintained in different settings including PHC facilities. Therefore, this literature review focused on current debates relating to quality of service provision at PHC facilities specifically in relation to the ICRM initiative.

Quantitative and qualitative researchers have different perspectives on literature reviews, arguing whether a literature review should be undertaken before or after the study has been conducted. Quantitative researchers conduct the major part of their

literature review at the beginning of the research process and a limited review during the generalisation phase of the study report to integrate knowledge from the literature with new knowledge obtained from the study (Grove, Gray and Burns 2015: 163). The purpose of literature reviews is to direct the planning and execution of the study and is similar to descriptive, correlational, quasi-experimental and experimental types of quantitative studies.

Qualitative researchers review literature based on the type of study they conduct. Phenomenologists believe that literature should be reviewed after data collection and initial analysis have been completed so that literature does not influence the researcher's openness. Phenomenologists suggest that the review should be done in the later stages of data analysis, whereas grounded theorists and ethnographic researchers agree on a minimal review of literature early in the research process to provide a general understanding of the variables to be examined and to make the researcher aware of what studies have been conducted before on the same phenomenon (Grove, Gray and Burns 2015: 164). In the current study, the literature review was conducted in accordance with the mixed methods research approach. For a better understanding of this approach, all the steps taken towards reaching the decision to use this approach in the current study are explained below.

2.2 DATA SEARCH STRATEGIES

The choice of search strategy is vital in order to obtain high-quality reviews. The use of libraries has been utilised as the starting point to search for books, government documents and journals, but electronic databases have gained so much popularity that researchers have increasingly become less reliant on the traditional library to search for literature. In the current study, the value of using libraries to search for print or e-books and journals was also used. Several research books, journals and government documents were accessed from the different libraries at Durban University of Technology (DUT).

A thorough search for studies to review was conducted by browsing different electronic databases which included: Academic Search Complete, Cumulative Index to Nursing and Allied Health Literature (CINAHL), EBSCO Host, Google Scholar, Science Direct, Medical Literature On-Line (Medline) with Full Text, South African e-publications, Education Resources Information Centre (ERIC) on the EBSCO Host platform and the

NDoH website. The overall search strategy for the literature review was decided by the researcher before the literature search. The strategy included the identification and development of key search terms which directed the researcher towards the most relevant primary and secondary sources of literature that cover the topic under study (Tashakkori, Johnson and Teddlie 2021: 99). The literature search was conducted at different stages of the research process namely; prior to data collection, during data analysis and at the report writing stage. Table 2.1 shows the key search terms and phrases used to search for relevant literature.

Table 2.1: Search terms

• Ideal clinic • ICRM • ICRM audit reports • provision • quality • facility • Health system measurements • Measurements of primary • National core standards • Primary • Primary performance	• Patient satisfaction • PHC re-engineering • Quality in PHC level • Quality monitoring at PHC facilities • Quality improvement strategies at PHC facilities • Quality assessment • Quality of care domains • Standards of • Sustainable development goals • Universal health coverage
--	---

In order to yield maximum results when conducting the literature search, each phrase was used independently and also combined with one of the key terms to try and broaden the search parameters. Furthermore, the reference lists of the key articles were scrutinised to assist in identifying other relevant articles. The NDoH website (<https://www.health.gov.za/>) was also viewed in order to review various documents, policies and clinical guidelines related to the subject.

The study focused primarily on high-quality care provision at ideal PHC facilities with an Ideal Clinic status. Other settings that function like PHC facilities include CHCs which are an extension of PHC facilities with more specialised and extended services that are provided over 24 hours, hospital outpatient departments, and hospital gateway clinics which are within the hospital premises or buildings. The quality of health care provision in other facilities is assessed using different standards from those of PHC facilities. The purpose of a health facility is to promote health and prevent illness and further complications through early detection, treatment and appropriate referral to the

next level of care. To achieve this purpose, the facility should perform optimally in a number of quality and safety components, sub-components and elements in order to render it an “ideal clinic” (South Africa, NDoH 2020a: 4).

2.3 DEFINING QUALITY

Quality of care has been defined in many ways by different authors. The WHO, OECD, IBRD and WB (2018: 11) define the quality of care as the “degree to which services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge”. Quality care involves the right care at the right time that is responding to the service users’ needs while minimising harm and resource waste. The NDoH emphasises the achievement of the best possible results within the available resources as the core element of quality services. This is consistent with seven measurable characteristics or quality of care domains, namely: effectiveness, safety, people-centredness, timeliness, equity, integration, and efficiency (WHO, Organisation for Economic Co-operation and Development [OECD], International Bank for Reconstruction and Development [IBRD] and World Bank [WB] 2018: 37). Quality care is the care that is coordinated, responding to the HCUs’ needs and preferences while minimising harm and resource waste.

The perceptions of quality vary according to the needs of different stakeholders; HCPs tend to emphasise the technical quality of care such as adherence to treatment protocols and clinical guidelines, while HCUs are more concerned with their experience of care in facilities including long waiting times, staff attitudes, cleanliness and availability of medicines. Policymakers and facility managers focus on the health system’s performance and population-level outcomes (Shisana *et al.* 2019: 70).

The quality of a health system is the key element for health facilities to deliver to HCUs because the provision of health care on its own without having quality is unlikely to lead to optimal health outcomes. According to the WHO, OECD, IBRD and WB (2018: 11), the critical elements in quality services are: the availability of high-quality HCPs, excellence across facilities, and the safe and effective use of medicines. Quality PHC services are embedded in four core attributes, namely: first contact accessibility, coordination, comprehensiveness and continuity. Furthermore, according to Dugani, Veillard and Evans (2018: E453), the delivery of PHC services requires functional capabilities such as infrastructure; financing and governance; essential medical

supplies and equipment; qualified providers; and, flow of information. As a result, health facilities require an ongoing assessment of their functional capacities to improve the quality of care delivered.

Lebese *et al* (2018: 78) and Shisana *et al.* (2019: 3) define a high-quality South African health system as being one which achieves equitable health outcomes and a long and healthy life for all. The care is designed to prioritise health promotion and prevention of diseases, accountable through effective leadership, people-centered in its approach, responsive to HCUs' needs and collaborative in its interaction with partners and other sectors to address the social determinants of health. There has been a growing interest globally in the measurement of quality PHC systems' performance. The PHC Performance Initiative and the Lancet Global Health Commission on High-Quality Health Systems in the SDGs era are among the global UHC initiatives which provide evidence-based guidance on strategies to improve the quality of care and the performance of PHC systems and quality of care (Dugani, Veillard and Evans 2018: E454).

2.4 THE DOMAINS OF QUALITY

According to Shisana *et al.* (2019: 72) and WHO, OECD, IBRD and WB (2018: 32), assessment of the global state of quality requires consensus on the definition and measurement of indicators of quality, however, there is no dataset with uniformly defined quality indicators or agreed minimum set of standardised indicators collected globally. There is a growing body of work aimed at identifying indicators to support national, regional and international quality improvement efforts. Such work includes the OECD Quality Indicators Project, the World Bank Service Delivery Indicators, the WHO Global Health Observatory and Demographic and Health Surveys. The indicators are largely focused on process and outcome measures of quality care. The measures are examined in relation to the seven domains of quality of care which are foundations of high-quality care processes and outcomes. The seven quality domains are (a) effectiveness, (b) equity, (c) efficiency, (d) integration, (e) people-centredness, (f) safety, and (g) timeliness.

(a) *Effective*. This refers to how well evidence-based practices are followed. Effectiveness checks if the HCPs are adhering to evidence-based clinical guidelines and protocols when providing services to the HCUs. The effectiveness of care can be

assessed using a retrospective review of clinical records, HCU exit interviews, direct observation of provider-user interactions as well as standardised clinical vignettes (WHO, OECD, IBRD and WB 2018: 33). Clinical vignettes measure knowledge of evidence-based guidelines for defined clinical cases as well as compliance to the same guidelines. In the current study retrospective record reviews for both adult and children's records were used to assess the effectiveness of provision as documented in clinical records.

(b) *Equitable*. This refers to care that is available and affordable for all people regardless of underlying social disadvantages. Gender-responsive and human rights-based services are essential to achieve SDGs and are consistent with the notion of 'leaving no one behind', which is the absence of avoidable, unfair or remediable differences among groups of people that are defined socially, economically or geographically (WHO and UNICEF 2022: 29). Health equity is an ultimate goal of the health system; therefore, it is important to measure attainment through a comprehensive assessment of equity in service coverage that incorporates free services for all age groups including vulnerable populations.

(c) *Efficient*. This refers to appropriate care in terms of medicine use or dispensing, diagnostic tests, the ability for HCUs to track previous test results and action required. Avoiding waste of resources in terms of over or under-supply of medicines including medical equipment as well as underuse of infrastructure (WHO, OECD IBRD and WB 2018: 33).

(d) *Integrated*. This refers to coordinated care across multidisciplinary team members and at all levels. Integration also includes continuity and coordinated care that improves the HCU experience of care in PHC facilities. It encompasses single record and efficient filing systems that facilitate easy retrieval of HCU clinical records.

(e) *People-centred*. This represents a shift from a traditional, paternalistic, provider-driven and disease-focused approach toward care that fully integrates the HCUs' perceptions, needs, and experiences into every phase of medical consultation, treatment and follow-up. The degree to which the needs and preferences of HCUs are incorporated into health services (WHO, OECD, IBRD and WB 2018: 34).

(f) *Safe*. This avoids or minimises harm including preventable physical and psychological injuries and medical errors in PHC. It minimises harm to HCUs in terms of environment, processes and procedures followed to provide care. Factors such as medication and diagnostic errors, physical, psychological and emotional environment are common in causing harm at PHC level (WHO, OECD, IBRD and WB 2018: 34).

(g) *Timely care*. This relates to waiting times by HCUs in facilities and delays in receiving appropriate treatments in terms of referral to the next level of care or provider. It includes efficient patient flow in facilities through the use of Fs, projection of possible HCU waiting times, an appointment system for scheduled visits, and reducing waiting times and harmful delays for HCUs (WHO, OECD, IBRD and WB 2018: 34).

According to Kruk *et al.* (2018: E1196), more than eight million people per year in LMICs die from treatable conditions. In 2015 alone, these deaths resulted in six trillion US dollars in economic losses. Poor quality is a bigger barrier to reducing mortality than insufficient access. As much as 60% of deaths from conditions amenable to are due to poor quality and the remaining 40% of deaths result from non-utilisation of the health system. These authors further state that quality of care has now become a driver of population health as the utilisation of health systems increases and the burden of disease shifts to more complex conditions.

Peabody *et al.* (2017: 202), in their observational study of primary care providers in rural China, reported that the misdiagnosis rate was 74%. The authors go on to say that a study conducted in India found that 50% of diagnoses by primary care providers were incorrect. Increasing quality is more cost-effective than expanding insurance benefits in resource-constrained settings like PHC.

In order to improve quality across the systems, the Lancet Global Health Commission endorses four universal actions, namely: health system leaders need to adopt a shared vision of quality care and strategy through partnering with other stakeholders; redesign service delivery to maximise health outcomes rather than geographical access; transform the health workforce by adopting competency-based clinical education and respectful care; and, lastly, government and civil society should ignite the demand for quality in the population to empower people to hold health systems accountable and actively seek high-quality care (Kruk *et al.* 2018: E1197).

2.5 GLOBAL VIEW OF QUALITY IN PRIMARY HEALTH CARE

Globally, many quality reports state that billions of people will not gain from potential UHC benefits unless improvements in health system quality are realised. Such reports further specify that the consequences of poor-quality care include patient safety hazards, overuse of inappropriate care, lack of patient-centred care as well as delays in accessing specialised care (Shisana *et al.* 2019: 70).

In the 2018 Astana Declaration, all countries and international partners committed themselves to orienting the health systems towards PHC for accelerated progress on UHC and the health-related SDGs. They envisioned PHC and health services as being high quality, safe, comprehensive, integrated, accessible and affordable. Such services are to be provided with compassion, respect and dignity by HCPs who are well-trained, skilled, motivated and committed (WHO and UNICEF 2020: 2). Among the proposed key levers to achieve the Astana vision are the physical infrastructure of health care facilities, medicines and other consumables, PHC workforce, community engagement as well as monitoring and evaluation of services (WHO and UNICEF 2020: 5).

The seventeen SDGs adopted by the United Nations General Assembly in 2015 have targets that relate to health. SDG number three specifically focuses on ensuring healthy lives and promoting the well-being of populations in all age groups. Target 3.8 of SDG number three which talks about achieving UHC, includes among other things: access to quality essential services and access to safe, effective, quality and affordable essential medicines for all (WHO 2020: 7). Though high quality for all may seem ambitious, it can only be achieved in all settings with good leadership, robust planning and intelligent investment. Quality, as defined by WHO, IBRD and WB (2018: 30), is a service that can be measured and is aimed at health improvements rather than simply increasing service inputs or refining system processes. Such service should reflect the desires of key stakeholders and involve healthcare service users and communities.

Countries like Costa Rica have achieved remarkable improvements in primary care quality through a carefully planned, implemented and resource improvement strategy (Pesec *et al.* 2017: 531 and WHO 2018a: 6). Costa Rica used the 'Basic integrated team model' as a major reform to create a new and robust primary delivery initiative.

The model consists of critical reforms namely: public health services and primary delivery; multidisciplinary teams; geographic empanelment as well as measurement and reliable data feedback loops (Pesec *et al.* 2017: 533). The reforms have enabled PHC in Costa Rica to be effectively, efficiently and reliably executed on a national scale. Through the reforms, the critical functions of PHC, namely, first-contact access, comprehensiveness, continuity and coordination, have increased the proportion of population access from 25% to 93%, and the infant and adult mortality rate has declined by 8% and 2% respectively (Pesec *et al.* 2017: 535). The model used performance data to assess, monitor and evaluate performance against the set targets and action plans drawn to improve on identified quality gaps.

Though the international community has embarked on the SDG agenda with PHC as a critical platform for achieving UHC and global political commitment to investing in and improving PHC systems, most countries lack information to identify weaknesses and strengths to improve their PHC system. As a result, the primary performance initiative (PHCPI) was developed to fill the performance measurement gap in PHC. The PHCPI is a global quality improvement initiative, a collaboration between the Bill and Melinda Gates Foundation, World Bank and WHO in partnership with Ariadne Labs and Results for Development. It aims to catalyse improvements in PHC systems in most LMICs by accelerating progress towards UHC through a more comprehensive and actionable measurement of quality PHC (Veillard *et al.* 2017: 837).

The PHCPI initiative uses various tools to monitor PHC system performance and to understand the underlying drivers of core performance. The main objective is to measure the strengths and weaknesses across all dimensions of key PHC functions through the lens of the HCUs, HCPs and the health system as a whole in LMICs (Veillard *et al.* 2017: 869). WHO and UNICEF (2020: 6) state that monitoring, evaluation and review of health progress and performance are essential to ensure that priority actions and decisions are implemented as planned against agreed objectives and targets. Within the context of PHC, this means that countries will need to be able to assess gaps, determine priorities, establish baselines and targets and track progress and performance across all the operational framework's strategic and operational levers in their efforts to strengthen their PHC services.

Much progress has been made in improving quality across the world, however, progress has been uneven and slow. Globally, the cost associated with medication errors has been estimated at 42 billion US dollars annually and this figure excludes lost wages and costs (WHO, OECD, IBRD and WB 2018: 16). The extent of poor quality of care is significant globally, particularly in LMIC settings, with avertable mortality attributable to poor quality estimated at 5.0 million deaths per year (WHO, IBRD and WB 2018: 35).

There is a growing acknowledgement that quality healthcare services across the world should be effective, safe and people-centered, yet avoidable patient harm in healthcare provision is still the 14th leading contributor to the global disease burden. The majority of this burden falls on LMICs. The main causes of harm include medication and diagnostic errors in primary (WHO 2018b: 14; WHO, OECD, IBRD and WB 2018: 34). Twenty-five percent of HCUs experience harm in PHC facilities in LMICs and up to 83% of the events leading to harm are preventable. Managing adverse events and treating the consequences of patient harm have substantial financial and resource implications for a health system as a whole. Harm can lead to loss of trust in the system by HCUs and provider dissatisfaction. According to the WHO (2018a: 16), the quality of PHC services depends on a workforce that is trained, supported and motivated to provide high-quality care.

The increased recognition of the critical importance of quality primary to achieve effective UHC and contribute to the sustainable development goals has re-ignited global interest in strengthening PHC systems and delivery. Recent global evidence has shown that system quality failures are now responsible for more deaths than lack of access to care and are greater than the burden of malaria and HIV-TB infections combined (Hirschhorn *et al.* 2019: 1).

There are a range of approaches to improving the quality of care available to policymakers in LMIC settings. Such approaches include provider performance-based financial incentives and community-provider monitoring interventions and accreditation systems. However, both performance-based and community-provider approaches allow limited scope for addressing structural deficiencies and constraints on healthcare quality in many LMICs, while accreditation systems provide a flexible and holistic approach to quality improvement in such settings (Stacey *et al.* 2021:

1544). According to Peabody *et al.* (2017: 191), health sector accreditation is associated with professional development and promotion of change rather than quality improvement of clinical outcomes for HCUs. These authors further state that patient safety has not received enough attention in LMICs.

Globally one in ten HCUs is harmed by an incident that is not directly related to clinical care, therefore the use of accurate and valid measurement like retrospective review of clinical records is the basis for quality of care assessments. Internationally, countries rely on structural elements such as tick box tools that are easy to count to measure services, but little or no attention is given to how such elements improve health services at an operational level. Improving quality requires measurement of the actual care processes demonstrated by HCPs when they consult with HCUs (Peabody *et al.* 2017: 187). These authors suggest that ongoing and cyclical healthcare process measurement is critical in creating awareness of service provision gaps and for accountability at individual provider and system levels. Timely and useful feedback of provision measurement is the foundation for improving clinical outcomes and quality of care.

2.6 QUALITY OF PRIMARY HEALTH CARE IN AFRICA

The African system, especially at the primary level of care, is often neglected in terms of resource allocation compared to the second and third levels of care. Most of the available resources are concentrated in central referral hospitals, yet PHC is seen as the African government's commitment to UHC (Bresick, Von Presentin and Mash 2019: 109). According to Mash *et al.* (2018: 1), African countries like Malawi, rely on mission hospitals, non-governmental organisations (NGOs) and external donors to fund and provide services. The health systems in African countries tend to be under-resourced and hospi-centric with PHC services delivered by low-level and poorly trained HCPs. This compromises the quality of care received by HCUs. Furthermore, the quality of care is challenged by inadequate facility infrastructure and equipment as well as limited human resources (Bresick, Von Presentin and Mash 2019: 109; Stacey *et al.* 2021: 1543). These authors further state that the system in most African countries is often dependent on foreign aid, which usually targets a few specific diseases such as human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS), tuberculosis or malaria. Such an approach reduces PHC to

vertical, selective programmes in tackling aspects of the burden of disease rather than promoting the delivery of comprehensive quality PHC services that include health promotion and disease prevention. Benatar, Brown and Sullivan (2017: 4) attest that healthcare services in African countries are distorted, dysfunctional and unsustainable in relation to their physical structure, with fragmentation, lack of coordination and failure to set priorities explicitly in the face of demands for such care.

These authors further state that such distortions are aggravated by funding mechanisms that fail to focus on the value of care in terms of creating and sustaining health care at the lowest possible cost. Kruk *et al.* (2018:1196) propose that health systems be judged primarily on their impact on HCUs, including better health and its equitable distribution on the confidence of people in the health system, economic benefits and positive user experience. The same authors further mention that high-quality health systems should be informed by values that include people, equitability, resilience and efficiency. Thus, a health system should measure and report what matters most to the HCUs such as competent care, user experience, health outcomes, and confidence in the health system.

Ehiri *et al.* (2018: 189), in their study on facilities in Nigeria, concluded that inadequacy of the quality of health service delivery at the PHC level is a product of failure of quality measures such as structural problems which include lack of essential equipment and supplies, process failings such as but not limited to shortcomings in actual provision of care, and lack of protocols for systematic supervision of HCPs. Involving HCUs in the planning, delivery and evaluation of has been endorsed as an important approach towards improving the quality of health care services and the responsiveness of health systems worldwide. Waweru *et al.* (2020: 2) conducted a study in Eastern Uganda on patient perspectives of the quality of PHC services and attest that patient-centered services are more crucial in resource-constrained settings where, historically, quality improvement strategies have been more focused on HCPs with little or no attention to consumer perspectives in the design and assessment of quality improvement interventions. In LMICs (including most African countries) patient-centered care is gaining increased attention as an approach to improve the quality of care provided (Fix *et al.* 2018: 303). There is a demand for HCUs to be more involved in participating in the evaluation of the care that they receive. The implementation of the National Health Insurance Scheme in Ghana has provided access to health care for the

Ghanaian population in the past 15 years, but it has had challenges ranging from poor coverage, quality of care, and inadequate financing to poor stakeholder participation (Christmalls and Aidam 2020: 1879).

In response to the challenges of delivering quality services in Tanzania, the Ministry of Health of Tanzania implemented the quality improvement initiative called 'Big Results Now' which was a five-star rating system for primary facilities. Specific areas of quality indicators namely: health facility management, service charter fulfilment and accountability, and safe facilities conducive to health and quality of care were chosen for improvement with the objective of developing concrete plans in specific areas (Gage *et al.* 2020: 850). According to these authors, some of the specific areas that were cited by service users as bottlenecks included the following: client satisfaction, organisation of services, poor health facility infrastructure, infection prevention and control, quality of care domain as well as clinical services. The rating was such that the worst-performing facilities were not given a star and the best facilities were given five stars. The rating results showed that only 2% of facilities met the minimum standard of quality of three stars and 34% of health facilities received zero stars. These primary care facilities were located in hard-to-reach disadvantaged areas and had issues ranging from scarcity of medical supplies and skilled professionals to the lack of water and electricity (Gage *et al.* 2020: 852).

In view of the large and unexplained differences in quality assessments observed between health facilities and HCPs in Kenya, there was a demand for an evidence-based quality improvement initiative. As a result, the Kenya Quality Assurance Model for Health (KQAMH) was launched aiming to unify existing approaches to provision in order to improve the quality of services at all facilities. The domains covered in the KQAMH assessed quality in clinical care, people in terms of HCPs and HCUs, management, and safety (Marx *et al.* 2018: 2). The results showed significant improvements in clinical care, management, and safety domains. The assumption was that the measurement of quality problems helped to sensitise HCPs to recognise and accept quality problems. Thus, Kruk *et al.* (2018: 1196) attest that African countries need high-quality health systems that optimise by delivering care that improves and maintains health which is valued and trusted by HCUs. There is an indication that quality is no longer the purview of the elite or aspiration for some distant future but should be the nucleus of all health systems at all levels of care.

2.7 QUALITY OF PRIMARY HEALTH CARE IN SOUTH AFRICA

Post the 1994 South African democratic elections, expanding access was one of the most important priorities for the newly elected government. The commitment to deliver quality health care to all populations regardless of race subsequently became a constitutional obligation in South Africa, which guaranteed everyone the right of access to healthcare services. The South African government has introduced several developments and programmes to improve efficiency, safety and quality of delivery and access for all HCUs (Maphumulo and Bhengu 2019: 1).

The ICRM is the most recent quality improvement initiative by the government that provides a path to systematically improve and correct deficiencies in the PHC facilities and challenges in the delivery of quality services. It is intended to address challenges that include, among other things, the following: unequal distribution of resources, management and leadership crisis, and negative HCUs' experiences in PHC facilities. Mathews *et al.* (2019: 8) are of the opinion that despite a number of commendable goals having been set by the government for improved quality of service delivery in public health facilities, services are nonetheless failing to meet basic standards of care and HCU expectations. Motsepe, Wolvaardt and Webb (2020: 22) concur, observing that the system in South Africa is noted for reports of poor service provision in public health facilities and has high and rising healthcare costs with gaps in quality, equity and access.

Studies show that the provision of quality services in public health facilities is still facing challenges such as long waiting times and insufficient space to attend to HCUs effectively which has led to negative experiences of care by HCUs (Matlala *et al.* 2021: 2). These authors concluded that despite the effort and interventions put in place by the NDoH through the introduction of ICRM to correct deficiencies in the quality of PHC services, the quality of care is still hindered by factors such as overwhelming staff workload, negative staff attitude, lack of environmental cleanliness, poor infrastructure, and lack of medical equipment and supplies.

Shisana *et al.* (2019: 70) and Kredo *et al.* (2017: 2), in their report on achieving high-quality and accountable UHC in South Africa, concur in that the burden of poor quality is felt more acutely in LMICs like South Africa because of poverty, sub-optimal governance, resource limitations, and insufficient accountability. Hirschhorn *et al.*

(2019: 1) noted that most studies that are conducted by high-income countries focus on measuring and improving inputs to care including supplies, infrastructure, and financing, while ignoring the core functions of service delivery as experienced by the users of the system and the upstream challenges of PHC system reforms. It is therefore important to critically evaluate the current quality improvement strategy like ICRM to assess its contribution towards an improved quality service provision in PHC facilities.

Audit reports indicate that most PHC facilities are ideal, however, Stacey *et al.* (2021: 1559) concluded that the most improved satisfaction of quality standards in ideal PHC facilities was driven by the support and resources provided to such facilities because they were prioritised and not solely from the introduction of quality standards themselves. These authors further state that the underlying changes implied by improved performance on facility standards were not translated into improvements in the clinical services provision indicators for patient care. Shisana *et al.* (2019: 74) and Ehiri *et al.* (2018: 182) are of the opinion that as much as coverage is important, assessment of the quality of service deserves equal attention because quality can be a strong determinant of service use by the public. The critical evaluation of the quality of service in ideal PHC facilities as experienced by service users will assist in modifying the current Ideal Clinic framework to enhance an improved quality irrespective of the Ideal Clinic status of each facility.

2.8 ACCREDITATION OF HEALTHCARE FACILITIES IN SOUTH AFRICA

Over a period of years, the evaluation of quality has evolved into a dynamic modern science which plays a significant role in HCU safety, quality assurance, benchmarking and continuous quality improvement. Improved quality has a positive impact on HCUs and HCPs' satisfaction and the effectiveness of provision in the public sector. Since 1993 a number of developments in the area of quality have taken place in the South African health sector. The Council for Health Service Accreditation of Southern Africa is an organisation which deals with quality improvement and accreditation, mainly of hospitals in 1995 and PHC facilities were only added in 2005.

When the National Core Standards (NCS) for health establishments were first developed in 2011, a number of quality functional areas were selected for fast-track improvements. Such areas included infection prevention and control, waiting times,

availability of basic medicines and supplies, values and attitudes of staff, patient safety and security as well as cleanliness (NDoH 2011: 15). Although the implementation of these fast-track improvements led to some success and improvement in the quality of care, it was clear that simply reminding providers of their basic duty was not enough and that quality assurance mechanisms linked to enforcement action would be needed (South Africa, NDoH 2013: ix).

2.9 QUALITY IMPROVEMENT REFORMS IN SOUTH AFRICA

The NDoH has shown its commitment to providing good quality care to the population of the country by developing NCS in 2008 through the OHSC. The NCS were finalised and implemented in 2010/11 to audit both public hospitals and primary facilities (South Africa, NDoH 2011: 7). The purpose of the NCS was to develop a common definition of quality of care which would be used in both public and private facilities as a guide to public, managers and staff at all levels.

The NCS established a benchmark against which facilities could be assessed, gaps identified, strengths appraised and compliant certificates issued. Where there were gaps, quality improvement plans were drawn up to mitigate the gaps or noncompliance to set standards (South Africa, NDoH 2011: 8). The NCS are based on the National Health Act (No. 61 of 2003) which states that services provided should take into cognizance the Constitution of the Republic of South Africa (South Africa 1996). The NCS had been given priority in facilities to improve the quality of care; as enshrined in the Constitution, including the rights of HCUs and to ensure safe and efficient health care for all citizens of the country. Compliance with NCS and improving quality care provision in health facilities is a process that includes different stakeholders. The NDoH identified quality functional areas as six key priorities which were fundamental to the provision of safe and decent care (South Africa, NDoH 2011: 15). Health establishments had to put measures in place to comply with these fast tracks to quality areas because they were fundamental to the provision of safe and decent.

2.10 PROGRESS MADE TO IMPROVE QUALITY

Central to South Africa's implementation of NHI is the PHC system, which is the first entry point for the entire system. Though there has been an increased PHC services utilisation rate since the dawn of democracy, challenges such as long waiting times,

insufficient space leading to congestion, negative staff attitudes, cleanliness of the facilities, patient safety and security, and medicine stock-outs, still exist (Muthathi and Rispel 2020: 15). These challenges were among the six priority areas that the NDoH identified for fast-track as early as in 2011 and were regarded as fundamental to the provision of safe and decent care.

The ICRM was designed in response to the current deficiencies in the quality of PHC services and to lay a foundation for the implementation of the NHI (South Africa, NDoH 2019: 11). In a study on the impact of Ideal Clinic implementation on patient waiting time at PHC facilities, 83% of the total HCUs' time was spent waiting between service points and the time waited exceeded the NDoH waiting time benchmark of 3 hours. Only 6% (7 minutes) of overall time was spent receiving a consultation. These authors further state that, though reducing the total time spent in facilities needs to be monitored closely, it should not be at the expense of time a HCU spends with the HCP as this could be counterproductive leading to low HCU satisfaction (Egbujie *et al.* 2018: 317).

In a study on patient-centered care by Fix *et al.* (2018: 306), the authors concluded that HCU satisfaction is not enhanced by just giving the HCUs all that they need when visiting the health care facilities, but collaborative decisions relating to their care are vital for HCU satisfaction. These authors further argue that HCU satisfaction cannot be achieved by attractive infrastructure alone, a therapeutic power sharing between HCPs and HCUs as well as the positive attitudes of HCPs is critical. Though the introduction of ICRM had an impact on clinical quality indicators and generated improvements in standards adherence, there was minimal impact on the actual improvement of programme prioritisation on clinical quality measures of clinical activity and output (Stacey *et al.* 2020: 1555). These authors concur with Muthathi and Rispel (2020: 15) in their assessment that the improvement in the satisfaction of standards by PHC facilities was driven by the support and resources provided to the dedicated prioritised facilities and not solely from the introduction of the ICRM itself. They further noted that the changes implied by improved facilities' performance on standards were not translated into improvements in the provision of clinical services at PHC level. Therefore, there was a need for the researcher to critically evaluate the influence of Ideal Clinic status on the quality of primary services provision.

2.11 CHAPTER SUMMARY

This chapter presented the findings from the literature that was reviewed to support the current study. Several peer-reviewed ideas and findings to support and substantiate the study were presented and used to create relevant arguments regarding the current study. The ICRM is a strategy for quality health services improvement by the South African government through the NDoH, so various documents, including policies and guidelines from the NDoH, were presented and used to support the study. Literature on quality services provision indicates that HCUs' perception of quality care is determined by their experiences of care received at facilities regardless of ideal status. The aim of the study was to weigh the influence of ideal status given to facilities based on their performance in service provision. The HCUs may not be aware of the facility status and its meaning, however, their expectation is to receive quality care. There are a number of questions that remain unanswered which the current study is addressing, namely: is the Ideal Clinic status automatically translating to quality clinical care in PHC facilities? Is quality service provision compromised when ideal status is lost? Do PHC facilities need to be ideal first before quality services can be expected?

The next chapter discusses the different theoretical frameworks that were considered to guide the study and the choice of the clinical microsystems model (CMM) as a framework used to guide the study.

CHAPTER 3:

FRAMEWORK GUIDING THE STUDY

3.1 INTRODUCTION

This chapter presents the framework that was used to guide the study. The chapter begins with a brief overview of the use of frameworks in scientific research studies and it focuses on the process that was followed to identify a suitable framework and presents the selected framework including how it guided the study.

3.2 OVERVIEW OF FRAMEWORKS USED TO GUIDE SCIENTIFIC RESEARCH PROJECTS

A framework is an overall conceptual underpinning of a study that allows the researcher to put information together in an orderly scheme that makes research findings meaningful and generalisable and links findings into a coherent structure (Gray and Grove 2021: 182). Frameworks are theories, models or conceptual frameworks expressed by experts in a specific research field, a structure that summarises concepts and theories that have been developed from previously tested knowledge. Kivunja (2018: 46) further defines framework as a lens through which the research data is examined, analysed, findings interpreted and conclusions reached. The purpose of the framework in a study is to knit together the pieces of data collected into one body of knowledge, thus helping the researcher to add depth to the data by supporting its analysis with reference to existing research theories or models. It enables the researcher to report the findings in an analytical, evaluative and creative way, thus deepening the academic and scholastic flavour of the conclusions. As per Guba's criteria for good research (Lincoln and Guba 1985), a framework increases the credibility of qualitative and the internal validity of quantitative data; enhances the transferability of findings from qualitative and external validity and generalizability of quantitative data analysis; increases the confirmability of findings in qualitative and objectivity of findings from quantitative data. Frameworks are important in health sciences research in that they guide scientific studies and provide direction (Gray and

Grove 2021: 182). In the current study, a model was used to analyse, interpret and draw conclusions from the results of quantitative and qualitative data.

The first model discussed in this chapter is Avedis Donabedian's model of quality, which is widely used as a quality assessment model. However, it is limited to evaluating three elements of the system, namely, structure, process and outcomes. The CMM goes further and includes patients, patterns and professionals when assessing the quality of service provision. Applying this model in assessing the influence of Ideal Clinic status in quality provision enhances the focus on each element, namely, the purpose of both the facility and Ideal Clinic realisation and maintenance initiative, patients as HCUs of services, professionals as providers of services, patterns of service provision as well as processes involved in providing the health care service.

3.3 MODELS CONSIDERED TO USE AS FRAMEWORK TO GUIDE THE STUDY

The two models that were considered for suitability to guide the study were Donabedian's model of quality and the CMM. Donabedian's model is still a major reference point when assessing quality. The CMM specifically points to the environment where quality activities, safety and values are taking place. Both the models were suitable to guide the study. Though Donabedian's model of quality is the most commonly used framework in quality studies, the researcher was not convinced that using this model would provide the answers she required for the current study. The CMM was selected as the framework to guide the study because the CMM goes further than the Donabedian model and evaluates the purpose, professionals, patients, and patterns in an organisation which provides comprehensive data related to the quality of care provided by each facility. High-performing facilities have a clearly stated purpose and mission statement which serve as a point of reference in guiding the quality of services (Kivunja 2018: 47). Clearly defined professionals in terms of qualifications, skills and roles in provision are critical in evaluating the quality of health care services as received by users. Work patterns in the facilities which include interactions between professionals and patients in coordinating received by patients were important for the study. Professional-patient interactions result either in patient satisfaction or dissatisfaction with services received which forms part of quality evaluation. Donabedian's model is not specific about the professionals and patients,

but these elements are incorporated in the structure standard. Both these theories are presented in detail in the next section including the rationale for selecting one out of the two and the details regarding how the selected one was used to frame the study.

3.3.1 Avedis Donabedian's Model

The Donabedian model of quality conceptual framework for assessing quality care was developed in 1986 and is still a major reference point for research. Donabedian evaluated the quality of medical care received by HCUs by separating the quality of measures into structure, process and outcome. Donabedian believed that structure measures have an effect on process measures which in turn affect outcome measures. Together, structure, process and outcome form the basis of what is required for an effective model of measures. He articulated seven pillars of quality which are efficacy, efficiency, optimality, acceptability, legitimacy, equity and cost (Donabedian 1980: 1743-1748). His contribution to quality includes addressing issues such as access to, measuring and evaluating quality, completeness and accuracy of medical records, and patient satisfaction. Donabedian's conceptual framework consists of three elements, namely (a) structure, (b) process and (c) outcome.

(a) *Structure* is defined as the setting where care takes place. The primary premise of the structure component is that, given the right setting, high-quality care will exist. The setting of an organisation is multi-faceted, including material and human resources, organisational factors such as leadership, and safety culture, all of which influence the delivery of health care (Naranjo and Kaimal 2011: 34). Structure measures include inputs necessary for providing quality services such as physical space, the attributes of the service, attributes of a professional such as health care provider to user ratios, training, service operating times, medical equipment, availability of medicines and supplies, clinical records, as well as available guidelines, policies and protocols. These factors influence how healthcare providers and users in a system act and are measures of the average quality of care provided within a system or facility (Donabedian 1980: 1743-1748).

(b) *Process* is described as the intervention or service that provides patients with an improved outcome. It is also referred to as the actual provision of care. Process is what allows the organisation to apply the high-quality care that is widely accepted and has been validated in the literature as influencing a specific outcome (Naranjo and

Kaimal 2018: 34). According to Donabedian (1980: 1743-1748), process reflects the way systems and processes work to deliver the desired outcome. Process includes actions and activities of HCUs in seeking care and activities of the providers namely; the consultation process, treatment and plan of care for each health care user. Process measures describe whether or not clinical care has been properly applied, and make the important connection between behavioural changes and outcomes – the interpersonal processes and cooperation between all providers involved in the execution of service.

(c) *Outcome* is the explicit result that occurs from the antecedents of structure and process. Outcome serves as a benchmark for quality performance. Benchmarks establish a target for performance which allows an organisation to compare and judge the effectiveness of the care provided (Naranjo and Kaimal 2011: 35). According to Fritsche and Peabody (2018: 2), the process reflects the impact on the user and demonstrates the result of improved work and whether it has ultimately achieved the set aims, including the results of medical action such as patient satisfaction and knowledge, improved health, disability, or death. Outcome is sometimes seen as the most important indicator of quality because improving HCUs' health status is the primary goal of any healthcare system (Donabedian 1980: 1743-1748). According to Donabedian, outcome measures remain the ultimate validators of the effectiveness and quality of healthcare.

Donabedian's model of health care quality could be used for the study as shown in Figure 3.1 below; however, this model postulates that there are relationships between structure, process and outcome standards based on the idea that good structure should promote good processes which in turn provide good outcomes. Structure in the form of all facility resources, processes as activities conducted in facilities would bring desired results as outcomes.

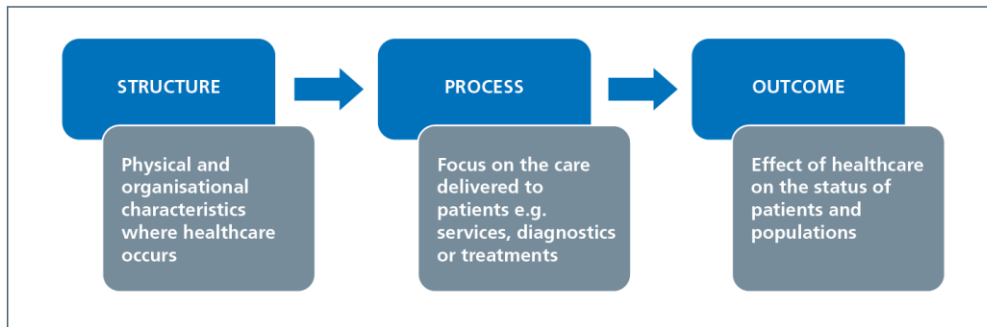


Figure 3.1: Donabedian's model of quality

Source: Adapted from Donabedian (2005)

Though Donabedian's model of quality is a dominant framework for evaluating the quality of care, using it in this study would not have placed the HCU as central, and the patterns of how the professionals provide the services in relation to the purpose or vision of the facility and the aim of the (ICRM) as a quality of care improvement strategy. Therefore, the CMM was chosen to guide the study because it addresses the purpose of the facility and ICRM, professionals working in the facility, processes and patterns taking place in providing health care, and patients as the custodians of the care provided by facilities.

3.3.2 The Clinical Microsystems Model

The model selected to guide the current study is the CMM, which is a model for improving practice in healthcare. A microsystem is the smallest replicable unit that evolves over time and is embedded in larger systems or organisations (Nelson, Betalden and Godfrey 2011: 232). This is where care is provided and quality, safety and value are created. Each individual PHC facility is a microsystem in relation to the mother hospital under which it falls, but the PHC facility also forms a macrosystem in its own right. The facility as a macrosystem is made up of different microsystems which are different service points or facility streams (Fs) within the facility itself. The service points in this study refer to the three Fs namely; acute, chronic and maternal, child and women's health (MCWH). The primary facility fitted well as a macrosystem in relation to the district hospital of its affiliation. The acute, chronic or MCWH streams are microsystems in relation to the PHC facility. Quality improvement in one of the three Fs could be replicated in all three Fs, resulting in improved quality care in the whole facility. It is, therefore, important to assess quality healthcare provision in each stream separately because quality improvement processes that are implemented in one

stream can be replicated in another stream within the facility to improve the overall quality provision in the entire PHC facility (Nelson, Betalden and Godfrey 2011:3).

The CMM is characterised by five Ps which are (1) purpose, (2) patients, (3) professionals, (4) processes and (5) patterns. These five Ps exist within the context of the population that the clinical microsystems seek to serve. The five Ps are described below: (1) Purpose addresses the purpose of the clinical microsystem and how it fits within the overall vision of the facility. Purpose exists within the context of the population the microsystems seek to serve (Nelson, Betalden and Godfrey 2011: 262). (2) Patients are the individuals or subpopulations served by the clinical microsystem. (3) Professionals are staff members at different levels who work in the microsystem. (4) Processes are the caregiving support processes that are used by clinical microsystems to provide care and services. (5) Patterns mean work patterns that characterise the microsystem's functioning, interactions and outcomes for HCUs.

The CMM was developed by the Dartmouth Clinical Evaluation Research Institute in Liverpool in 1985. A professor Emeritus at the Dartmouth Tuck School of Business, Professor James Quinn, is regarded as the father of clinical microsystems. He researched and analysed the best organisations which were enjoying massive economic growth while also gaining popularity with customers. His finding was that the most successful service organisations focused on the smallest replicable units within their enterprises (Nelson, Betalden and Godfrey 2011: 2). This is where interaction with customers takes place. Organisations replicated the best practices in these best-performing small replicable units to be successful. Professor Quinn identified features common in all enterprises that performed well namely:

- a) There was an ongoing improvement of frontline services within the small replicable units where customer-provider relationships were created.
- b) Organisations ensured quality, efficiency, timeliness, service excellence and innovation designed as part of the frontline work processes of small replicable units.
- c) Back-and-forth information flow to create supportive, real-time information environments to enhance service delivery.
- d) Measurement, monitoring and management of activities to improve performance (Nelson, Betalden and Godfrey 2011: 3).

The clinical microsystems are facilities where HCUs, their families and professionals meet, and are building blocks of the whole system (macrosystem) because microsystems do not function in isolation. External ancillary and supporting microsystems like main pharmacies and stores, laboratories and even transport departments need to be included in quality improvement initiatives for HCUs to experience quality in all specific microsystems that they encounter during an illness. The application of CMM to the current study is outlined below.

- *Purpose* (what is your purpose): What do we want to achieve?

The service provision at each stream should serve the purpose of the facility as a whole. The purpose of the ICRM is to revitalise and maintain the quality of services at PHC facilities. Each PHC facility has its mission and vision in relation to service provision to the population. The core aim is to provide a full PHC package of services using prescribed guidelines and protocols in order to meet the needs of the people it serves.

- *Patients* (who are your patients): Who are we caring for? How satisfied are the patients with the health service provision in the facility? Are services provided in the microsystem addressing the needs of patients? Are the operating hours of the microsystem in alignment with the needs of the sub-populations?

Patients are the HCUs (subpopulations) or that access the acute, chronic and MCWH services at different facility streams. Individuals or HCPs have knowledge about the HCUs or subpopulations for whom they provide care and service. This knowledge can help HCPs become better informed about how to take care of patients and how to improve their delivery system.

- *Process* (know your process): How do we deliver services to meet HCU needs? What processes are involved in performing activities in facilities? What support systems are available to carry out those processes? How are care and services being delivered to meet HCU needs? Processes include facility operating hours, use of clinical guidelines and policies to manage the HCUs, among other things (Nelson, Betalden and Godfrey 2011: 262).

Processes include facility operating hours regarding whether they match the needs of the users, and use of clinical guidelines and policies to manage HCUs, among other

things (Nelson, Betalden and Godfrey 2011: 262). The interdisciplinary members of a microsystem participate in various processes, systems and steps to care for the users. Viewing the process of care through the eyes of the users is a powerful tool for gaining important insight into that process from the users' perspectives. What are the core and supporting technological processes as well as lessons learned from failures and near misses?

- *Patterns* (know your patterns): what are the regular, recurring and associated activities? What are the health outcomes for the HCUs? What is the support system available to perform activities?

The expected outcomes are that HCUs receive quality in terms of enough and well-ventilated consultation rooms, and are consulted by HCPs using stipulated clinical guidelines; medicines are prescribed and dispensed on the same day using guidelines; all clinical consultations are recorded and signed for by respective HCPs; support is given to HCPs in terms of human resources and medical supplies to render quality of care; and, the HCU's satisfaction or dissatisfaction is monitored as part of the outcomes.

- *Professionals* (know your professionals): who provides services to HCUs? What skills and support do professionals need in order to provide quality service and care at the right time? Who/what are the support systems for professionals? What is the ratio of professionals to HCUs?

Each facility has its health care providers and users who work together to achieve health outcomes. Each stream in the facility has dedicated providers who render services to the sub-population of HCUs in a particular stream using the applicable guidelines and protocols to provide quality care. Quality improvement in the smallest unit of the facility or a stream can be replicated in all the Fs resulting in total quality improvement in the whole facility. Different categories of professionals interact with HCPs in PHC facilities. All categories of personnel are involved in providing health care services according to their level of training, competencies and scope of practice as stipulated by the South African Nursing Council in Regulations 2598 (South African Nursing Council [SANC] 1984a) and (SANC 1984b) of the

Nursing Act 50 of 1978 as amended. Regulation 2418 of the same Act specifies that professional nurses may keep, supply, administer or prescribe medicines.

Each clinical microsystem has a mission or core purpose, in this case, it is the provision of quality healthcare services and is composed of HCUs that form different subpopulations. HCUs can be healthy, chronically ill or at high risk. The users interact with professionals who can be nurses and medical doctors, including support staff who perform distinct roles. The HCUs and HCPs work together to meet the needs by engaging in direct care processes such as assessing systems and needs. These direct care processes are assisted by supporting processes that involve distinct resources like medical records and medicines. The results of the interactions between patients and professionals can be used to produce patterns of critical results such as safety outcomes and HCUs' perceptions of quality care (Nelson, Betalden and Godfrey 2011: 10). Figure 3.2 is a modified microsystems model depicting the five Ps.

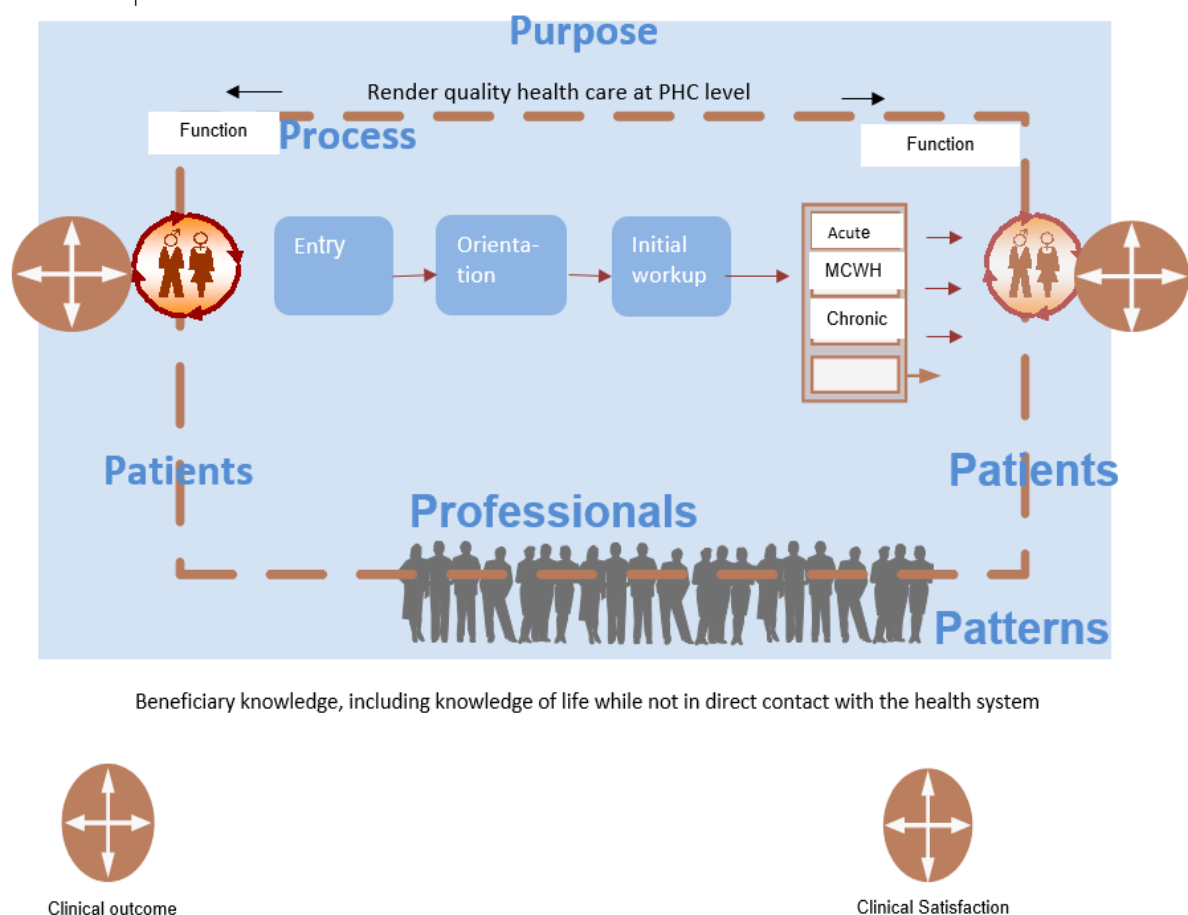


Figure 3.2: The CMM model

Source: Nelson, Betalden and Godfrey (2011: xxiv)

The CMM is explicit about the elements required to be evaluated when assessing quality. Both HCUs and providers' perspectives can be explored using this model. The model also makes it easy to evaluate the quality of processes used to provide services and patterns that characterise each stream at the facility. It goes further than Donabedian's structure, process and outcome model by including the purpose of the facility in relation to the overall vision of the facility and professional staff that provide care, and the HCUs for whom the quality care has been planned and who are central to the process of Ideal Clinic. Members of the clinical microsystem need to understand the structure of their system using the five Ps to design, implement and improve their clinical services (Nelson, Betalden and Godfrey 2011: 4). Professionals need to have in-depth knowledge of the functioning of the microsystem they are involved in, which allows them to explore extensively the health care processes' functional inputs and outputs. This allows professionals to assess the systematic performance of the microsystem and also enables them to recommend improvements and innovations.

3.3.2.1 Operationalisation of the Clinical Microsystems Model

The five Ps of CMM makes it easy to evaluate each element separately so that specific improvements can be made for each section in the service point for the benefit of the whole facility. When HCPs in a particular microsystem work together and share the purpose of gaining information about their HCUs and the processes involved in caring for HCUs and the patterns of interaction within the facilities, they acquire knowledge that can be used to make long-lasting improvements for the clinical services. The clinical microsystems are the places where HCUs, families and professionals meet, and the primary facilities are the building blocks of large systems or macrosystems. The microsystems do not function in isolation, other supporting microsystems like stores, laboratories, central sterilising department and even pharmacy challenges need to be included in quality improvement initiatives for HCUs to experience high quality in all specific microsystems that they encounter during an illness.

In an ideal facility, it is expected that the HCUs find HCPs who are working together, smooth running frontline units, information readily available and flowing easily in a timely fashion, units that are embedded in helpful larger organisations in the form of hospitals as points of referral, units that are seamlessly linked together, and lastly,

high-quality, sensitive and efficient services. The planning of patient-centered services is based on knowledge of the needs of the major subpopulations of HCUs served by a clinical microsystem and how the people in the microsystem interact with one another and with their processes to produce critical outcomes. This knowledge comes from both formal analysis and tacit knowledge of the practice structure, its patients, processes and daily patterns of work and interactions. Quality improvement is a team effort and cannot be the responsibility of certain individuals only. The study of the five Ps framework of any microsystem provides professionals with insight and perspective from fellow health professionals and from HCUs. To plan services for their HCUs, members of the microsystem benefit by mastering the five Ps.

The CMM guided the study in framing the study objectives and questions, developing the research tools, the analysis, and the presentation of findings. The first two objectives in the study required a retrospective records review of both adult and child clinical records. The checklists and questionnaires for professional nurses were designed according to the Ideal Clinic prescripts that are expected to be manifested in clinical records of both adults and children as per the seven quality of health care domains. The status of the clinical records was determined using the checklists. The last two research objectives of the study required semi-structured interviews with HCPs on the influence of Ideal Clinic status on quality patient care, and with HCUs to gain their perspectives on the quality of care received in facilities with Ideal Clinic status. To achieve the study objectives, professionals and patients were interviewed and the processes of rendering to the users and patterns on how to deliver the health care to users were considered.

3.4 CHAPTER SUMMARY

Applying MMC in assessing the influence of Ideal Clinic status in quality provision enhances the focus on each element, namely, the purpose of the health care facility, the HCUs that were provided with care, the providers that provided services, the patterns of service provision, as well as the processes involved in providing the service. Understanding all these variables is critical when assessing quality service provision in a setting.

CHAPTER 4:

RESEARCH METHODOLOGY

4.1 INTRODUCTION

Chapter 4 outlines the research methodology. A research methodology is a strategy or overall plan of action used by researchers when deciding on the methods and procedures to be used in addressing the research question. It incorporates the techniques that are employed to gather, analyse and interpret data, and allows the reader to critically evaluate the study's overall validity and reliability (Creswell and Plano Clark 2018: 35). In line with the above definition, this chapter portrays the research design and all the steps and procedures that were undertaken during the study in terms of data collection techniques, analyses and interpretation of findings. It also highlights the ethical considerations and steps followed to ensure research rigour.

4.2 PHILOSOPHICAL UNDERPINNING OF THE STUDY

Philosophical underpinning refers to the foundational beliefs and assumptions that guide a research study. According to Polit and Beck (2021: 472), mixed methods research is associated with the pragmatist research paradigm.

4.2.1 Research paradigm

A paradigm is described as a set of beliefs or assumptions about knowledge that guide one's approach to inquiry. It influences the way the research is conducted and how knowledge is studied and interpreted. Paradigm also establishes the aim, motivation and expectations of the research (Creswell and Plano Clark 2018: 35). The research paradigm is a worldview about how to conduct research or a way of looking at a natural phenomenon that encompasses a set of philosophical assumptions and guides one's approach to inquiry (Polit and Beck 2021: 796). It is made up of beliefs and assumptions about knowledge that inform the study. There are four paradigms that inform mixed methods research, namely: post-positivism which is associated with quantitative studies, constructivism and participatory paradigms, which are both associated with qualitative studies, and pragmatism which is associated with mixed methods studies.

4.2.1.1 Pragmatism as a paradigm that informed the study

Pragmatism is a set of ideas articulated by many people and it draws on many ideas, employing what works, using diverse approaches and valuing both subjective and objective knowledge. The focus is on the consequences of research, the primary importance of the question being asked, and the use of multiple methods of data collection to inform the answers to the problem under study (Creswell and Plano Clark 2018: 37). The researcher adopted a pragmatist paradigm which is associated with mixed methods approach because it supports the mixed methods approach.

Paradigms are based on three dimensions; namely (a) epistemology, (b) axiology and (c) ontology.

(a) *Epistemology* pertains to the knowledge of reality and what is accepted as knowledge and is also called double-faced knowledge. The epistemological stance states that knowledge can be seen as observable or unobservable based on the researcher's position, not on the nature of knowledge itself. The researcher chooses the relevant research method that is most appropriate and best serves the research objectives (Maarouf 2019: 8). A quantitative approach deals with observable, measurable knowledge and a qualitative approach describes detailed actions and meanings attached to realities. In this study both quantitative and qualitative data collection approaches were used to triangulate data and ensure that the question being posed was answered fully (Gray and Grove 2021: 77). These approaches were used to develop integrated findings and interpretations that would expand the understanding of, and validate and confirm, the study findings.

(b) *Axiology* refers to the role values play in research, and is also known as a necessary bias principle. This principle states that the researcher has a pre-understanding of the phenomenon that forms the basis of both qualitative and quantitative research and directs the choice of research questions and variables. The pre-understanding is sometimes unavoidable (Maarouf 2019: 9). Pragmatist researchers are aware of what is important within their personal value system (Gray and Grove 2021: 75); having previous knowledge or perceptions enriches the qualitative and quantitative research by helping the researcher to add more insights and discover more sides of the reality. In this study, the researcher had vast clinical

experience in a PHC setting and believed that quality healthcare provision at the PHC level could positively influence people's lives.

(c) *Ontology* refers to the nature of reality that researchers assume when they conduct their inquiries. The ontological stance is also known as the reality cycle, which is based on the idea of the existence of one reality and multiple perceptions of the same reality. Reality depends on the context in which it exists and changing the context will change the reality. The existence of multiple contexts means the existence of multiple realities. Reality is perceived differently by humans, and perceptions control human behaviour and interactions (Maarouf 2019: 7). Postpositivists and pragmatists agree on the existence of an external reality independent of the researcher's thoughts (Gray and Grove 2021: 77). Based on the ontological assumption, pragmatic research is inter-subjective, which accepts both the existence of one reality and that individuals have multiple interpretations of the same reality. The researcher chose the research method that best served the research purpose (Maarouf 2019: 6). The use of mixed methods research design assisted the researcher in obtaining in-depth knowledge on the research topic.

4.3 RESEARCH DESIGN

Research design is the overall strategy that the researcher chooses to integrate the different components of the study, which then constitutes a blueprint for the collection, measurement and analysis of data to address the research problem (Grove, Gray and Burns 2021: 809). There are three communities of researchers in social and behavioural sciences, namely: qualitative-oriented, quantitative-oriented and mixed methodologists (Tashakkori, Johnson and Teddlie 2021: 4). The choice of the design is influenced by the nature of the research objectives to be met and the research questions to be answered about the phenomenon. A research question can be answered quantitatively, qualitatively or using a combination of both approaches (Creswell and Plano Clark 2018: 5; Polit and Beck 2021: 51). In the current study the choice of the research design was informed by the study objectives and questions which needed to be answered both quantitatively and qualitatively, hence the mixed methods approach was chosen. Table 4.1 highlights the rationale for choosing mixed methods in the current study in light of the objectives that need to be achieved. The first two objectives were achieved quantitatively and the last two were achieved

qualitatively. Each objective is aligned with the data sources that were used to achieve it.

Table 4.1: Research objectives indicating the need for a mixed methods approach

OBJECTIVES	RESEARCH ORIENTATION	DATA COLLECTION METHODS AND TOOLS	DATA SOURCES
1. Determine the current practices of HCPs in Ideal PHC facilities.	Quantitative	Structured self-administered questionnaires	• Facility managers (n = 9) • Team leaders of different facility streams (n = 27) • Professional nurses working in different streams (n = 27)
2. Determine the status of HCUs' records in Ideal facilities.	Quantitative	Checklists for record reviews (Adults and children)	• Clinical records of adult HCUs (n = 360) • Clinical records of children (n = 45)
3. Explore the perspectives of HCPs regarding the influence of Ideal Clinic status on quality of patient care provision.	Qualitative	Semi-structured interviews	HCPs – Professional nurses (n = 8)
4. Ascertain the perspectives of the HCUs on the quality of healthcare received in Ideal facilities.	Qualitative	Semi-structured interviews	HCUs - Adult patients and adult caregivers (n = 14)

4.3.1 Quantitative research design

Grove, Gray and Burns (2017: 32) describe quantitative design as an objective, rigorous and systematic process for generating numerical information about the study topic. It is used to examine relationships among variables and to determine the effectiveness of interventions. In this study, the current practices of HCPs in ideal PHC facilities were determined using a structured self-administered questionnaire for facility managers, team leaders of different facility streams, and professional nurses working in the same streams. The status of HCU records in ideal facilities was determined using checklists for both child and adult record reviews. Numerical information was needed when assessing the quality of service provision to check whether the current practices of HCPs adhered to the quality domains as well as the status of clinical

records and if they complied with the specified Ideal Clinic prescripts. Retrospective record review of both child and adult records showed patterns or trends over time about information that had been recorded within the 12-month period before data collection.

4.3.2 Qualitative research design

Qualitative design is a systematic approach used to determine experiences from the perspectives of the person in the situation. Narratives from the study participants are analysed to find meaning and to provide a description of their experience that promotes deeper understanding (Grove, Gray and Burns 2021: 31). In the current study the perspectives of HCPs regarding the influence of Ideal Clinic status on quality of patient care were explored and those of the HCUs on the quality of care received in ideal facilities with status were determined using semi-structured interviews for both HCPs and HCUs of PHC services. Descriptive information was important because the study topic needed both exploratory and confirmatory data to be collected to provide the researcher with accurate and complete conclusions which would not be achieved with quantitative information only.

4.3.3 Mixed methods design

According to Tashakkori, Johnson and Teddlie (2021: 9), mixed methods design is when the researcher collects and analyses data, integrates the findings and draws inferences using both qualitative and quantitative approaches in a single study. Mixed methods design was used in the current study for a better understanding of the researched phenomenon because neither the qualitative nor quantitative approach by itself was adequate in addressing the complexity of the research question: what influence does the Ideal Clinic status have on quality provision in PHC facilities in eThekweni District?

The purpose of using mixed methods design was to gain a broad and deep understanding of the subject and affirmation of the findings (Creswell and Plano Clark 2018: 3). The advantages and the added value of using mixed methods design included include the following: complementarity where qualitative and quantitative approaches complement each other; practicality when the complexity of phenomenon cannot be addressed using a single approach, and enhanced validity where an

hypothesis is supported by complementary data strands, and the researcher can be more confident about the validity of the result (Polit and Beck 2021: 587). According to Tashakkori, Johnson and Teddlie (2021: 53), in a mixed methods approach one type of data gives greater depth in certain areas, and the other type gives greater depth in other areas, so together they yield results from which the researcher can make more accurate and stronger conclusions.

4.3.3.1 Mixed methods design used in the study

Mixed methods designs may be emergent or fixed. Emergent mixed methods design is when the use of mixed methods arises due to issues that develop during the process of conducting the study. Fixed mixed methods design is when the use of quantitative and qualitative methods is predetermined and planned at the start of the research process and the procedures are implemented as planned (Creswell and Plano Clark 2018: 52).

In the current study, the fixed mixed methods design was used because the first two study objectives, namely, to determine the current practices of providers in ideal primary facilities and the status of user records in ideal facilities, needed to be achieved using a quantitative approach. The last two objectives which were to explore the perspectives of providers regarding the influence of Ideal Clinic status on quality of care and ascertain the perspectives of the HCUs on the quality of care received in facilities with ideal status, needed to be achieved qualitatively. Thus, questions posed by the study needed both exploratory and confirmatory data to be answered and the combination of both qualitative and quantitative approaches provided a more complete understanding of the research problem than either approach by itself (Creswell and Creswell 2021: 14; Creswell and Plano Clark 2018: 52).

4.3.3.2 Mixed methods approaches considered for the study

There are seven approaches to mixed methods designs namely: triangulation, embedded, transformative, multiphase, explanatory sequential, exploratory sequential and convergent parallel (Creswell and Plano Clark 2018: 65; Creswell and Creswell 2021: 237). The last three approaches which are explanatory sequential, exploratory sequential and convergent parallel, are regarded as the core mixed methods approaches.

Triangulation approach

The triangulation approach is used to obtain different but complementary data on the same topic to best understand it. The intent is to bring together the differing strengths and weaknesses of both quantitative and qualitative methods. It seeks to converge and corroborate results from the different methods (Creswell and Creswell 2021: 237). Triangulation was later called by some researchers a 'convergent approach'.

Embedded approach

In an embedded approach, the qualitative data is collected independently and used to support or augment the quantitative data collected for the main approach. One data set provides a supportive secondary role in a study based on the other data set. The premise of this design is that a single data set is not sufficient to answer different types of questions that need different types of data (Creswell and Creswell 2021: 237). In the current study, the two data sets were equally important to achieve the study objectives so the embedded approach was not used.

Transformative approach

In a transformative approach, either quantitative or qualitative data is collected and analysed first. The results are integrated into the interpretation phase. The purpose is to employ the methods that best serve a theoretical perspective (Creswell and Plano Clark 2018: 61). In the current study both quantitative and qualitative data were collected and analysed concurrently and results were integrated into the interpretation phase. Therefore, a transformative approach was not applicable.

Multiphase approach

The multiphase mixed methods approach is specifically meant for large-scale investigations that employ separate and equally emphasised qualitative and quantitative methodological frameworks. The order of data collection and analysis can either be sequential or concurrent and each phase builds on the previous thread culminating in a fuller understanding of the overall study objectives (Creswell and Plano Clark 2018: 61). A multiphase approach was not applicable since the study was on a small scale.

Explanatory sequential approach

An explanatory sequential approach occurs in two distinct interactive phases; it starts with collection and analysis of quantitative data, followed by collection and analysis of qualitative data in order to explain and expand on the first phase of quantitative findings. (Creswell and Plano Clark 2021: 65; Gray, Grove and Burns 2021: 390). In the current study, simultaneous quantitative and qualitative data collection was necessary to achieve all study objectives. Therefore, this design was not suitable for the current study.

Exploratory sequential approach

An exploratory sequential approach is a three-phased mixed methods approach where qualitative data is collected and analysed in the first phase. The findings of qualitative data may be used to design the quantitative tool used in the second phase. The third phase is quantitatively testing the new tool, where the researcher checks on how the quantitative results build on the initial qualitative results (Creswell and Plano Clark 2021: 67). The researcher had no intention of developing and testing a tool, therefore this design was not suitable for the study.

Convergent parallel approach

The convergent parallel approach was initially conceptualised as a triangulation design where two different methods are used to obtain triangulated results about a single topic (Creswell and Plano Clark 2018: 68). The key assumption of this approach is that both qualitative and quantitative data provide detailed views of participants to better explain the phenomenon, hence the use of a convergent parallel design in the current study.

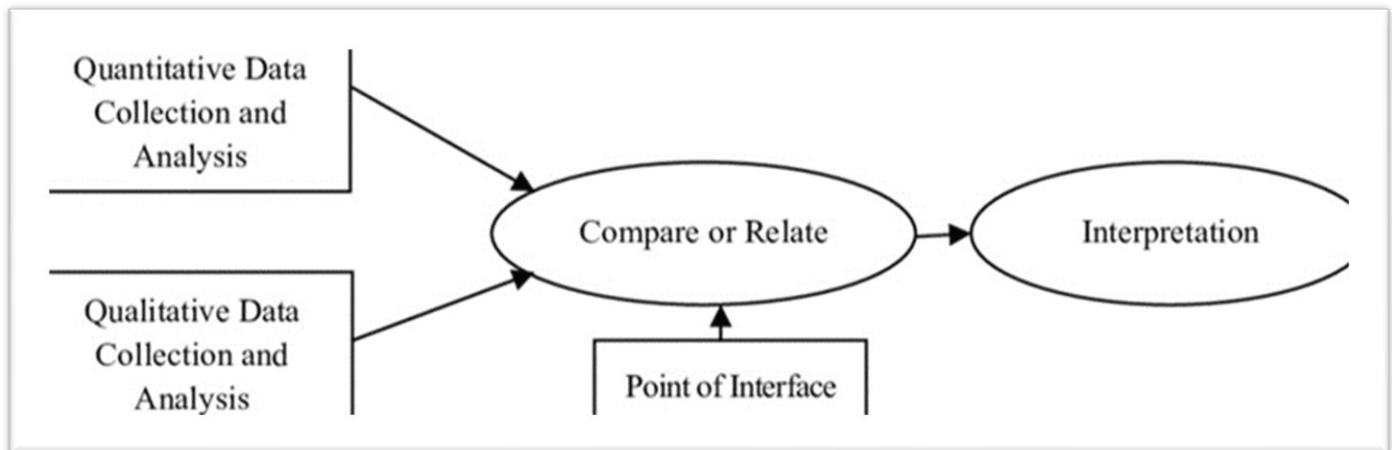


Figure 4.1: The convergent parallel approach
 Source: Creswell and Plano Clark (2018: 66)

4.3.3.2.1 Convergent parallel approach

This study used a convergent parallel approach. The purpose of using this approach was to obtain different but complementary data about the influence of Ideal Clinic status on the quality of PHC services provision. This provided depth and breadth of knowledge about the influence of the phenomenon, thereby answering the research questions satisfactorily.

The convergent parallel approach employs qualitative and quantitative methods simultaneously or within a minor time-lapse to avoid a potential threat to validity. Concurrent timing where implementation of both the quantitative and qualitative data strands within a single phase of the research study was employed. The researcher collected quantitative data in one facility for several days and then collected qualitative data in the same facility before moving to the next facility. Both data strands were equally prioritised and organised independently during data collection and analysis. The results were integrated during the interpretation phase where convergence strengthened the knowledge claims and divergence identified areas for future studies (Gray and Grove 2021: 392; Creswell and Creswell 2021: 15; Kviz 2019: 364). The convergent parallel design was used in an attempt to confirm, cross-validate and corroborate qualitative and quantitative findings within a single study. The goal was to obtain a more complete understanding of a problem and thus converge on the truth about the phenomenon (Kviz 2019: 364; Creswell and Creswell 2021: 15; Tashakkori,

Johnson and Teddlie 2021: 135). Convergence or similarity of results from different methods that concurrently investigated the same phenomenon enhanced the confidence in both sets of results, however, dissimilarity did not indicate that either or both results were invalid but provided a path for further investigation. The convergent parallel approach has several variants, as follows:

Data transformation variant. This involves the separate but concurrent collection of qualitative and quantitative data followed by analysis of both data strands and, thereafter, the qualitative data is transformed into quantitative data or vice versa. It allows data to be mixed during the analysis stage and facilitates comparison, interrelation as well as further analysis of the two data sets (Creswell and Plano Clark 2018: 73). The researcher had no intention of transforming qualitative data into quantitative data, therefore the data transformation variant was not used in the current study.

Data-validation variant. This is used to validate and expand on quantitative findings from the study by including a few open-ended qualitative questions (Tashakkori, Johnson and Teddlie 2021: 135). The researcher had no intention of validating and expanding quantitative findings.

Parallel-databases variant, which was chosen for the study. Figure 4.2 illustrates the convergence of the quantitative and qualitative data sets for a broader and more comprehensive interpretation of the research findings.

4.3.3.2.2 Parallel databases variant adopted for the current study

A parallel databases variant was employed where quantitative data were collected and analysed in parallel with qualitative data. The results of the two separate analyses were brought together for an overall interpretation of the findings. The aim was to obtain different but complementary data on the same topic to best understand the research problem (Creswell and Plano Clark 2018: 450; Polit and Beck 2021: 593). The weaknesses of both quantitative and qualitative designs were offset by the strength of using both approaches. The consensus is that for every weakness there is a corresponding strength in both approaches; neither approach has all the answers. The first two research questions were answered quantitatively whereas the last two questions were answered using a qualitative design. In quantitative research,

consideration was not given to the study setting and context in which participants responded just as their voices were not directly quoted, whereas in qualitative research naturalistic setting was emphasised and participants' comments were used verbatim (Polit and Beck 2021: 472).

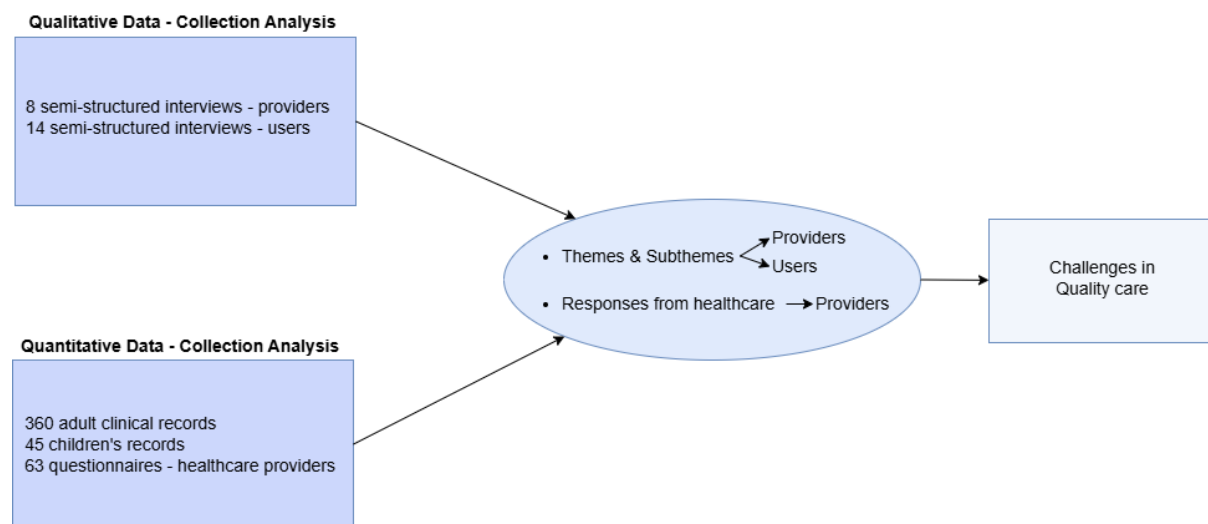


Figure 4.2: Convergent parallel-databases
Source: Adapted from Creswell and Plano Clark (2018: 66)

4.4 STUDY SETTING

The study setting is the location where a study is conducted, which is the physical environment and condition in which data collection takes place. It can be natural where the researcher does not manipulate the environment at all, partially controlled in which the environment is somehow modified, or highly controlled where the environment is structured (Grove, Gray and Burns 2021: 439). In the current study, the setting was partially controlled as PHC facilities were used as study sites. The study was conducted in eThekweni District in KZN, one of South Africa's nine provinces. EThekweni is one of eleven KZN health districts, EThekweni is a large metropolitan municipality that is located in the coastal region of KZN and comprises 110 district health wards. About 36% of the district is rural, 29% peri-urban and only 35% urban. EThekweni district is bordered by other districts such as iLembe in the North, uGu in

the South, uMgungundlovu in the West and Indian Ocean in the East as shown in Figure 4.3 (EThekweni DHP 2018/19 – 2020/21: 7).

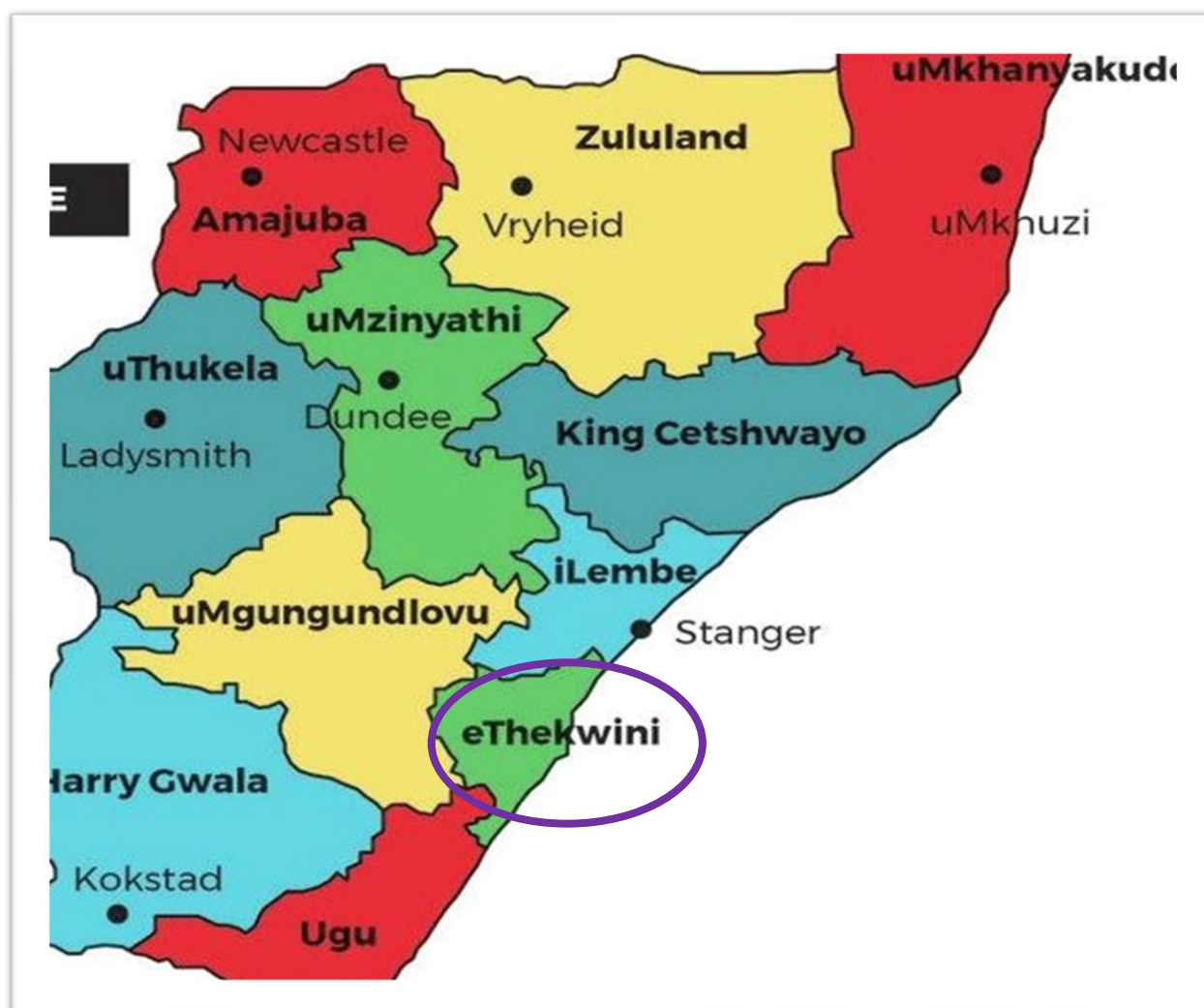


Figure 4.3: KwaZulu-Natal showing eleven districts

Source: eThekweni IDP (2015/16)

EThekweni district is divided into three sub-districts namely: South; North and West sub-districts (EThekweni DHP 2018/19: 8). Figure 4.4 shows the original four sub-districts; the South and Central sub-districts have been merged to become South-Central resulting in three sub-districts. Much as the eThekweni district is urbanised, it has big pockets of peri-urban and rural communities that exist on the outskirts of all cardinal areas which impact access to quality health services. Out of the 11.5 million population of KZN, eThekweni district caters to a population of about 3.5 million people (EThekweni DHP: 2018/19 – 2020/21: 7).



Figure 4.4: KwaZulu-Natal showing eThekweni's sub-districts

Source: eThekweni IDP (2015/16)

4.4.1 Primary health care facilities

At the time of the study, there were different types of PHC facilities in the eThekweni district namely: fixed PHC facilities which were designed to operate for an extended period of time at a specific site; mobile PHC services which used vans or minibusses to visit specific sites on specific days and operated for limited hours of the day, and health posts which were built structures that opened only on specific days. Both the

mobile and health posts are not audited by the Office of Health Standard Compliance, therefore did not have Ideal Clinic status and were not part of the study.

eThekweni district has 103 PHC facilities and eight CHCs. PHC facilities operate eight hours for five days a week with a few facilities that extend their operations to a sixth day. At the time of the study, 43 of the 103 PHC facilities were under the control of authority B and the remaining 60 facilities were under authority A. PHC facilities located in urban, peri-urban and rural areas of eThekweni sub-districts were selected for the study because they had different challenges in providing quality health care services in terms of their infrastructure and geographic location.

4.5 IDENTIFICATION OF DATA COLLECTION SITES

The data collection sites were all selected PHC facilities under the control of authorities A and B. Only fixed PHC facilities across the three sub-districts of eThekweni with an Ideal Clinic status were used as data collection sites. The facility status was either Platinum, Gold or Silver. The Platinum status is the highest status given by the OHSC to the best-performing facility in terms of quality services provided. Silver is the lowest status given to poorly performing facilities. Sixty percent of eThekweni PHC facilities were under the control of authority A and forty percent were controlled by authority B, therefore two facilities under authority A per sub-district and one facility under authority B per sub-district were selected for the study as shown in Table 4.2 and Figure 4.5. Where possible, one facility from urban, peri-urban and rural areas was selected for the study because facilities had different challenges based on their geographical location. The eight selected PHC facilities opened for eight hours five days a week and provided a full package of PHC services except maternity services. Only one PHC facility operated for 24 hours, seven days a week, however, the health services over the weekends and after hours were reserved for maternity and emergency services.

Table 4.2: Selection of PHC facilities

SELECTION OF PHC FACILITIES					
	District	Health Authority	Facility Numbers	Sub-district	Coded clinics
	EThekwini	A	1 - 2	N	AN1
					AN2
				S	AS1
					AS2
				W	AW1
					AW2
Sub-Total	1	1	AN1 & AN2 AS1 & AS2 AW1 & AW2	3 Sub-districts	6 PHC Facilities
	EThekwini	B	1	N	BN1
				S	BS1
				W	BW1
Sub-Total	1	1	BN1 BS1 BW1	3 Sub-districts	3 PHC Facilities
Grand Total	1 District	2 Health Authorities	1 - 2	3 Sub-districts	9 PHC Facilities

4.6 THE STUDY POPULATION

The study population is the entire set of individuals or objects that have some common characteristics and who are the focus of the research. The target population is the aggregate of cases about which the researcher would like to generalise the study findings (Polit and Beck 2021: 804; Grove, Gray and Burns 2017: 250). The target populations of the study were: (a) HCPs, (b) HCUs and (c) clinical records.

(a) Healthcare providers

The HCPs were professional nurses working at ideal PHC facilities in the three sub-districts in the capacity of managers of the selected PHC facilities, team leaders of the three streams who met the set inclusion criteria, as well as professional nurses who worked in facility streams. Managers were in charge of the whole operation of the PHC facility. The HCPs were permanently employed and had worked for two or more years at PHC facilities. The facility managers and the team leaders responded by questionnaire. The professional nurses working in the streams participated by means of semi-structured interviews.

(b) Healthcare users

The HCUs were adult patients as well as ACGs who attended the ideal PHC facilities with their children, who had visited the ideal selected PHC facilities more than once within the last 12 months, and who participated by means of semi-structured interviews.

(c) Clinical records

Facility-based and hand-held clinical records of both adult and child HCUs who had visited the selected ideal PHC facilities more than once within the last 12 months were selected for review. The hand-held clinical records of the HCUs included maternity case records and Road-to-Health booklets (RtHBs). The facility-based clinical records included those of HCUs with acute conditions as well as of HCUs living with chronic conditions.

4.7 STUDY PARTICIPANTS

Study participants or subjects are individuals who participate and provide information in a study (Polit and Beck 2021: 804). The study data sources were HCPs, HCUs and clinical records.

4.7.1 Quantitative data strand

The study subjects for the quantitative data collection were HCPs that comprised nine facility managers of the selected PHC facilities, 27 professional nurses who were team leaders of the facility streams and 27 professional nurses who worked in different streams. Data was also collected from the facility-based clinical records as well as hand-held clinical records.

4.7.2 Qualitative data strand

The study participants for the qualitative data collection were professional nurses who worked in either the acute, chronic or MCWH facility streams and adult HCUs and ACGs who attended with their children for either acute or promotive and preventive services in the MCWH facility stream.

4.8 SAMPLING OF STUDY SITES

Sampling is defined by Gliner, Morgan and Leech (2017: 137) as the selection of the part of a larger group of participants or elements with the intent of generalising from the sample to the population. Sampling was done concurrently using parallel mixed methods sampling where quantitative and qualitative-associated sampling approaches were independently but concurrently employed to sample for the two data strands in line with the study's mixed methods design (Tashakkori, Johnson and Teddlie 2021: 170). The site sampling frame comprised all 103 PHC facilities in the eThekweni district. However, the target population of PHC facilities comprised only those PHC facilities with ideal status. Sampling commenced with stratifying the PHC facilities into strata, those that were under authority A and those under authority B. This was followed by selecting all PHC facilities in each stratum that had Ideal Clinic status which could be platinum, gold or silver. The facilities were stratified according to sub-districts and comprised the sampling frame for the study sites. A sample of three PHC facilities per sub-district was purposefully selected to enable two facilities from authority A and one from authority B to give a sample of nine facilities for the entire study. This sample ensured that there was an equitable representation of the PHC facilities from the three health sub-districts, even though 60% of PHC facilities were under the control of authority A and only 40% of PHC facilities were controlled by authority B. This enhanced the generalisability of the study's findings. Figure 4.5 provides a representation of the different steps that were followed in the sampling of the PHC facilities included in the study.

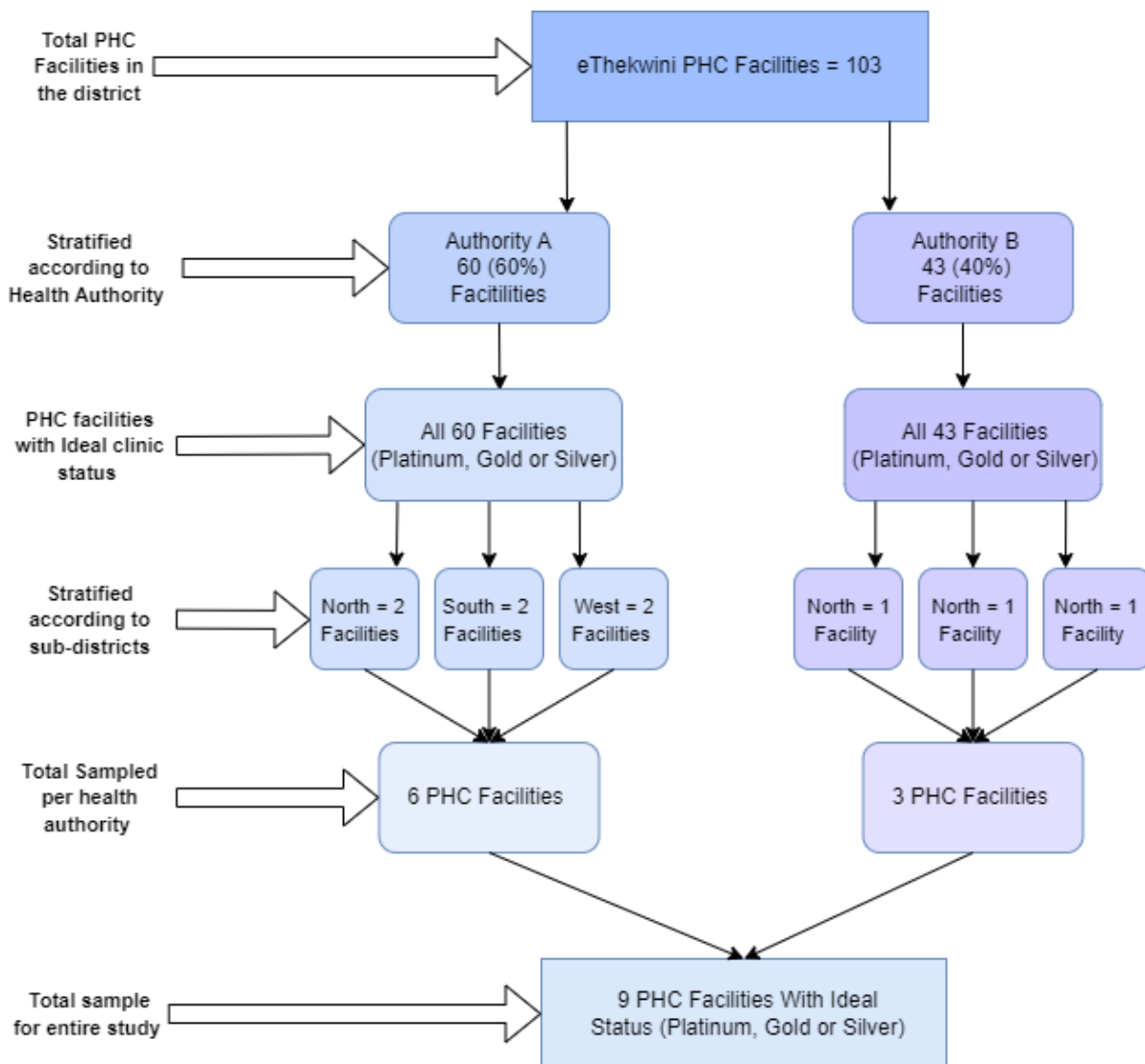


Figure 4.5: Schematic presentation of the steps followed to identify the PHC facilities

4.8.1 Qualitative sampling

Purposive sampling is selecting specific cases that will most benefit the study (Tashakkori, Johnson and Teddlie 2021: 153). The researcher's knowledge about the population was used to make a selection of participants and sites that could provide the required information to understand the central phenomenon (Polit and Beck 2021: 265). Purposive sampling was used to select PHC facilities with Ideal Clinic status as study sites. Two facilities under the control of local authorities from each sub-district and one facility under the control of the provincial authority were selected as data collection sites. Professional nurses who worked across the selected ideal PHC facilities for two or more years were purposively sampled because they had valuable

information that benefited the study. The adult HCUs and ACGs who attended the PHC facilities for either chronic, acute or MCWH facility stream services were purposefully sampled for the study.

The sample size is determined by the purpose of the study and the depth of information that is needed to gain insight into a phenomenon (Polit and Beck 2021: 502). Sample size is also guided by data saturation where themes and categories become repetitive, redundant and there is no new information that can be gleaned by further data collection. To facilitate monitoring of data saturation for all PHC facilities, the researcher moved from one PHC facility to the next in a different sub-district after collecting one set of data from semi-structured interviews of both HCPs and HCUs. The interviews included one interview with an HCP and two interviews with HCUs per facility in each sub-district. Data saturation for HCPs was reached with six interviews, two interviews from each sub-district. Two more interviews from two sub-districts were conducted to confirm data saturation. The two extra interviews were one HCP from authority A and one from authority B. The two sub-districts used to confirm data saturation were randomly selected, however, the facilities were purposively selected to ensure one under the control of authority A and one under authority B. A total of eight HCPs were interviewed for the entire study.

Data saturation for HCUs was reached with 12 interviews. The interviews included two HCUs per facility in each sub-district, one facility from authority A and one from authority B. The two HCU interviews involved one adult HCU and another adult who was a caregiver for a child. To confirm data saturation, two more interviews were conducted from one facility in one sub-district that was randomly selected from the two managing authorities. A total of 14 interviews of HCUs were conducted.

4.8.2 Quantitative sampling

According to Tashakkori, Johnson and Teddlie (2021: 152), sampling for a quantitative study is pre-planned as the sample should allow for the statistical conclusion and to generalise the results beyond the sample used. Probability sampling involves random selection of elements and the researcher can specify the probability that an element of the population will be included in the sample. In this study, the quantitative sampling was pre-planned so that the sample size could allow for statistical conclusions and to generalise the results beyond the sample used. A probability sampling technique was

employed using simple random sampling to select clinical records for retrospective review. The researcher sought the assistance of a professional statistician to assist with the determination of the sample sizes for the retrospective records review (Appendix 9).

4.8.2.1 Clinical records

The sample included records of adult and child HCUs. The average headcount of HCUs in PHC facilities combining both adults and children was 250 HCUs per month. The average per facility in one year was 3 000 HCUs and in nine selected health care facilities the combined total was 27 000 HCUs. Using a confidence level of 95% and a margin of error of 5%, the ideal population size for the study was 379 clinical records which was rounded up to 405 clinical records. The clinical records included those of children's RTHBs, clinical records of HCUs with acute conditions, HCUs living with chronic conditions as well as maternity case records. The majority of the HCUs in PHC facilities were adults at 90% and children were only 10%, thus the sample size for retrospective record review was as follows: adult clinical records 360 (89%) plus 45 (11%) children's records. A total of 405 clinical records were reviewed. Forty-five clinical records in each of the nine PHC facilities were retrospectively reviewed and records included 40 adults and five children's records from each PHC.

4.8.2.2 Healthcare providers

Each PHC facility had one manager who was in charge of the operation, with three team leaders (one for each of the three facility streams), six to twelve professional nurses and one to two enrolled nurses and nursing assistants. The study focused on nine facility managers of the nine selected PHC facilities, 27 professional nurses who were team leaders of different facility streams and 27 professional nurses who worked in the facility streams. Therefore, the sample size for the quantitative strand was 63 respondents.

4.9 RECRUITMENT OF PARTICIPANTS

Face-to-face recruitment of participants only commenced in the PHC facilities after applying and receiving full ethics approval (Appendix 1) from the Durban University of

Technology Institutional Research Ethics Committee (IREC270/22), and gatekeeper permissions from the eThekweni District Manager (Appendices 2a and 2b), Manager KZN Provincial Department of Health Research Unit (Appendices 3a and 3b), and eThekweni Municipality Head of Health Unit (Appendices 4a and 4b). The PHC area managers and facility managers in charge of authority A and authority B facilities were notified through emails (Appendix 6) to gain access to the selected ideal PHC facilities to approach the participants for recruitment and participation in the study.

4.9.1 Recruitment of healthcare providers

A meeting was arranged with each facility manager of the selected ideal PHC facilities to meet with HCPs during their regular facility briefing meetings. Through the assistance of facility managers, the identification of HCPs who met the inclusion criteria was accomplished in each facility. Information letters with consent forms (Appendix 7) about the study were given to HCPs. The HCPs were allowed to ask questions about the research until they were satisfied. The researcher emphasised that participation was either by completion of the questionnaire or being interviewed; those participants that were willing to do both were allowed to do so. All willing HCPs who met the inclusion criteria signed consent forms before participating in the study. Interview dates were set with the consenting participants and the interviews were conducted in each selected ideal PHC facility.

4.9.2 Recruitment of healthcare users

The HCUs were met and provided with information about the study during their normal facility visit days and were recruited to participate in the study. Information letters and consent forms in English and IsiZulu were given to all participants who were willing to participate in the study. Participation was through face-to-face interviews or allowing the researcher to review the clinical records. The HCUs who were willing to participate in the study and who met the inclusion criteria were requested to sign a consent form either for record review (Appendices 8a and 8b) or for face-to-face interviews (Appendices 8c and 8d) on the day of recruitment.

4.9.3 Identification of clinical records

The adult HCU clinical records from each facility stream were selected using systematic sampling such that every third HCU in a sampling frame was chosen. The first HCU was randomly selected, thereafter the sampling interval of three was applied resulting in every third HCU in the queue being selected. All selected HCUs were provided with an information letter about the study. Consent to participate in the study and researcher to access clinical records (Appendices 8a and 8b) was signed by each willing HCU. Facility-based and hand-held clinical records of HCUs with acute or chronic conditions, maternity case records as well as RtHBs were identified for retrospective review. All the clinical records that were reviewed were active within 12 months of the data collection date.

4.10 INCLUSION AND EXCLUSION OF STUDY PARTICIPANTS

Study participants for both qualitative and quantitative data strands were selected based on inclusion and exclusion criteria as follows:

Inclusion criteria

- Ideal PHC facilities located in the three sub-districts of eThekweni district in KZN.
- providers who were permanently employed at the selected ideal PHC facilities as either a facility manager, team leader or professional nurse for two or more years.
- HCUs who had visited the selected ideal PHC facilities more than once within the last 12 months.
- ACGs of children who brought children to the selected ideal PHC facilities more than once within the last 12 months.
- Clinical records of adult and child HCUs who had visited the selected ideal PHC facility more than once within the last 12 months.

Exclusion criteria

- All PHC facilities in the three sub-districts with no ideal status.
- All HCPs employed for less than two years in the selected PHC facilities.
- All HCPs who worked in selected PHC facilities but were employed on a part-time basis or by a nursing agency or a non-government organization.
- All HCUs who had visited the selected PHC facilities for the first time at the time of the study.
- All HCUs who attended the selected PHC facilities alone and were below the age of 18 years at the time of the study.
- Records of minors brought by HCUs who would not give consent for the study.
- Records of HCUs who visited the selected PHC facilities for the first time on the date of the study.

4.11 DATA COLLECTION INSTRUMENTS

Polit and Beck (2021: 789) define a data collection instrument as a device that can be in the form of a questionnaire or observation checklist that is used to collect data.

4.11.1 Qualitative data collection instrument

Interview guides with pre-determined main questions and sub-questions for both HCPs and HCUs were used to collect qualitative data.

The interview guide for HCPs was developed by the researcher in the English language (Appendix 12a) because all HCPs were professional nurses who could read and write English. The interview guides for HCUs were written in both IsiZulu and English (Appendices 12b and 12c) because HCUs could read, write and speak in either IsiZulu or English. Each interview guide had one broad question and a few pre-determined probing questions. Questions were based on the study objectives and on the concepts of the theoretical framework that guided the study. Follow-up questions were dependent on the participants' responses which needed more clarity where necessary. A voice recorder was used to record the interviews for both groups of participants. The digital device provided an accurate record of the participants'

comments that were used as verbatim statements in the presentation of the study results. Field notes were also written to substantiate data that was collected and to capture non-verbal cues during the interviews.

4.11.2 Quantitative data collection instruments

Data collection instruments used to collect quantitative data can be in the form of structured self-administered questionnaires or checklists. According to Polit and Beck (2021: 800), a questionnaire is a written or electronic instrument used to gather self-report data via self-administration of questions. All data collection instruments were adapted by the researcher from the essential stationery list as per the Ideal Clinic manual version 2021 and the instruments had never been used before.

4.11.2.1 Questionnaire

According to Polit and Beck (2021: 281), a structured self-administered questionnaire consists of predetermined questions, statements and responses and all participants respond to the same questions in the same order. A structured self-administered questionnaire with predetermined statements and fixed response options was used in the current study (Appendix 11). The questionnaires consisted of part A, which required the following information: health authority code, facility code, work position of respondent, age range of respondent and years of experience. Part B consisted of 49 statements with responses to choose from, ranging from strongly agree to strongly disagree, and not applicable. The structured self-administered questionnaire was developed by the researcher based on the seven quality domains namely: effectiveness, safety, people-centered, timely, equitable, integrated, and efficient healthcare services (Shisana *et al.* 2019: 72); WHO, OECD, IBRD and WB 2018: 32). The questionnaire had never been used before. The respondents who were facility managers, team leaders of the three facility streams and the professional nurses who worked in each stream completed paper-based questionnaires. This was possible because all the respondents were professional nurses who could read and write English.

4.11.2.2 Checklists

Checklists are instruments observers use to record observed phenomena (Polit and Beck 2021: 296). Checklists were used to collect data from both adult and children's

clinical records. Both of the checklists for the clinical record reviews (Appendices 10a and 10b) were developed by the researcher and were not in use at any PHC facility. The checklists were adapted from the essential stationery list and clinical recording requirements as specified in the PHC Ideal Clinic manual (Version 2020). The checklists had 'Yes, Incomplete, No or Not applicable' responses. The checklist for adult clinical records included recording of HCUs' biographic data, evidence of health assessment, details of HCPs and any other important information from clinical records that would benefit the study (South Africa, NDoH 2020b: 2). The checklist for children's clinical records included recording of child's basic biographical data, evidence of child assessments using the integrated management of childhood illnesses (IMCI) strategy and the details of the HCP who assessed the child as specified in the Ideal Clinic prescripts. The checklist had space for additional comments that could be of value in explaining the collected quantitative data.

The hand-held children's clinical records were reviewed while the caregivers were waiting to be consulted or after consultation with the HCP to avoid unnecessary delays for the HCUs. Retrospective record review was chosen for the study because it allowed the researcher to complement data that was collected from questionnaires to assist with the breadth and depth of data.

4.12 PRE-TESTING OF THE DATA COLLECTION INSTRUMENTS

Pre-testing of data collection instruments was conducted before the commencement of the main study in one PHC facility (Appendix 5). The facility was randomly selected from the PHC facilities in eThekweni District. Prior to the pre-test study, the interview guides, questionnaires and checklists were validated for accuracy and appropriateness by both the researcher, supervisors and the statistician. Pre-testing the data collection tools assisted the researcher in ascertaining whether:

- The stated research processes would yield the data the researcher was looking for.
- The tools used for data collection were suitable to achieve the stated objectives.
- The information included in the data collection tools was unambiguous.
- The length of time taken with each participant when administering the research tools.

According to Polit and Beck (2021: 280), pre-testing of data collection instruments ensures that needed challenges are dealt with at the pre-testing stage to prevent flaws in the main study. These authors further assert that some uses of conducting pre-testing include evaluating the adequacy of the research method, and the appropriateness and quality of the instrument. To ensure that the pre-test study was a replicate of the main study, similar processes that were planned for the main study were ensured in terms of recruitment and sampling of study participants (clinical records, health care providers and HCUs), inclusion and exclusion criteria, information giving sessions, consent and data collection. The data collection site was an ideal PHC facility. The sample size for quantitative data was five randomly selected clinical records from consenting respondents for retrospective record review. Three adult and two child clinical records were selected and reviewed and data were recorded using both adult and child record checklists. Self-administered questionnaires were given to the facility manager, a professional nurse who was a team leader in the acute stream and a third respondent was a professional nurse working in the chronic stream.

The sample size for qualitative data interviews was two purposefully selected professional nurses and three HCUs. One of the HCUs was an adult child caregiver.

The quantitative data were collected on the first day of the study. The five records were reviewed and the two questionnaires were distributed and collected on the same day. The average time taken to review either adult or child clinical records and document findings on checklists was 30 minutes. Both sections of the checklists were filled out, and there was no need to refine them. The average time taken to complete the questionnaires was 20 minutes. All questions in each quality domain were answered by respondents without any gaps. The respondents for questionnaires verbally reported that the questionnaire was easy to complete. All questions included were unambiguous, and the use of the Likert scale made it quick to complete the questionnaire. Therefore, there was no need to refine the questionnaire.

The qualitative data were collected on the second day of the pre-test. Three face-to-face interviews were conducted with HCUs and each interview took about 50 minutes. Each interview with the two professional nurses took about 45 minutes. All pre-determined questions in the English and isiZulu language interview guides for HCUs were clearly understood by the study participants. Follow-up probing questions also

made the interview questions clearer for the participants. The data collection tools that were pre-tested confirmed the accuracy and consistency of quantitative data which ensured the validity and reliability of findings.

4.13 DATA COLLECTION PROCESS

Data collection only commenced after full ethics permission was received by the researcher from the Durban University of Technology's IREC270/22 (Appendix 1) and gatekeeper permissions had been received from all gatekeepers. Permissions were also received through email from the PHC facility managers in charge of the PHC facilities from both local and provincial authorities to gain access to selected PHC facilities. Data collection was performed from June to September 2023. Quantitative and qualitative data were collected concurrently because the objectives of the study could only be achieved by employing both qualitative and quantitative designs. The qualitative approach was used to explore the perspectives of HCPs regarding the influence of Ideal Clinic status on the quality of patient care provided and to ascertain the perspectives of the HCUs regarding the quality of care received in the selected ideal PHC facilities. A quantitative approach was used to determine the current practices of health care providers in ideal PHC facilities to gain an understanding of whether the health care services provision in ideal facilities were in alignment with the Ideal Clinic quality prescripts. Lastly, to determine the state of clinical records.

Convergent design data analysis and interpretation were used to analyse qualitative and quantitative data separately and independently, thereafter the results were merged. The intent of merging the findings was to develop integrated results and interpretations that would expand the understanding of the study findings (Creswell and Plano Clark 2018: 218).

4.13.1 Qualitative data collection

Face-to-face semi-structured interviews using the interview guides were used to collect qualitative data from both HCPs (Appendices 12a) and HCUs (Appendices 12b and 12c). All interview guides were developed by the researcher to explore the perspectives of the HCPs regarding the influence of Ideal Clinic status on the quality of patient care provision and the perspectives of HCUs on the quality of care received in ideal PHC facilities.

Face-to-face semi-structured interviews were conducted with two HCUs and one HCP per facility. One adult HCU and one caregiver who was an adult caring for a child were interviewed. Both categories of participants were purposefully selected by the researcher to gain the depth of information needed for the study (Tashakkori, Johnson and Teddlie 2021: 153). The HCPs were interviewed individually while the other staff members were proceeding with facility activities to ensure continuity of service provision and minimise disruptions. Through the assistance of each facility manager, a quiet secluded room with a lockable door to minimise disturbances was identified to be used for interviews. During semi-structured interviews, open-ended questions and probing were used to gain more clarity on responses. This allowed the participants the freedom to express themselves without being limited by closed-ended questions (Brink, van der Walt and van Rensburg 2017: 158). To allay anxiety and to help HCPs to relax so that they could answer questions comfortably, the researcher (who speaks isiZulu and English) encouraged the HCPs to use IsiZulu if they felt the English language was not expressing enough of their feelings. Each interview with HCPs lasted about 45 minutes. Interviews were audio recorded and field notes were taken by the researcher and later transcribed.

Interviews with HCUs were conducted on different days from those of HCPs. The minimum waiting hours for HCUs in each PHC ranged from 3-4 hours, therefore the interviews were conducted while they were waiting for their consultation to avoid prolonged waiting time in the facilities.

The researcher monitored data saturation for HCPs and HCUs in all PHC facilities by moving from one facility to the next in the different sub-districts after collecting one set of interviews, resulting in two interviews per facility, per managing authority per sub-district. The interviews included one interview with an HCP and two interviews with HCUs. The themes and categories of data became repetitive and redundant with 12 interviews of HCUs across the three sub-districts. To confirm data saturation, two more interviews with HCUs were conducted, totaling 14 interviews. Data saturation for HCPs was reached with six interviews. To confirm data saturation for HCPs, two more interviews with HCPs from two PHC facilities under the control of authorities A and B were conducted, totaling eight interviews (Guest, Namey and Chen 2020: 16). A total of 22 interviews were conducted in nine PHC facilities. With permission from participants, field notes were written to substantiate data and to capture non-verbal

cues during the interviews. A digital device was used to record the interviews which provided an accurate record of the participant's comments during data analysis. Comments were used as verbatim statements in the presentation of the study results to show the authenticity of the findings.

4.13.2 Quantitative data collection

Quantitative data were collected in the form of retrospective record reviews of both adult and child HCUs of PHC services. Using the checklists for both adult and child clinical records (Appendices 10a and 10b), data was collected from facility-based and hand-held clinical records. Quantitative data was also collected from the following categories of HCPs: professional nurses working in the three facility streams, team leaders of the streams as well as from facility managers of all selected PHC facilities using structured self-administered questionnaires (Appendix 11).

4.13.2.1 Data collection from retrospective record reviews

After information giving and getting permission from the systematically sampled HCUs from acute, chronic or MCWH facility streams to review their clinical records (Appendices 8a and 8b), data was collected from the following clinical records: facility-based records of HCUs living with chronic conditions, records of HCUs with acute conditions, hand-held maternity case records as well as road to health booklet (RtHB) records. Checklists for both adult and children's records (Appendices 10a and 10b) were used to collect data. The retrospective review of hand-held records was conducted by the researcher before or after the HCUs was consulted by the HCPs to minimise service disruption in the facility. The facility-based clinical records were reviewed after the consultations for the day were captured by data capturers, just before the filing process. There was minimal need for cooperation from participants except for obtaining consent to review the clinical records (Polit and Beck 2021: 166). The advantage of using clinical records as a data source was that records showed patterns or trends over time about information that had been recorded repeatedly because the reviewed records were within the 12-month period of data collection. Time spent by the researcher in each facility ranged from five to six hours per day and was determined by the availability of willing participants. The researcher spent a maximum of three days in each facility to review 45 clinical records.

4.13.2.2 Data collection from questionnaire to HCPs

During the information-giving sessions in each PHC facility, managers, professional nurses, as well as the team leaders of acute, chronic and MCWH facility streams were issued with information letters. The respondents were given an opportunity to read and ask questions from the researcher. Once the professional nurses and facility managers were satisfied that they had understood the information contained in the letter and were willing to participate in the study, they were requested to sign a consent form (Appendix 7). Thereafter, the structured self-administered questionnaires were handed by the researcher to all consenting professional nurses and facility managers in each facility. The respondents were encouraged to complete the questionnaire during their spare time without being rushed. Later, the completed questionnaires were collected in person by the researcher on the second and third day of quantitative data collection. Nine questionnaires from all facility managers and 54 from professional nurses were collected, making a total of 63 questionnaires. There were no spoilt questionnaires that needed to be discarded.

4.14 DATA ANALYSIS

The study consisted of two data sets: qualitative and quantitative data, both of which needed to be analysed, interpreted and merged to determine study findings and to modify the existing Ideal Clinic framework during the final stage of the study. Data analysis was conducted using analytic techniques applicable to both qualitative and quantitative approaches. The two forms of databases were integrated in the last part of the study to form meta-inferences. Parallel mixed data analysis where quantitative data analysis using descriptive or inferential statistics and qualitative analysis using thematic analysis of narrative data was conducted (Tashakkori, Johnson and Teddlie 2021: 135).

4.14.1 Qualitative data analysis

Qualitative data were analysed concurrently with data collection by the researcher using thematic analysis. The purpose was to organise, provide structure and elicit meaning from the research data (Polit and Beck 2021: 534). Qualitative data were transcribed from the audio tape and field notes into a written format. The HCPs were interviewed in English, therefore, translation was unnecessary for this group of

participants. The HCUs were interviewed in isiZulu and English; the researcher being an isiZulu and English-speaking person translated the interviews. The transcribed interviews were captured onto a master file through Microsoft Word. Tesch's open coding approach was used which entails eight steps of analysis of data (Tashakkori, Johnson and Teddlie 2021: 250; Tesch 2013: 142), as follows:

1. Reading through all transcripts to get a general impression of the collected data.
2. Writing down thoughts that emerged from the data in the margins of the pages.
3. Making a list of all topics. Similar topics were put together. These topics were preliminarily organised as major topics, unique topics and leftover topics.
4. Abbreviating topics as codes which were written next to the corresponding segments of data. Any other topics or codes that emerged were also written next to the appropriate segment of text.
5. The most descriptive wording for the topics was used and turned into sub-categories.
6. Grouping the related topics and emerging list of categories. Preliminary analysis of data was done by assembling data that belonged to each category from which themes emerged.
7. Existing themes and sub-themes were identified and grouped.
8. Presentation of findings under each theme and findings were supported by quotes verbatim.

4.14.2 Quantitative data analysis

Quantitative data analysis uses statistical procedures to organise, interpret and communicate numeric information obtained during data collection. Quantitative data analysis can be descriptive or inferential. Four of the six steps of quantitative data analysis as described by Gray and Grove (2021: 646) were followed. The four steps were (a) preparation of data for analysis, (b) description of the sample, (c) testing of the reliability of measurement and (d) exploratory analysis of the data.

(a) Preparation of data for analysis

In this step, data cleaning was accomplished which included the identification of errors as part of the quality check to ensure the accuracy and integrity of the data. After the data-cleaning process was complete, a labeled backup was captured into an electronic

spreadsheet and stored (Gray and Grove 2021: 646). Copies were made of the original data to ensure that during the data cleaning exercise, the original data were saved and a validity check could be run to identify the changes between the cleaned data and the original data. This process involved checking the data line by line and looking for any discrepancies, inaccuracies and omissions. The errors were categorised as either minor or major errors. Minor errors included “not applicable” whereas the response was applicable. Major errors include all records with too many gaps which needed to be removed. There were no documents that were identified as requiring major changes most likely because the researcher collected the data herself.

b) Description of the sample

This step follows after capturing, saving and storage of data; it is the start of data analysis to obtain a complete picture of all the quantitative data collected (Gray and Grove 2021: 646). The demographic variables of HCPs such as age and years of experience were analysed using descriptive statistics. Frequency distributions for age and years of experience were created and are presented in frequency tables in Chapter 5. Description of the study sample was particularly important because the researcher intended to gain information about the quality of services provision from both authorities. Therefore, confirmation was done that data collected from the two authorities were sufficient as per the specified study sample to justify continuing with the study.

c) Testing the reliability of measurement

According to Gray and Grove (2021: 458), reliability testing examines the amount of measurement error in the instrument being used in a study. Although this was ensured first by doing a pre-testing of data collection instruments before the commencement of the main study in one PHC facility (Appendix 5) and close monitoring throughout data collection, additional evaluation needed to be conducted before data analysis.

d) Exploratory analysis of data

All collected data were examined descriptively with the intent of becoming as familiar as possible with the nature of the data. Examination of data was done on each variable to check if data were normally distributed or skewed and the nature of the variation in the data outliers with extreme values (Gray and Grove 2021: 646). There were no

outliers with extreme values that appeared different from the rest of the sample which could cause the distribution to be skewed. Data from the quantitative analysis were captured and subsequently analysed using version 22 of the Statistical Package for Social Sciences (SPSS) computer program (Tashakkori, Johnson and Teddlie 2021: 256). Data were analysed in one form.

4.15 MIXING OF DATA SETS FROM THE TWO STRANDS

Data mixing is the explicit interrelating of the study's quantitative and qualitative strands, a combination and integration of different data strands (Creswell and Plano Clark 2018: 222). There are four distinct levels at which data sets can be mixed, namely, mixing at the level of design, during data collection, during data analysis, or data interpretation (Creswell and Plano Clark 2018: 221). In the current study data mixing was done during the interpretation of study results which was the final step of the research process after data collection and analysis. Inferences were drawn that reflect what was learned from the combination of the results from the two data strands. In a convergent parallel mixed methods design study where the two strands of data are independent, the interpretation point is the only point in the research process where mixing occurs. The study objectives as well as the five Ps of the clinical microsystems model were used to guide the presentation of both quantitative and qualitative results. Further analysis included triangulation and transformation of the data sets and interpretation of how the merged results answered the research questions and led to the achievement of the study's objectives.

Triangulation is defined as a process or outcome that involves the combination and comparison of multiple data sources, data collection and analysis procedures, research methods and inferences that occur at the end of the study (Creswell and Plano Clark 2018: 290). All data gathered during the study were triangulated and the results of triangulation are presented in Chapter 5. Triangulation was used to add richness to the study and to substantiate selected aspects of literature. Grove, Gray and Burns (2017: 826) state that triangulation does not refer to mixing of quantitative and qualitative data but to checking the validity of an interpretation based on a single source of data by recourse to at least one further source that is of a strategically different type. Therefore, the process of triangulation was used with the idea that drawing data from sources that have different potential threats to validity would

possibly reduce the chances of reaching false conclusions. Different forms of triangulation include triangulation as validity checking, indefinite triangulation and triangulation as seeking complementary information (Grove, Gray and Burns 2017: 395). In the current study, data from the clinical record reviews were triangulated with data from health care provider questionnaires and further with data from the interviews of both HCPs and HCUs in order to achieve two purposes in line with Bergman's stipulations, which are triangulation as validity checking and triangulation as seeking complementary information.

4.16 DEVELOPMENT OF IDEAL CLINIC PRACTICE FRAMEWORK

The final objective of the study was to propose an Ideal Clinic framework to enhance an improved quality healthcare provision in PHC facilities irrespective of Ideal Clinic status. A practice framework is defined as a conceptual map that integrates empirical research, practice theories, ethical principles, and experiential knowledge (Stanley, Baron and Robertson 2021: 26). It is a schematic template not based on or informed by organisational imperatives but designed through and informed by value-based practice, research and evidence. The practice framework is user-centric in that it was informed by research conducted with people affected by services in Ideal Clinics (HCUs, HCPs).

The modified Ideal Clinic framework to enhance an improved quality provision in PHC facilities maps out what is done in PHC clinics with Ideal status and why, offering a rationale for practice, while promoting a range of practice tools for assessments and interventions, thus helping practitioners inform their everyday work in a compact and convenient format and encouraging more effective communication. The researcher ensured that the developed practice framework contained the following five characteristics: (1) It has a specific use, (2) It helps to identify the necessary information and filters out the unnecessary information, (3) It is simple to use, (4) It provides useable insights and (5) It encourages and rewards deeper learning and. A detailed description of how the researcher ensured all the above components and characteristics in the practice framework is contained in Chapter 9 of this thesis.

4.17 EVALUATION OF THE PRACTICE FRAMEWORK

The practice framework was evaluated for relevance and acceptance through a mini-survey conducted using a Delphi technique that included three rounds of review. The expert panel was composed of quality assurance officials, PHC facility managers, senior professional nurses and Ideal Clinic accreditation team members. Details of the development of the framework are presented in Chapter 8.

4.18 RESEARCH RIGOUR

Research rigour refers to openness, relevance and thoroughness in the data collection and analysis process. The researcher ensured rigour for both quantitative and qualitative methodologies as the two strands are both incorporated in mixed methods design. The qualitative data required the researcher to ensure trustworthiness while the quantitative data required the researcher to address reliability and validity. These aspects are incorporated in the conclusions and interpretations that are made based on collected data in a mixed-methods study, and are referred to as inferences and are divided into process, quality and transferability inferences (Tashakkori, Johnson and Teddlie 2021: 297).

Inference process is defined by Tashakkori, Johnson and Teddlie (2021: 297) as the process of making sense of the results of data analysis. This includes the entire journey from idea and data collection to the results in an attempt to make sense of the data by connecting the dots. In the current study, the researcher stated clearly in the discussion of the results all the steps she followed to create meaning out of the relatively large amount of data collected through retrospective record reviews, questionnaires and semi-structured interviews.

Inference quality refers to the quality of conclusions that are made based on both quantitative and qualitative results. It is an umbrella term denoting the standards-based quality of conclusions that are made based on research findings. Inference quality includes internal validity and statistical conclusion validity for the quantitative strand, and credibility and trustworthiness for the qualitative strand (Tashakkori, Johnson and Teddlie: 2021: 297). In the current study, the researcher ensured inherent quality by observing and keeping track of all processes and procedures

required for conducting mixed method studies and keeping record trail of all the steps followed during the entire research process in one composite document.

Inference transferability is the degree to which research conclusions can be applied to other similar settings, people, periods and contexts (Tashakkori, Johnson and Teddlie: 2021: 297). It corresponds to generalizability, construct validity, and external validity in the quantitative strand and transferability in the qualitative strand. In the current study, the researcher ensured inference transferability by keeping an accurate record of all research procedures through an audit trail. In discussing the results and in spelling out the recommendations, the researcher specified the possible boundaries of transferability of the study's findings. Transferability was also made possible through the generalizability of the results of the quantitative strand and the rich and inclusive understanding of the phenomenon created by the qualitative strand.

4.18.1 Research rigour (qualitative strand)

Research rigour refers to openness, relevance, and thoroughness in data collection, the data analysis process and the researcher's self-understanding (Grove, Gray and Burns 2021: 392). In the current study assurance of trustworthiness was the main consideration regarding research rigour. Procedural rigour was ensured through accurate documentation of all steps and processes taken to conduct the study and how the decisions were reached including the establishment of an audit trail. Interpretive rigour was ensured by basing data analysis on the study objectives and the five Ps of the CMM of health care quality as the theoretical framework that was used to guide the study and constantly adhering to the strategies that were inherent within the qualitative design during the data interpretation stage. The researcher used an electronic voice recorder to ensure that data from interviews were accurately recorded and were representative of the data as a whole. To ensure methodological congruence, the researcher conducted extended fieldwork and data were collected for an extended period. The days for information giving and recruitment of study participants as well as identification of facility-based clinical records were different from those of actual retrospective record reviews. This process was done in all facilities resulting in four months of data collection.

Trustworthiness is the main consideration regarding research rigour, reflecting the extent to which a research study is worth paying attention to and the extent to which

others are convinced that the findings are to be trusted (Grove, Gray and Burns 2017: 392). As qualitative research has an element of subjectivity and is often open to criticism, the study and the findings must provide evidence of trustworthiness. Five criteria were used to ensure the trustworthiness and validity of the study, namely: credibility, confirmability, transferability, dependability and authenticity (Grove, Gray and Burns 2017: 392).

Credibility refers to confidence in the truth of the data and interpretation of them by the researcher (Lincoln and Guba 1985). Semi-structured interviews were conducted with professional nurses and HCUs on their perspectives on quality health care provision in ideal primary facilities to complement quantitative data that was collected through retrospective record reviews and a questionnaire. The aim was to obtain different but complementary data on the same topic to fully understand the research problem (Creswell and Plano Clark 2018: 450). Probing was used during interviews until data saturation. Transcripts were read repeatedly and compared with the audio-recorded information and the field notes to ensure credibility. The results of the two separate analyses were brought together for an overall interpretation of the findings.

Confirmability is concerned with the objectivity, accuracy and relevance of data. It is concerned with whether the data presented represents what the participants said and is without bias from the researcher who remains neutral regarding the research interpretations. The purpose is to illustrate clearly the evidence and thought processes that led to the conclusions (Kobus 2019: 125). An audit trail was developed and maintained by reporting and describing the entire research process which included recorded information on electronic devices and field notes. Data was securely stored during the research process, and will be for five years so is available should the need arise for confirmation of the data and findings. The interpretations of the study findings were scrutinised by the research supervisors who acted as independent coders. The themes and sub-themes identified by the researcher were compared with those identified by supervisors. Minor discrepancies were identified between the analyses of data and were corrected by the researcher and supervisors after re-listening to voice recordings and re-interpreting the responses by the participants. Lastly, excerpts and direct quotes from data were used to support the themes that emerged during data analysis.

Transferability refers to the probability that the study findings have meaning for others in similar situations and they can be applied to other settings or groups (Polit and Beck 2021: 570). The rich and vigorous presentation of the findings, together with appropriate quotations by participants and thick descriptions of the data were provided to facilitate the process for future researchers who might endeavour to conduct similar studies.

Dependability can be established by ensuring the reliability of the data through varied periods and conditions (Lincoln and Guba 1985). It also concerns documentation of steps taken and decisions made during data analysis. Although the participants were interviewed on different dates, the interview guides used for all participants contained the same standard broad questions and predetermined probing questions to ensure dependability.

Authenticity is the extent to which the researcher fairly and faithfully shows a range of realities in the collection, analysis and interpretation of data (Polit and Beck 2021: 570). The direct narratives from the study participants were used when presenting the study findings to ensure that the 'feeling' and 'tone' of participants were conveyed as they were experienced by them.

4.18.2 Research rigour (quantitative strand)

In quantitative research, reliability and validity ensure that the findings are accurate and not biased.

4.18.2.1 Reliability and validity

Reliability refers to the accuracy and consistency of information obtained in a study and is associated with methods used to measure the research variables (Polit and Beck 2021: 316). To ensure reliability, pre-testing of the research tools was conducted in one facility which was not part of the main study. Furthermore, the research tools focused only on documentation (health care user records) as per Ideal Clinic prescripts as well as on the seven quality domains of service provision. Validity is the degree to which a tool measures what it is supposed to measure; consistency and accuracy are the measures of validity (Creswell and Plano Clark 2018: 216). Content validity refers to whether a tool covers the construct domain (Polit and Beck 2021: 316). The tool for the adult record review was adapted from the essential stationery list and clinical

recording requirements as specified in the PHC Ideal Clinic manual -Version 2020 (South Africa, NDoH 2020b: 13). The tool for child record review was adapted from the IMCI provincial guidelines and specifically looked at the management of under-five children. The questionnaire was adapted from the seven quality domains, namely: effectiveness, safety, people-centredness, timeliness, integrated, equity and efficiency of services. The researcher personally adapted the tools and pre-tested them before the actual research was conducted and the tools yielded the required information.

4.18.2.2 Homogeneity

Homogeneity is the degree to which subjects are similar and allows study findings to be more interpretable (Polit and Beck 2021: 788). During sampling, similar and different characteristics of subjects were checked. It is for this reason that the researcher included PHC facilities with ideal status from both authorities and the providers, clinical records and HCUs were from the same facilities. Furthermore, to maintain homogeneity, the documentation in both adult and child clinical records was by the Ideal Clinic manual prescripts and the HCPs who were responsible for providing health care services used the clinical records to document all services provided.

4.18.2.3 Heterogeneity

Heterogeneity is the degree to which attributes of subjects under study vary (Polit and Beck 2021: 788). The researcher obtained subjects who were heterogeneous to reduce the risk of biases. The subjects were heterogeneous in that ideal PHC facilities had different locations – either urban, peri-urban or rural. The challenges of PHC facilities were also influenced by facility location. The HCPs had varied professional qualifications and experiences in working at different ideal PHC facilities. Clinical records were filled in by different HCPs with varied qualifications and expertise. The target populations were heterogeneous in that the three ideal PHC facilities were located in different areas (rural, peri-urban or urban) and were managed by either Local or Provincial authorities. The HCPs had varied professional qualifications and experiences in working at different ideal PHC facilities and rendered services that included acute, chronic and MCWH care. The HCUs were heterogeneous in that an adult user and ACGs were interviewed, adults' and children's records were reviewed, which provided varied but complementary qualitative and quantitative data.

4.18.2.4 Attrition

To safeguard against attrition, where participants could be lost during the course of the study (Polit and Beck 2021: 778), the researcher recruited more participants than the number required for the sample in anticipation of possible attrition. Where possible, the HCUs who agreed to take part in the study were interviewed on the same day as the information session, except for the HCPs who preferred to make appointments for their interviews on different days. The interview dates were aligned with the facility's working days and the availability of each HCP.

4.19 ETHICAL CONSIDERATIONS

According to Polit and Beck (2021: 133), basic ethical principles of autonomy, beneficence and justice are crucial when conducting any form of study. The principles pertain to study approval and participants.

4.19.1 Study approval

In the current study, the basic ethical principles relevant to research that involves human participants were observed. The principles include respect for persons, beneficence and justice (Gray and Grove 2021: 194). Full ethics clearance to conduct the study was obtained from the Durban University of Technology IREC270/22. Before starting to collect data, gatekeeper permission was gained from the Manager of the KZN Provincial Department of Health Research Unit, the eThekweni District Manager and the eThekweni Municipality Head of Health Unit. Permission was gained to access and review clinical records of consenting HCUs of the selected PHC facilities, and interview providers and HCUs. Participants were given full information about the study during information-giving sessions and all questions and concerns about the study were answered by the researcher.

4.19.2 Respect for persons

The principle of respect for persons holds that persons have the right to self-determination and the freedom either to participate or not to participate in the study. Respect for human dignity requires that persons capable of deliberation should be permitted to exercise self-determination (Gray and Grove 2021: 194; Polit and Beck 2021: 134). The participants were allowed to choose to participate or not without being

coerced. Full disclosure about the study was made by the researcher; all participants were informed about the study and given written information letters in either isiZulu or English. The participants were also given a chance to ask questions regarding the study and to consult with family members if they wished to do so before participating.

Thereafter, they signed informed consent and were informed that they had the right to withdraw from the study at any stage. In addition, permission to access and review user records was also requested from HCUs themselves and where a user was a minor or not legally able to give consent, permission was sought from adult caregivers who escorted the minors. Participants were assured that data obtained from the study would be used only for the study. Participants could refuse to answer specific questions during the interviews if they were uncomfortable answering such questions. To ensure privacy, electronic data from the study was stored in a password-protected computer known only to the researcher and will be deleted at the end of five years. Hard copies of data will be kept under lock and key and will be shredded by the researcher at the end of five years.

4.19.3 Beneficence

The principle of beneficence requires the researcher to do good and avoid, prevent or minimise physical, psychological or social harm and discomfort but rather increase benefits for the participants (Gray and Grove 2021: 194; Polit and Beck 2021: 133). There was no anticipated risk for the participants. However, should participants have become distressed during interviews, the researcher, being a clinical nurse practitioner, would have noticed and intervened if any person experienced emotional and or physical discomfort.

Face-to-face semi-structured interviews were conducted in a separate well-ventilated room with minimal noise in the same selected PHC facilities. Interviews were conducted while the HCUs were waiting to be consulted by HCPs to minimise their waiting time at the facilities. The researcher, who speaks isiZulu and English, conducted all the interviews using the same interview guides for all participants. To ensure confidentiality and anonymity participants' personal details, facility names, managing authorities and sub-districts were not recorded or mentioned in the audiotape, questionnaire, checklists or field notes, instead, special codes were allocated and used during data collection and reporting. The researcher adhered to

the planned duration of the interviews (45 to 50 minutes) to protect participants from exploitation.

4.19.4 Justice

The principle of justice refers to participants' right to fair treatment in terms of the benefits and risks of the study. Research should minimise risks and benefits should outweigh potential risks (Gray and Grove 2021: 194). Sampling of clinical records for retrospective review, of HCUs and HCPs to be interviewed, and of HCPs to complete the questionnaire, was based on the predetermined inclusion criteria for the study and not on the group's vulnerability. All participants were assured that they could withdraw from participation in the study at any stage without incurring negative consequences.

4.20 CHAPTER SUMMARY

This chapter describes the research methodology that was used in this study. It showed how the objectives of the study were met using both quantitative and qualitative approaches. Different approaches of sampling in line with mixed methods design were discussed and sampling was conducted to give participants an equal opportunity to be selected for the study. Data collection methods were also discussed in this chapter including the data collection tools that were used. Data analysis methods used to analyse both qualitative and quantitative data strands were presented. The study findings are presented in the next chapter.

CHAPTER 5:

PRESENTATION OF QUANTITATIVE RESULTS

5.1 INTRODUCTION

Chapter 5 presents the research results from the quantitative data set. The results presented in this section were aimed at achieving the first two study objectives which were to determine the current practices of HCPs and the status of HCU records in ideal PHC facilities. The results of the first two objectives led to partial achievement of the final objective of the study which was to propose an Ideal Clinic Practice Framework that would enhance an improved quality of care provision in PHC facilities irrespective of Ideal Clinic status. A detailed description of how this final objective was achieved is presented in Chapter 10. Data were collected for three days per PHC facility across the three sub-districts through retrospective record reviews of adults' and children's clinical records and a questionnaire for HCPs.

5.2 OVERVIEW OF DATA ANALYSIS

When analysing quantitative data, the researcher followed four of the six steps of data analysis proposed by Grove, Gray and Burns (2017: 644). The four steps were the preparation of data analysis, description of the sample, testing of the reliability of measurement and exploratory analysis of the data.

5.2.1 Preparation of data analysis

Data cleaning and coding were conducted. After data collection, coding was conducted and data was transformed into numbers (Polit and Beck 2021: 435). Data was thereafter captured into an electronic spreadsheet. The cleaning process was part of a data quality check to ensure the accuracy and integrity of data. Copies of data sheets were composed of the original data to ensure that during the cleaning process, the original data were saved and a validity check was carried out to identify the changes between the cleaned and original data. The data was checked line by line, looking for possible discrepancies, inaccuracies, inconsistencies and omissions. None

were noted thus no changes were made. All returned questionnaires were suitable for analysis.

5.2.2 Description of the sample

The description of the sample included obtaining a complete picture of all quantitative data collected (Grove, Gray and Burns 2017: 646). Data from authorities A and B controlled facilities was checked in order to ensure that data obtained represented the study population. The description of the study was important because the researcher intended to obtain different perspectives and findings from participants from different managing authorities since the PHC facilities in eThekweni district were controlled by two authorities. Therefore, the researcher confirmed that data collected from different participants and different study sites were equivalent in ways important to the study in order to justify continuing with the study (Grove, Gray and Burns 2017: 646).

5.2.3 Testing of reliability of measurement

A reliable measure is one that gives the same scores each time the same situation or factor is measured by different people (Polit and Beck 2021: 316). Although the reliability of the measurement test was done first by doing a pre-test and close monitoring through data collection, it was important that additional evaluation was conducted before data analysis.

5.2.4 Exploratory analysis of the data

All data collected were examined descriptively in order to become more familiar with the nature of data. Each variable was examined in order to establish that data were normally distributed, not skewed and without outliers with extreme values that appear different from the rest of the sample (Grove, Gray and Burns 2017: 646). Simple statistics which included total sums, percentages and averages, where applicable, were used to summarise the data. Data from the quantitative strand were analysed in two forms. The analysis included a composite analysis of the entire quantitative and qualitative data set to assess the state of quality of provision in the nine PHC facilities as a whole, and, secondly, data were merged to gain more depth and breadth of the findings about the influence of Ideal Clinic status in quality care provision at PHC facilities.

5.3 RESPONSE AND ATTRITION RATES

The required sample size for this study was 63 respondents and 65 questionnaires were distributed to safeguard against attrition where some respondents could be lost during the study. Out of 65 questionnaires distributed, the number returned was 63 (a response rate of 97%), which was the number required by the researcher

5.4 SAMPLE REALISATION

Sample realisation in the current study included that of study sites, clinical records and health care providers.

5.4.1 Study sites

All the PHCs included as data collection sites ($n = 9$) had existing Ideal Clinic status of either silver, gold or platinum, and were under the administration of either health authority A or B and were distributed among the three sub-districts (N, W and S). of the nine PHC facilities included in the study, six (67%) were from authority A and three (33%) were from authority B. The distribution of PHC facilities within the three sub-districts is indicated in Figure 5.1 which is a schematic presentation of the sample realisation of PHC facilities.

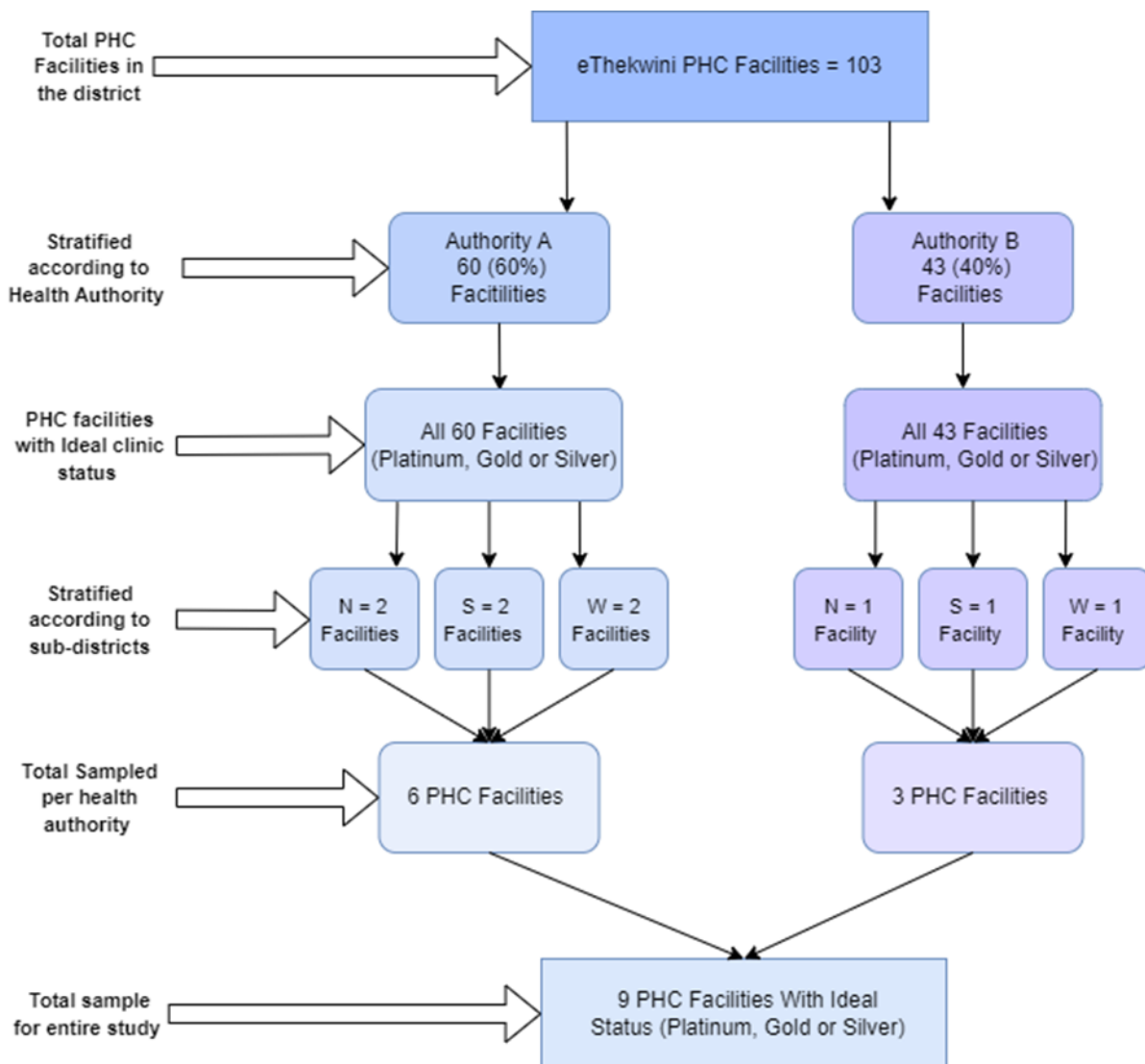


Figure 5.1: Schematic presentation of sample realisation of PHC facilities

5.4.2 Clinical records

There were 360 adults' clinical records and 45 children's records that were chosen from every third HCU across the three sub-districts ($n = 405$). Two separate checklists, one for adult clinical records (both chronic and acute care clinical records), and another for children's clinical records, were used to collect data from clinical records. A total of $n = 270$ (67%) clinical records were from authority A and $n = 135$ (33%) were from authority B. A total of 45 records were reviewed from each of the nine PHC clinics as follows:

- Ten (22%) records of HCUs with acute conditions,
- Twenty (45%) records of HCUs with chronic conditions,

- Ten (22%) maternity case records, and
- Five (11%) RTHBs.

5.4.3 Healthcare providers (n=63)

Table 5.1 presents the sample realisation for study sites and respondents. The HCP respondents included n = 42 (67%) from authority A and n = 21 (33%) from authority B, totaling n = 63 (100%) respondents.

Table 5.1: Sample realisation for the study sites and respondents

Research strand	Data Source	Participants	A				B				Grand Total
			N	S	W	Total	N	S	W	Total	
	Study sites	PHC Facilities	2	2	2	6	1	1	1	3	9
Quantitative	Record review	Adult	80	80	80	240	40	40	40	120	360
		Child	10	10	10	30	5	5	5	15	45
	Total		90	90	90	270	45	45	45	135	405
	Questionnaires	Facility Managers	2	2	2	6	1	1	1	3	9
		PNs	12	12	12	36	6	6	6	18	54
	Total		14	14	14	42	7	7	7	21	63

5.5 CHARACTERISTICS OF THE STUDY RESPONDENTS

The respondents for the quantitative strand were clinical records and HCPs.

5.5.1 Characteristics for clinic records

In line with the inclusion criteria, all records (n = 405; 100%) had a minimum of two consultation visits recorded within 12 months.

5.5.2 Characteristics of healthcare providers

The results on analysis of selected demographic information for HCPs are shown in Table 5.2, and were as follows:

Age: The ages of 63 HCP respondents ranged from 27 to 54 years (n=35; 55.6%), with the most (n = 23; 36.5%) respondents being in the 29-50 age group and the least (n = 5; 7.9%) being in the 20-25 age group.

Gender: The respondents comprised a majority of females (n = 60; 95.2%) with only a few males (n = 3; 4.8%).

Race: The respondents comprised a majority of Africans (n = 61: 96.8%) followed by Indians (n = 2; 3.2%). The Coloured and White race groups were not represented.

Employment status: All respondents (n = 63; 100%) were permanently employed by either health authority A or B.

Work experience as a nurse ranged from 2 to 25 years with most (n = 23; 36.5%) respondents having 6-10 years' work experience and the least (n = 6; 9.5%) having 21-25 years age group.

Duration of experiences in a PHC clinic with an Ideal Clinic status: All respondents (n = 63: 100%) had been working in a PHC facility with Ideal Clinic status for two years or more.

Table 5.2: Age distribution and years of experience for HCP respondents

Demographic characteristic	1	2	3	4	5	Total
Age	20–29 = 5 (8%)	30–39 = 20 (32%)	40–49 = 15 (24%)	50–59 = 23 (36%)	n/a	63 (100%)
Gender	Female = 60 (95%)	Male = 3 (5%)	Other = 0	n/a	n/a	63
Race	Africans = 61 (97%)	Coloured = 0	Indian = 2 (3%)	White = 0	n/a	(100%)
Employment status	Permanent = 63 (100%)	Part-time = 0	Agency/NGO = 0	n/a	n/a	63
Experience as a nurse	2–5 = 7 (11%)	6–10 = 23 (36%)	11–15 = 18 (29%)	16–20 = 9 (14%)	21–25 = 6 (10%)	63 (100%)
Experience in Ideal PHC clinic	< 2 years = 0	≥ 2 years = 63 (100%)	n/a	n/a	n/a	63 (100%)

5.6 PRESENTATION OF RESULTS

The current practices of the HCPs were determined using the structured self-administered questionnaires distributed to 63 respondents that comprised nine facility managers, 27 team leaders of the three facility streams and 27 professional nurses who worked in each facility stream. All categories of respondents completed the same paper-based questionnaires.

5.6.1 Practices of healthcare providers in ideal PHC facilities

The data collected from HCPs (nurses and managers) was intended to achieve the first objective of the study which was to determine the current practices of providers in ideal PHC facilities. The questionnaires comprised 49 statements that were subdivided into seven categories in line with the seven domains as reflected in the WHO, OECD, IBRD and WB (2018:13) quality of healthcare services document. Thus, the presentation of the results is according to the seven categories as reflected in the questionnaire (Appendix 11).

The responses by respondents were chosen from the options 'strongly agree', 'agree', 'strongly disagree', 'disagree' and 'not applicable'. The respondents had to choose an option for each statement that they thought best described the services they provided to HCUs. For data presentation, strongly agree and agree responses were added together and were presented as 'agree' and, similarly, strongly disagree and disagree responses were also added together and are presented as 'disagree'. There were no responses that showed not applicable. Thus, the presentation of findings shows only the 'agree' or 'disagree' responses.

Respondents answered regarding whether selected activities and processes were performed relating to effectiveness of care, safety of care, people-centred care, adherence to timelines, integration, equity, and efficiency of care. The overall results indicated that there were more agreed responses than disagreed responses for all questions. Table 5.3 shows the average number of responses for all seven categories.

Table 5.3: Average number of responses for all seven categories

	Agree Responses		Disagree Responses	
	(n=)	%	(n=)	%
Effectiveness of care	38.5	61%	24.5	39%
Safety of care	38.0	60%	25.0	40%
People-centered care	36.5	58%	26.5	42%
Timeliness of care	34.1	54%	28.9	46%
Integrated care	42.4	67%	20.6	33%
Equitable care	60.0	95%	3.0	5%
Efficient care	53.0	84%	10.0	16%

- ***Effectiveness of care***

Table 5.4 presents findings on participants' responses to the effectiveness of care. There were 19 statements that assessed the effectiveness of care rendered by the HCPs. The majority of these were practices related to the consultation process. The 'agree' responses ranged between (n = 15; 24%) and (n = 61; 97%) while the 'disagree' responses ranged between (n = 2; 3%) and (n = 48; 76%) with an average of (n = 38; 61%) for 'agree' responses and (n = 24.5; 39%) for 'disagree' responses. The question with the majority of 'agree' responses was "Essential medicines dispensed same day" (n = 61; 97%). The question with the least number of 'agree' responses was "Chronic patients done yearly physical examination" which had (n = 15; 24%) responses. These results are evidence that on average there were more agreed responses (n = 38.5; 61%) than disagreed responses (n = 24; 39%).

Table 5.4: Participant responses for effectiveness of care

	Agree Responses		Disagree Responses	
	(n=)	%	(n=)	%
Enough chairs in the waiting area.	41	65	22	35
Staff member for rapid appraisal.	28	44	35	56
File retrieval/creation within 10 minutes.	27	43	36	57
Updated patient's personal details on files.	28	44	35	56
Full history documented on files.	25	40	38	60
Vital signs for all acute patients with each visit.	36	57	27	43
Vital signs recorded and action taken.	54	86	9	14
Abnormal vital signs recorded, action taken.	53	84	10	16
Special investigations recorded and actioned.	42	67	21	33
Physical examination recorded.	20	32	43	68
Chronic patients done yearly physical examination.	15	24	48	76
Provisional diagnosis recorded.	59	94	4	6
Plan of care documented.	36	57	27	43
Essential medicines dispensed same day.	61	97	2	3
Essential medicines dispensed per EDL guidelines.	36	57	27	43
Instructions on dispensed medicines communicated.	58	92.1	5	7.9
Patient shown how to take medicines.	34	54.0	29	46.0
Follow-up care plan recorded.	58	92.1	5	7.9
Documentations on patients file accounted for by a professional.	21	33.3	42	66.7

- ***Safety of care***

The results on safety of care as indicated in Figure 5.2 were as follows: there were nine questions used to assess practices related to ensuring the safety of clients in PHC clinics. The 'agree' responses ranged between (n = 27; 43%) and (n = 59; 94%) while the 'disagree' responses ranged between (n = 4; 6%) and (n = 36; 57%) with an average of (n = 38; 60%) for 'agree' responses and (n = 25; 40%) for 'disagree'

responses. The question with the majority of 'agree' responses was "Prescribing medicines using PHC-EDL and avoid overprescribing as per patients' diagnosis" (n= 59; 94%). The questions with the least number of 'agree' responses were "Patient safety incidents such as drug adverse events are recorded on patients' files, communicated to patients and reported as per guidelines" and "patients are consulted by a named professional in a closed consulting room with open windows or air conditioner for ventilation and lighting" both of which had (n = 27; 43%) 'agree' responses. These findings show that on average, there were more (n = 38; 60%) 'agree' responses than (n = 25; 40%) 'disagree' responses.

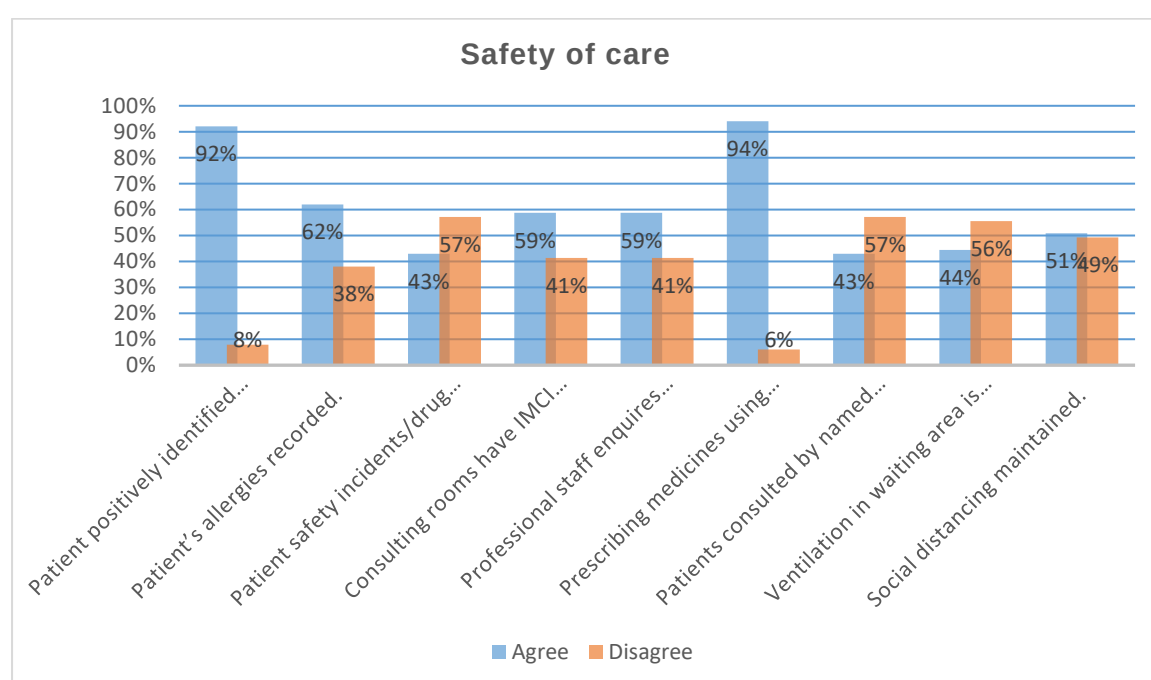


Figure 5.2: Results for safety of care

- ***People-Centred care***

Figure 5.3 presents results for people-centered care. There were two questions used to assess the practices of HCPs related to people-centredness. These included the following: "Patients are given all available alternative treatments regarding their condition and their preferences are considered as part of management regarding their care", and "Care plan is discussed between a nurse and a patient and patient's preferences are considered where possible". There were more 'agree' (n = 37; 58%) and (n = 36; 57%) responses than 'disagree' responses (n = 27; 43% and (n = 26; 41%) respectively for both questions. The results show that on average, there were

more 'agree' responses (n = 36.5; 58%) than 'disagree' responses (n = 26.5; 42%) for people-centredness.

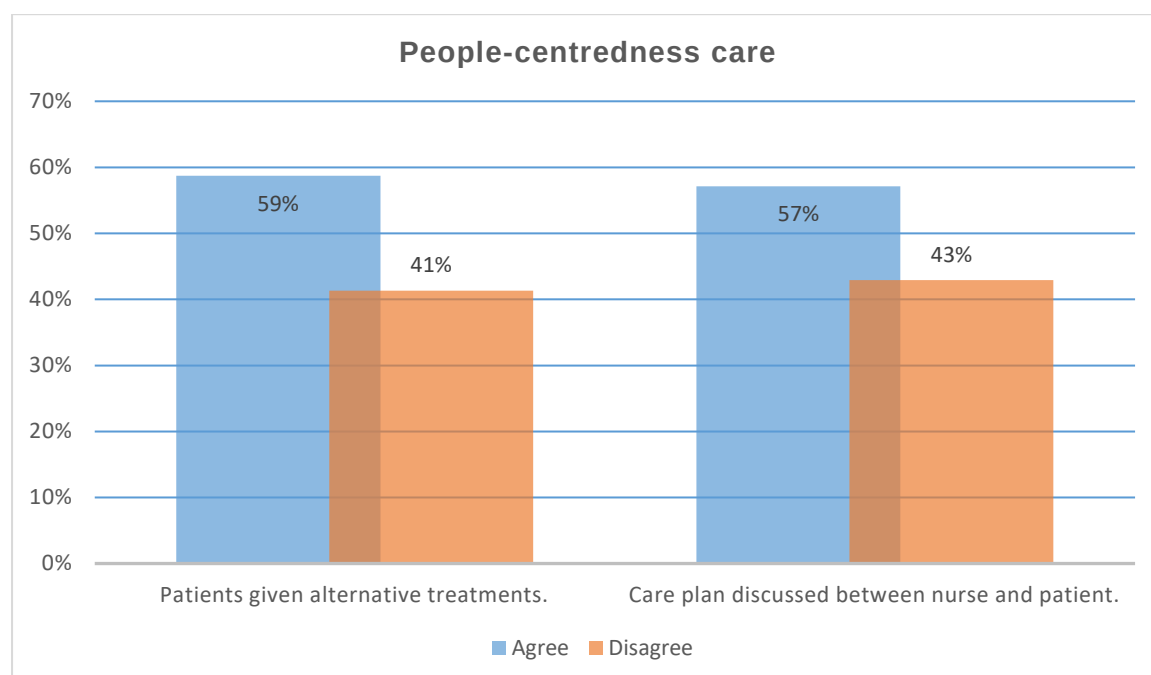


Figure 5.3: Results for people-centredness care

- ***Timeliness of care***

Table 5.5 indicates the results on timeliness of care. There were eight questions used to assess practices related to adherence to timelines. The 'agree' responses ranged between (n = 4; 6%) and (n = 63;100%) while the 'disagree' responses ranged between 0 and (n = 59; 94%) with an average of (n = 34.1; 54%) for 'agree' responses and (n = 28.9; 46%) for 'disagree' responses. The question with the majority of 'agree' responses was "Emergency patients are stabilised and urgently referred to the next level of care without having to wait for an appointment date" (n = 63;100%), and with the least number of 'agree' responses was "Emergency transport responds within two hours of being called for patients to access health care timeously" (n = 4; 6%). These findings show that on average there were more 'agree' responses (n = 34.1; 54%) than 'disagree' responses (n = 28.9; 46%).

Table 5.5: Timeliness of care

	Agree		Disagree	
	(n=)	%	(n=)	%
Patients refusing treatment are allowed.	59	94	4	6
Clear patient flow from reception up to exiting facility.	30	48	33	52
Patients addressed on projected waiting times.	36	57	27	43
Emergency patients stabilised and urgently referred.	63	100	0	0
Emergency transport responds within two hours.	4	6	59	94
Patients are issued with prescribed medicines.	20	32	4	68
All patients are given specific follow-up dates.	39	62	24	38
Medical doctor sees patients needing doctor's attention.	22	35	41	65

- ***Integrated care***

Figure 5.4: presents the results for integration of care. There were six questions used to assess practices related to ensuring integration of services. The 'agree' responses ranged between (n = 13; 21%) and (n = 61; 97%) while the 'disagree' responses ranged between (n = 2; 3%) and (n = 50; 79%) with an average of (n = 42.4; 67%) for 'agree' responses and (n = 20.6; 33%) for 'disagree' responses. The question with the majority of 'agree' responses was "Patients needing specialist care are referred to the next level of care without delays diagnosis" (n = 61; 97%) and that with the least number of 'agree' responses was "Multidisciplinary team members readily available" (n = 13; 21%). These findings show that, on average, there were more 'agree' responses (n = 42.4; 67%) than 'disagree' responses (n = 20.6; 33%).

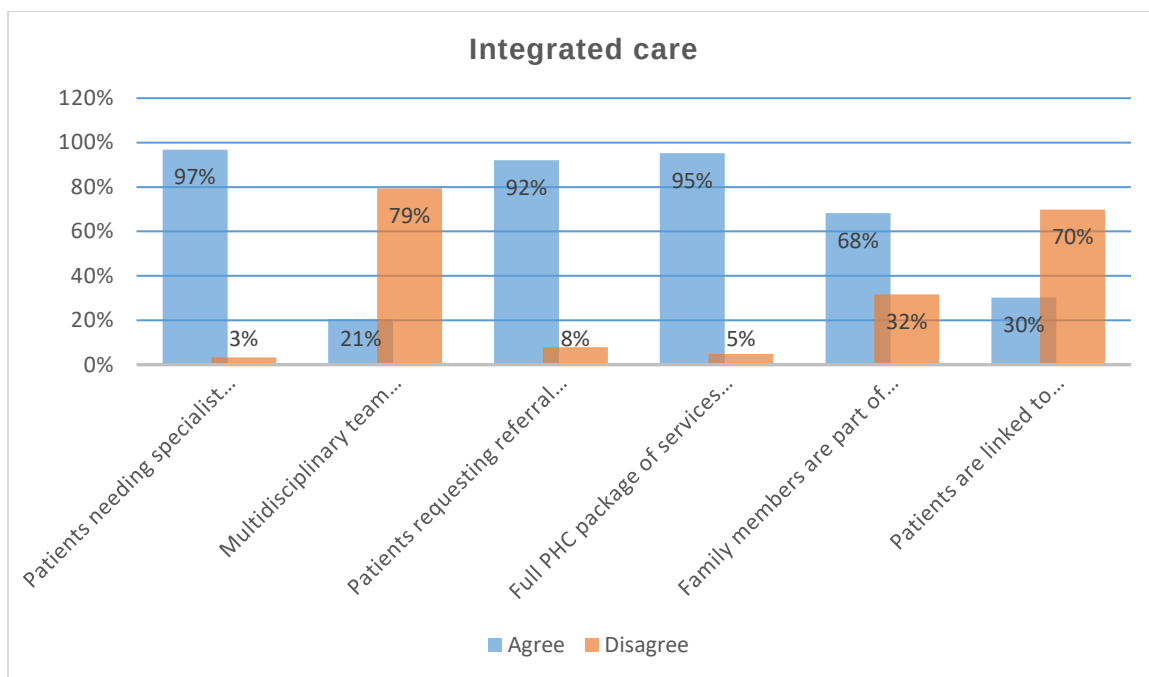


Figure 5.4: Results for integrated care

- ***Equitable care***

Figure 5.5: presents the results on equity of care. Two questions were used to assess practices related to equity: “All patients are attended at the clinic regardless of their geographical location, gender, race, socio-economic status and date of visit” and “Vulnerable populations like elderly, LGBTQ community and children are seen at the clinic without being discriminated”. There were more ‘agree’ (n = 61; 97%) and (n = 59; 94%) responses than ‘disagree’ responses (n = 2; 3%) and (n = 4; 6%) respectively for both questions. The findings show that on average, there were more ‘agree’ (n = 60; 95%) responses than ‘disagree’ (n = 3; 5%) responses for people-centredness care.

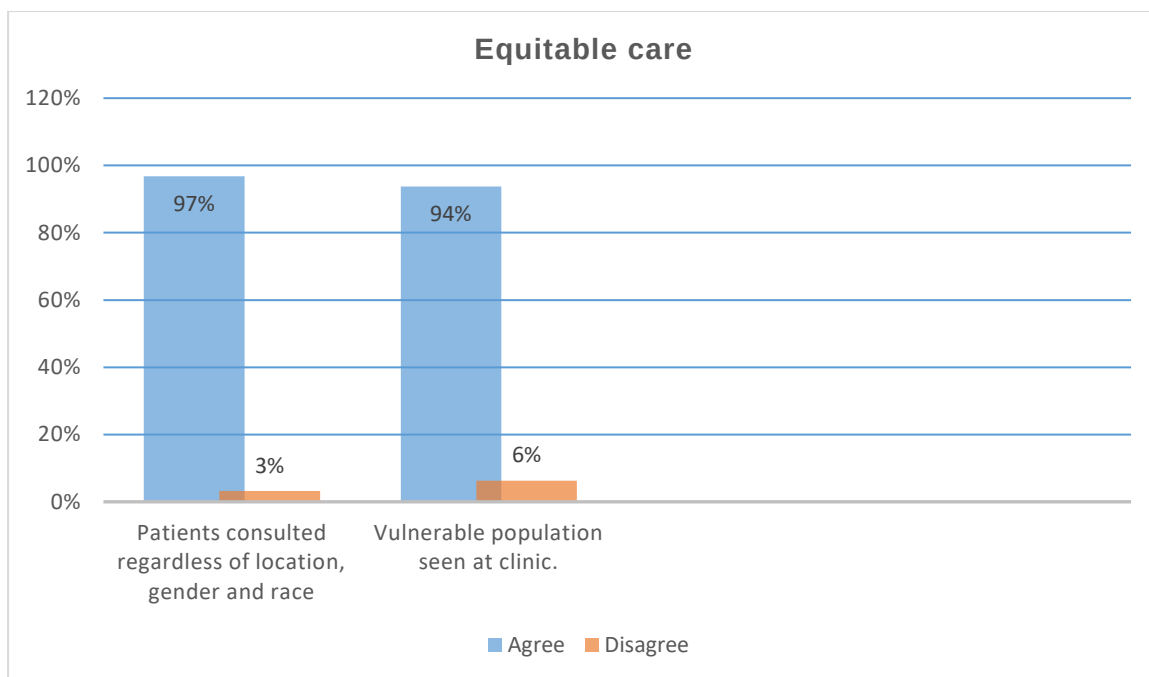


Figure 5.5: Results on equitable care

- ***Efficient care***

Figure 5.6 presents the results for the efficiency of care. Three questions were used to assess practices related to efficiency: “Medicines are dispensed to patients according to patients’ diagnosis as guided by PHC - EDL or any other relevant guidelines”, “The results of all medical tests done are tracked, interpreted, discussed with the patients and filed in patients’ records”, and “Action is taken for all abnormal results in consultation with the affected patients. All actions taken are documented on the patients’ file”.

The ‘agree’ responses ranged between (n = 49; 78%) and (n = 60; 95%) while the ‘disagree’ responses ranged between (n = 3; 5%) and (n = 14; 22%) with an average of (n = 53; 84%) for ‘agree’ responses and (n = 10; 16%) for ‘disagree’ responses. The question with the majority of ‘agree’ responses was “Action is taken for all abnormal results in consultation with the affected patients” (n = 60; 95%), and that with the least number of ‘agree’ responses was “Medicines are dispensed to patients according to patients’ diagnosis as guided by PHC - EDL or any other relevant guidelines” which had (n = 49; 78%) responses. These findings show that on average, there were more ‘agree’ responses (n = 53; 84%) than ‘disagree’ responses (n = 10; 16%).

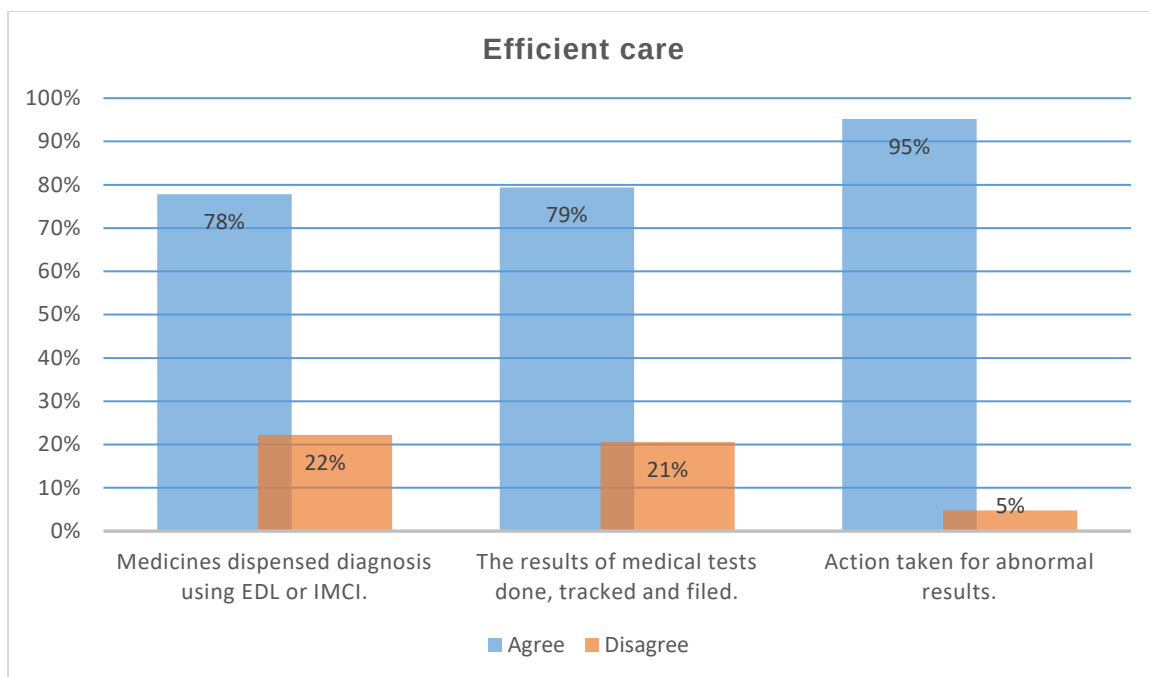


Figure 5.6: Results on efficient care

5.6.1 Status of healthcare user records in ideal PHC facilities

The data collected through a retrospective review of clinical records were intended to achieve the second objective of the study, which was to determine the status of healthcare user records in ideal facilities. Data was collected using both the adult and child's checklists (Appendices 10a and 10b). The records included 45 RtHBs, 180 clinical records of HCUs living with chronic conditions, 90 clinical records of HCUs with acute conditions as well as 90 maternity case records totalling 405 clinical records for the entire study. Each of the two data sets (adult HCU records and child HCU records) was analysed independently and therefore analysis results are presented in two separate sections.

5.6.2 Analysis results for adult healthcare user records

A checklist for adult clinical record reviews was used to determine the completeness of clinical records of clients with acute illnesses and those with chronic illnesses. The checklist comprised a list of specific aspects that should have been documented in the clinical record and had a "Yes", "Incomplete" or "No" option where the researcher allocated the findings for each record. The researcher personally reviewed all 360 adult clinical records for the entire study. The overall results on adult clinical records

reflected that (n = 180; 50%) records were complete, (n = 104; 29%) were incomplete and (n = 76; 21%) not recorded. Figure 5.7 presents the results on the state of completeness for all adult records that were reviewed.

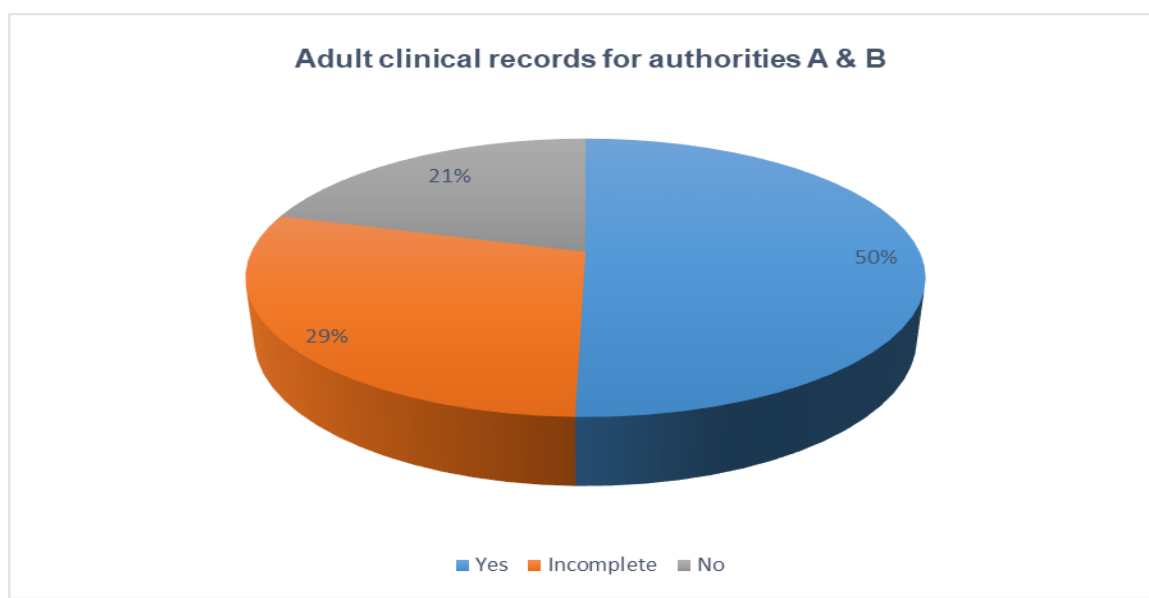


Figure 5.7: Overall state for completeness of adult records

5.6.2.1 Results on each aspect verified for completeness on adult clinical records

Figure 5.8 shows the state of recorded information on biographics, health assessment and details of HCPs.

- *Biographic data*

The biographic data included HCUs' personal details (*name, physical address, contact details etc.*), health patient registration system (HPRS) unique permanent identifier, and single record system. The HPRS is an electronic master patient index that uses the South African identity number or any other forms of legal identification to identify each HCU across all nine South African provinces. In ideal facilities, all HCUs attending health facilities need to be registered to have a unique HPRS permanent identifier for tracking and tracing across the South African health system.

A single record system refers to a patient record that contains all clinical information irrespective of health conditions using the national adult or child record for clinics. In ideal facilities, all HCUs with multiple conditions need to have one clinical record regardless of health conditions for comprehensive management at PHC level.

The state of completeness of biographic data recorded was (n = 263; 73%), incompletely recorded biographic data was (n = 18; 5%) and (n = 79; 22%) of clinical records had no biographic data.

- The HPRS number was missing in (n = 256; 71%) records.
- No single record system was created in (n = 313; 87%).
- *Health assessment:*

Health assessment comprised a review of the consultation process. This included ascertaining if there was evidence of the following information recorded in the clinical record: main complaints by HCUs, history taking, physical examination, diagnostic procedures done, diagnosis given, plan of care, treatment of the HCUs as well as the actual documentation of health information in clinical records. Of all clinical records assessed on this item, only (n = 176; 49%) were recorded, (n = 119; 33%), were incompletely recorded, and (n = 65; 18%) were not recorded.

The missing elements of health assessment included but were not limited to the following aspects:

- Full history taking was missing in (n = 91; 25%), incomplete in (n = 258; 72%) and only recorded in (n = 11; 3%).
- Physical examination missing in (n = 239; 66%), incompletely recorded in (n = 90; 25%) and only recorded in (n = 31; 9%).
- Plan of management was missing in (n = 24; 7%), incompletely recorded (n = 173; 48%) and only recorded on (n = 163; 45%) clinical records.
- *The details of the HCPs*

The details of the HCPs who consulted with the HCU included the name and surname of HCPs, reference numbers from the professional body and eligible signatures as per Ideal Clinic prescripts. Of all clinical records that were reviewed, providers' details were recorded in (n = 115; 32%), were incompletely recorded in (n = 155; 43%), and not recorded in (n = 90; 25%).

The following were incompletely recorded:

- Name and surname of HCP in (n = 292; 81%) records – HCPs only wrote their surnames.
- Registration number of HCPs in (n = 290; 81%).
- Date and time of consultation in (n = 330; 92%) where only the date of consultation was recorded.

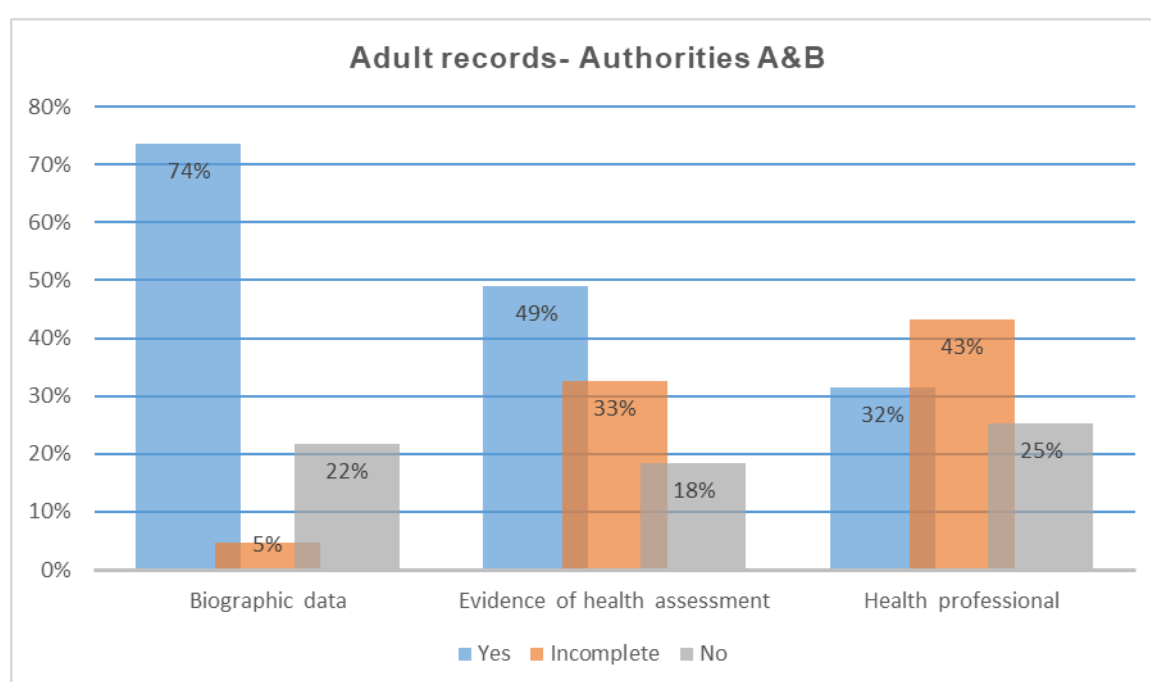


Figure 5.8: Results for the state of recorded information on biographic, health assessment and details of HCPs

5.6.3 Analysis results for child user records

The checklist for child clinical record review also had sections A and B. Section A consisted of coded facility identification information to ensure anonymity. Section B consisted of information on the consultation process using IMCI as required by Ideal Clinic manual prescripts. The checklist for child record review was adapted by the researcher from the Ideal Clinic manual -Version 2020 and the checklist was not used before. The checklist had a “Yes”, “Incomplete” or “No” option where the researcher allocated the findings for each record. Before reviewing the records, the researcher

requested and obtained permission from the adult caregivers who attended with the child for health care services. All adult caregivers who agreed to participate in the study and met the inclusion criteria were requested to sign the consent for record review. Child clinical records in the form of RtHBs of both sick and well children were reviewed.

Figure 5.9 indicates results on the completeness of children's clinical records. The researcher reviewed five RtHBs from each of the nine selected facilities amounting to 45 records from authorities A and B. All RtHBs that were reviewed belonged to children five years old and below who had attended the PHC facilities for two or more visits during the 12 months of data collection. The overall completeness of child clinical records was (n = 458; 46%), incomplete (n = 265; 27%) and not recorded was (n = 267; 27%).

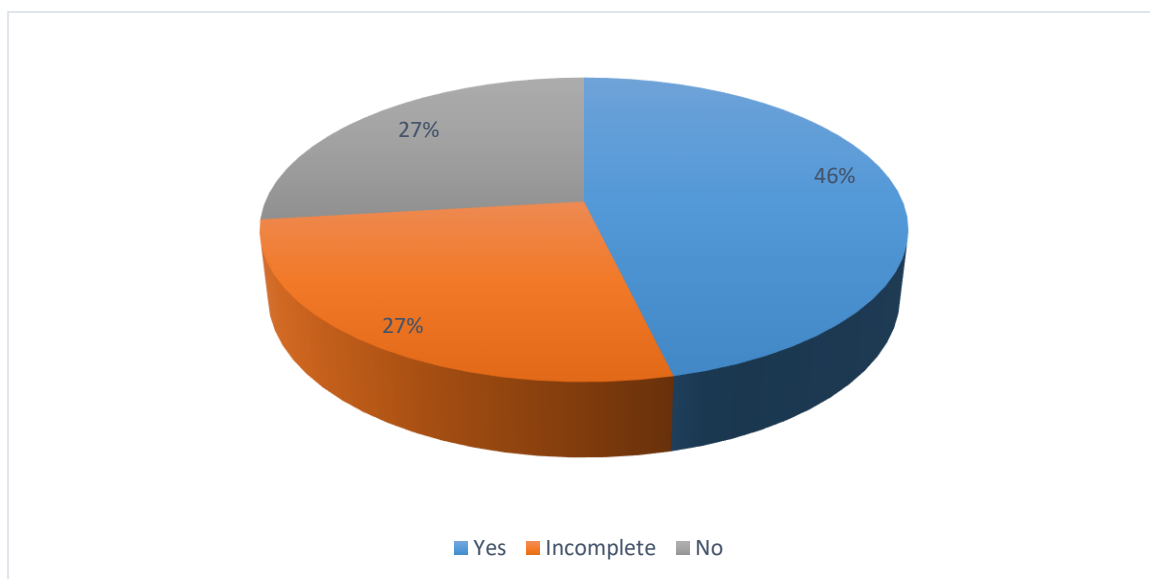


Figure 5.9: Overall completeness of child records

5.6.3.1 Results on each aspect verified for completeness on child clinical records

Figure 5.10 shows the state of recorded information on biographic, assessment and details of HCPs on children's clinical records for the entire study.

- *Biographic data*

Biographic data assessed three elements which included the child's personal details and that of the caregiver in terms of name and surname of the child, physical address and contact details as well as availability of RTHBs. The state of completeness of biographic data recorded was (n = 105; 78%), incompletely recorded biographic data (n = 24; 18%) and clinical records had no biographic data (n = 6; 4%).

The following were incompletely recorded:

- The child's personal details were completed in (n = 44; 98%) instances and only (n = 1; 2%) had no personal information.
- Physical address of the child or ACG was fully recorded in (n = 16; 36%) and incomplete on (n = 24; 53%) with no recording in (n = 5; 11%).

- *Evidence of assessment using IMCI approach*

Evidence of assessment using the IMCI approach included 14 elements that were derived from the 2019 IMCI National guidelines. The elements included but were not limited to the child's main complaints, vital signs and special investigations, assessment of all main symptoms, classification, plan of care and management.

The state of completeness recorded in this regard was (n = 22; 49%), information that was incompletely recorded (n = 17; 37%) and no recording (n = 6; 14%).

The following were incompletely recorded:

- Vital signs were incompletely recorded in (n = 36; 80%).
- All main symptoms were incompletely recorded in (n = 36; 80%) and not recorded in (n = 7; 16%).

- *HCPs who consulted with a child*

The records showing details of HCPs who consulted with children were (n = 9; 20%), incomplete (n = 2; 4%) and not recorded (n = 34; 76%).

The following were incompletely recorded:

- Whether handwriting and signatures of HCPs were eligible and in accordance with Ideal Clinic prescripts in (n = 40; 89%) records.

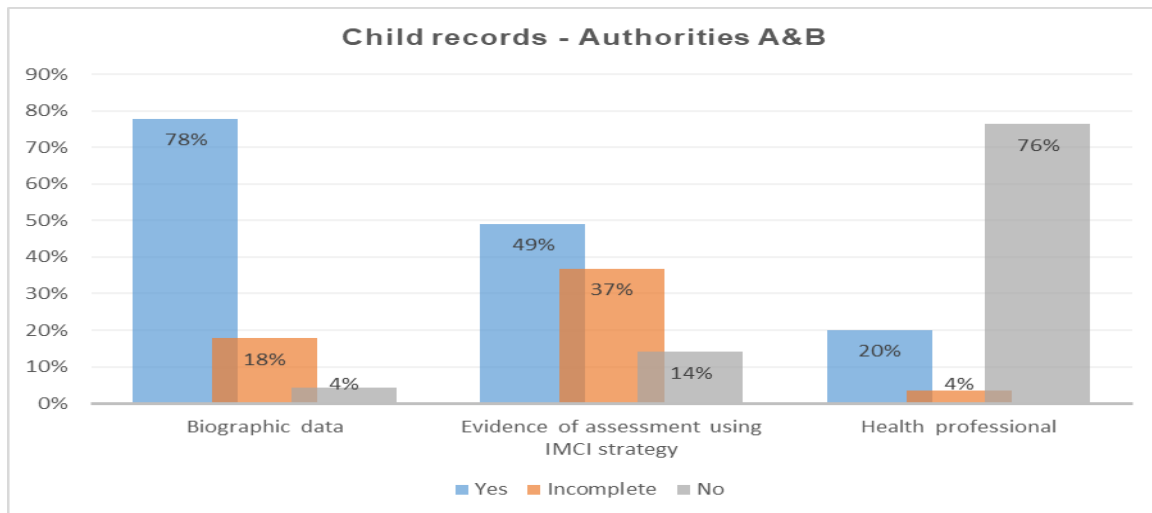


Figure 5.10: State of recorded information on biographic, assessment and details of HCPs on child's clinical records

5.7 CHAPTER SUMMARY

This chapter presented quantitative results which were later integrated with qualitative results as presented in Chapter 7. The sequence of presentation of results was as follows: results for the entire study, authority A and those from authority B. Data were collected through retrospective record reviews of adults' and children's clinical records and the questionnaire for HCPs. Checklists for both adults and children's clinical records were used to collect data from clinical records to check the state of clinical records. The self-administered questionnaires with pre-determined statements and responses were used to collect data from the HCPs. The respondents were PHC facility managers, team leaders of the three facility streams as well as professional nurses who worked in each stream. The quality of service provision was assessed using the seven quality care domains to check whether the current practices of HCPs adhered to the quality domains and Ideal Clinic quality prescripts and also the status of clinical records was assessed to check if they complied with the specified Ideal Clinic prescripts. The respondents had different opinions on the quality of care provided at PHC facilities and clinical record reviews indicated inaccurate recordings in all records. Further discussion of the findings is presented in Chapter 7.

CHAPTER 6:

PRESENTATION OF QUALITATIVE FINDINGS

6.1 INTRODUCTION

Chapter 5 presented findings on quantitative data analysis. The findings presented in this chapter were aimed at achieving the third and fourth study objectives which were to explore the perspectives of HCPs regarding the influence of Ideal Clinic status on the quality of patient care and the perspectives of the HCUs on the quality of care received in facilities with ideal status. Qualitative data provides detailed views of participants and assists the researcher in comprehending the research problem. The findings of these two objectives assisted the researcher in gaining the breadth and depth of understanding of the research problem and affirmation or complementary findings (Creswell and Plano Clark 2018: 3). The findings of both qualitative and quantitative data strands led to the achievement of the final objective of the study which was the proposal of a Practice Ideal Clinic Framework that could enhance an improved quality of care provision in PHC facilities irrespective of Ideal Clinic status. The proposed practice ideal framework is discussed in detail in Chapter 10.

6.2 OVERVIEW OF QUALITATIVE DATA ANALYSIS

Data were collected through semi-structured interviews with purposively sampled HCPs and HCUs from eight ideal PHC facilities in the three sub-districts. The use of eight ideal facilities was guided by data saturation as discussed in section 6.3.1. Data collection and analysis occurred concurrently while monitoring data saturation. All transcripts were read and recordings were listened to repeatedly and analysed. Four main themes emerged from the transcripts, and three to four sub-themes emerged from each main theme, amounting to 14 sub-themes for the entire study.

6.3 SAMPLE REALISATION FOR THE STUDY SITES, PARTICIPANTS AND DATA SOURCES

The sample for the qualitative strand included the PHC facilities that were used as data collection sites, the HCUs and HCPs.

6.3.1 Data Collection sites

Study sites (n=8) for the qualitative strand were similar to those used for the quantitative strand except that eight instead of nine PHC facilities were used for the qualitative strand. The PHC facilities were distributed within the three sub-districts in eThekweni District and were under the administration of health authorities A and B. The number of the PHC facilities that were used for data collection was guided by data saturation which was monitored simultaneously for all study sites, but separately for each participant group (HCUs and HCPs). Monitoring and confirmation of data saturation resulted in eight PHC facilities as data saturation was reached after conducting interviews in six PHC facilities and two additional interviews were done in two PHC facilities to confirm data saturation. The researcher alternated data collection in the PHC facilities whereby three interview sessions were conducted in one PHC facility (one with an HCP, one with the adult HCU and one with an adult caregiver (ACG)). Thereafter, the researcher moved to the next PHC facility until all eight PHC facilities were covered. Only one set of interviews (one with the HCP, one with the adult HCU and one with an ACG) was done in each of the eight PHC facilities as reflected in Table 6.1.

6.3.2 Interview sessions

A total of 22 interviews were conducted, of which (n = 13; 59%) were conducted in PHC facilities under the administration of health authority A and (n = 9; 41%) were under the administration of health authority B. A minimum of three and a maximum of five interview sessions were conducted in each PHC facility as presented in Table 6.1.

6.3.3 Interviews with healthcare providers

A total of eight interviews with HCPs were conducted for the entire study, five (63%) of which were conducted in PHC facilities under the administration of health authority A and three (38%) were under the administration of health authority B. The number of interviews conducted was guided by data saturation. Data saturation was reached after six interviews and confirmed with two interviews both conducted in PHC facilities from health authority A because at this stage all PHC facilities under health authority B had been exhausted (Table 6.1). A summary of the data analysis from face-to-face semi-structured interviews with HCPs is provided in Appendix 16.

6.3.4 Interviews with healthcare users

A total of 14 interviews with the HCUs were conducted, of which (n = 8; 57%) were conducted in PHC facilities under the administration of health authority A and (n = 6; 43%) were under the administration of health authority B. The majority of participants (n = 8; 57%) were female and (n = 6; 43%) were male. The age distribution ranged from 20-59 years. The majority (n = 12; 86%) were in the 40-49 years age range and the fewest (n = 2; 14%) were in the 50-59 age range. The number of interviews conducted was guided by data saturation. Data saturation was reached after 12 interviews and confirmed with two interviews both conducted in PHC facilities from health authority A because at this stage all PHC facilities under health authority B had been exhausted (Table 6.1). Appendices 17 and 18 present a summary of the data analysis from face-to-face semi-structured interviews with HCUs which include ACGs.

Table 6.1: Sample realisation for the study sites, participants and data sources

Research strand	Data Source	Participants	Authority A				Authority B				Grand Total
			N	S	W	Total	N	S	W	Total	
	Study sites	PHC Facilities	2	2	1	5	1	1	1	3	8
Qualitative	Interviews	HCU's	3	3	2	8	2	2	2	6	14
		HCPs	2	2	1	5	1	1	1	3	8
	Total		5	5	3	13	3	3	3	9	22

6.4 Themes that emerged from interviews

Similar themes emerged from the analysis of both groups of study participants (HCUs and HCPs). The four themes emerged were the following:

1. Staff establishment.
2. Physical space in facilities.
3. Facility organisation and patient flow.
4. Experience of care at PHC facilities.

Several sub-themes emerged from each of the four themes. These are presented in Table 6.2.

Table 6.2: Summary of themes and sub-themes

No	Themes	Sub-themes
1.	Staff establishment.	1.1 Staff training and support. 1.2 Staff allocation. 1.3 Patient workload.
2.	Physical space in facilities.	2.1 Non-availability of waiting areas. 2.2 Inadequate medical supplies and equipment. 2.3 Shortage of medicines. 2.4 Unhygienic ablution facilities.
3.	Facility organisation and patient flow.	3.1 Lack of direction for different facility activities. 3.2 Clinical records and replacements. 3.3 Package of services and service days.
4.	Experience of care at PHC facilities.	4.1 Long waiting times for services. 4.2 Nature of consultation. 4.3 Negative staff attitudes. 4.4 Patient satisfaction with services.

6.4.1 Theme 1: Staff establishment

The findings indicated that staff establishment ranged from one to two professional nurses per facility stream in both health authorities. In some PHC facilities in health authority A, HCUs in acute and MCWH facility streams were combined and consulted with only two instead of four HCPs. Participants verbalised that even the other categories of staff which included enrolled nursing assistants, enrolled nurses and clerks were not enough. In the absence of these cadres of staff, professional nurses were expected to perform their duties to allow the smooth functioning of facilities. The sub-themes that emerged under staff establishment were: staff training and support, staff allocation and patient workload.

6.4.1.1 Sub-Theme 1.1: Staff training and support

The activities of all HCPs working in different facility streams included but were not limited to consultation with HCUs which comprised history taking, physical examination, performance of special tests and investigations, diagnosis, plan management, prescribing and supply of medication, follow-up and or referring the HCUs to the next level of care. The basic training of all HCPs was a diploma in general nursing. Some of the HCPs had additional qualifications that ranged from formal

primary training to short courses like an adult primary care course that assisted them in performing their duties. The HCPs agreed that they were sometimes updated on the new clinical guidelines and protocols that enhanced the provision of efficient and safe care to HCUs. The participants from both groups had the following to say regarding staff skills and training:

... I wish I could be formally trained in primary. I am allocated to see sick people yet I am only trained in family planning ... it's hard because I am not sure if I am doing the right thing to patients. [AN1: HCP1].

... I am working in the acute stream yet I don't have any additional training to help me consult with patients ... I requested to work with pregnant women but the manager told me that staff have to rotate ... to tell the truth, I am not sure what I am doing to patients. [BW1: HCP1].

I came for insertion of Implanon because I do not want injection anymore, the nurse told me to come next week because the sister who does implants is on leave and she could not help me ... it will help if all nurses can be trained in inserting Implanon. [BS1: HCU1].

Each PHC facility had its manager who was responsible for all the operations of the facility. The facility managers were supported by PHC area managers who were located in area offices across the three sub-districts. Among the roles of the facility managers were to manage and support all staff and make resources available for the HCPs to perform their duties. Resources included staffing and their formal or informal training, medical supplies and equipment, medicines, furniture and stationery. The extra support system in all of the facilities was in the form of human resources from different non-governmental organisations (NGOs). The staff from NGOs included professional nurses, pharmacist assistants, data captures, HIV-lay counselors as well as tuberculosis (TB) and antiretroviral treatment (ART) default tracer teams. Additional staff mainly supported chronic streams as per their memorandum of understanding with the Department of Health. There was a general concern from participants about inadequate resources in the facilities. The participants had the following views about the support:

There is not enough support because the nurses from NGOs only work in chronic stream because they are only supporting the ART programme and are not allowed to do what they are not reporting on their daily stat sheets. [BW1: HCP1].

... our clinic is like a hidden community center because we are open 24 hours_and even doing deliveries, yet the medication, equipment and staff are for PHC clinic. We don't even have a clerk at night to make or pull out files for patients, hence you see most of our patients are carrying duplicate papers for us to use as cards ... clinic cards are misfiled and there is no continuity of care. [BN1: HCP1].

... you may have done all the history from the patient, done physical examination, health information as well as plan of management but the paper that we have to record on is very small ... the next person will think you did not do your work. [BW1: HCP1].

I wish we could be given stationery in terms of maternity records, road-to-health booklets and files for acute patients ... there are major legal implications when a sister does not properly document. [AW1: HCP1].

6.4.1.2 Sub-Theme 1.2: Staff allocation

According to Ideal Clinic prescripts, staff allocation is calculated using workload indicators of staffing need (WISN), a special software tool for recording, analysing and reporting data related to staffing status and needs in health facilities. In most facilities, staffing did not meet WISN specifications because, in some facilities under authority A, one HCP was allocated in each facility stream except in the chronic stream where there were two HCPs allocated from the NGO support. Also, where there was a shortage of staff or consultation rooms, two facility streams were combined and HCUs were consulted by one HCP. Allocation was done mainly on a rotational basis without considering staff skills. Other cadres of staff were allocated in areas such as TB, immunisation, dressing and observation rooms. When these cadres of staff were on breaks the HCUs had to wait because there was no relief staff, and when they were on leave other HCPs had to take over those roles in addition to their consultation roles. The participants had the following comments about staff allocation:

... we wait for the sister to come back from lunch because she works alone. Sometimes she takes one and a half hours for lunch ... she does not go for a tea break. [BN1: ACG1].

... I wish all well babies could be seen first and not made to wait, but the nurse sees all babies, even the sick ones and that causes a lot of delays for us who came just to immunise our babies. [BN1: ACG1].

... I end up listening to patients' problems and just giving medication that I think will help the patient ... I know that is not legally correct, but I do it to finish all patients allocated to me because most of the time I am working alone. [AS1: HCP1].

Consulting with first-visit pregnant women takes very long because of the procedures that are supposed to be done to them. I wish they were not combined with sick children because IMCI assessment also takes long ... this is time-consuming and tiring especially if it is done by one person. [AS2: HCP1].

6.4.1.3 Sub-Theme 1.3: Patient workload

Though the main role of HCPs was to consult with HCUs, there were other additional duties incurred when the other cadres of staff like enrolled nurses, enrolled nursing assistants or clerks were not available. Such duties include but are not limited to clerical work, checking of vital signs, HIV counseling and testing and rapid appraisal. Since these cadres of staff were shared across facility streams, there were no relief staff if they were not on duty. In some facilities, there were one to two HCPs allocated per stream depending on facility staffing levels. Staff from NGOs, where available, only supported the chronic stream except data capturers who managed all facility information. The following were among the concerns of HCPs: having a workload that was too heavy to finish in terms of HCU numbers seen per HCP, too complicated workload in terms of having to do a health assessment of HCUs without formal or informal training, and sometimes being expected to perform duties that were supposed to be done by a lower category of staff. The HCPs and HCUs had the following comments:

I feel they need to give us enough staff so that we see reasonable number of patients per nurse. For now, I don't think our staffing levels are talking to our facility status which is platinum. [AW2: HCP1].

... also, we do get Ideal Clinic status but the nurse-patient ratio is not according to WISN. We are so overworked because one professional nurse sees about 55 patients all by himself or herself a day. [AS2: HCP1].

The nurse who is giving us our medication works very hard and most of the time she does not take breaks because she is alone. Even if we come in the afternoon, she makes a point that medication is issued. I wish all nurses could work like her. [BW1: HCU1].

6.4.2 Theme 2: Physical space in facilities

According to the integrated clinical services management in Ideal Clinic initiative, each facility stream should have its waiting area, observation and file rooms, furnished consultation rooms and dedicated HCPs staffing the rooms. In most of the selected facilities, there was one central point where all HCUs were admitted, observation done and thereafter directed to different facility streams where feasible, otherwise the HCUs waited in the main reception area for a consultation. The sub-themes that emerged from the theme of physical space were (a) non-availability of waiting areas, (b) inadequate medical supplies and equipment, (c) shortage of medicines and (d) inadequate and unhygienic ablution facilities.

6.4.2.1 Sub-Theme 2.1: Non-availability of waiting areas

In facilities where there were not enough waiting areas for different streams, HCUs shared the waiting areas and were directed by security guards to the relevant consultation rooms. In some facilities, the HCUs used open-roofed structures that were erected in facility yards during the COVID-19 pandemic as waiting areas. In eight facilities, the HCUs shared one observation room or space, except in one facility where there were dedicated observation rooms or spaces for each facility stream. Participants had the following to say about the availability of waiting areas:

In this clinic we get help but it takes very long to get our BP, urine test and weight to be done because everyone goes to the same room for it. I wish we can have our own space as pregnant women where we could be attended. [AN1: HCU1].

All people wait in one area, whether the person is sick, coughing or bringing a small baby ... we all wait until we are called to be seen by sister ... I don't think that is okay because we may all end up getting sick even if we came for family planning. [AN2: HCU1].

... there is no privacy in the room where one checks BP because everyone goes to the same room. The other day I was told in front of another patient that my pregnancy test

was positive ... I will recommend that sensitive tests be done in a private space. [BS1: HCU1].

... just look at our clinic infrastructure, it is so limiting, even if we want to separate our patients, it's impossible. The patients end up joining the wrong queues and get angry with us. I wish the clinic infrastructure could be improved or give us park homes as additional structures to extend our clinic. [AS2: HCP1].

6.4.2.2 Sub-Theme 2.2: Inadequate medical supplies and equipment

There was one central point in each facility where medical supplies were kept for the entire facility. Medical supplies and equipment were in the form of but not limited to surgical sundries, namely: gloves, masks, bandages and cotton wool, syringes and needles, paper hand towels, glucometer and haemoglobin strips. Equipment included blood pressure machines, glucometers, haemoglobin machines, weighing scales, defibrillators, auroscopes, stethoscopes as well as fetoscopes. Either an enrolled nurse or an enrolled nursing assistant was allocated to check, order and control the medical supplies. Consultation rooms had either in-built or portable medical equipment like auroscopes, blood pressure machines as well as angle-poise lamps or no medical equipment and HCPs had to share equipment among themselves. The perspectives of the participants regarding the medical supplies and equipment were expressed in the following experts:

... sometimes we do get Ideal Clinic status but I wonder how because we don't have so many things here ... we only see some medical equipment during audits and after that, we don't have. I am tempted to say the medical equipment is borrowed elsewhere just for audit purposes but not for patient care ... I think such acts mask the actual situation we are facing at this clinic. [AN1: HCP1].

We are expected to do pap smears on most female patients even if there are no gloves in the facility because each professional nurse has a target number of pap smears to be done in a month. We are all affected ... yesterday our enrolled nurse had to do wound dressing of a patient with a septic caesarian section wound ... she covered her hands with specimen plastics ... [AS2: HCP1].

... the other day I came for a pregnancy test and I was told to buy a pregnancy test kit and do a self-test because the clinic did not have stock ... it was difficult to know whether I was pregnant or not because I couldn't interpret the results. [AN2: HCU1].

... can you imagine, every time I need to examine the patient, I have to move around to borrow an auroscope from another room... I think the manager hides these instruments because she gives us when there are auditors ... [BN1: HCP2].

6.4.2.3 Sub-Theme 2.3: Shortage of medicines

Medicines were stored in one central medicine room that was mainly controlled and managed by the pharmacist assistants in each facility. The role of the pharmacist assistant was to frequently check and pack the medicine cupboards in each consultation room for dispensing. Where there were no pharmacist assistants, the HCPs were allocated an additional responsibility of pharmacist assistant on a rotational basis. According to HCPs, the medicines were ordered from the main pharmacy every month, however, most of the items in the order form were out-of-stock or to follow, meaning there would be no medicines until the next order or delivery. HCPs indicated that medicines were also ordered according to the availability of storage space, not considering HCUs' needs. Each consultation room had a medicine cupboard where medication was kept for dispensing across the three facility streams. In other facilities, HCPs had special medicine order forms to order medicines from the person in charge of the medicine room at least once per day to replenish their medicine cupboards. Each provider was responsible for the safekeeping of the medicines until dispensed, however, some of the medicine cupboards were not lockable. That was evidenced in the following excerpts:

When receiving the main order, half of the items that we order are out of stock ... indicated as o/s meaning 'out of stock' or s/f meaning 'stock to follow'. If our manager follows up with pharmacy, there is nothing that gets delivered but instead, the pharmacist will ask for an emergency order where we are supposed to put only limited urgent stock. [AW1: HCP1].

... sometimes I even compromise and give patient Calamine lotion instead of Aqueous cream so that the patient ends up getting something ... I know it's wrong, but I don't have an option. [AN1: HCP1].

... most of the time nurses tell us to buy medicines because they don't have them, especially deworming medication and Panado. I don't think that is correct because most of the patients use the clinic instead of doctors because they don't have money ... [BW1: ACG1].

... even if we want to stock more medicines, there is not enough storage space. The patients don't understand that and think we don't order enough medicines from the main pharmacy, medicines finish before the delivery of the next order ... the pharmacist from the main pharmacy limits the amount of emergency orders that can be processed while waiting for the main order ... this leaves us without stock for the patients. [BN1: HCP2].

6.4.2.4 Sub-Theme 2.4: Inadequate and unhygienic ablution facilities

The facilities that had piped water supply challenges used portable toilets for the HCUs. There were two portable toilets per facility and were allocated according to gender. Portable toilets were serviced weekly by the supplier; however, the facility general assistants cleaned them frequently. Staff used flushed toilets but physically poured water from containers to facilitate flushing. The views of participants regarding the condition of the toilet facilities were expressed by the following experts:

The main concern for me is the toilet, it is full, dirty with an offensive smell. It's like they serviced it a month ago. I had to use it because I had no choice ... even if I wanted to open its door for fresh air, I could not because it's facing the main road and there is no privacy at all. [AN2: HCU1].

My child could not use the toilet because it was so dirty, I ended up going to the library down the road so that he could release himself. This toilet is never serviced or cleaned ... they don't care about us. [AN2: ACG1].

... it is disturbing to find a dirty toilet in a place like a clinic. If you can just go now and see for yourself ... really, I don't think this is fair. You can tell if the place is being cleaned frequently, these toilets are never cleaned at all. [BN1: ACG1].

... I think if the supplier can add two more portable toilets so that there are enough for both males and females ... it's so difficult when you are pressed and you have to wait for someone to finish using the toilets. [AN2: HCU1].

6.4.3 Theme 3: Facility organisation and patient flow

According to the integrated clinical services management component of Ideal Clinic, PHC facilities should be re-organised into designated fully furnished and staffed streams for acute, chronic and MCWH services. The re-organisation of the facility helps the patient flow and smooth running of the facility and provides appropriate

timeous services. The integrated clinical services management specifies that the HCUs who attend the different facility streams should be arranged as follows: acute – all sick HCUs who come for consultation; chronic HCUs living with chronic conditions who come for the collection of medication for both non-communicable and communicable chronic illnesses; MCWH – pregnant women, those who come for preventive and promotive services which include immunisations and sexual and reproductive services. In some facilities, though the HCUs were divided according to facility streams, there was one HCP that was consulting with HCUs from two different streams due to staff shortage. In all PHC facilities, there was one reception area with one to two administration clerks who created or retrieved files for HCUs. Filing cabinets were mainly in the reception areas or a park home away from the reception area. Three sub-themes emerged from facility organization and patient flow: (a) lack of direction for different facility activities (b) clinical records and replacements and (c) package of services and service days.

6.4.3.1 Sub-Theme 3.1: Lack of direction for different facility activities

Directional floor signs for different facility streams were colour-coded footprints namely: acute stream (orange), MCWH stream (green), and chronic stream (yellow). Colour coding was to facilitate that HCUs that visited each stream could just follow the relevant colour code until they were consulted. In most facilities, colour codes on the floor were fading away and facility congestion by HCUs interfered with the identification of relevant directional floor signs. None of the facilities had a queue marshal to direct the patient flow. The participants had the following to say regarding the direction and flow inside the facilities:

... I would like to know if it is correct for the security guards to direct the patients to different queues ... most of the time we get delayed because we are made to join the wrong queues ... it will be good to wait in front of the rooms where we are going to be seen rather than listening to security guards. [AN2: HCU1].

I waited for so long outside in the shelter and finally when I was called in, the nurse told me that I was in the wrong queue again ... why there is no one to direct us where to go? Every time we are treated like this ... this is very bad ... [BW1: ACG1].

... when you say Ideal Clinic, the clinic space is supposed to be divided to suit patient flow, but here as you can see the physical structure of the clinic does not allow it. As a result, the patients end up joining the wrong queues. [AW1: HCP1].

I joined the queue for immunisation of my child and after that, I had to join another one again because I am not well ... this is the third queue for me to get my family planning injection ... I thought I was in the right queue but the sister told me to come this side. [AS1: HCU1].

6.4.3.2 Sub-Theme 3.2: Clinical records and replacements

The HCUs living with chronic illnesses had facility-based clinical records, some HCUs with acute illnesses used either hand-held or facility-based records. However, most of the HCUs who came for acute problems had hand-held clinical records. Hand-held records ranged from a halved A4 piece of paper to double A4 photocopied paper. Pregnant women without chronic conditions had maternity records only and those with chronic conditions had both records. Children aged birth up to 12 years who had RTHBs used them and those without the booklets were given blank pieces of paper to use as duplicate clinical records. According to Ideal Clinic prescripts, RTHBs are among the items on the essential stationery list that is supposed to be kept in all PHC facilities. The views of participants regarding the clinical records were expressed in the following excerpts:

... most of the time, the clerk only files back chronic patients' records and clinical records for patients with acute problems get dumped in a box because the filing room and cabinets are not enough for all files ... The load of files is huge and the clerk cannot retrieve some files ... it becomes so difficult for me to do follow-up care in acute patients because most of the time they are given blank duplicate papers to write on. [BN1: HCP2].

I lost my baby's card last year and the nurse could not give me another card because the clinic does not have extra cards to give us ... [AW2: ACG1].

... I don't think the clerk is doing his work well, most of the time when I come for my medication I am told that my file is lost ... go and have a look at the filling area in the reception, you will be surprised ... [BN1: HCU1].

... every time I come to this clinic, I get this piece of paper and I am told that cards are finished. It is so hard to keep it safe because it's just a normal paper that gets damaged

easily ... I wish they could take our health seriously and give us proper files. [BW1: HCU1].

6.4.3.3 Sub-Theme 3.3: Package of services and service days

The primary full package of services was offered for five days in most facilities. The services in some facilities were extended over weekends to six days a week depending on community needs. providers from different facilities were allocated to a facility that opened for extended hours to provide services over the weekend and staff received overtime payment. Selected health services were provided over the weekend and services provided ranged from minor ailments to preventive and promotive care as well as sick children because there was no full staff complement. Participants had the following comments about the nature of the service package received:

... my recommendation will be that pregnant women be delivered in this clinic because ambulance people take very long to respond if one is in labour ... [AN1: HCU1].

In this facility, pregnant women are only seen on Fridays that is why we are so many because this is the only day we are told to come. The worst part of it is that all repeat visiting patients are seen last and we wait longer than any other patients. [BN1: HCU1].

I came for a pap smear today because I am not well, the nurse told me that pap smears are only done on Fridays when the clinic is not busy ... I don't think I will be able to come back soon because I am working. [AS1: HCU1].

... I wanted to check my blood sugar because both my parents are having sugar and taking treatment, the nurse told me that she can only check my sugar if I have signs of illness ... what if I have sugar since I was not aware of the signs? [AW2: HCU1].

6.4.4 Theme 4: Experience of care at PHC facilities

Primary health care is regarded as the gateway for HCUs to access public services, especially in South Africa. However, the PHC facilities were reported to be congested with limited resources. The HCUs had different experiences regarding service provision at these facilities. The sub-themes that emerged from experiences were: (a) long waiting times for services and (b) the nature of consultation.

6.4.4.1 Sub-Theme 4.1: Long waiting times for services

There was one reception area per PHC facility where HCUs' files were created or retrieved. HCUs proceeded into the common waiting areas or specific waiting areas according to facility streams where available. Generally, there was one clerk who attended to all HCUs. However, in other facilities data capturers from NGOs assisted with clerking of HCUs. The views of the participants about the waiting times were captured by the following experts:

The clerk took so long to get my file and people who were behind me had already gone home. I think there must be another person who makes new files because one person is not coping at all. [AW2: HCU1].

I came at 07h30 this morning because my baby is sick, but I am finishing now at 12h00. The nurse who is seeing sick babies is taking very long for each baby ... yes she is very thorough with her work but it is not working for us ... [AN1: ACG1].

... I saw in the notice board that the patients may wait up to four hours, but I came at 08h00 and now it's 14h00, I am still waiting to be seen by the sister. She did tell us that she is working alone today ... I don't think that is fair to us because we are all sick and we are hungry now. [BS1: HCU1].

6.4.4.2 Sub-Theme 4.2: Nature of consultation

The main role of all HCPs was to consult with HCUs in different facility streams. Long and full consultations which included physical examination occurred in the acute facility stream, followed by MCWH, where sick children from birth up to five years were consulted using the IMCI strategy as well as first visit pregnant women. In these two facility streams, consultation processes took longer compared to the chronic facility streams where most of the HCUs came for the collection of medication because HCUs do full physical examinations yearly only unless they are sick. The following were the views of participants regarding the nature of the consultation:

... I have been waiting in this open space to be seen for almost five hours, when the nurse finally called me in, she talked to me for less than five minutes. She did not touch me, but only gave me these tablets that are not helping me ... I thought she would do a TB test for me because I have been coughing for so long. [AW2: HCU1].

... if I may ask, is it correct that the nurse does not check patients especially when reporting problems in private part. Most of the nurses just give treatment without checking, when the patient comes back for the same problem the nurses think patient is not using protection. [BN1: HCU1].

Last month I came for the same problem; the nurse did not do anything but gave me just one tablet to insert in my private part. I did not feel any better, instead it's worse because it's painful when I pass urine. [AW1: HCU1].

The nurse just weighed my baby and wrote in the baby's card. I do not know whether the baby's weight is good or not ... there must be at least one nurse who sees only well babies so that she has time for our babies. [AS1: ACG1].

6.4.4.3 Sub-Theme 4.3: Negative staff attitudes

The relationship between the HCPs and HCUs was supposed to be therapeutic in terms of professionalism, caring and empathy where the HCUs take part in the plan of management of their health. At PHC level, professional nurses are fully responsible and accountable for all their activities as they consult with HCUs. The participants raised concerns about being disrespectful and less caring as HCPs towards sick people. The HCUs were concerned that HCPs took long breaks leaving them unattended and did not even address them when they went for breaks. In facility streams where one HCP worked alone, the HCUs had to wait until the HCP was back from a break which resulted in HCUs having to wait long for consultations. The same scenario happened even in the reception area where files were created or retrieved. Disrespect of HCUs by the HCPs and other cadres of staff such as security guards, and clerks was a concern. This was evidenced in the following comments:

... the other day, I was so disappointed when the security guard promised to hit the patient ... when one is sick, I think staff need to understand and help the person with respect. [BW1: HCU1].

I requested replacement of RTHB for my child, and the nurse told me to go back to Eastern Cape to get it because that is where I gave birth ... I think the nurse hates the isiXhosa speaking people ... [AS2: HCU1].

I could not bring my baby for immunisation on the day given to me because I was working. When I came on another day, the nurse told me that she would immunise my

baby last, though I was number five in the queue ... I was made to wait for more than four hours ... I don't think that was a caring attitude from a nurse. [BS1: ACG1].

When the nurse goes for lunch, he does not tell us but just disappears for a long time ... I don't think he has respect for his work and patients. [BW1: ACG1].

6.4.4.4 Sub-Theme 4.4: Patient satisfaction with care

While some HCUs expressed gratitude about the service they received in PHC facilities, others were not happy. The HCUs consulted in the acute facility stream expressed concerns about long waiting times as well as not getting the medication as expected. The HCPs that were interviewed acknowledged that some HCUs did appreciate and commend their hard work whereas others felt they were not doing enough. The medical practitioners visited facilities weekly for only those HCUs needing their consult, otherwise, all HCUs needing medical care that could not wait for visiting doctors were referred to the next level of care. Only urgent referrals were taken by emergency transport, otherwise, for non-urgent referred HCUs had to use public transport to the next level of care. The following were verbalised by the participants:

... to have a doctor coming weekly is not working for this clinic because patients do not have money to go see a doctor in hospital. [AS2: HCP1].

I wish we could have members of the multidisciplinary team in terms of social workers, psychologists and nutritionists visit our clinic at least monthly. [AW1: HCP1].

... I was nearly stabbed by one patient who demanded to be seen before all others who came before him, we even called South African police to remove the patient ... patients are making us negative towards them because they don't respect us and always feel entitled. [AN1: HCP1].

It is difficult to work alone in a stream ... sometimes I don't take lunch breaks because patients complain when there is no sister helping them. Sometimes they call us with derogative names and that is so painful and discouraging. [AN2: HCP1].

I have been coming to this clinic for deworming medicines and even today the nurse is saying it is out of stock. I think these nurses are selling this medicine because my neighbour got it last week and today I am told it is out of stock, just because I have no money to pay for it. [BS1: ACG1].

6.5 RESEARCH RIGOUR

Research rigour refers to openness, relevance, and thoroughness in data collection, data analysis process and the researcher's self-understanding (Grove, Gray and Burns 2021: 392). In the current study assurance of trustworthiness was the main consideration regarding research rigour. Procedural rigour was ensured through accurate documentation of all steps and processes taken to conduct the study and how the decisions were reached including the establishment of an audit trail. Interpretive rigour was ensured by basing data analysis on the study objectives and the five elements of the CMM of quality as the theoretical framework that was used to guide the study and constantly adhering to the strategies that were inherent within the qualitative design during the data interpretation stage. The researcher used an electronic voice recorder to ensure that data from interviews were accurately recorded and representative of the data as a whole. To ensure methodological congruence, the researcher conducted extended fieldwork and data were collected for an extended period such that the days for information giving and recruitment of study participants differed from the days of the semi-structured interviews. This process was followed in all facilities resulting in four months of data collection.

Trustworthiness is the main consideration regarding research rigour; this is the extent to which a research study is worth paying attention to and the extent others are convinced that the findings are to be trusted (Grove, Gray and Burns 2017: 392). As qualitative research has an element of subjectivity and is often open to criticism, the study and the findings are needed to provide evidence of trustworthiness. Five criteria were used to ensure trustworthiness and validity of the study namely; credibility, confirmability, transferability, dependability as well as authenticity (Grove, Gray and Burns 2017: 392). To ensure trustworthiness, semi-structured interviews conducted with both categories of participants were audio-recorded and field notes were taken for repeated listening and reading during data analysis. Probing questions were used during interviews until data saturation was reached. An audit trail was developed and maintained by reporting and describing the entire research process which included recorded information on electronic device and field notes. Data was securely stored for availability should the need arise. Verbatim statements by both categories of participants were used to show some of their responses to research questions.

6.6 CHAPTER SUMMARY

This chapter presented the results of qualitative data, which will be integrated with quantitative data and discussed in the next chapter. Facilities differ greatly in terms of physical space to accommodate all primary services. According to the Ideal Clinic initiative, each facility is supposed to have three distinguished acute, chronic and MCWH streams with full complements of staff in designated consultation rooms, waiting areas and observation rooms to facilitate patient flow and ensure the provision of quality services. However, in most facilities, HCPs verbalised that they worked across the streams due to staff shortages. The HCUs were concerned that some of the delays in getting services were due to a lack of patient flow in facilities because they were made to wait in the wrong queues. Data showed that the HCUs were not satisfied with the services they received at PHC facilities. The next chapter discusses the study findings in detail.

CHAPTER 7:

MIXING OF DATA AND DISCUSSION OF FINDINGS

7.1 INTRODUCTION

Chapters 5 and 6 presented results/findings from the two data strands, namely, quantitative and qualitative. Chapter 7 presents the mixing of data from the two strands and a discussion of results/findings. The current study used a convergent mixed method design for which a parallel database variant was employed. Thus, quantitative data were collected and analysed in parallel with qualitative data. The results of the two separate analyses were brought together in the current chapter for an overall interpretation of the findings. The aim was to obtain different but complementary data on the same topic to best understand the research problem and participants' comments were used verbatim (Polit and Beck 2021: 472).

7.2 OVERVIEW OF DATA MIXING

Creswell and Plano Clark (2018: 222) define data mixing as the explicit interrelating of the study's quantitative and qualitative strands, a combination and integration of different data strands. Gray and Grove (2021: 395) attest that integration/mixing of data includes combining and comparing quantitative and qualitative findings of the study through assimilating one type of data into the other, identifying similarities and differences, and linking the data with the theoretical framework. The integration narrative was done through a weaving approach where both quantitative and qualitative findings were written on a theme-by-theme basis because the findings were connected thematically, and the data weaves back and forth around similar themes or concepts (Tashakkori, Johnson and Teddlie 2021: 376). Table 7.1 presents the key aspects that the quantitative strand focused on and the themes and subthemes that emerged from the qualitative strand.

In the current study, data mixing was done during the interpretation and reporting of study results for the purpose of comparing and contrasting the study findings from different data sources to gain a more comprehensive understanding of the research topic and strengthen the overall interpretation of the results. The goal of data mixing

was to comprehensively understand the phenomenon (the influence of Ideal Clinic status on the quality of primary services provision) (Gray and Grove 2021: 395). Inferences were drawn that reflected what was learned from the combination of the results from the two data strands. For the convergent parallel mixed methods design where the two strands of data are independent, the interpretation point is the only point in the research process where mixing occurs. The study objectives as well as the five Ps of the CMM were used to guide the presentation of both quantitative and qualitative results/findings.

Further analysis included triangulation and transformation of the data sets and interpreting how the merged results answered the research questions and led to the achievement of the study objectives. Triangulation is defined as a process or outcome that involves the combination and comparison of multiple data sources; data collection and analysis procedures; research methods and inferences that occur at the end of the study (Creswell and Plano Clark 2018: 290). All data gathered during the study were triangulated and the results of triangulation are presented in this chapter. Triangulation was used to add richness to the study and to validate the study findings by integrating data from different sources. In the current study data from the clinical record reviews, provider self-administered questionnaires and that from both HCPs and HCUs' interviews were as a form of validity checking. This involved cross-verifying study findings from multiple sources that included: clinical record review, semi-structured interviews and self-administered questionnaires to ensure accuracy and credibility of results.

Table 7.1: Themes, sub-themes and quality processes

QUANTITATIVE	QUALITATIVE
Quality domains	Themes and sub-themes
A. Questionnaire 1. Effectiveness of care 2. Safety of care 3. People-centredness care 4. Timeliness of care 5. Integrated care 6. Equitable care 7. Efficient care B. Record Review (adult and child) 1. Consultation process 2. Recording	1. Staff establishment • Staff training and support • Staff allocation • Patient workload
	2. Physical space in facilities • Non-availability of waiting areas • Inadequate medical supplies and equipment • Shortage of medicines • Unhygienic ablution facilities
	3. Facility organisation and patient flow • Lack of direction for different facility activities • Clinical records and replacements • Package of services and service delays
	4. Experience of care at PHC facilities • Waiting times for services • Nature of consultation • Negative staff attitudes • Patient satisfaction with care

7.3 DISCUSSION OF MIXED RESULTS

The discussion of findings aims to present the interpretation of the study findings/results and to support it with relevant literature. The two strands focused on quality of care in PHC facilities that had an ideal status from two different angles. The quantitative strand focused mainly on how the processes in PHC facilities influenced the quality of care. These processes included effectiveness, safety, people-centredness, timeliness, integration, equity and efficiency of care, which were explored through the self-administered questionnaires answered by HCPs. The processes also included a review of the consultation process and recording which was done through a retrospective review of adult and children's clinical records. On the other hand, the themes and sub-themes from the qualitative strand were mostly related to the environment where care was being provided such as staff establishment, physical space in facilities, facility organisation and patient flow and experience of care at PHC facilities. The discussion of results is structured using the five Ps from the CMM which

guided the current study. The sub-themes that emerged from the four themes of the qualitative strand and the quantitative results are integrated accordingly.

The findings on data that was collected from multiple sources which were clinical records, both HCPs and HCUs, self-reported questionnaires as well as semi-structured interviews reflected a comprehensive and multifaceted understanding of the influence of Ideal Clinic status on health services provision at PHC facilities. Quantitative results revealed statistical trends related to the state of clinical records and the quality of the services provided at PHC facilities. Qualitative findings from semi-structured interviews offered insights into the lived experiences of the influence of Ideal Clinic status at PHC facilities. The narrative integration of findings involved using a weaving approach which brought the qualitative and quantitative findings together on a theme-by-theme basis and was used to identify correlations between the two sets of data. The blending of findings led to a richer interpretation and understanding of the influence of Ideal Clinic status on service provision. In line with the CMM, the discussion highlights the factors relating to the environment, professionals, patients, patterns and processes identified during the analysis and interpretation of results to be able to develop an Ideal Clinic practice framework to enhance an improved health care provision in PHC facilities.

7.4 STUDY SETTING AND PARTICIPANTS

Both quantitative and qualitative data strands were conducted in a similar setting which was eThekweni District in KZN. The PHC facilities used for both strands were under the management of two different health authorities (A and B) and from the same sub-districts (N, W and S). This ensured that the setting where data was collected was homogenous. In addition, the PHC facilities used as data collection sites were homogenous in that they all had an existing Ideal Clinic status assigned by the OHSC and provided a full package of PHC services for eight hours a day. The ideal clinic status could either be Platinum, Gold or silver. Coincidentally all nine PHC facilities had platinum status and it was discovered during data collection and was never pre-planned by the researcher. According to the NDoH (2020a: 2), platinum status is awarded to the best performing PHC facilities in terms of elements such as non-negotiable, vital, essential and important elements which are used to score the PHC facilities during ideal status determination.

Quantitative data was collected from all nine PHC facilities while qualitative data strand was collected from eight because of data saturation which was reached after the sixth PHC facility and confirmed with two additional PHC facilities. Table 6.2 presents sample realisation for the two strands.

The respondents and participants for the two strands were heterogenous and included the clinical records for both children and adults, HCPs from the selected PHC facilities who were professional nurses, nurse managers and team leaders and users who were either patients themselves or caregivers of children who were patients in the selected PHC faculties. The qualitative strands included HCUs (patients and caregivers of children) and HCPs (professional nurses, nurse managers and team leaders) while the quantitative strand included HCPs (professional nurses only) and clinical records. Thus, the professional nurses' group of HCPs participated in either qualitative or quantitative strands or both if they were willing. Those who participated in the quantitative strand were excluded from the qualitative strand and vice versa. What was common with the participants was that they all formed part of the PHC health services under study either as HCUs or HCPs.

The use of differing respondents/participants and multiple data collection methods for the two strands was to ensure deepened results/findings, quality, credibility, cross-checking and complement results/findings which increased the validity and reliability of findings.

7.5 MIXING AND DISCUSSION OF DEMOGRAPHIC CHARACTERISTICS

Healthcare providers (HCPs)

Table 7.2 shows the findings on demographic analysis for the HCPs from both the qualitative and quantitative strands.

The ages of HCPs who participated in both qualitative and quantitative strands ranged from 27 to 59 years. Most HCPs (n = 25; 35%) were aged 50 to 59 years, followed by the age group 30 to 39 years (n=23; 32%). The HCPs in the age range of 40 to 49 years were (n=18; 25%) and the least (n = 5; 7%) were in the 24-29 age group. The results/findings of the current study indicated that the proportion of younger HCPs was less than that of the older HCPs. These findings were in line with the South African Nursing Council's (2021) age analysis of persons on the register, which indicated that

only 27% of registered nurses were below 40 years of age. In the current study, the majority of the HCPs were above 40 years.

The gender of participants comprised mostly females (n = 66; 93%) with a small number of males (n = 5; 7%). The findings were similar to those of Smith *et al.* (2021: 2471) who found that within the nursing workforce, male nurses are in the minority. These authors further state that in Canada men in the nursing workforce constitute only 9% of the total nurses and 10.7% in the United States.

The race of the majority of HCPs (n = 68; 96%) was Africans, followed by Indian (n = 3; 4%), with no Coloured and White representation. The study findings were in line with the population distribution in eThekweni district which is 74% Africans, followed by 17% Indians, 7% Whites and 2% Coloured (EThekweni Municipality 2018: 7).

All participants (n = 71; 100%) were employed either by health authorities A or B. Most participants (n = 47; 66%) were under the control of health authority A and only (n = 24; 34%) were under health authority B. This discrepancy in the number of participants from the two health authorities was because six PHC facilities included in the study were from health authority A and three from authority B, a 60:40 ratio of the distribution of the PHC facilities between the two health authorities in eThekweni district (EThekweni Municipality 2018: 8).

Work experience for all HCPs ranged from 2-25 years, with the majority of HCPs (n = 25; 35%) having 6-10 years of work experience and the least experienced were 2-6 years (n = 9; 13%). A small number of participants were highly experienced HCPs with 21-25 years of experience (n = 7; 10%). All participants (n = 71; 100%) had been working in a PHC facility with Ideal Clinic status for two years or more.

The 'novice to expert model' states that HCPs at the novice stage have limited experience in practice and caring for HCUs and have difficulties performing the skills required for HCUs with complex symptoms. On the other hand, expert HCPs have critical thinking skills to care for HCUs based on their actual conditions, concerns and needs (Guyen 2019: 1279). The five stages of the novice to the expert model are the novice stage where nurses have no background practical experience to care for HCUs; the advanced beginner stage when they just graduated and lack practical experience; the competent stage when they have worked as professionals for 1-2 years and can

cope with a wide range of HCUs' challenges but lack speed and flexibility for reflection and feedback of practice; a proficient stage where they worked for three or more years and have skills which can be used in managing HCUs, mentor and coach the novice HCPs. The last stage is expert, where HCPs can make critical decisions and have enough clinical expertise and judgement to provide quality care. Based on the novice to expert model, the HCPs' work experience in the current study ranged from being competent to being experts because all worked in PHC facilities for two or more years so they were competent enough to cope with a wide range of HCUs' challenges; had skills which could be used in managing HCUs; mentor and coach other novice HCPs (Guyen 2019: 1279). The HCPs had expertise not just to provide care to HCUs but also to assume management and leadership roles that guided the less experienced HCUs. This was evidenced by some of the professionals who were facility managers and team leaders in the different streams.

Table 7.2: Age distribution and years of experience for all HCPs

Rage	1	2	3	4	5	Total
Age	24–29 =5 (7%)	30–39 = 23 (32%)	40–49 =18 (25%)	50–59 =25 (35%)	n/a	71 (100%)
Gender	Female=66 (95%)	Male=5 (5%)	Other=0	n/a	n/a	71 (100%)
Race	Africans=68 (96%)	Coloured=0	Indian=3 (4%)	White=0	n/a	71 (100)
Employment status	Permanent=71 (100%)	Part-time=0	Agency/NGO=0	n/a	n/a	71 (100%)
Experience As a nurse	2–5 =9 (13%)	6–10 =25 (35%)	11–15 =21 (29%)	16–20 =9 (13%)	21–25 =7 (10%)	71 (100%)
Experience in Ideal PHC clinic	<2years=0	≥2years=71 (100%)	n/a	n/a	n/a	71 (100%)

Healthcare users (HCUs) and Clinical Records

The 14 HCUs and 405 clinical records were used for one strand only (qualitative strand and quantitative strand respectively) thus, no data mixing was done for this group. However, the findings from these two data sets were included during triangulation and thus form part of the discussion presented in this chapter.

7.6 DISCUSSION OF MIXED AND TRIANGULATED STUDY FINDINGS

The discussion of findings/results is structured using the five Ps of the CMM which guided the study and themes that emerged from the qualitative strands and the quantitative findings were integrated against the corresponding P accordingly as shown in Figure 7.1. The five Ps are: purpose, professionals, patients, process and patterns. Purpose includes the vision and mission statement of the facility, purpose of HCPs providing, HCUs visiting the facility, aim of Ideal Clinic initiative and the current study. Patients are sub-populations who use the facility (HCUs). How satisfied are they, are the services provided by healthcare facilities addressing their needs? Processes include routine care of HCUs in facilities, how care is delivered, activities involved and protocols or guidelines used to deliver health care. Patterns include regular, recurring and associated practices taking place in facilities and support systems available to perform those practices. Figure 7.1. represents the interrelationships within the 5 Ps in the facility.

The mission of the NDoH is to improve the health status of populations through prevention of illnesses, promotion of healthy lifestyles and to improve the delivery system by focusing on access, equity, efficiency, quality and sustainability. The latest initiative to fulfill its mission was the introduction of Ideal Clinic realisation and maintenance, the purpose of which was to revitalise and maintain the quality of services at PHC facilities (South Africa, NDoH 2020a: 2).

According to Nelson, Betalden and Godfrey (2011: 262), the purpose exists within the context of the HCUs that the PHC facilities seek to serve. Thus, each PHC facility has a mission statement that is aligned with that of the NDoH and is responsible for ensuring quality of services in all its operations which include the promotion of health, prevention of illness and further complications through early detection, treatment and appropriate referral (South Africa, NDoH 2022: i).

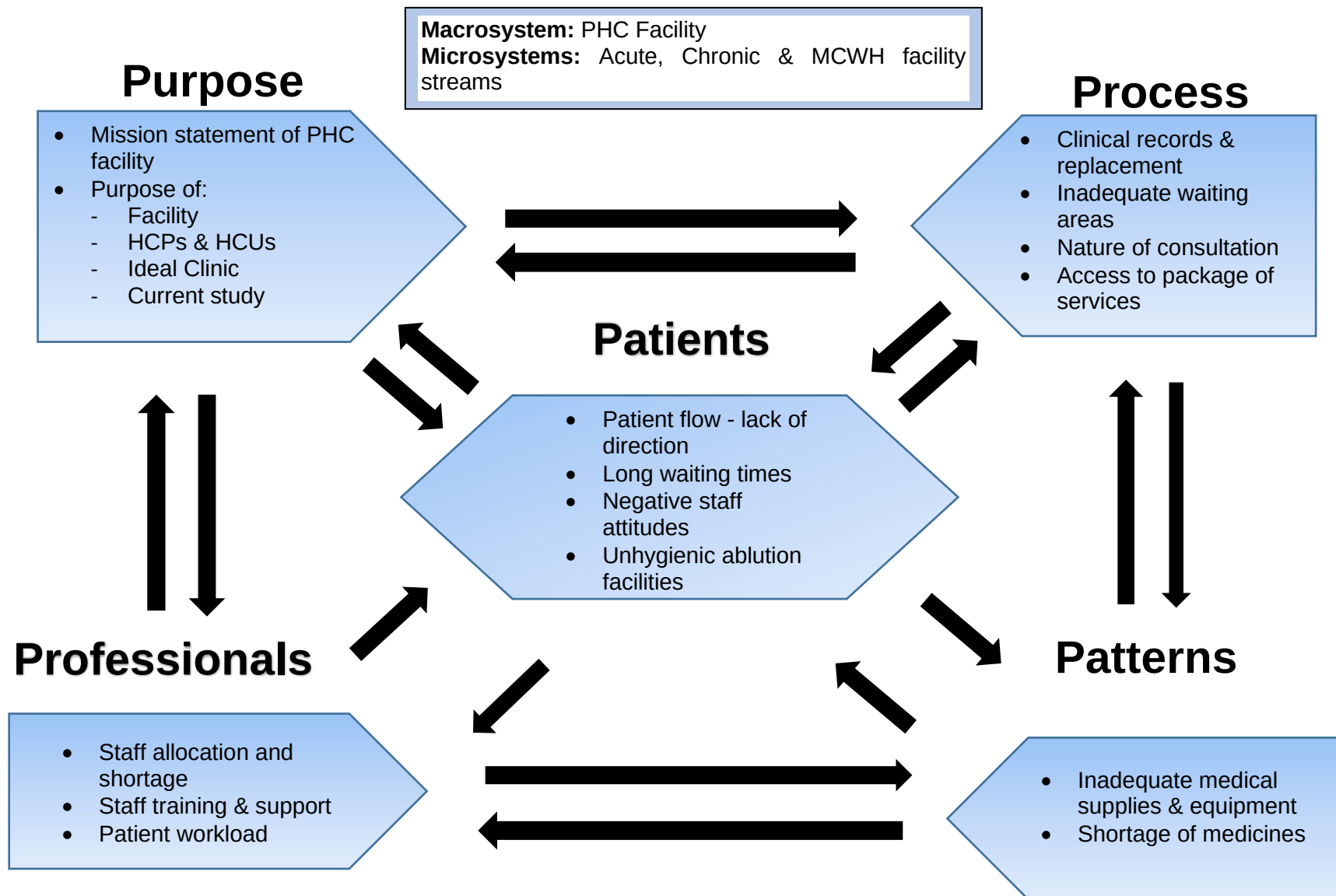


Figure 7.1: Representation of interrelationships within the 5 Ps of the CMM

7.6.1 Purpose

The purpose of healthcare facilities is to achieve the vision of the NDoH of a 'Long and healthy life for all, that is achieved through preventing illness, promoting healthy lifestyles and improving the healthcare system with a focus on access; equity; efficiency; quality and sustainability. The main purpose of HCPs is to provide needs-based quality healthcare to HCUs and HCUs expect a positive experience and positive health outcomes. Ideal Clinic initiative aimed at revitalising quality healthcare in PHC facilities to achieve a long life for all as envisioned by NDoH.

- *Mission statement of PHC facilities*

The mission and vision of each PHC facility is to render quality healthcare services that would yield positive health outcomes for its populations. The findings from the current study revealed that the quality of healthcare provided to HCUs in PHC facilities under study, which is the purpose of the Ideal Clinic initiative (1st P), was sub-optimal in terms of the seven quality of care domains. All study participants (HCUs, HCPs and clinical records) concurred that there were several errors involving patterns and/or processes affecting the quality of care rendered to the HCUs.

- *The purpose of HCPs, HCUs and Ideal Clinic initiative*

The purpose of HCPs in providing comprehensive, accessible and coordinated healthcare services as expected by HCUs is aligned with the PHC facility mission statement. However, the HCUs were concerned about the processes and patterns that took place in PHC facilities and about the professionals who provided healthcare services. Nonetheless, several factors that impacted the quality of services involving professionals and patients prevailed. The HCPs were concerned about the shortage of staff to provide services, availability of resources and support, training and patient workload. The HCUs were concerned about negative experiences at PHC facilities with ideal clinic status.

7.6.2 Processes and patterns

Several processes and patterns that prevailed in PHC facilities impacted the quality of health care services provision. These were revealed as the following: inadequate waiting areas; inadequate medical supplies and equipment; shortage of medicines;

nature of consultation; clinical records and replacements; and, access to packages of services and service days.

- *Inadequate waiting areas*

The study findings revealed that in facilities where there were not enough waiting areas for different HCUs, separate roofed-only open structures erected in facility yards during the COVID-19 pandemic were used as waiting areas, regardless of weather conditions, otherwise common waiting areas inside facilities were shared by all HCUs which caused congestion. The HCUs were concerned that such structures were extremely cold during winter and hot in summer and even women with small babies were made to wait there. The HCPs (42.9%) agreed that waiting areas inside facilities were congested with limited ventilation which compromised the safety of HCUs. The NDoH (2020a: 13) recommends adequate physical space and upkeep of maintenance in all healthcare facilities to ensure that HCUs are consulted, examined and counseled in privacy. The study findings concur with those by Matlala *et al.* (2021: 2) who found that insufficient space in healthcare facilities contributed to long waiting hours and negative experience of care by HCUs. However, Adhikary *et al.* (2018: 9) in their study on factors influencing patients' satisfaction at different levels of health facilities found that a convenient and comfortable facility environment, coupled with adequate privacy and cleanliness could potentially influence HCUs' satisfaction.

- *Inadequate medical supplies and equipment*

Ordering medical supplies including surgical sundries and cleaning materials was part of the delegated duties for HCPs or lower categories of staff. Managing and control of supplies including lockable store rooms. Safekeeping of medical equipment like stethoscopes and auroscopes was the responsibility of HCPs who used them. The findings revealed that in most facilities, medical equipment like auroscopes, thermometers or stethoscopes were shared among HCPs which compromised timeous, efficiency and effectiveness of care rendered to HCUs. The HCPs were concerned that sometimes they had to omit the examination of HCUs if the equipment was in use by another HCP. The results of adult clinical record reviews revealed that documentation of physical examination was missing on 66% of clinical records; such examination requires the HCPs to use medical equipment. The same pattern of results was noted by HCPs with 62% agreeing that physical examination of HCUs was not recorded on

clinical notes of HCUs. Again, the child record review also revealed that 37% of clinical notes were either incomplete or not recorded at all. Important elements needing medical equipment like weight/height, MUAC or temperature that are critical for correct child classification were not recorded. Some HCPs reported challenges in accessing important medical/surgical supplies like gloves, masks or toilet paper from main stores which impacted the performance of procedures like pap smears. However, the HCPs indicated that a surplus of supplies and medical equipment was noticed when facilities had to be audited.

These findings were similar to those of Khan, Albobali and Kamal (2022: 4) who found that 61% of HCPs reported that they did not have enough medical equipment in facilities and the maintenance plan of equipment was not monitored resulting in inadequate available equipment to enhance the provision of quality health care services. Muthathi and Rispel (2020: 309) believe that the pressure and urgency to comply with ideal facility status is enormous and leads to 'fake' compliance. These authors further state that at some stage facility managers had to pay from their own pockets to buy equipment or borrow from other facilities just to comply with the ICRM audit to get ideal status. Massyn, Pillay and Padarath (2019: 24) and Muthathi and Rispel (2020: 18) comment that the results of faking Ideal Clinic compliance challenged the quality of health care services in PHC facilities provided and facilities that provided poor quality care were falsely awarded high ideal status. These authors further state that 25% of such PHC facilities have lost their ideal status at some stage and losing status results in a decline in quality services rendered to HCUs. Loss of ideal statuses was attributed to the faked compliance, therefore provision of quality at PHC facilities becomes critical despite the ideal status.

- *Shortage of medicines*

The HCPs are supposed to dispense medicine based on HCUs' diagnosis using PHC guidelines for treatment and to avoid waste of resources in terms of polypharmacy or under-supply of medicines. The correct diagnosis and availability of evidence-based guidelines as references for treating HCUs were evident in some PHC facilities, but HCUs were not given the correct treatment. Though medicines were ordered from the main pharmacy according to facility usage and adhering to stipulated facility order days, the study findings indicated that the availability of medicine storage space in each PHC

facility was a major factor in deciding on the amount of medicine that was ordered. The HCPs felt that the situation was worsened by medicine stock-outs from the main pharmacy. As a result, most facilities had medicine shortages which compromised the effectiveness and efficiency of health care provided.

The HCUs verbalised that medicines like deworming and some vaccines were out of stock in some facilities. Also, the results of adult clinical records that were reviewed revealed that only 45% of records recorded drugs that were dispensed. The results on children's clinical records revealed that the management plan, which includes medicines dispensed to HCUs, was either missing or incompletely recorded on 7% and 48% respectively. However, in terms of the effectiveness of care, 96.8% of HCPs agreed that essential medicines were dispensed on the same day of consultation which was contrary to what the clinical records revealed. The study findings were similar to those by Motsepe, Wolvaardt and Webb (2020: 25) who concluded that medicine supply shortages threatened healthcare efficiency and the health of the public by creating barriers to optimal care. These authors further state that shortages of essential medicines have been even reported globally, owing to their high costs. Stacey *et al.* (2021: 1559) found that improved satisfaction with quality standards in ideal facilities was driven by the support and resources provided to such facilities and not solely by the introduction of quality standards themselves. Therefore, support to PHC facilities in terms of resources is vital for improved quality provision.

- *Nature of consultation*

The consultation process with HCUs included but was not limited to history taking, physical examination, special tests, diagnosis and management. The study findings indicated that some HCUs were concerned about how they were consulted, stating that they were neither examined nor were any special tests conducted, and were only given medication. Furthermore, where observations, special tests and physical examinations were done, findings were not communicated to them. Clinical record reviews revealed that only 49% recorded information on the consultation process, 33% had incomplete records and 18% had no record at all. The most recorded elements of health assessment were: main complaint at 98% followed by diagnosis at 90%. However, only 3% of comprehensive history taken was documented and physical examination was 9%. The findings were similar to those of Joseph *et al.* (2022: 7) who found that due to

the high load of HCUs that were consulted in health facilities, the HCPs prioritised documentation of clinical findings and disregarded communicating them to HCUs. Hitawala *et al.* (2020: 1) state that comprehensive history-taking constitutes 80% towards reaching the diagnosis and it should always be complemented by physical examination.

Therefore, a diagnosis without a full history and examination is unlikely to be accurate. Management plans and follow-up care are critical for compliance in HCUs living with chronic conditions to reduce treatment default and improve health outcomes. Such plans are to be discussed with each HCU about people-centered care. However, only 48% of the management plan was recorded. The results were contrary to the HCPs' responses on the effectiveness of care where 92% agreed that a follow-up care plan was documented on HCUs' files.

Shisana *et al.* (2019: 74) state that coverage is an important factor in providing services, however assessment of quality of services is critical as it can be a strong determinant of service use by the public. Furthermore, Stacey *et al.* (2021: 1559) concluded that though there was improved performance on facility standards in terms of ideal facility requirements which resulted in most facilities being ideal, the quality standards were not translated into improvements in the clinical services provision indicators for HCUs. Therefore, Kruk *et al.* (2018: 1196) proposed that health systems be judged primarily on their impact on HCUs and positive user experience. These authors further stated that the health system should measure and report what matters most to HCUs such as quality, competent care, positive health outcomes and confidence in the health system.

- *Clinical records and replacement*

The study findings revealed that facility-based clinical records were either kept in the reception areas or separate park homes and retrieved or filed by admitting clerks. In some facilities, records were kept in cupboard boxes due to inadequate filing space and was impossible to retrieve them as a result in some facilities major delays caused by misfiled facility-based clinical records were reported by HCUs. The study results also showed that 57% of HCPs agreed that files were not retrieved within 10 minutes as required by Ideal Clinic prescripts. Where files could not be retrieved, HCUs were provided with empty duplicate cards to proceed to consultation rooms. The 50% completeness of adult clinical records, 29% incomplete and 21% without recording at

all could be attributed to the use of duplicate records where HCU files could not be retrieved which compromises effectiveness, efficiency and continuity of care for HCUs. Shisana *et al.* (2019: 74) believe that increased malpractice medical litigations and claims are attributable to poor or non-documentation on HCUs' clinical records, thus preventing the NDoH from contesting the claims due to inadequate and or absence of clinical information on HCU records.

The South African Nursing Council is the body that regulates nursing practice in South Africa and sets regulations regarding record keeping for nurses and midwives (SANC 1991a), as a result, a nurse who deliberately ignores adherence to this regulation by not keeping legible and accurate clinical records might face disciplinary action by the SANC as set out in Regulation 387 on Acts or omissions of a nurse (SANC 1991b). Primary facilities are nurse-driven and medical doctors visit the facilities on specific weekdays; therefore, HCPs are the main custodians of all clinical records in PHC facilities. The main responsibility of HCPs working in PHC facilities is to provide clinical services to HCUs and facility managers are responsible for directing and managing all operations that take place in each facility. Auditing of clinical records for each facility programme forms part of a manager's duties. Elements of the consultation process include history taking, physical examination, screening and checking of vital signs, diagnosis, plan of care and medicines dispensed.

The study findings revealed that some facilities had inadequate essential stationery which included maternity case records, RtHBs and facility-based clinical records for HCUs with acute conditions. As a result, small carrier cards were used for acute HCUs and children whose RtHBs were lost. Photocopied maternity records (in some instances with incomplete pages) were used for pregnant women which limited HCPs from documenting all health information about each HCU. The results of the current study further revealed that only 40% of files recorded the health history on adult clinical records, and 32% recorded physical examination. However, 94% of HCU files had provisional diagnosis documented, 97% of essential medicines dispensed and 92% recorded follow-up care. These findings indicated that most HCUs were diagnosed and treated with no comprehensive history nor full physical examination being performed.

Though 61% of HCPs agreed that the care provided was effective in terms of practices relating to the consultation process, 24% indicated that HCUs living with chronic

conditions did not receive a yearly physical examination. The majority of HCPs (57%) indicated that patient safety incidents such as adverse drug events were not recorded on HCUs' clinical records which compromised the safety of care. The study results were similar to those of Makhado and Mboweni (2020: 8) and Win and Mlambo (2020: 124) which showed that poor documentation by HCPs due to the increased number of HCUs (especially those living with chronic conditions) was a major contributor to incomplete, inaccurate even non-recording of major aspects of clinical information. These authors further stated that lack of clinical record auditing by facility managers also adds to the challenge of poor recording.

Siyam *et al.* (2021: 2) attest that good clinical notes document the medical history and all relevant clinical information about the HCUs that this information is recorded for future reference and continuity of care. Sjöberg *et al.* (2021: 2) emphasise that clinical record-keeping is integral to good professional practice and the delivery of high-quality. South Africa is facing challenges with HCUs who interrupt or default chronic medical treatment and physical tracing of treatment defaulters in an urban setting with a large migrant population is also challenging. Thomas, Buch and Pillay (2021: 8) and Werner *et al.* (2023: 3) attest to challenges in obtaining the correct contact details of HCUs and that some of them deliberately provide false contact details.

- *Access to the package of services and service days*

The study findings showed that though the full package of PHC services was advertised on all facility billboards, in some facilities services such as antenatal care, pap smears, insertion and or removal of implants were done on specific weekdays. The HCUs were concerned that they waited long in the queues only to be told by HCPs that they needed to come on specific days for such services which is time-consuming, and costly in terms of lost wages. Non-provision of the full PHC package compromises access to timeous care. Medical practitioners visited PHC facilities only on specific days and HCUs needing their consult were booked or referred to the next level of care which also compromised timeous. The HCPs (46%) indicated that care provided to HCUs was not timely because not all multidisciplinary team members were readily available at PHC level. Kruk *et al.* (2018: 1196) are of the opinion that health systems should be judged primarily on their impact on HCUs, including better health and its equitable distribution on the confidence of people in the health system, economic benefits and positive user

experience. Waweru *et al.* (2020: 2) state that patient-centred services are more crucial in resource-constrained settings where historically quality improvement strategies have been more focused on HCPs with little or no attention to HCUs' perspectives.

7.6.3 Professionals

Primary health care services in South Africa are nurse-driven, therefore the professionals in the current study were professional nurses (HCPs) providing primary care level services. Facility managers are experienced professional nurses with or without a qualification in health services management and are responsible for direction and management of all operations that take place in each PHC facility. Team leaders and professional nurses are experienced professional nurses and their responsibilities include oversight of each of the facility streams, consultation with HCUs, and/or deputising as facility managers. These professionals are responsible for the processes taking place in PHC facilities. The study findings revealed factors related to professionals that impacted quality healthcare provision as follows: staff allocation and shortages; staff training and support; and, patient workload.

- *Staff allocation and shortage*

Professional nurses are the backbone of health care services and are therefore legally and morally liable to provide quality health care services. Though HCPs are normally allocated based on their skills, this study found that the majority lacked specialised skills. It was evident from the interviews that staffing levels in facilities were not according to the number of HCUs seen at PHC facilities. According to Ideal Clinic prescripts, staff allocation is calculated using workload indicators of staffing need (WISN). WISN is a special software tool for recording, analysing and reporting data related to staffing status and needs in health facilities. The study findings revealed that though the HCPs were allocated based on their skills, the majority lacked specialised skills in health assessment (training on 'Clinical nursing science, health assessment, treatment and care'). Rotating HCPs from one stream to another worsened the situation where skills alignment was not in accordance with their duties which compromised the safety of HCUs. In most facilities, there was an enrolled nurse who was responsible for immunisation and in the absence of the enrolled nurse, the HCPs were expected to immunise children, thus adding an extra workload for HCPs. In one facility that provided 24-hour services, there was no clerk allocated to work in the evening and HCPs were

expected to admit the HCUs themselves before they could consult with them thus adding an extra workload.

The HCPs also verbalised that for them to work faster and finish the crowd in the waiting room/s, they resorted to just listening to the HCUs' complaints and dispensing medication without examining them. Such practice is illegal and compromises the safety, effectiveness and efficiency of care. The results showed that 76% of HCPs indicated that a full physical examination was performed on HCUs which compromises the effectiveness of care provided. However, 94% of responses indicated that medicines were prescribed using an essential drug list based on the HCU's diagnosis. The adult clinical records revealed that only 49% of health assessments performed were recorded and the physical examination performed was only recorded in 25% of cases. Good nursing practice requires detailed record-keeping as evidence to prove that care was provided and the rule of 'what was not recorded was not done' applies where there is no documentation. The study findings were similar to those of Makhado and Mboweni (2020: 8) who concluded that the increased numbers of HCUs living with chronic conditions attending PHC facilities contributed to poor documentation in terms of incomplete, inaccurate even non-recording of the major part of clinical information. Bresick, Von Presentin and Mash (2019: 109) observe that systems in Africa are under-resourced in terms of staffing with PHC services delivered by low-level and poorly trained HCPs which compromises the quality of health care received by HCUs.

- *Staff training and support*

The findings revealed that some HCPs had specialised training which included but was not limited to primary, advanced midwifery, nurse-initiated management of antiretroviral therapy, integrated management of childhood illnesses as well as adult primary care and they worked in different facility streams on a rotational basis. HCPs expressed concerns that when they were moved from one facility stream to another, their skills or training were not always considered which created challenges as far as the effectiveness, safety and efficiency of care was concerned. On average, 61% of HCPs agreed on effective care being provided, but 68% of HCPs indicated that essential elements of effective care which included full history taking and physical examination were not undertaken. In terms of patient safety incidents being reported and or

recorded, 57% of HCPs disagreed which indicated that the safety of care was compromised.

The overall completeness of adult clinical records was 50% and 29% were incomplete. Major elements of health assessment which included history taking (72%) and physical examination (66%) were incompletely recorded. Similar results were evident regarding the child's clinical records, with 49% completeness. The NDoH (2020a: 78) advocates for the creation of an environment that supports the professional development of HCPs to ensure the delivery of quality primary health services and a training plan should be based on the facility's needs. The Department encourages that HCPs should be enskilled through short courses while waiting for formal training to make them effective and efficient. Such courses include but are not limited to nurse-initiated antiretroviral therapy, integrated management of childhood illnesses, sexual and reproductive health, basic antenatal care as well as adult primary care. Gabrani, Schindler and Wyss (2020: 8) concur with the NDoH policy, in that empowering HCPs with skills and competence plays a significant role in quality service provision. The WHO, OECD and WB (2018: 31) outline that provision of safe health care should be provided by skilled HCPs to minimise harm and preventable medical errors.

The HCPs indicated that though facility managers supported them, resources which included resources like medical supplies, equipment, stationery and human resources were inadequate. Essential stationery like maternity case records and records for HCUs with acute conditions were either not enough or out of stock, so photocopied pages or small carrier cards were used to record clinical notes which compromised recording with possible medical litigations and safety of HCUs. The HCPs attributed incomplete clinical records to inadequate supply or shortage of essential clinical stationery and or medical equipment where instruments like auroscopes were shared. The study results revealed that clinical notes on physical examination were missing in 66% of adult clinical records and fully recorded in only 9% of records. Such a state of records compromises the continuity, effectiveness and safety of care for HCUs. Child clinical records revealed only 16% were completely recorded. Regarding safety, 40% of HCPs disagreed that the provided was safe. The study findings in terms of support by facility managers were similar to those by Muthathi, Levin and Rispel (2019: 309), that facility managers had no power to influence procurement processes and turnaround times for facility orders.

As a result, facilities had to wait for the supply chain department to deliver supplies which affected service provision in terms of timeous and effectiveness of care.

- *Patient workload*

The study findings revealed that HCUs seen at PHC facilities exceeded the number of HCPs available. The HCPs indicated that the workload was heavy in terms of the number of HCUs seen and in terms of the complexity of the health problems reported by HCUs. They felt that consulting with children using the IMCI strategy and HCUs with acute health problems took longer than consulting persons with chronic conditions and needed skilled HCPs. Since there was no relief for support staff in terms of clerks, enrolled nurses or enrolled nursing assistants, HCPs had to perform non-clinical duties like opening files for HCUs which would normally be allocated to support or lower-level staff, thus compounding the workload of HCPs. Study findings were similar to those of Ravhengani and Mtshali (2017: 3) who found a shortage of lower-level categories of staff resulted in professional nurses spending time performing non-clinical activities. These authors concluded that professionals should be utilised according to their scope of professional practice for the provision of quality services and all non-clinical tasks should be shifted to support staff.

In some facilities where there was inadequate space and a staff shortage, acute and MCWH streams were combined and HCUs consulted by only two HCPs. The HCPs verbalised that due to work overload, in trying to work faster and finish the crowd, they sometimes resorted to listening to the HCUs' main complaints and dispensing medication without examining them and documenting clinical notes later when all HCUs were gone, especially for those HCUs with facility-based records. Some HCPs ended up not recording clinical notes or recording only what they could remember about the consultation process. The study results revealed that 21% of adult clinical records were without clinical notes except the dates or observations that were done by enrolled nursing assistants. Similarly, 27% of child records were without clinical notes but only dated and containing observations regarding the visit. Non-recording of clinical notes compromises continuity, person-centered, effective and efficient care for HCUs. Khan, Albobali and Kamal (2022: 1) emphasise that keeping clear, accurate and eligible clinical records at the same time as the consultation process is integral to the delivery

of quality services. These authors further state that accurate documentation of clinical information forms the basis of safe, transparent and measurable clinical practice.

7.6.4 Patients

The factors related to HCUs that impact the provision of quality services included the following: patient flow and lack of direction for facility activities; long waiting times for services; negative staff attitudes and insufficient and unhygienic ablution facilities.

- *Patient flow - lack of direction*

The findings indicated that most PHC facilities had separate streams for HCUs with acute conditions, those living with chronic conditions, or those who came for MCWH services. However, in some PHC facilities HCUs with acute conditions were consulted in the same space as those who came for MCWH services due to inadequate staff and or space. All PHC facilities had common spaces for admission, observations and one waiting area and HCUs were either directed by security guards or admitting clerks to different streams. There were no dedicated queue marshals to manage patient flow. The HCUs were concerned that there was no proper direction, which led to delays due to incorrect queues being followed. The HCPs agreed (52%) that there was no clear patient flow from the reception area up to exiting the facility which caused long waiting times for HCUs. However, 57% of HCPs agreed that HCUs were informed about projected waiting times in facilities and 43% indicated that HCUs were not informed which led to a negative experience of care for HCUs.

Facility-based clinical records were either kept in the reception areas or separate park homes and retrieved or filed by admitting clerks. Major delays causing misfiled facility-based clinical records were reported by HCUs. In some facilities, records were kept in boxes in cupboards due to inadequate filing space and it was impossible to retrieve them. The study results showed that 57% of HCPs agreed that files were not retrieved within 10 minutes as required by Ideal Clinic prescripts. The 50% completeness of adult clinical records, 29% incomplete and 21% without recording at all could be attributed to the use of duplicate records where HCU files could not be retrieved which compromised effectiveness, efficiency and continuity of care for HCUs. The study findings concur with those by Matlala *et al.* (2021: 2) and Makau and Khunou (2022: 10) which indicate that insufficient physical space and congestion in health facilities contributed to long waiting

hours, delays in accessing services and negative experiences for HCUs. Egbujie *et al.* (2019: 317) in their study in KZN suggested that reducing waiting time spent in facilities should not be achieved at the expense of consultation time spent by HCUs with HCPs because it could be counterproductive and increasing the consultation time would translate to better quality care.

- *Long waiting times*

The findings showed that in all PHC facilities, there was one reception area where clinical records were created or retrieved by one to two staff members who worked in reception areas resulting in delays with retrieving clinical records because some clinical records took longer to be located and be retrieved from filing cabinets. In facilities where pregnant women were consulted together with children, HCUs were also concerned about long waiting times before consultation because sick children and first-visit pregnant women took longer to be consulted. Matlala *et al.* (2021: 2) and Hunter *et al.* (2017: 119) also found that insufficient space to consult with HCUs in health facilities contributed to long waiting hours and negative experiences of care by HCUs. Concerns were raised that though HCUs waited long to be consulted, the actual consultation was too short and some HCPs did not even touch HCUs but only gave treatment for the main complaint.

The consultation process by HCPs includes the collection of comprehensive history from HCUs; performance of a physical examination including checking of vital signs and special investigations or tests; diagnosis and care plan of management for each HCU; treatment of HCUs which includes dispensing of essential drugs using relevant clinical guidelines; follow-up care and or referral to the next level of care; recording of all clinical information on clinical records and signing the record. However, only 49% of clinical records had a full record of the health assessment, with the remaining clinical records being either incompletely recorded or not recorded at all. Regarding the effectiveness of care in terms of physical examination being performed on HCUs, 83% of HCPs indicated that physical examination was not performed on HCUs for chronic and acute conditions. Muthathi and Rispel (2021: 15) found that the increased PHC services utilization rate resulted in staff overload and poor healthcare services. Poor health care services include HCUs not being examined and some special tests like pap smears being postponed.

The responses from HCUs (52%) indicated that unclear patient flow leading to long waiting hours in PHC facilities was a challenge regardless of facility streams and it interfered with the timely provision of health care. The HCPs (94%) indicated that delays in emergency transportation of HCUs to the next level of care compromised timely medical care for HCUs. Although the NDoH (2020a: 13) advocates for all PHC facilities to be re-organised into streams with designated consulting areas and staffing for each stream to free patient flow and reduce long waiting times, Egbujie *et al.* (2019: 317) state that reducing waiting time spent by HCUs in facilities should not be achieved at the expense of consultation time spent by HCUs with HCPs because it could be counterproductive and compromise the effectiveness of care.

- *Negative staff attitudes*

The HCUs were concerned about uncaring and disrespectful behaviors they experienced from HCPs as well as from other cadres of staff. The use of staff name tags and consultation with HCUs in private were some of the safety elements that were related to staff attitudes; 61% of responses by HCPs confirmed that HCPs were consulted by unnamed professionals since not all HCPs used identification name tags. The responses from HCPs (56%) indicated that care was patient-centered and these results were similar to those of Brito Fernandes *et al.* (2020: 336) who found that 79% of HCUs agreed that they were involved in decision-making about their care and treatment. However, in the current study HCUs verbalised that they were not involved in decisions related to their care. In 1997 the NDoH launched the Batho Pele initiative to transform the public service to be people-friendly. The initiative requires the involvement of the public in holding public services accountable for the quality of service provided. Among the 12 Batho Pele principles are redress and courtesy which require that HCPs always treat HCUs with courtesy and consideration (South Africa 1997: 12).

Gabrani, Schindler and Wyss (2020: 7) emphasise that good quality care and courteous HCPs are among the principal reasons for HCUs to use facilities. These authors further noted that poor HCP attitudes negatively influence the quality of services and decrease utilisation of facilities. Bresick, Von Presentin and Mash (2019: 113) concur that poor-quality services emanating from negative staff attitudes may result in a loss of confidence in the health system as a whole by HCUs which escalates medico-legal

claims, burdening both health services and professionals. Muthathi and Rispel (2020: 15) further state that though there has been an increase in the availability and utilization of PHC services since the dawn of South African democracy in 1994, challenges such as negative staff attitudes and patient safety and security concerns in health care facilities still exist. HCU satisfaction is not enhanced by just providing what they need when visiting the facilities; involving HCUs in decision-making relating to their care is vital for HCU satisfaction (Fix *et al.* 2018: 306).

- *Insufficient and unhygienic ablution facilities*

The study findings revealed that facilities in the N sub-district had piped-water challenges and as a result portable toilet facilities for HCUs were secured. The HCPs used water from containers to physically flush the toilets. The HCUs verbalised that portable toilets were not regularly cleaned or serviced and were inadequate for the number of HCUs attending each facility. HCUs who shared the toilets ranged from children to pregnant women who had to do urinalysis which posed risks of facility-acquired infections and compromise the safety of HCUs. The responses from HCPs (60%) indicated that the care provided was safe however, the questions used to assess the safety of care were related to ventilation in facilities and identification of HCPs, and not related to infection control measures. There were only two portable toilets per facility which were allocated according to gender and were not cleaned frequently which indicated poor adherence to infection control protocols. The study findings were similar to the major concerns in healthcare facilities that were highlighted in the presidential health summit held in 2018, which referred to negative HCU experiences such as dirty and unhygienic and unsafe healthcare facilities that adversely impact HCUs' experiences, and lack of standardised cleaning materials and equipment (South Africa, NDoH 2018: 7). The WHO and UNICEF (2020: 35) advocate for effective infection prevention and control measures in PHC facilities as the foundation for quality care to ensure that all services are provided in a clean and safe environment.

7.7 CHAPTER SUMMARY

This chapter presented data mixing of both quantitative and qualitative data strands and later discussed the study findings using the 5 Ps of CMM which was the framework that guided the study. The mixed data discussed in this chapter was from all data sources. The themes that emerged in the qualitative strand and the concepts from

the quantitative strand were used to guide the discussion of the study findings. The results/findings were backed with relevant literature from different authors on a similar or related study topic.

CHAPTER 8:

DEVELOPMENT OF PRACTICE FRAMEWORK TO ENHANCE IMPROVED QUALITY HEALTHCARE SERVICE PROVISION AT PHC FACILITIES IN ETHEKWINI DISTRICT

8.1 INTRODUCTION

The previous chapter presented the mixing and discussion of findings/results using the CMM that guided the study. The discussion was structured using the elements (5 Ps) of the model. This chapter presents details regarding the development of a practice framework that a researcher intends to propose for enhancement of improved quality of healthcare provision in the PHC facilities irrespective of Ideal Clinic status. Proposal of the practice framework was the fifth and last objective of the study. The practice framework was developed based on the study findings and recommendations. Subsequently, it was reviewed and modified based on the recommendations made by the experts from the clinical team, management, accreditation team and quality assurance department.

8.2 SUMMARY OF FINDINGS FROM THE CURRENT STUDY

The information presented in the previous chapters has answered the first four study objectives which were to:

- Determine the current practices of HCPs in ideal PHC facilities.
- Determine the status of health care user records in ideal facilities.
- Explore the perspectives of HCPs regarding the influence of Ideal Clinic status on the quality of patient care.
- Ascertain the perspectives of HCUs on the quality of care received in facilities with ideal status.

The findings/results of these objectives guided the development of a practice framework that will enhance improved quality of healthcare services provision in PHC facilities irrespective of ideal status, which was the last objective of the study. A more detailed

summary of findings is presented in a table format in Appendix 15. The findings on each objective are summarised based on themes and concepts that emerged from the two data strands as presented below.

8.2.1 Staff establishment, allocation, training and support

The study findings/results revealed that all PHC facilities were nurse-driven to provide a package of primary care services, but most facilities experienced staff shortages in terms of professional nurses and other categories of staff such as enrolled nurses and enrolled nurse assistants. As a result, physical examination was not performed on some HCUs, they were only given medication based on the main complaint thus compromising the safety, effectiveness and efficiency of care received by them. Though the staff was generally allocated based on staff skills and experience, most HCPs lacked specialised skills such as PHC training, advanced midwifery and mental health. Rotation of HCPs from one facility stream to another worsened the situation where HCP allocation was not aligned with their skills and competency thus compromising the safety of HCUs. One of the effects of this was evident in clinical records of both children and adults where there was either incomplete documentation of clinical information or such information was not documented at all. This could be attributed to a lack of training, skills, staff shortages and/or workload, all of which interfere with safety and continuity of provision. Patient workload in terms of the number of HCUs seen and the complexity of the health problems from HCUs as well as HCPs performing non-clinical duties compounded the workload for HCPs.

8.2.2 Physical space, medical supplies equipment and unhygienic ablution facilities

The findings revealed that PHC facilities had inadequate physical space in terms of consultation rooms, waiting areas, and storage space for medicines and medical supplies. Most facilities used open roofed-only structures as waiting spaces for all HCUs regardless of weather or HCUs' conditions which was a safety concern. In some facilities consultation rooms with inadequate ventilation were shared by two HCPs which compromised HCUs' privacy and safety. Inadequate medical supplies, equipment and medicine shortages were reported in most facilities because stocks were ordered based on available storage space instead of facility usage, which resulted in shortages. The challenge was made worse by stock-outs from the main stores where facilities had to

wait for outstanding stocks to be supplied. The record reviews also revealed stock outages on medicines which included but were not limited to medicines for chronic conditions, vaccines and mebendazole which compromised the timeous delivery of care. Physical examination and special tests that needed medical equipment like auroscopes, haemoglobinometers and glucometers were not recorded which could be attributed to the non-availability of such medical equipment. The HCUs' portable toilets were reported to be inadequate, not serviced and dirty which compromises infection control protocols and the safety of HCUs, thus adversely impacting the HCUs' experiences.

8.2.3 Facility organisation, patient flow, clinical records and replacements

The findings/results indicated that most facilities were congested, inadequately ventilated and without queue marshals to direct patient flow, resulting in long waiting times and possible cross-infections among HCUs. Inadequate filing storage resulted in misfiled clinical records and difficulty in retrieving facility-based records, with HCUs waiting long periods for clinical records. The HCUs with lost clinical records were either consulted on duplicate records or small carrier cards, thus compromising effective, efficient and continuous care. Some facilities had specific days for services like antenatal care, pap smears or insertion of Implanon and a booking system was used for HCUs, thus compromising access to timeous care.

8.3 PRACTICE GAPS IDENTIFIED BY THE STUDY

The study looked at the effectiveness of care in PHC facilities with Ideal Clinic status. The findings were based on data collected from participants who were HCPs working in PHC facilities, HCUs attending the facilities for health care services, and retrospective record reviews of both adult and children HCUs. Again, the practice gaps were confirmed by both PHC processes which included quality of care domains, themes and sub-themes that emerged from the study as follows:

Staff establishment in PHC facilities

- *Staff training and support* - Some HCPs had neither the skill nor specialised training to render PHC services however, they were consulting with HCUs which compromised the safety of HCUs. The HCUs that needed a specialised service like insertion of Implanon were either referred to the next HCP or booked for

another day which compromised timeous service provision. Findings showed that staff were not supported in terms of resources to perform their duties. Medical supplies such as gloves, were in short supply in some facilities, and procedures like pap smears were postponed.

- *Staff allocation and patient workload* - Findings indicated that staff was allocated based on their skills however, the majority of them lacked specialised skills. Rotating them from one facility stream to another worsened the situation where skills alignment was not in accordance with their duties. The findings showed that the number of HCUs visiting the PHC facilities far exceeded the number of HCPs who provided services. There were no relief staff for other cadres of staff which included clerks, enrolled nurses and enrolled nursing assistants, resulting in HCPs having to perform additional duties when these cadres of staff were on leave. In trying to finish the crowd, some HCPs resorted to omitting to examine the HCUs and only dispensed medication. The findings indicated that 60% of HCU clinical records did not have a full history documented, and 68% of clinical records did not have HCUs' full physical examination recorded, which compromises the effectiveness of health care.

Physical space

- *Inadequate physical space* - Physical space in most facilities was very limited such that there was only one reception and waiting area where all HCUs were admitted and made to wait before being re-directed to specific consulting rooms. All HCUs waited in one common area either in open shelters regardless of extreme weather, or shared congested waiting areas which compromised their safety. The HCUs sometimes ended up following incorrect queues which resulted in prolonged waiting time for services.
- *Inadequate medical supplies and equipment* - In most facilities, medical equipment like auroscopes were shared among the HCPs, with some equipment only being available during facility audits. Findings indicated that the availability of medicine storage space in each facility was a major factor in deciding on the amount of medicine that was ordered. Medicine stock-outs from the main pharmacy, which included vaccines, exacerbated medicine shortage in facilities which compromised effectiveness and timeous care for HCUs.

- *Inadequate and unhygienic ablution facilities* - Findings indicated that some facilities had portable toilets for HCUs due to challenges with piped water supply. Toilet facilities were inadequate for the number of HCUs visiting each PHC facility and were not serviced regularly which constituted health hazards.

Facility organisation and patient flow

Though HCUs in all PHC facilities were separated according to facility streams, lack of adequate space in some facilities made it impossible for the three streams to function effectively.

- *Lack of direction for different facility activities* - The findings showed that space in facilities was inadequate for the number of HCUs that attended in each facility, resulting in congestion, and none of the facilities had a queue marshal to direct the HCUs to relevant consultation rooms. Security guards played that role. In some facilities, the provided was not integrated because HCUs had to join different queues to access health services in different facility streams.
- *Clinical records and replacement* - Clinical records reviewed included 45 RTHBs, 180 clinical records of HCUs living with chronic conditions, 90 of HCUs with acute conditions, and 90 maternity case records, totaling 405 clinical records. Insufficient or non-availability of essential stationery to record clinical information, failure to audit clinical records, delayed clinical recording as well as staff shortages were flagged as some of the factors that contributed to the poor state of clinical records at the PHC facilities. The poor records compromised continuity, safety, effectiveness and person-centredness and increased the risk of medical litigation.
- *Package of services and service days* - Some facilities had specific days for services like pap smear, antenatal care and insertion of Implanon. Access to services and timeous care was compromised resulting in delays in health care.

Experience of care at PHC facilities

The experience of care by HCUs ranged from waiting longer in different facility streams for consultation to being not examined by HCPs.

- *Waiting times* - The findings indicated that lack of physical space, congestion, and long queues, contributed in HCUs waiting longer for services. Staff shortages in the reception areas resulted in delays in getting clinical records because some clinical records took longer to be located and be retrieved from filing cabinets.
- *Nature of consultation* - In facilities where pregnant women were consulted together with children, consultation took even longer to finish for each HCU. The findings showed that some of HCUs were neither examined nor administered any special tests. Where observation, special tests and physical examination were done, findings were not communicated to the concerned HCUs. The results indicated that 60% of the clinical records did not document health history and assessment, which includes physical examination.
- *Negative staff attitudes* - The findings indicated that HCUs experienced negative attitudes and disrespect from HCPs as well as from other cadres of staff. The study results showed that only 58% of HCPs agreed with the statement that care provided to HCUs was patient-centered.

8.4 NEED FOR AN IDEAL CLINIC PRACTICE FRAMEWORK TO ENHANCE IMPROVED QUALITY OF HEALTHCARE SERVICE PROVISION IN PHC FACILITIES

It is apparent from the study findings/results that Ideal Clinic status does not automatically translate to quality provision in PHC facilities. Healthcare systems and processes are still hindering healthcare professionals from rendering quality care to the public, especially at the PHC level regardless of the quality improvement strategies implemented by the NDoH. As such, HCUs are still facing challenges with regard to the poor quality of healthcare services in PHC facilities. Infrastructure remains the major challenge in implementing the three facility streams of care; inadequate physical space of the facility in relation to the population being served contributed to poor adherence to infection control protocols; drug stockouts due to inadequate storage capacity of bulk supplies; cleanliness issues as well as long waiting times for the HCUs. Staffing levels and allocation are dependent on the availability of physical space in facilities. Inadequate essential medical equipment and staffing in PHC facilities contributed to delays in clinical care and referral of HCUs to the next level of care. Therefore, the

physical infrastructure of the health facilities had an impact on both the ability of the HCPs to perform their duties and HCUs satisfaction.

Several infrastructure items, health system and HCPs-related findings listed in Table 7.1 were identified as factors that had a negative impact on the quality of provision in PHC facilities, thus highlighting the need to develop an Ideal Clinic practice framework that will enhance quality clinical services provision regardless of Ideal Clinic status. The practice gaps identified by the study assisted the researcher in deciding on what aspects to focus on when developing a clinical practice framework.

8.5 PROCESS OF DEVELOPING PRACTICE FRAMEWORKS

A practice framework is defined as a schematic template for systematically improving practice analysis for assessment, interventions and practice reform. A practice framework is not based on or informed by organisational imperatives but designed through and informed by value-based practice, research and evidence (Stanley, Baron and Robertson 2019: 5). These authors further state that for a practice framework to be effective, it must be reflected in supervision processes, quality assurance systems, and consider the skills and experience of the providers involved. The framework has characteristics that include specific and easy usage, helps to identify only necessary information, provides usable insights, encourages and rewards deeper learning. The researcher used Ludlow's *et al.* (2022: 2) four-step approach to developing an Ideal Clinic practice framework that aims to enhance the quality of healthcare service provision in PHC facilities in eThekweni district. The actual framework is presented in Chapter 9. The following steps as depicted in Figure 8.1 were used to develop the practice framework:

1. Literature review and evidence-based guidelines
2. Review of existing indicators for measuring quality of care
3. Identification and consultation with experts/stakeholders
4. Monitoring and review of the framework.

8.5.1 Literature review and evidence-based guidelines

This is a thorough review of existing research, guidelines and best practices related to the proposed framework. The development of the Ideal Clinic practice framework to enhance quality care provision in PHC facilities in eThekweni district was facilitated by

an extensive literature review, findings/results after analysis of data from HCPs, HCUs and clinical record reviews. An extensive literature review on quality, available quality improvement initiatives as well as global, regional and local views on quality was presented in Chapter 2. The status of Ideal Clinic realisation and maintenance as a quality improvement initiative was critically reviewed using literature, concentrating on infrastructure, human resources and equipment. This process is in line with McMeekin *et al.* (2020: 2) who state that the process of developing a framework encompasses evidence that arises from the review of existing literature related to existing methods, experiences and expertise. During the literature review, data is identified using purposeful literature searches with the intention to support and strengthen the need to develop a practice framework that will enhance improved service provision in PHC facilities.

8.5.2 Review of existing indicators for measuring quality of care

The NDoH has identified several quality improvement strategies that together contribute to the development of practice frameworks to enhance an improved service provision. The initiatives include PHC re-engineering, national core standards, and ICRM aimed at revitalising and maintaining the quality of care at PHC facilities through infrastructure, human resources and equipment as discussed in Chapter 2. A document review that included clinical records of both adult and children HCUs, and interviews with HCPs and HCUs laid the foundation for practice framework development. The review of available policies and guidelines on existing quality of health care indicators/domains included the following: effectiveness, equity, efficiency, integration, people-centered, safety as well as timeliness care. Several gaps were identified in provision within the seven quality domains as presented in Chapter 7.

8.5.3 Identification and consultation with experts/stakeholders

The researcher identified clinical experts from the three sub-districts of eThekweni to gather insights and practical knowledge. The expert was defined by the researcher as a person with practical experience in PHC services provision – either working, managing or involved in auditing in the PHC area and holding a position of responsibility. Therefore, experts were identified from a nursing population of experienced nurse practitioners in the PHC area. The experts comprised two members from each of the following categories of experts: quality assurance officials, PHC area managers, PHC

facility managers, senior professionals, nurses, and Ideal Clinic accreditation team members. All experts had excellent knowledge of PHC services provision since they were all experienced PHC nurse specialists. Eleven experts were invited by email to participate in validating the practice framework and 10 experts accepted, representing a take rate of 91%. However, seven completed questionnaires were received representing a response rate of 70% of experts who accepted the invitation to participate.

8.5.4 Modified Delphi process to refine and validate the framework

The Delphi technique is used to collect expert-based judgements and identify consensus based on the assumption that a group of experts and a multitude of associated perspectives will produce more valid results than an individual expert (Niederberger and Spranger 2020: 2). The content of the framework was developed by the researcher and refined through a modified Delphi process to obtain consensus from experts. The experts had health services management, health policy, PHC clinical health, and quality improvement expertise. In the first round, experts were oriented to the purpose of developing the framework and then independently reviewed the framework. The results were merged for analysis to determine agreement and disagreements across reviews. In the second round, experts deliberated on disagreements. During the third and final round, consensus was reached and the researcher used discussions and personal clinical experience post-Delphi rounds to further refine the framework.

8.5.5 Evaluation, update and improvement of Practice Framework

Evaluation, update and improvement is the final stage in framework development and evaluation techniques include piloting the framework and Delphi panels. The framework was not piloted. However, the results from the evaluation were used to refine the framework (McMeekin 2020: 7). Since the suggestions from experts were not prescriptive, regular updates of the framework to incorporate new evidence and innovations in the practice framework will be necessary.

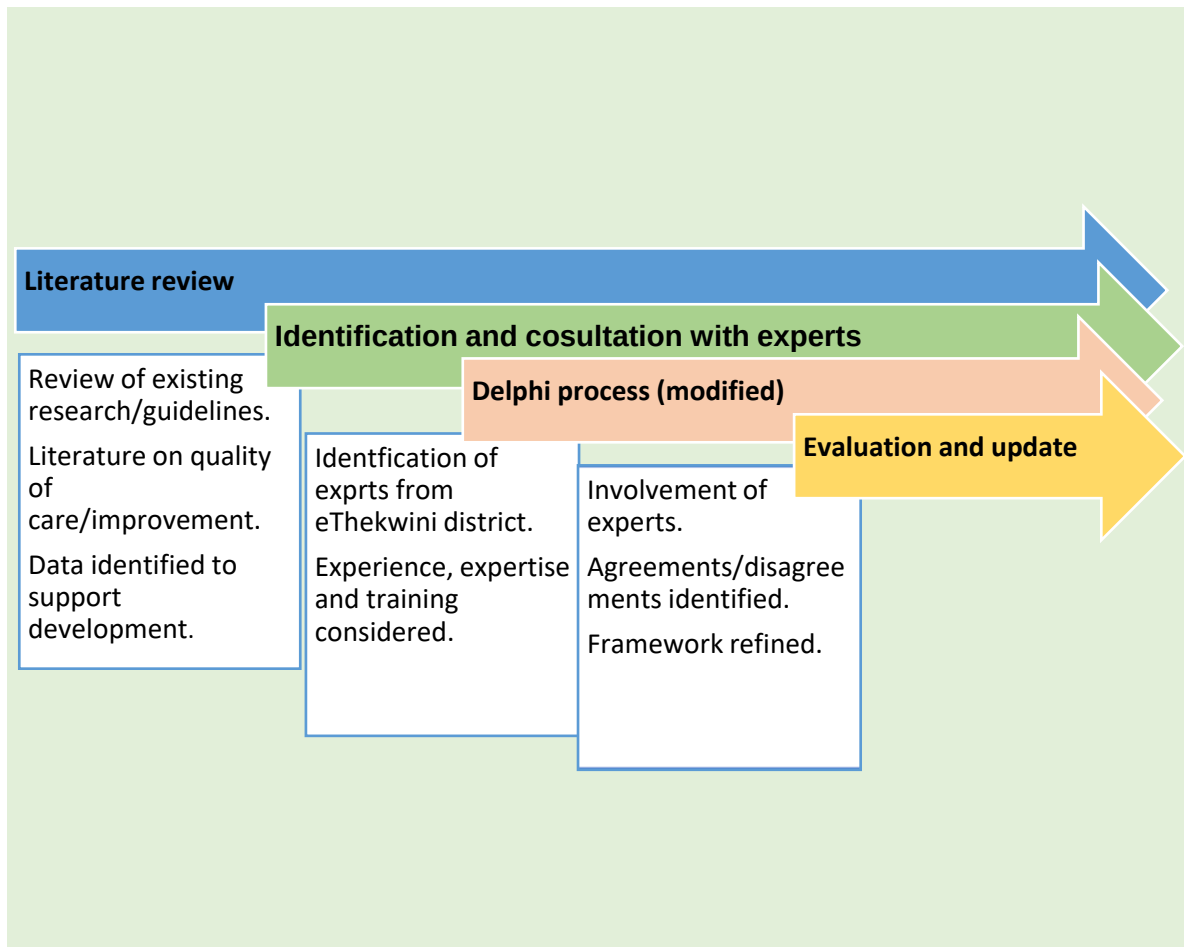


Figure 8.1: The process followed for the development of the practice framework
 Source: Adapted from Ludlow *et al.* (2022: 2)

8.6 VALIDATION AND EVALUATION OF THE FRAMEWORK

Table 8.1 presents a summary of the feedback from experts and the consensus reached. In order to validate and evaluate the practice framework, consensus mini-surveys were conducted with experts. The experts are all involved in Ideal Clinic auditing when the Office of Standard Compliance audit team audits PHC facilities. A total of seven experts participated in the process with one member for each category (managing authorities A and B) except for the quality assurance manager who was from managing authority A. The practice framework was validated and evaluated for its relevance and acceptance using a modified Delphi technique that included two rounds of review. Delphi techniques are used globally to investigate a variety of issues with the aim of developing expert-based judgement on an epistemic question. Based on the findings of this method, frameworks or guidelines are drafted that act as an important basis for carrying out and evaluating clinical guidelines (Niederberger and Spranger

2020: 1). A letter of request (Appendix 19), confidentiality statement (Appendix 20), preliminary practice framework and template for reviewers' comments (Appendix 21) were sent via email and also hand-delivered to relevant experts requesting them to participate in the process of validation and evaluation (Appendix 19). All experts who agreed to review the practice framework were made to sign a confidentiality statement to ensure confidentiality. Changes to the framework were made considering consensus in feedback and recommendations by the majority of experts. The revised elements of the framework were circulated to experts for further comments until a consensus was reached. Niederberger and Spranger (2020: 2) emphasise that cognitive diversity in the composition of the expert panel is important for the robustness and validity of the findings. A consensus was reached after two rounds of engagement with the experts.

Table 8.1: Summary of reviewers' comments during the two rounds of the Delphi process

TOPIC TO COMMENT ON	REVIEW ROUNDS (Include total number of reviewers)	
	1. Preliminary Round	2. Final Round
Name of framework	Appropriate (X7 reviewers)	Appropriate (X7 reviewers)
Relevance of structure for end user	Add HCUs that move directly from acute stream to chronic stream (X2 reviewers)	Relevant structure (X7 reviewers)
Language clarity	Clear and understandable (X7 reviewers)	Clear and understandable
Relevance of content to address problem	Include multidisciplinary team (X1 reviewer)	No additional comments
Sufficiency of information to address problem	Sufficient information (X7 reviewers)	
Adaptability	Adaptable (X7 reviewers)	Adaptable (X 7 reviewers)

8.7 CHAPTER SUMMARY

This chapter presented the processes that led to the development of the Ideal Clinic practice framework to enhance improved service provision in PHC facilities at eThekweni district. This chapter described the steps that were followed in developing the framework and the process of validating it by expert professionals. The practice framework is presented in Chapter 9.

CHAPTER 9:

PRESENTATION OF THE PRACTICE FRAMEWORK TO ENHANCE IMPROVED HEALTHCARE SERVICE PROVISION IN PHC FACILITIES IN ETHEKWINI DISTRICT

9.1 INTRODUCTION

Chapter 9 presents the Ideal Clinic practice framework to enhance improved quality healthcare service provision in PHC facilities in eThekweni district. Proposal of the framework was the fifth and final objective of the current study. The process followed in developing and evaluating the framework was presented in the previous chapter. The framework was informed by the findings from the study aimed at achieving the first four objectives of the study which were supported by relevant literature. The framework builds on what is already in place in the South African National guidelines for implementation of the Ideal Clinic initiative but targets areas that, according to the study findings, need to be strengthened. This study also considered the existing strengths of the Ideal Clinic initiative that can be used as pillars to ensure that the intended vision of the NDoH for introducing the ICRM initiative (improving and maintaining the quality of health care services in public services) is achieved.

9.2 TITLE OF THE IDEAL CLINIC PRACTICE FRAMEWORK

The framework is named Manzezulu's Practice Framework to Enhance Improved Health Care Service Provision in PHC Facilities in eThekweni District. The researcher used her clan name in the title.

9.3 TARGET AUDIENCE FOR THE IDEAL CLINIC PRACTICE FRAMEWORK

The practice framework is intended for HCPs in different PHC facility streams, HCUs that attend the ideal PHC facilities for various primary care services, facility managers responsible for all the operations in each PHC facility in support of effective provision of quality healthcare, and PHC area managers whose responsibilities are to support facilities in terms of required resources to render PHC services. EThekweni district management and eThekweni municipal health management whose responsibility is to

provide resources and monitoring and evaluation of the effect of the implementation and Ideal Clinic initiative on quality health care provision, can also benefit. The HCUs are the nucleus of the framework, and all planned activities should be centered around providing quality healthcare services from the point of view of HCUs irrespective of healthcare systems' challenges.

9.4 PURPOSE OF THE IDEAL CLINIC PRACTICE FRAMEWORK

The purpose of the practice framework is to provide structure by using evidence-based practices on interventions that can assist policymakers and implementers to take relevant actions for improving quality healthcare service provision across the three streams of PHC facilities regardless of Ideal Clinic status.

9.5 OBJECTIVES OF THE IDEAL CLINIC PRACTICE FRAMEWORK

The findings/results revealed several long-term and short-term interventions that could help improve the quality of health care services at the primary care level. The developed practice framework is intended to achieve some of the key short-term interventions. Therefore, the objectives of the practice framework are to:

- Provide the full PHC package of services daily across all facility streams.
- Provide an uninterrupted supply of essential stationery, medicines and medical supplies in PHC facilities irrespective of storage space.
- Reduce prolonged waiting times for services in terms of long facility queues and delays in referral to the next level of care.
- Ensure the availability of a skilled and/or experienced HCP per facility stream as a resource and support person for other HCPs in the same stream.
- Identify individual staff training and facility needs and implement a programme to empower HCPs.
- Improve the booking system of HCUs living with chronic conditions and MCWH services to include ACGs attending for expanded immunisation services.
- Ensure accurate and legal documentation on both hand-held and facility-based clinical records for HCUs consulted across all facility streams.

9.6 RATIONALE FOR THE IDEAL CLINIC PRACTICE FRAMEWORK

This study began by exploring the existing status of quality of care in PHC facilities with Ideal Clinic status. Clinical record review and questionnaires conducted as part of the quantitative strands clarified aspects regarding the seven quality domains which, according to the South African NDoH, need to be satisfied if quality of care is to be achieved. The focus was on how the processes in PHC facilities influenced the quality of care. The processes were effectiveness, safety, people-centredness, timeliness, integration, equity and efficiency of care. These were explored with HCPs using a self-administered questionnaire and a review of the completeness of the HCU consultation process including personal details of the HCU and completeness of the record. The review was accomplished through a retrospective review of adult and children's clinical records to ascertain the state of clinical records in facilities with Ideal Clinic status.

The themes and sub-themes from the qualitative strand were mostly related to the environment where care was being provided such as staff establishment, physical space in facilities, facility organisation and patient flow, and experience of care at PHC facilities. The qualitative strands of the study complemented the findings from the quantitative strand by providing the views of HCUs and HCPs regarding the same aspect of service.

The conclusions drawn from the study were that:

- (a) Most of the HCPs working in PHC facilities were either inadequately trained, skilled or experienced to perform activities relating to a particular facility stream and their random rotation across the streams worsened the situation thus compromising HCUs' safety.
- (b) Patient workload in terms of HCU numbers and complex disease burdens superseded their functional skills and speed. As a result, some procedures like a full history taking or physical examination were either performed in brief or omitted thus compromising the effectiveness and efficiency of care that was provided.
- (c) Clinical records of both adults and children were either incomplete or not recorded at all and a small percentage was fully recorded which could be attributed to HCPs' skills, workload or inadequate essential stationery in most PHC facilities which adversely affected the safety, effective, timeous and continuity of care.

- (d) Long waiting times and delays in HCUs' access to the next level of care.
- (e) Inadequate supply of medicines and medical supplies.
- (f) Inadequate and congested waiting areas with poor ventilation which posed health care risks of infections for HCUs.

The above findings suggest that while PHC facilities provide quality healthcare at a certain level of care according to the Office of Health Standard Compliance's audit results, there is still significant room for quality care improvement. These findings confirm that the goal of the Ideal Clinic initiative to revitalise and maintain the quality of care, infrastructure, human resources and equipment for PHC and thus improve the quality of care in the PHC facilities, has not been achieved. Though all nine selected PHC facilities had been audited, awarded Ideal Clinic status, and were able to maintain such statuses, the quality of care provided was sub-standard in terms of the seven quality of care domains. Coincidentally, all the nine PHC facilities had platinum status which is an Ideal Clinic status awarded to the PHC facilities that are regarded as providing the highest quality of care to their population. The study findings/results confirmed that Ideal Clinic status of any level does not automatically translate to quality of care as experienced by HCUs. Therefore, these findings support the need to develop a practice framework to enhance improved healthcare provision in PHC facilities irrespective of Ideal Clinic status. This need was predetermined by the researcher as reflected by the fifth objective of the study through a preliminary literature review following anecdotal evidence that the goal of improving quality care through the Ideal Clinic initiative was not realised.

9.7 LEGISLATION APPLICABLE FOR THE IDEAL CLINIC PRACTICE FRAMEWORK

The developed practice framework is guided by the same South African legal frameworks that govern the Ideal Clinic initiative. The researcher has no intention of deviating from such legislation, instead, the aim is to intensify the implementation of the quality improvement strategy at the micro level (facility streams) of service provision. The practice framework is guided by, but not limited to, the following legislation:

- The Republic of South Africa Constitution of 1996 (Act 108 of 1996) where health care is enshrined as one of the basic human rights. The constitution emphasises

the delivery of equitable, comprehensive and effective health care services at the primary care level for universal access to health care services.

- The National Health Act (Act 61 of 2003) specifies norms and standards for service provision at different levels of care.
- The Ideal Clinic framework guidelines specify the prescripts of an Ideal Clinic.
- The National Health Insurance Act (Act 20 of 2023) defines PHC as the first level of contact of individuals with the national health system which constitutes the first element of a continuing health care process.

9.7.1 Acronyms

The acronyms in Table: 9.1 were used in this chapter to discuss the developed Ideal Clinic practice framework.

Table 9.1: List of acronyms used in discussion of the Ideal Clinic practice framework

Acronym	Full term
ACGs	Adult caregivers
ICRM	Ideal clinic realisation and maintenance
IMCI	Integrated management of childhood illnesses
HCPs	Health care providers
HCU	Health care users

9.7.2 Glossary of terms

Acute stream: means the physical space in the health facility where HCUs with short-term illnesses are being assessed, screened and treated.

Chronic stream: refers to the physical space in the facility where HCUs with long-term illnesses are monitored and given treatment by health care providers.

Equity: avoiding barriers in factors related to age, sex, gender, race or ethnicity across population groups.

Efficient care: refers to appropriate care in terms of medicine use, diagnostic tests and the ability for HCUs to track previous test results and act on them as required.

Facility organisation: means dividing the PHC facility into three service points thus separating HCUs according to the services they require at each visit.

Facility streams: wards or spaces where the services are provided, and inspection occurs.

Healthcare user: a person or accompanying person who is receiving care or treatment and rehabilitation services or using a health service at a health facility.

Healthcare provider: all professional nurses, nurse managers and medical practitioners that are employed at PHC facilities.

Integrated care: refers to coordinated care across multidisciplinary team members and at all levels to maintain a seamless transition of care across all sectors.

Maternal, Child & Women's Health stream: is the physical space in the facility where maternal, child and women's health preventive and promotive services are being rendered.

Patient flow: refers to the movement of HCUs inside the PHC facilities across all service points which include but are not limited to admission points, vital sign areas, waiting areas and consultation rooms, until exiting the facility.

People-centered care: care that is responsive to individual preferences, needs and values. The HCUs are involved in decisions involving their care and opinions about their outcomes across different HCPs.

Physical space: means different service points in the facility, which include waiting areas, consultation rooms, storage space and ablution space.

Quality of care: is the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.

Safe care: care that avoids or minimises harm including preventable physical and psychological injuries and medical errors in primary. It minimises harm to HCUs in terms of environment, processes and procedures followed to provide care.

Staff establishment: means the number of HCPs in a PHC facility in relation to the number of HCUs visiting a specific PHC facility.

Timeliness care: relates to acceptable waiting times for treatment of HCUs which is sufficiently short to avoid unnecessary harm.

9.7.3 Structural presentation of the Practice Framework

The Ideal Clinic initiative advocates for all PHC facilities to be subdivided into facility streams to triage HCUs according to their needs, thus allowing smooth patient flow. The acute stream is regarded as a feeder stream for both chronic and MCWH streams, however, not all HCUs move from MCWH to chronic and vice versa; most HCUs who are diagnosed with chronic conditions from the acute stream are moved directly to the chronic stream for further management and care. Quality of care should be catered across all streams as experienced by HCUs as indicated by the seven domains (South Africa, NDoH 2020a: 1). A visual illustration of the practice framework is presented in Figure 9.1.

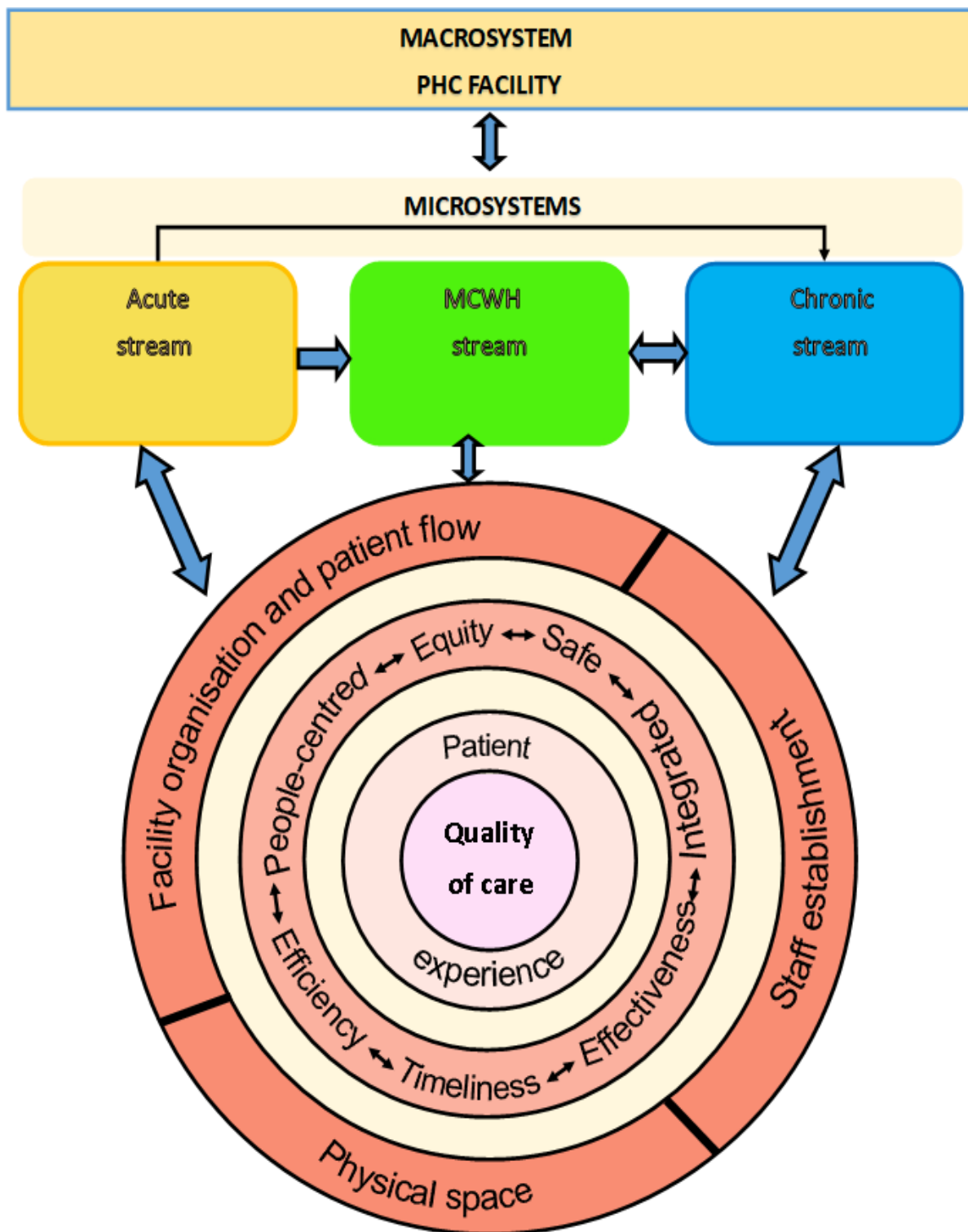


Figure 9.1: Manzezulu's Ideal clinic Practice Framework to enhance improved healthcare provision in PHC facilities

9.8 DESCRIPTION OF THE IDEAL CLINIC PRACTICE FRAMEWORK

The framework considers that the PHC facility is a macrosystem within which several microsystems exist, which are the three facility streams. Within each of the three streams various operations and processes take place which, according to the CMM, are the five Ps, namely: patients, purpose, professionals, processes and patterns. The five Ps within each of the microsystems are interrelated, they either influence or are influenced by what is happening in each and inform the quality of healthcare within each microsystem and ultimately within the macrosystem which is the PHC facility.

The South African NdoH Ideal Clinic guidelines highlight seven quality of care domains/components that relate to the environmental aspects of the Ideal Clinic, namely: equity, effectiveness, efficiency, people-centered, safety, timeliness and integration. These quality care domains inform the nature of care received by HCUs and therefore how the HCUs experience care. The quantitative strand of the study explored these components by ascertaining the practices of HCPs in ideal PHC facilities using questionnaires and found that overall the responses from HCPs were that healthcare in their facilities was indeed in accordance with the seven components of quality. However, the quantitative strand of the study assessed the status of clinical records in Ideal facilities in relation to the quality of care components and the overall completeness of adult clinical records reflected that only 50% were complete, 29% incomplete and 21% without documentation at all. The overall completeness of child clinical records revealed that only 46% were complete, 27% incomplete and 27% without documentation. The state of clinical records indicated that the care provided was full of preventable physical and psychological injuries and medical errors (unsafe); delayed in terms of lack of documentation (timeliness); not responsive to individual preferences (people-centredness); un-coordinated across multidisciplinary team members and at all levels (integration); inappropriate in terms of medicine use (in-efficiency) and not evidence-based (in-effective).

The qualitative strand explored the perspectives of HCPs regarding the influence of Ideal Clinic status on the quality of patient care and those of HCUs on the quality of care received in facilities with ideal status. The four themes and several sub-themes derived from analysis of this data reflected areas that the study participants highlighted as influencing the quality of care within the microsystem. Three of the four themes (staff

establishment, physical space, and facility organisation and patient flow) were perceived to be critical factors that influenced the achievement of the seven quality of care domains and subsequently patient experience of the care received in the PHC facilities. Therefore, the framework highlights the association between the seven quality of care domains, patient experiences and these three themes.

9.9 IMPLEMENTATION STRATEGY

The researcher in the framework emphasises the three critical areas that need to be addressed in order to improve the quality of care and patient experiences of the care as staff establishment, physical space, facility organisation and patient flow.

9.9.1 Staff establishment

Staff allocation and shortage: Staff shortages in relation to the number of HCUs seen were reported in most PHC facilities. In some facilities, this meant that HCUs in acute streams were combined with those in MCWH facility streams. The mixing of HCUs resulted in congestion, increased risk of spreading communicable diseases and long waiting times in poorly ventilated waiting areas which affected adherence to infection prevention and control protocols. This arrangement compromised safety and timeous care for HCUs.

Staff allocation was based on either training, skills or experience. However, most of the HCPs lacked specialised training and rotating them from one facility stream to another further misaligned the allocation of HCPs in terms of their skills and roles. As a result, the safety of care in terms of procedures and processes was compromised.

Staff training and support: Some HCPs had no specialised training or skills or experience to consult with HCUs. As a result, HCUs needing procedures like pap smears, or insertion or removal of Implanon were either referred to the skilled HCPs or booked for another date. The findings revealed that parts of the consultation process such as comprehensive history taking and/or physical examination were omitted, which could be attributed to lack of training or support for HCPs. This was also evidenced by incomplete information documented on clinical records. Incomplete or absence of documented information on clinical records affects evidence-based care (effectiveness), efficiency and continuity of care.

Patient workload: The number of HCUs seen in facilities exceeded the number of available HCPs. This was made worse by the complexity of the disease burden reported by HCUs. Shortage of other categories of staff added an extra workload for HCPs where they had to perform non-clinical duties that could be done by non-professionals. As a result, comprehensive history taking and or physical examinations were not done for HCUs and or not documented on clinical records. Continuity, person-centred and safety of care were affected. Coordinated care across multidisciplinary team members to maintain a seamless transition of care across all levels (integration) was affected for HCUs needing referral.

9.9.2 Physical space in PHC facilities

Non-availability of waiting areas: The findings revealed that in most facilities HCUs either waited in congested, poorly ventilated areas or open structures despite adverse weather conditions. Thus, the physical and emotional safety of HCUs was compromised.

Inadequate medicines, medical supplies and equipment: In most facilities shortage of medicines was reported by both HCPs and HCUs. Medicine shortage was attributed to drug stock-outs from main pharmacies and inadequate space in medicine storage rooms. The HCUs were either advised to buy medicines or given another date to collect medication. This affected the timeliness, continuity, effectiveness and efficiency of care provided to HCUs.

Unhygienic ablution facilities: The findings revealed that in facilities where there were water challenges, HCUs had to use unhygienic and inadequate portable toilets. Such toilets were not regularly serviced, which interfered with infection prevention and control protocols. Some HCPs reported inadequate cleaning materials as contributory factors to unhygienic toilet facilities, which impacted safety and user experiences.

9.9.3 Facility organisation and patient flow

Lack of direction for different facility activities: The findings revealed that there were no proper direction instructions in the facilities which led to unnecessary delays due to incorrect queues being followed. There was no clear patient flow from the reception area up to exiting the facility which caused long waiting times for HCUs, which affected receipt of timeous care.

Clinical records and replacements: The findings revealed that some facilities had inadequate essential stationery which included maternity case records, RtHBs and facility-based clinical records for HCUs for acute conditions. As a result, small carrier cards were used for acute HCUs and children whose RtHBs were lost. Shortage of essential stationery led to either poor documentation or non-documentation on clinical records for HCUs. Effective, efficient, continuous, integrated and people-centered care for all HCUs is dependent on the completeness of clinical records.

Package of services and service days: The study findings revealed that in some facilities services like antenatal care, pap smears, insertion and or removal of implants were done on specific weekdays and HCUs were booked to come on specific days. Not providing a full PHC package of services every day was costly for HCUs and also compromised access to timeous.

9.10 ROLE-OUT AND STRATEGY IMPLEMENTATION PLAN

The current study did not include the implementation of the developed framework. If the proposed framework is adopted for implementation, firstly, it will be presented at eThekweni district management and eThekweni Municipality health management level for introduction and orientation regarding its applicability to the Ideal Clinic audits. Thereafter, in-service training on the use of the framework would be conducted targeting the following professionals: quality assurance team, facility managers and professional nurses responsible for providing and monitoring the clinical services provision to acquaint them with the framework. However, in the current study, the developed framework was not implemented. The framework is applicable to all the PHC facilities whether they have Ideal Clinic status or not. Quality of care is mandatory in all PHC facilities irrespective of ideal status (Muthathi, Levin and Rispel 2020: 9).

While the Ideal Clinic initiative includes integration, timeliness, effectiveness, efficiency, people-centredness, equity and safety, the presented framework targets the environmental/infrastructural aspect only because the current study was limited to the infrastructural element of the Ideal Clinic initiative. The researcher appreciates that more interventions to improve the environment where care is provided can only be undertaken in a long-term plan. The framework is presented as a short-term intervention. Other long-term interventions were presented as part of the

recommendations from the study. However, this framework would still apply following long-term interventions.

9.11 RECOMMENDED REVIEW AND EVALUATION

The researcher recommends that review and evaluation of the Ideal Clinic practice framework be done when there are new developments in terms of Ideal Clinic initiative prescripts, guidelines or new policies to add new changes in the framework through the assistance of experts.

9.12 CHAPTER SUMMARY

The chapter presented the Ideal Clinic practice framework which included the title and its target audience; and the purpose and objectives of the framework. The rationale for and legislation guiding the framework was also discussed. Implementation of the framework can assist the PHC facility managers to monitor and improve the quality of care at each service point as recommended.

CHAPTER 10:

SUMMARY, LIMITATIONS, RECOMMENDATIONS AND CONCLUSIONS

10.1 INTRODUCTION

The previous chapter presented the practice framework to enhance improved healthcare provision at PHC facilities in eThekweni District. The rationale for developing a framework, its objectives, target audience and suggested strategies of implementation were also discussed. In this chapter, the findings/results of the study are summarised, limitations highlighted, recommendations made and conclusions are provided.

10.2 SUMMARY OF STUDY

Five study objectives were set to achieve the aim of this study which was to critically evaluate the influence of Ideal Clinic status, specifically the infrastructural component, on the clinical quality of health care service provision, thereby developing an Ideal Clinic practice framework to enhance an improved health care provision in PHC facilities irrespective of ideal status. The first objective was achieved through self-administered questionnaires for facility managers and HCPs and the questionnaires were based on the seven quality of care domains. A retrospective review of clinical records for both adults and children was employed to attain the second objective. Achievement of the third and fourth objectives was by conducting face-to-face semi-structured interviews with HCPs, HCUs as well as ACGs of children. Findings/results of the first four objectives informed the development of a practice framework which was the fifth and last study objective.

10.2.1 Overview of study

The five study objectives were as follows:

- Determine the current practices of health care providers in ideal PHC facilities.
- Determine the status of HCU records in ideal facilities.
- Explore the perspectives of HPCs regarding the influence of Ideal Clinic status on quality of patient care.

- Ascertain the perspectives of the HCUs on the quality of care received in facilities with ideal status.
- Propose an Ideal Clinic practice framework to enhance an improved quality of healthcare service provision in PHC facilities irrespective of Ideal Clinic status.

The aim of the study

The aim of the study was to explore the influence of Ideal Clinic status, specifically infrastructural component, on the quality of clinical care provision in selected PHC facilities, thereafter developing an Ideal Clinic practice framework to enhance an improved health care provision in PHC facilities irrespective of ideal status.

Methodology used for the study

Based on the four study objectives which needed to be answered both qualitatively and quantitatively, a mixed methods study design employing a convergent parallel approach was used. Purposeful sampling of PHC facilities from the three sub-districts was done in such a way that an equitable representation from both managing authorities was achieved as depicted in Figure 4.5. Purposive sampling was also employed for study participants and a probability sampling technique was used to select clinical records. Statistician advice was used to determine the sample sizes (405) of clinical records used in the study (Appendix 9).

Data collection analysis

Qualitative data was collected from HCPs (professional nurses and facility managers), HCUs (adult patients) and ACGs (adult caregivers). Quantitative data was collected through retrospective record reviews of hand-held and facility-based clinical records of both children and adults and through questionnaires from HCPs. Both data strands were equally prioritised and kept independent during data collection and analysis (Chapters 5 and 6). Qualitative data was collected through semi-structured interviews with HCPs. All nine selected PHC facilities were used for quantitative data collection but only eight PHC facilities were used for the collection of qualitative data since data saturation was reached in facility number eight. Parallel databases were employed where quantitative data were collected and analysed in parallel with the qualitative data. The study findings/results were integrated during the interpretation phase (Chapter 7).

10.3 SUMMARY OF FINDINGS BASED ON STUDY OBJECTIVES

The summary of the findings from the first four objectives was as follows:

10.3.1 Determine the current practices of healthcare providers in ideal primary facilities

The current practices of HCPs were determined using self-administered questionnaires. The questionnaires comprised statements subdivided into seven categories in line with the seven domains: equity, integration, efficiency, effectiveness, people-centredness, timeliness, and safety. The majority (64.5%) of HCPs agreed that the health care services provided in PHC facilities with ideal status were of good quality.

10.3.2 Determine the status of healthcare user records in ideal facilities

The status of both children's and adults' clinical records was determined through retrospective record reviews. Clinical records were assessed for completeness in terms of clinical information on health assessment documented. The state of the clinical records was either complete, incomplete or not recorded at all. As a result, health care provided to HCUs was compromised in terms of the seven quality of care domains. The overall completeness of child clinical records revealed that only 46% were complete, with 27% incomplete and 27% without documentation. The state of clinical records indicated that care provided was full of preventable physical and psychological injuries and medical errors (unsafe); delayed in terms of lack of documentation (timeliness); not responsive to individual preferences (people-centredness); un-coordinated across multidisciplinary team members and at all levels (integration); inappropriate in terms of medicine use (in-efficiency) and not evidence-based (ineffective). Similarly, the overall completeness of adult clinical records showed 50%, with 29% incomplete and 21% not documented at all. Health assessment which is the consultation process, is only fully reported in 49% of records.

10.3.3 Explore the perspectives of healthcare providers regarding the influence of Ideal Clinic status on the quality of patient care

The perspectives of HCPs regarding the influence of Ideal Clinic status on the quality of patient care were explored through one-on-one semi-structured interviews. Several themes and sub-themes emerged from interviews as follows: inadequate staff training and support in terms of resources like medical supplies and equipment to perform their duties; staff allocation and workload that was not in accordance with HCPs' skills, training or experience; shortage of medicines, medical supplies and equipment which compromised consultation process by HCPs; in some facilities supplies and medicines were ordered based on availability of storage space instead of usage.

10.3.4 Ascertain the perspectives of the healthcare users on the quality of care received in facilities with ideal status

The perspectives of HCUs were ascertained using one-on-one semi-structured interviews. The interviews included ACGs who attended PHC facilities with children. Several themes and sub-themes emerged from interviews which included the following: lack of physical space, congestion with long queues in some PHC facilities which contributed to HCUs waiting longer for services; negative staff attitudes and disrespect from HCPs as well as from other cadres of staff such as clerks which led to HCUs to feel dissatisfied with the health care received from the ideal facilities; some services like pap smears and insertion/removal of implanon were offered only on specific days; HCUs were unhappy about the consultation process with some indicating that they did not receive a physical examination; misfiled clinical records were replaced by blank duplicate cards which interfered with continuity of care.

10.3.5 Propose an Ideal Clinic Practice Framework to enhance an improved quality healthcare service provision in PHC facilities irrespective of Ideal Clinic status

The achievement of the four study objectives highlighted the gaps in the quality of health care services provided in PHC facilities with ideal status, therefore there was a need to develop an Ideal Clinic practice framework to enhance an improved quality of health care provision in all PHC facilities regardless of Ideal Clinic status. The Ideal Clinic practice framework is presented in Chapter 9.

A summary of the findings of the current study in terms of the CCM which was the theoretical framework that guided the current study, can be found in Appendix 15.

10.4 LIMITATIONS OF THE STUDY

The ICRM initiative is a South African healthcare quality improvement strategy for PHC facilities. However, the study was conducted in one district (eThekweni) in KZN and included only nine PHC facilities. The study only included professional nurses, yet HCPs in PHC facilities include multidisciplinary members who also provide health care services. Out of the 10 components of the Ideal Clinic initiative, the study only concentrated on part of component six, which is infrastructure. Other components of the Ideal Clinic such as administration (component one) could also contribute to the negative findings of the current study. The elements of administration include: a single patient record system irrespective of health conditions and patient record content that adheres to Ideal Clinic prescripts and sufficient priority stationery to be made available in each PHC facility. The findings of the current study revealed that HCUs had different clinical records that were used in different streams (maternity records and TB records) and most PHC facilities had limited stocks of priority stationery such as RtHBs, maternity case records and facility-based clinical records for HCUs with acute conditions.

10.5 UNIQUE CONTRIBUTION OF THE STUDY AND FRAMEWORK

The study findings revealed that though all the PHC facilities were Ideal Clinics, the awarded status does not automatically translate to quality clinical care. Therefore, quality health care services provision should be monitored and evaluated from facility streams where clinical care of HCUs starts and quality is created. The study findings highlighted the value of the perspectives and views of HCUs when auditing the PHC facilities for ideal status. It was evident that infrastructure was among the determinants of quality healthcare in PHC facilities. The number of HCPs allocated per facility, amount of medicines, cleanliness and ventilation were all dependent on the availability of physical space. A long-term goal of improvement of health care facility infrastructure would resolve a number of quality healthcare challenges in the South African health system at the primary care level.

The evidence from the study findings led to the development of an Ideal Clinic practice framework that can assist HCPs, facility managers, quality assurance teams and area

managers to create, monitor and improve quality health care provision in all facility streams. Thereafter, the improved quality of health care provision can be duplicated throughout all PHC facilities.

10.6 RECOMMENDATIONS

The study yielded rich information on the complexities and activities taking place in Ideal facilities and the unique issues that need to be addressed to strengthen quality healthcare services provision in PHC facilities. The recommendations based on the current study findings are of a short-term nature and can be achievable with buy-in from the policymakers and other stakeholders. However, there are also long-term budget-based recommendations which include renovation of PHC facilities to cater for the full package of PHC services, human resources and medical equipment. The Ideal Clinic initiative has the potential to transform quality at the PHC level. However, careful resource allocation, skills development and proactive leadership are enablers of quality healthcare services provision (Muthathi and Rispel 2020: 13).

Based on the findings of the study, the researcher makes the following recommendations for policy formulation, review or implementation, nursing practice, education and training, as well as for further research.

10.6.1 Policy formulation

Gaps in quality services provision can be addressed by involving frontline PHC managers, HCPs and HCUs and incorporating their views in the revision and alignment of tools used in auditing facilities. The policymakers and NDoH should review the processes, procedures and audit tools for Ideal Clinic status accreditation to include perceptions of HCPs regarding the quality of the clinical services being offered, and the perceptions of HCUs of clinical service quality in PHC facilities if improved quality health care is to be patient-centered. Study findings and the practice framework can assist decision-makers, policymakers and other stakeholders in incorporating clinical audit tools as part of the Ideal Clinic audit that will assess the clinical healthcare provision in PHC facilities as experienced by HCUs. The practice framework will be shared with the KZN Department of Health for consideration at a policy level; if adopted, the framework can influence the Ideal Clinic audit structure and tools.

10.6.2 Review and implementation

The Ideal Clinic manual and prescripts are frequently reviewed and updated by the NDoH; it is recommended that should the proposed practice framework be implemented, it should be incorporated into staff in-service training programmes in preparation for Ideal Clinic audits in eThekweni sub-districts.

10.6.3 Nursing practice

Primary care facilities are nurse-driven and almost all HCUs seen in these facilities start by seeing nurses (HCPs) before seeing medical doctors. Therefore, it is critical for HCPs to be competent in providing quality healthcare services. In view of the above facts, it is necessary for institutional management to monitor, through audits, the consultation process, documentation keeping and retrieval of clinical records as well as exit interviews of HCUs as part of Ideal Clinic audits. This will help capture the reality of the state of quality of services provided at PHC facilities before awarding the Ideal Clinic status. The successful implementation of the proposed Ideal Clinic practice framework can contribute to an improved quality of service provision at the PHC level regardless of ideal status. The HCPs' consultation with HCUs should ensure comprehensive history taking, checking of vital signs which includes special tests, full physical examination, eligible recording of all clinical notes on HCUs' clinical records and be accounted for and signed.

10.6.4 Education and training

Primary training, including any other short courses offered to HCPs working at the primary care level, could incorporate the proposed Ideal Clinic practice framework to ensure quality patient-centered healthcare services provision by all HCPs across all PHC facilities regardless of Ideal Clinic status. Ongoing workshops and in-service training programmes should be in place to promote awareness among nurses regarding Ideal Clinic practice framework to enhance the quality of care even before Ideal Clinic audits. Nursing education should incorporate aspects that develop a nurse to be able to provide quality health care. The proposed framework could also be incorporated into workshops and in-service training to accommodate those nurses who have previously completed their training.

10.6.5 Further research

It is recommended that a broader study be conducted to include all districts in KZN to acquire a broader and deeper perspective on the influence of Ideal Clinic status on the provision of quality care. This will inform the Provincial Department of Health and policymakers on quality gaps in health care service provision at a more generalisable scale. It is also recommended that further research be conducted on the following areas: factors associated with recording and record keeping in primary health care facilities as well as the perceptions of HCPs regarding Ideal Clinic audits.

10.7 CONCLUSIONS

Several healthcare system-related factors have been, and still are, influencing the quality of service provision at PHC facilities in South Africa, such as staff establishment and physical space in facilities. The credit that some authors have attributed to the gains made by the Ideal Clinic initiative in improving quality health care service provision cannot be discounted, however, quality of care in middle-income countries like South Africa has been declining as indicated by negative patient experiences in health care facilities. The factors that influence quality of care in South Africa include inadequate infrastructure which is a component of the Ideal Clinic initiative that involves all the non-negotiable vital elements the loss of which in PHC facilities could result in the loss of HCUs' lives or prolonged recovery. The NDoH promotes the implementation of ICRM in all PHC facilities as a quality improvement initiative to attain and sustain Ideal Clinic status as a way of improving quality health care. Much effort has been put in place in terms of policies and guidelines to aid quality service provision, however, these study findings/results indicate that the South African health system is still facing challenges with regard to poor quality of PHC services in the form of inappropriate and inadequate infrastructure, inadequate medical equipment, inadequate supply of essential medicines and other consumables and negative staff attitudes.

Limited physical space leads to an inadequate number of HCPs that are allocated in PHC facilities in relation to the number of HCUs served and medical supplies being ordered based on the availability of storage space instead of usage. Congested, unhygienic facilities with long waiting times that interfere with quality care provision were a major concern for HCUs. This implies that quality healthcare service provision in PHC facilities is still a challenge. The current study has shown that quality of health care

services provided in selected PHC facilities with ideal status were still of poor quality in terms of incorrect consultation processes with HCUs, drug stockouts, poor adherence to infection prevention protocols, and incomplete or non-existent documentation of consultations in clinical records.

The current study identified the importance of interrelationships between the professionals working in health care facilities, healthcare-related activities and support system (patterns) taking place in facilities, processes involved in performing health care-related activities to achieve the aim (purpose) of health care services which is to achieve positive health outcomes as experienced by HCUs as beneficiaries of health care services. Quality healthcare improvement strategies at each facility stream can be replicated and used as pillars of improvement in facilities and the healthcare system as a whole.

REFERENCES

- Aikman, A. 2019. The crisis within the South African health care system: a multifactorial disorder. *The South African Journal of Bioethics & Law*, 12(2): 52-56. Available: <https://doi.org/10.7196/SAJBL.2019.v12i2.694> (Accessed: 23 July 2024).
- Adhikary, G., Shawon, M., S., R., Ali, M., W., Shamsuzzaman, M., Ahmed, S., Shackelford, K., A., Woldeab, A., Alam, N., Lim, S., S., Levine, A., Gakidou, E. and Uddin, M., J. 2018. Factors influencing patients' satisfaction at different levels of health facilities in Bangladesh: results from patient exit interviews. *Plos ONE* 13(5):e0196643. Available: <https://doi.org/10.1371/journal.pone.0196643>. (Accessed: 23 July 2024).
- Benatar, S., Sullivan, T. and Brown, A. 2017. Why equity in health and access to health care are elusive: insights from Canada and South Africa. *Global Public Health*, 13(11): 1533-1557. Available: <https://doi.org/10.1080/17441692.2017.1407813> (Accessed: 26 May 2021).
- Benner, P. 2004. Using the Dreyfus model of skill acquisition to describe and interpret skill acquisition and clinical judgment in nursing practice and education. *Bulletin of Science, Technology & Society*, 24(3): 188-199. Available: <https://doi.org/10.1177/0270467604265061> (Accessed: 21 June 2021).
- Bresick, G., Von Pressentin, K. B. and Mash, R. J. 2019. Evaluating the performance of South African primary care: a cross-sectional descriptive survey. *South African Family Practice*, 61(3): 109-116. Available: <https://doi.org/10.1080/20786190.2019.1596666> (Accessed: 14 May 2021).
- Brink, H., Van der Walt, C. and Van Rensburg, G. H. 2017. *Fundamentals of research methodology for health care professionals* 3rd ed. South Africa: Juta.
- Brito Fernandes, Ó., Netshiombo, M., Gulácsi, L., Klazinga, N. S., Péntek, M. and Baji, P. 2020. Patient experiences in a public primary clinic: a South African case study. *Society and Economy*, 42(3): 333-347. Available: <https://doi.org/10.1556/204.2020.00014> (Accessed: 24 June 2021).
- Christmals, C. D. and Aidam, K. 2020. Implementation of the national health insurance scheme (NHIS) in Ghana: lessons for South Africa and low- and middle-income

countries. *Risk Management and Health care Policy*, 13: 1879. Available: <https://doi.org/10.2147/RMHP.S245615> (Accessed: 22 August 2022).

Corbin, J. H., Abdelaziz, F. B., Sørensen, K., Kökény, M. and Krech, R. 2021. Wellbeing as a policy framework for health promotion and sustainable development. *Health Promotion International*, 36(Supplement_1): i64-i69. Available: <https://doi.org/10.1093/heapro/daab066> (Accessed: 25 October 2022).

Creswell, J. W. and Creswell, J. D. 2021. *Research design: quantitative, qualitative, and mixed methods approaches*. 5th ed. Los Angeles, USA: SAGE.

Creswell, J. W. and Plano Clark, V. L. 2018. *Designing and conducting mixed methods research*. 3rd ed. California, USA: SAGE.

Donabedian, A. 1980. *Explorations in quality assessment and monitoring Vol. 1: The definition of quality and approaches to assessment*. Health Administrations Press.

Donabedian, A. 2005. Evaluating the quality of medical care. *The Milbank Quarterly*, 83(4): 691-729. Available: <https://doi.org/10.1111/j.1468-0009.2005.00397.x> (Accessed: 26 June 2023).

Dookie, S. and Singh, S. 2017. Primary health services at district level in South Africa: a critique of the primary approach. *BMC Family Practice*, 13: 67. Available: <https://doi.org/10.1186/1471-2296-13-67> (Accessed: 29 December 2022).

Dugani, S., Veillard, J. and Evans, T. G. 2018. Quality primary will drive the realization of universal health coverage. *Canadian Medical Association Journal*, 190(15): E453-E454. Available: <https://doi.org/10.1503/cmaj.180186> (Accessed: 6 January 2023).

Egbujie, B., Grimwood, A., Mothibi-Wabafor, E., Fatti, G., Tshabalala, A., Allie, S., Vilakazi, G. and Oyeibanji, O. 2018. Impact of 'Ideal Clinic' implementation on patient waiting time in primary health care clinics in KwaZulu-Natal province, South Africa: a before-and-after evaluation. *South African Medical Journal*, 108(4): 311-318. Available: <https://dx.doi.org/10.7196/samj.2018.v108i4.12583> (Accessed: 20 August 2018).

Ehiri, J. E., Oyo-Ita, A. E., Anyanwu, E. C., Meremikwu, M. M. and Ikpeme, M. B. 2018. Quality of child health services in primary facilities in south-east Nigeria. *Child: Care*,

Health and Development, 31(2): 181-191. Available: <https://doi.org/10.1111/j.1365-2214.2004.00493.x> (Accessed: 10 May 2021).

EThekweni Municipality. 2017. *Draft Integrated Development Plan: 2017/2018 - 2021/2022*. Durban: Available: <http://www.durban.gov> (Accessed: 27 May 2021).

EThekweni Municipality. 2018. *District Health Plan 2018/2019*. EThekweni District. Department of Health. Available: <http://kznhealth.gov.za/Strategic/DHP2018-2019> (Accessed: 26 August 2022).

EThekweni Municipality. 2018/19-2020/21. *District health Plan: eThekweni District*. Department of Health. Available: <http://www.kznhealth.gov.za/Strategic/DHP2018-2019>. (Accessed: 26 August 2022).

Fink, A. 2019. *Conducting research literature reviews: from the internet to paper*. 5th ed. United States: SAGE.

Fix, G. M., VanDeusen, L. C., Bolton, R. E., Hill, J. N., Mueller, N., LaVela, S. L. and Bokhour, B. G. 2018. Patient-centered care is a way of doing things: how health care employees conceptualize patient-centered care. *Health Expectations*, 21(1): 300-307. Available: <https://onlinelibrary.wiley.com/doi/abs/10.1111/hex.12615> (Accessed: 26 September 2021).

Fritsche, G. and Peabody, J. 2018. Methods to improve quality performance at scale in lower- and middle-income countries. *Journal of Global Health*, 8(2). Available: <https://doi:10.7189/jogh.08.021002> (Accessed: 26 June 2021).

Fryatt, R. and Hunter, J. 2016. The Ideal Clinic in South Africa: planning for implementation. *South African Health Review*, 2016/2017 (1): 23-33. Available: <https://journals.co.za/doi/abs/10.10520/EJC189299> (Accessed: 21 September 2022).

Gabrani J., Schindler C. and Wyss K. 2020. Factors associated with the utilisation of primary care services: a cross-sectional study in public and private facilities in Albania. *BMJ Open*, 10(12): e040398. Available: <http://dx.doi.org/10.1136/bmjopen-2020-040398> (Accessed: 9 March 2024).

Gage, A. D., Yahya, T., Kruk, M. E., Eliakimu, E., Mohamed, M., Shamba, D. and Roder-DeWan, S. 2020. Assessment of health facility quality improvements, United Republic

of Tanzania. *Bulletin of the World Health Organization*, 98(12): 849. Available: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7716095> (Accessed: 13 December 2023).

Gliner, J. A., Morgan, G. A. and Leech, N. C. 2017. *Research methods in applied settings: an integrated approach to design and analysis*. 3rd ed. Routledge. Available: <https://doi.org/10.4324/9781315723082> (Accessed: 26 June 2023).

Gray, A. and Vawda, Y. 2018. *Health review and policy*. *South African Health Review*, 1. Available: <https://hdl.handle.net/10520/EJC-144907cf6a> (Accessed 10 August 2021).

Gray, J., R. and Grove, S., K. 2021. *The practice of nursing research: appraisal, synthesis and generation of evidence*. 9th ed. United Kingdom: Elsevier.

Grove, S. K., Gray, J. R. and Burns, N. 2017. *Understanding nursing research: building an evidence-based practice*. 6th ed. Chicago: Elsevier.

Guest, G., Namey, E. and Chen, M. 2020. A simple method to assess and report thematic saturation in qualitative research. *PLoS One*, 15(5): e0232076. Available: <https://doi.org/10.1371/journal.pone.0232076> (Accessed: 8 August 2021).

Guen, O., N. 2019. *The development of nurses' individualized care perceptions and practices: Benner's novice to expert model perspective*. *International Journal of Caring Sciences*, 12(2): 1279. Available: <https://www.researchgate.net/publication/335665343> (Accessed: 20 February 2024).

Hart, C. 2018. *Doing a literature review: releasing the research imagination*. 2nd ed. United Kingdom: SAGE.

Hirschhorn, L. R., Langlois, E. V., Bitton, A. and Ghaffar, A. 2019. What kind of evidence do we need to strengthen primary health care in the 21st century? *BMJ Global Health*, 4(Suppl 8): e001668. Available: <https://doi:10.1136/bmjgh-2019-001668> (Accessed 23 June 2021).

Hitawala, A., Flores, M., Alomari, M., Kumar, S., Padbidri, V., Muthukuru, S., Rahman, S., Alomari, A., Khazaaleh, S., Gopalakrishna, K. V. and Michael, M. 2020. *Improving physician-patient and physician-nurse communication and overall satisfaction rates: a*

quality improvement project. *Cureus*, 12 (4). Available: <https://doi.10.7759/cureus.7776> (Accessed: 21 January 2024).

Hunter, J. R., Chandran, T. M., Asmall, S., Tucker, J., Ravhengani, N. M. and Mokgalagadi, Y. 2017. The Ideal Clinic in South Africa: progress and challenges in implementation. *South African Health Review*, 2017 (1): 111-123. Available: [https://www.hst.org.za/publications/South%20African%20Health%20Reviews/11_The%20Ideal%20Clinic%20in%20South%20Africa_progress%20and%20challenges%20in%20implementation.pdf#:~:text=The%20Ideal%20Clinic%20initiative%20\(now%20dev eloped%20into%20the%20Ideal](https://www.hst.org.za/publications/South%20African%20Health%20Reviews/11_The%20Ideal%20Clinic%20in%20South%20Africa_progress%20and%20challenges%20in%20implementation.pdf#:~:text=The%20Ideal%20Clinic%20initiative%20(now%20dev eloped%20into%20the%20Ideal) (Accessed: 11 August 2021).

Joseph, L., Greenfield, S., Lavis, A., Panniyammakal, J., Mack, D. and Manaseki-Hollard, L. 2022. Exploring factors affecting providers' behaviours for maintaining continuity of care in Kerala, India: a qualitative analysis using the theoretical domains framework. *Frontiers in Public Health*, 10: 891103. Available: <https://doi.org/10.3389/fpubh.2022.891103> (Accessed: 9 March 2024).

Khan, Y. S., Albobali, Y. and Kamal, L. F. 2022. Improving the quality of structured clinical documentation in a child and adolescent psychiatry outpatient service: findings from an audit cycle. *Asian Journal of Psychiatry*, 77: 103268. Available: <https://www.sciencedirect.com/science/article/pii/S1876201822002660> (Accessed: 23 January 2024).

Kivunja, C. 2018. Distinguishing between theory, theoretical framework and conceptual framework: a systematic review of lessons from the field. *International Journal of Higher Education*, 7(6): 1-44. Available: <https://doi.org/10.5430/ijhe.v7n6p44> (Accessed: 25 September 2023).

Kobus, M. 2019. *First steps in research*. 2nd ed. South Africa: Van Schaik.

Kredo, T., Abrams, A., Young, T., Louw, Q., Volmink, J. and Daniels, K. 2017. Primary care clinical practice guidelines in South Africa: qualitative study exploring perspectives of national stakeholders. *BMC Health Services Research*, 17(608). Available: <https://doi.org/10.1186/s12913-017-2546-z> (Accessed: 24 June 2021).

Kruk, M. E., Gage, A. D., Arsenault, C., Jordan, K., Leslie, H. H., Roder-DeWan, S., Adeyi, O., Barker, P., Daelmans, B., Doubova, S. V., English, M., García-Elorrio, E.,

Guanais, F., Gureje, O., Hirschhorn, L. R., Jiang, L., Kelley, E., Lemango, E. T., Liljestrand, J., Malata, A., Marchant, T., Matsoso, M. P., Meara, J. G., Mohanan, M., Ndiaye, Y., Norheim, O. F., Reddy, K. S., Rowe, A. K., Salomon, J. A., Thapa, G., Twum-Danso, N. A. Y. and Pate, M. 2018. High-quality health systems in the Sustainable Development Goals era: time for a revolution. *Lancet Global Health*, 6 (11): e1196-e1252. Available: [https://doi.org/10.1016/S2214-109X\(18\)30386-3](https://doi.org/10.1016/S2214-109X(18)30386-3) (Accessed: 20 June 2021).

Kviz, F. J. 2019. *Conducting health research: principles, process and methods*. 2nd ed. Los Angeles: SAGE.

Lebese, L., Begg, K., Mamdoo, P., Engelbretch, J., Dudley, L. and Andrews, G. 2018. Development of a national strategic framework for high-quality health system in South Africa. *South African Health Review*, (1):77-85. Available: <https://journals.co.za/doi/abs/10.10.520/EJC-144dab3906> (Accessed: 29 May 2023).

Lincoln, Y. S. and Guba, E. G. 1985. *Naturalistic inquiry*. California: SAGE.

Ludlow, N., C., de Grood, J., Yang, C., Murphy, S., Berg, S., Leischner, R., McBrien, K., A., Santana, M., J., Leslie, M., Clement, F., Cepoiu-Martin, M., Ghali, W., A. and McCaughey, D. 2022. A multi-step approach to developing a health system evaluation framework for community-based. *BMC Health Services Research*, 22;889. Available: <https://doi.org/10.1186/s12913-022-08241-6> (Accessed: 24 August 2024).

Maarouf, H. 2019. Pragmatism as a supportive paradigm for the mixed research approach: conceptualizing the ontological, epistemological, and axiological stances of pragmatism. *International Business Research*, 12 (9): 1-12. Available: <https://doi.org/10.5539/ibr.v12n9p1> (Accessed: 30 August 2019).

Makau, S. R. and Khunou, S. H. 2022. Nurse managers' views regarding patients' long waiting time at community health centers in Gauteng Province, South Africa. *Belitung Nursing Journal*, 8(4): 325-332. Available: <https://doi.org/10.33546/bnj.2096> (Accessed: July 2024).

Makhado, L. and Mboweni, S. H. 2020. Challenges influencing nurse-initiated management of antiretroviral therapy training and implementation in Ngaka Modiri

Molema district, North West province. *Health SA Gesondheid*, 25: a1174. Available: <https://doi.org/10.4102/hsag.v25i0.1174> (Accessed: 27 January 2024).

Malakoane, B., Heunis, J. C., Chikobvu, P., Kigozi, N. G. and Kruger, W. H. 2020. Public health system challenges in the Free State, South Africa: a situation appraisal to inform health system strengthening. *BMC Health Services Research*, 20(58). Available: <https://doi.org/10.1186/s12913-019-4862-y> (Accessed: 22 September 2022).

Maphumulo, W. T. and Bhengu, B. R. 2019. Challenges of quality improvement in the health care of South Africa post-apartheid: a critical review. *Curationis*, 42(1):a1901. Available: <https://doi.org/10.4102/curationis.v42i1.1901> (Accessed: 27 May 2021).

Marx, M., Nitschke, C., Nafula, M., Nangami, M., Brodowski, M., Marx, I., Prytherch, H., Kandie, C., Omogi, I., Paul-Fariborz, F. and Szecsenyi, J. 2018. If you can't measure it you can't change it – a longitudinal study on improving quality of care in hospitals and health centers in rural Kenya. *BMC Health Services Research*, 18: 246. Available: <https://doi.org/10.1186/s12913-018-3052-7> (Accessed: 11 October 2023).

Mash, R., Howe, A., Olayemi, O., Makwero, M., Ray, S., Zerihun, M., Gyuse, A. and Goodyear-Smith, F. 2018. Reflections on family medicine and primary health care in sub-Saharan Africa. *BMJ Global Health*, 3 (Suppl 3): e000662. Available: <https://doi.org/10.1136/bmjgh-2017-000662> (Accessed: 11 October 2023).

Massyn, N., Pillay, Y. and Padarath, A. 2019. *District health barometer 2017/2018*. Health Systems Trust. Available: <https://www.hst.org.za/publications/pages/DHB20172018.aspx> (Accessed 20 August 2021).

Mathews, C., Goga, A., Loveday, M., Zembe, W., Daviaud, E., Siegfried, N. and Lewin, S. 2019. Moving towards universal health coverage: strengthening the evidence ecosystem for the South African health system. *South African Medical Journal*, 109 (11b): 8-14. Available: <https://doi.org/10.7196/SAMJ.2019.v109i11b.14245> (Accessed: 26 June 2021).

Matlala, N. T., Malema, R. N., Bopape, M. A. and Mphekgwana, P. M. 2021. The perceptions of professional nurses regarding factors affecting the provision of quality services at selected rural public clinics in the Capricorn district, Limpopo Province.

African Journal of Primary & Family Medicine, 13(1): 2830. Available: <https://doi.org/10.4102/phcfm.v13i1.2830> (Accessed: 20 August 2021).

Matsoso, M. P., Malebona, R. N., Hunter, J. R. and Brijlal, V. 2018. *Embedding quality at the core of universal health coverage in South Africa. The Lancet Global Health*, 6(11): e1153-e1154. Available: [https://doi.org/10.1016/S2214-109X\(18\)30323-1](https://doi.org/10.1016/S2214-109X(18)30323-1) (Accessed: 12 May 2021).

McMeekin, N., Wu, O., Germeni, E. and Briggs, A. 2020. How methodological frameworks are being developed: evidence from a scoping review. *BMC Medical Research Methodology*, (20)1: 173. Available: <https://doi.org/10.1186/s12874-020-01061-4> (Accessed: 23 August 2024).

Motsepe, A., Wolvaardt, J. E. and Webb, E. M. 2020. Rapid assessment of two primary health clinics: are we ready for National Health Insurance? *Southern African Journal of Public Health*, 4(1): 22-26. Available: <https://doi.org/10.7196/SHS.2020.v4.i1.109> (Accessed: 24 June 2021).

Muthathi, I. S., Levin, J. and Rispel, L. C. 2019. Decision space and participation of primary health care facility managers in the Ideal Clinic realization and maintenance programme in two South African provinces. *Health Policy and Planning*, 35(3): 302-312. Available: <https://doi.org/10.1093/heapol/czz166> (Accessed: 4 April 2021).

Naranjo, L. L. S. and Kaimal, P. V. 2018. Applying Donabedian's theory as a framework for bariatric surgery accreditation. *Bariatric Nursing and Surgical Patient Care*, 6(1): 33-37. Available: <https://www.liebertpub.com/doi/abs/10.1089/bar.2011.9979> (Accessed: 29 September 2023).

Nelson, E. C., Betalden, P., B. and Godfrey, M., M. 2011. *Quality by design: a clinical microsystems approach*. London: Jossey-Bass.

Niederberger, M. and Spranger, J. 2020. Delphi technique in health sciences: a map. *Frontiers in Public Health*, 8. Available: <https://doi.org/10.3389/fpubh.2020.00457> (Accessed: 25 June 2024).

Peabody J W, Shimkhada R, Adeyi O, Wang H, Broughton E and Kruk, M. E. 2017. Quality of care. In: Jamison, D. T., Gelband, H., Horton, S., Jha, P., Laxminarayan, R., Mock, C. N. and Nugent, R. eds. *Disease control priorities: Improving health and*

reducing poverty. The International Bank for Reconstruction and Development / The World Bank Available:

https://www.ncbi.nlm.nih.gov/books/NBK525289/pdf/Bookshelf_NBK525289.pdf

(Accessed 3 April 2023).

Pesec M, Ratcliffe H. L, Karlage A, Hirschhorn L. R, Gawande A and Bitton A. 2017. Primary that works: the Costa Rican experience. *Health Affairs*, 36(3): 531-538. Available: <https://www.healthaffairs.org/doi/abs/10.1377/hlthaff.2016.1319> (Accessed: 31 August 2023).

Peu, D., Ricks, E., Dreyer, M., Hatting, S., Hlahane, S., Madumo, M., Mataboge, S., Phetlhu, R., Prisloo, L. and Roos S. 2020. *Community nursing: a South African manual*. 5th ed. Oxford University Press of Southern Africa.

Polit, D. F. and Beck, C. T. 2021. *Nursing research: generating and assessing evidence for nursing practice*. 11th ed. New York: Wolters Kluwer.

Rasanathan, K. and Evans, T. G. 2020. Primary, the Declaration of Astana and COVID-19. *Bulletin of the World Health Organization*, 98(11): 801-808. Available: <https://apps.who.int/iris/handle/10665/336831> (Accessed: 10 July 2022).

Ravhengani, N. M. and Mtshali, N. G. 2017. The views of health workforce managers on the implementation of workload indicators of staffing need (WISN) method in primary health care settings in South Africa. *International Journal of Studies in Nursing*, 3(1): 132. Available: <https://doi.org/10.20849/ijasn.v3i1.354> (Accessed: 21 February 2024).

Shisana, O., Dhai, A., Rensburg, R., Wolvaardt, G., Dudley, L., Patel, R. H., Grobler, G. P., Masilela, T. C., Rispel, L. C., Puren, A., Stewart, J., English, R. and Whittaker, S. 2019. Achieving high-quality and accountable universal health coverage in South Africa: a synopsis of the Lancet National Commission Report. *South African Health Review*, 2019(1): 69-80. Available: <https://journals.co.za/doi/abs/10.10520/EJC-1d2ab57a7e> (Accessed: 25 June 2021).

Siyam, A., Ir, P., York, D., Antwi, J., Amponsah, F., Rambique, O., Funzamo, C., Azeez, A., Mboera, L., Kumalija, C., J., Rumisha, S., F., Mremi, I., Boerma, T. and O'Neill, K. 2021. The burden of recording and reporting health data in primary facilities in five low-

and lower-middle income countries. *BMC Health Services Research*, 21(1): 691. Available: <https://doi.org/10.1186/s12913-021-06652-5> (Accessed: 24 June 2024).

Sjöberg, M., Edberg, A.-K., Rasmussen, B. and Beck, I. 2021. Documentation of older people's end-of-life care in the context of specialised palliative care: a retrospective review of patient records. *BMC Palliative Care*, 20 (1): 91. Available: <https://doi.org/10.1186/s12904-021-00771-w> (Accessed: 16 January 2024).

Smith, B. W., Rojo, J., Everett, B., Montayre, J., Sierra, J. and Salamonson, Y. 2021. Professional success of men in the nursing workforce: an integrative review. *Journal of Nursing Management*, 29(8): 2470-2088. Available: <https://doi.org/10.1111/jonm.13445> (Accessed: 27 June 2024).

South Africa. 1996. *The Constitution of the Republic of South Africa* (Act 108 of 1996). Pretoria: Government Printer.

South Africa. Department of Public Service and Administration. 1997. Batho Pele 'people first': transforming public service delivery. Government Printer. Available: https://www.justice.gov.za/docs/1997_batho (Accessed: 12 October 2024).

South Africa. 2003. *National Health Act 61 of 2003*. Government Printer. Available: <https://www.gov.za/documents/national-health-act> (Accessed 8 May 2022).

South Africa. National Department of Health. 2011. *Towards quality care for patients: national core standards for health establishments in South Africa*. Government Printer.

South Africa. National Department of Health. 2013. *Regulating the quality of health services: benchmarking of approaches, institutions and systems. Towards the establishment of an Office of Health Standards Compliance*. Available: <https://www.gov.za/sites/default/files/gcs> (Accessed: 26 September 2021).

South Africa. National Department of Health. 2014. *Negotiated service delivery agreement*. Available: www.gov.za/delivery/publications/outcomes (Accessed 26 September 2022).

South Africa. National Department of Health. 2015. *Strategic Plan 2015/16 - 2019/20*. Pretoria: Government Printer. Available: <http://www.health.gov.za/index.php/2014> (Accessed 13 February 2021).

South Africa. National Department of Health. 2017. *National health insurance for South Africa: towards universal health coverage*. Available:

<https://www.mm3admin.com/documents/documents> (Accessed 21 November 2022).

South Africa. National Department of Health. 2018. *Strengthening the South African health system towards an integrated and unified health system*. Available:

https://www.gov.za/sites/default/files/gcis_document/201902/presidential-health-summit-report.pdf (Accessed 21 January 2023).

South Africa. National Department of Health. 2019. *Evaluation of the Phase 1 implementation of interventions in the national health insurance pilot districts in South Africa (DoH10/2017 - 2018). Final Report 2019*. Available: <https://health.gov.za/wp-content/uploads/2020/11/> (Accessed 24 September 2022).

South Africa. National Department of Health. 2020a. *Ideal Clinic Manual: Version 19*. Available: <https://www.idealhealthfacility.org.za> (Accessed 10 May 2021).

South Africa. National Department of Health. 2020b. *Ideal Clinic Manual: Version 2020*. Available: <https://www.idealhealthfacility.org.za>. (Accessed: 18 March 2025).

South Africa. National Department of Health. 2021. Annual report 2021/22. Available: https://www.gov.za/sites/files/gcis_documents (Accessed 15 May 2024).

South Africa. National Department of Health. 2020c. *Standard treatment guidelines and essential medicines list for South Africa: primary level*. Available: <https://www.kznhealth.gov.za> (Accessed 20 May 2021).

South Africa. National Department of Health. 2020d. *Office of health standards compliance: annual performance plan 2020-2021*. Available: <https://ohsc.org.za/publications/page/5> (accessed 21 July 2022).

South Africa. National Department of Health. 2022. *Ideal Community Centre manual: Version 1-2022*. Available: <https://knowledgehub.health.gov.za> (Accessed: 21 January 2024).

South African Nursing Council. 1984a. *Regulation 2598 as amended, regulation relating to the scope of practice of persons who are registered or enrolled under the Nursing Act*

No 50 of 1978. Pretoria: SANC. Available: <https://www.sanc.co.za/r2598>. (Accessed: 21 January 2024).

South African Nursing Council. 1984b. *Regulation 2598, Regulation relating to the keeping, supply, administration or prescribing of medicine by registered nurses*. Government Notice R2418. Pretoria: SANC. Available: <https://www.sanc.co.za/uploads/2020/06>. (Accessed: 21 January 2024).

South African Nursing Council. 1991a. *Regulation 2598, Regulations relating to the scope of practice of persons who are registered or enrolled under the Nursing Act No. 50 of 1978*. South African Nursing Council. Available: <https://www.sanc.co.za/r-2598/> (Accessed: 15 October 2024).

South African Nursing Council. 1991b. *Regulation 2418, Regulation relating to the keeping, supply, administering or prescribing of medicine by registered nurses*. South African Nursing Council. Available: <https://www.sanc.co.za/r-2418/> (Accessed: 15 October 2024).

South African Nursing Council. 2021. Age analysis of persons on the register. Available: <https://www.sanc.co.za/2021-stats> (Accessed: 29 July 2024).

Stacey, N., Mirelman, A., Kreif, N., Suhrcke, M., Hofman, K. and Edoka, I. 2021. Facility standards and the quality of public sector primary care: evidence from South Africa's "Ideal Clinics" program. *Health Economics*, 30(7): 1543-1558. Available: <https://doi.org/10.1002/hec.4228> (Accessed: 25 October 2022).

Stanley, T., Baron, S. and Robertson, P. 2021. Examining practice frameworks-mapping out the gains. *Practice*, 33(1): 21-35. Available: <https://doi.org/10.1080/09503153.2020.1713312> (Accessed: 14 June 2024).

Tashakkori, A., Johnson, R. B. and Teddlie, C. 2021. *Foundations of mixed methods research: integrating quantitative and qualitative approaches in the social and behavioral sciences*. 2nd ed. California: SAGE.

Tesch, R., 2013. *Qualitative research: analysis types and software*. 2nd ed. Philadelphia: Routledge.

Thomas, L. S., Buch, E. and Pillay, Y. 2021. An analysis of the services provided by community health workers within an urban district in South Africa: a key contribution towards universal access to care. *Human Resources for Health*, 19: 22. Available: <https://doi.org/10.1186/s12960-021-00565-4> (Accessed: 18 January 2024).

Veillard, J., Cowling, K., Bitton, A., Ratcliffe, H., Kimball, M., Barkley, S., Mercereau, L., Wong, E., Taylor, C., Hirschhorn, L. R. and Wang, H. 2017. Better measurement for performance improvement in low- and middle-income countries: the Primary Performance Initiative (PHCPI) experience of conceptual framework development and indicator selection. *The Milbank Quarterly*, 95(4): 836-883. Available: <https://doi.org/10.1111/1468-0009.12301> (Accessed: 10 October 2023).

Waweru, E., Smekens, T., Orne-Gliemann, J., Ssengooba, F., Broerse, J. and Criel, B. 2020. Patient perspectives on interpersonal aspects of health care and patient-centeredness at primary health facilities: a mixed methods study in rural Eastern Uganda. *PLoS One*, 15(7): e0236524. Available: <https://doi.org/10.1371/journal.pone.0236524> (Accessed: 21 May 2021).

Werner, K., Alsuhaibani, S. A., Alsukait, R. F., Alshehri, R., Herbst, C. H., Alhajji, M. and Lin, T. K. 2023. Behavioural economic interventions to reduce appointment non-attendance: a systematic review and meta-analysis. *BMC Health Services Research*, 23: 1136. Available: <https://doi.org/10.1186/s12913-023-10059-9> (Accessed: 23 January 2024).

Win, T. and Mlambo, M. 2020. Road-to-Health booklet assessment and completion challenges by nurses in rural primary health care facilities in South Africa. *South African Journal of Child Health*, 14 (3): 124-128. Available: <http://.sajch.org.za/index.php/SAJCH/article/view/1558/1022> (Accessed: 24 January 2024).

World Health Organization. 2018a. *Handbook for national quality policy and strategy: a practical approach for developing policy and strategy to improve quality of care*. World Health Organization. Available: <https://apps.who.int/iris/handle/10665/272357> (Accessed: 18 May 2021).

World Health Organization. 2018b. *Quality in primary health care*. World Health Organization. Available: <https://apps.who.int/iris/handle/10665/326461> (Accessed 17 April 2021).

World Health Organization. 2018c. *Technical series on primary health care: quality in primary health care*. World Health Organization. Available: <https://www.who.int/publications/i/item/WHO-HIS-SDS-2018.54#:~:text=This%20paper%20provides%20governments%20and%20policy-makers%20with%20an> (Accessed 15 September 2022).

World Health Organization. 2020. *Primary health care on the road to universal health coverage: 2019 monitoring report*. Geneva: World Health Organization. Available: <http://apps.who.int/iris>. (Accessed: 6 January 2024).

World Health Organization, Organisation for Economic Co-operation and Development, International Bank for Reconstruction and Development and the World Bank. 2018. *Delivering quality health services: a global imperative for universal health coverage*. OECD Publishing. Available: <http://apps.who.int/iris> (Accessed: 18 April 2021).

World Health Organization and United Nations Children's Fund. 2020. *Operational framework for primary: transforming vision into action*. World Health Organization. Available: <https://apps.who.int/iris/handle/10665/337641> (Accessed: 18 April 2021).

World Health Organization and United Nations Children's Fund. 2022. *Primary measurement framework and indicators: monitoring health systems through a primary lens. Web annex: technical specifications*. World Health Organization. Available: <https://apps.who.int/iris/handle/10665/352201> (Accessed: 25 September 2022).

APPENDICES

Appendix 1: Full Ethics Approval



19 May 2023

Ms N N Mazibuko
P.O. Box 76082
Marble Ray
4037

Dear Ms Mazibuko

Critical evaluation of the influence of Ideal Clinic status on the quality of Primary Health Care services provision in eThekweni District, South Africa.
Ethics Clearance Number: IREC 270/22

The DUT-Institutional Research Ethics Committee acknowledges receipt of your notification regarding the piloting of your data collection tools.

Kindly ensure that participants used for the pilot study are not part of the main study.

In addition, the DUT-IREC acknowledges receipt of your gatekeeper permission letters.

Please note that **FULL APPROVAL** is granted to your research proposal. You may proceed with data collection.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the DUT-IREC according to the DUT-IREC SOP's.

Please note that any deviations from the approved proposal require the approval of the DUT-IREC as outlined in the DUT-IREC SOP's.

It is compulsory for a student or researcher to apply for recertification on an annual basis. The failure to do so will result in withdrawal of ethics clearance. It is the responsibility of the researcher and the supervisor to apply for recertification.

Please note that you are required to submit a Notification of Completion of Study form together with an abstract to the DUT-IREC office on completion of your study.

Yours Sincerely

Prof J K Adam
Chairperson: DUT-IREC

ENVISION2030

transparency • honesty • integrity • respect • accountability
fairness • professionalism • commitment • compassion • excellence

THE
SOUTH AFRICAN
STUDENT
UNION
(021) 595 369

Appendix 2a: Request letter to eThekweni District Manager

Permission letter to the Manager of eThekweni District Manager

5 Grandale Place
Briardale
Newlands West
4037
22 March 2023

The Health Research and Knowledge Management Component
EThekweni District Office
83 King Cetshwayo Highway
Westridge
Durban 4001

Dear Madam

Re: REQUEST FOR A PERMISSION TO CONDUCT A STUDY

I am presently registered for Doctoral degree at the Durban University of Technology in the Department of Nursing. Student number: 19550352.

I hereby request your permission to conduct a research project using the professional nurses who are under your employment at PHC facility, the healthcare users attending at the PHC facility and to use the PHC facility as study site. Permission is further requested to access facility based and hand-held healthcare user records for retrospective record review to collect data.

I am intending to collect data from the following Primary Health Care facilities:

West Sub-district:

- 1) Zwelibomvu clinic
- 2) Shongweni Dam clinic
- 3) KwaNdengezi clinic

South Sub-district:

- 1) Umnini clinic
- 2) KwaMakhutha clinic
- 3) Nsimbini clinic

North Sub-district:

- 1) Lindelani clinic
- 2) Oakford clinic
- 3) Ntuzuma clinic

My research proposal has been attached for your perusal. The proposed title of my research project is "Critical evaluation of the influence of Ideal Clinic status on the quality of Primary Health Care services provision in eThekweni District, South Africa". The aim of the study is to explore the influence of ideal clinic status on quality services provision in selected Primary Health Care clinics in eThekweni District.

I am intending to collect data from the following sources:

- a) The facility managers of all selected ideal clinics.
- b) The professional nurses working at your ideal PHC facilities.
- c) The healthcare users attending at the same selected ideal PHC facilities for more than twice on the day of data collection.
- d) Facility based clinical records and healthcare user's hand-held clinical records.

Appendix 2b: Permission letter from eThekwini District



health

Department:
Health
PROVINCE OF KWAZULU-NATAL

DIRECTORATE: DISTRICT

Physical address: 83 King Cetshwayo Highway, Highway House; Mayville 4091

Postal Address: Private Bag X54318, Durban 4000

eThekwini District Office, Tel: 031 240 5309 Fax: 031 240 5550

Email: Thabisile.Salvi@kznhealth.gov.za

Enquiries: Miss. O Magwaza

Date: 14/04/2023

Dear Ntombifuthi Norah Mazibuko
Durban University of Technology
School of Health Science

RE: SUPPORT FOR RESEARCH STUDY ON CRITICAL EVALUATION OF THE
INFLUENCE OF IDEAL CLINIC STATUS ON THE QUALITY OF PRIMARY HEALTH CARE
SERVICES PROVISION IN ETHEKWINI DISTRICT, SOUTH AFRICA

I have the pleasure in informing you that the District is granting you support to conduct the research study titled, 'Critical evaluation of the influence of Ideal Clinic status on the quality of Primary Health Care services provision in eThekwini District, South Africa.'

Please note the following:

1. Please ensure you adhere to all the policies, procedures, protocols, and guidelines of the department of health with regards to this research.
2. This research will only commence once this office has received confirmation from the provincial health research committee in the KZN department of health.
3. Please ensure this office is informed before you commence your research.
4. The District office/facility will not provide any resources for this research.
5. You will be expected to provide feedback on your findings to the district office/facility

Thanking you,

P.P (ANM, M & E Manager)

(District director) EThekwini Health District

Date: 14/04/2023

Appendix 3a: Request letter to KZN Provincial department of health

Permission letter to the KZN Provincial Department of Health

05 Grandale Place

Newlands West

4037

15 April 2023

The Health Research and Knowledge Management Component

KwaZulu-Natal Department of Health

Private Bag X9051

Pietermaritzburg

3201

Dear Madam

Re: **REQUEST FOR A PERMISSION TO CONDUCT A STUDY**

I am presently registered for Doctoral degree at the Durban University of Technology in the Department of Nursing. Student number: 18550352.

I hereby request your permission to conduct a research project using the professional nurses who are under your employment at selected PHC facilities, the healthcare users attending at the PHC facilities and to use the selected PHC facilities as study sites. Permission is further requested to access facility based and hand-held healthcare user records for retrospective record review to collect data.

I am intending to collect data from the following eThekweni District Primary Health Care facilities:

West Sub-district:

- 1) Zwelibomvu clinic
- 2) Shongweni Dam clinic
- 3) KwaNdengezi clinic

South Sub-district:

- 1) Umnini clinic
- 2) KwaMakhutha clinic
- 3) Nsimbini clinic

North Sub-district:

- 1) Lindelani clinic
- 2) Oakford clinic
- 3) Ntuzuma clinic

My research proposal has been attached for your perusal. The proposed title of my research project is **“Critical evaluation of the influence of Ideal Clinic status on the quality of Primary Health Care services provision in eThekweni District, South Africa”**. The aim of the study is to explore the

Appendix 3b: Permission from KZN Provincial department of health



KWAZULU-NATAL PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

DIRECTORATE:

Postal Address: 330 Longsight Road, Pietermaritzburg
Physical Address: Private Bag X9051
3200 Pietermaritzburg, 3200. Fax: 033 334 3782
E: hrkm@kznhealth.gov.za

Health Research & Knowledge
Management

NHRD Ref: KZ_202304_018

Dear N N Mazibuko
(DUT)

Approval of research

1. The research proposal titled: **'Critical evaluation of the influence of Ideal Clinic status on the quality of Primary Health Care services provision in eThekweni District, South Africa.'** was reviewed by the KwaZulu-Natal Department of Health (KZN-DuH).

The proposal is hereby **approved** for research to be undertaken at KwaMakhutha, KwaNcengazi, Lindelani, Nsimbini, Ntuzuma, Umnini, Zwelibomvu, Oakford and Shongweni Dam clinics.

2. You are requested to take note of the following:

a. *Kindly liaise with the facility manager BEFORE your research begins.*

This is to ensure that conditions in the facility are conducive to the conduct of your research. These include, but are not limited to, an assurance that the numbers of patients attending the facility are sufficient to support your sample size requirements, and that the space and physical infrastructure of the facility can accommodate the research team and any additional equipment required for the research.

- b. All research conducted in KwaZulu-Natal must comply with government regulations relating to Covid-19. These include but are not limited to: regulations concerning social distancing, the wearing of personal protective equipment, and limitations on meetings and social gatherings.*
- c. Please ensure that you provide your letter of ethics re-certification to this unit, when the current approval expires.*
- d. Provide an interim progress report and final report (electronic and hard copies) when your research is complete to HEALTH RESEARCH AND KNOWLEDGE MANAGEMENT, 10-102, PRIVATE BAG X9051, PIETERMARITZBURG, 3200 and e-mail an electronic copy to hrkm@kznhealth.gov.za*
- e. Please note that the Department of Health shall not be held liable for any injury that occurs as a result of this study.*

For any additional information please contact Dr. G Khumalo on 033-305 3180

Yours Sincerely

Dr E Lutge

Chairperson, Provincial Health Research Committee

Date: 25/04/2023

GROWING KWAZULU-NATAL TOGETHER

Appendix 4a: Request letter to Head of Health Unit eThekwini municipality

Permission letter to the Head of Health of eThekwini Municipality

5 Grandale Place
Briardale
Newlands West
4037
22 March 2023

The Head of Health Unit
EThekweni Municipality
9 Archie Gumede Place
Durban
4000

Dear Madam

Re: REQUEST FOR A PERMISSION TO CONDUCT A STUDY

I am presently registered for Doctoral degree at the Durban University of Technology in the Department of Nursing. Student number: 19550352.

I hereby request your permission to conduct a research project using the professional nurses who are under your employment at PHC facility, the healthcare users attending at the PHC facility and to use the PHC facility as study site. Permission is further requested to access facility based and hand-held healthcare user records for retrospective record review to collect data.

I am intending to collect data from the following Primary Health Care facilities:

West Sub-district:

- 1) Nagina clinic
- 2) Tshelimnyama clinic
- 3) Umzamo clinic

South Sub-district:

- 1) Isipingo clinic
- 2) Illovu clinic
- 3) Adams clinic

North Sub-district:

- 1) Hambanathi clinic
- 2) KwaMashu 'B' clinic
- 3) Stone Bridge clinic

My research proposal has been attached for your perusal. The proposed title of my research project is "Critical evaluation of the influence of Ideal Clinic status on the quality of Primary Health Care services provision in eThekwini District, South Africa". The aim of the study is to explore the influence of ideal clinic status on quality services provision in selected Primary Health Care facilities in eThekwini District.

I am intending to collect data from the following sources:

- a) Facility managers of all selected ideal clinics
- b) The professional nurses working at your ideal PHC facilities.
- c) The healthcare users attending at the same selected ideal PHC facilities for more than twice on the day of data collection.
- d) Facility based clinical records and healthcare user's hand-held clinical records.

Data will be collected by conducting semi-structured interviews with both professional nurses working at ideal PHC clinics with an ideal status and healthcare users attending the selected ideal PHC facilities. Self-administered questionnaire will be used to collect data from the facility manager and the team leaders or champions of each stream or service points.

Appendix 4b: Permission letter from Head of Health Unit eThekwin municipality

ETHEKWINI MUNICIPALITY
Community & Emergency Services Cluster
Health Unit

9 Archie Gumede Place
Durban 4001
P O Box 2443
Durban 4001
Tel: (031) 311 3505
Fax: (031) 311 3710
Website:
<http://www.durban.org.za>



Ref. No. 30/1/1 / 6/3/1

To: Ntombifuthi Mazibuko

20 April 2023

Dear Researcher,

Subject: Approval of a Research Proposal

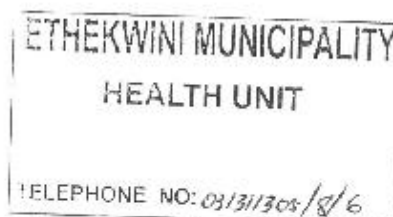
The Research Proposal Titled: "Critical evaluation of the influence of Ideal Clinic status on the quality of Primary Health Care services provision in eThekwin District, South Africa" was reviewed by the eThekwin Municipal Health Department Research Committee. The study is hereby approved to be conducted at Nagina Clinic, Tshelmanyama Clinic, Umzamo Clinic, Stonebridge Clinic, KwaMashu B Clinic, Hambanathi Clinic, Isipingo Clinic, Illovo Clinic and Adams Clinic upon receipt of full ethical approval.

The following conditions need to be noted:

- Submission of the indemnity form obtainable from the eThekwin Municipality Health Unit before commencement of the study.
- Prior arrangements to be made with the facility and an assurance that clinic services will not be disrupted.
- No staff member should be used for collecting data for the researchers.
- Progress reports to be provided and the final report of the study to the eThekwin Municipality Health Unit or emailed to: Bongi.Ntombela@durban.gov.za
- Obtain permission from the eThekwin municipality health department for press releases and release of results to communities/stakeholders.
- The department has to receive recognition for the assistance given.
- Any amendment to the study must be communicated with the eThekwin Municipality Health Unit and the relevant amendment form obtainable from the unit to be submitted.
- Withdrawal of permission to conduct research will be left to the discretion of the eThekwin Municipality Health Unit.
- Please take note of the duration of the study approval.
- An extension may be applied for if required. The Committee will review such a request and provide feedback accordingly.

Yours sincerely

Mrs. Rosemary Van Heerden
Head of Health



Appendix 5: Piloting data collection tool report

PILOT STUDY REPORT

IREC ref No: 270/22

Student Name: Mazibuko Ntombifuthi Norah **Student Number:** 19550253

Title of the study: Critical evaluation of the influence of ideal clinic status on the quality of Primary Health Care services provision in eThekweni District, South Africa.

Date of data collection: 4th - 5th May 2023

Total No of pilot sites: 1

Total No of participants: 7

Total No of records reviewed: 5

PILOT STUDY REPORT

Rationale for the pretest study

The purpose of conducting the pretest study was to evaluate and if necessary refine data collection processes and tools. Pre-testing assisted the researcher to ascertain whether:

- The stated research processes will yield the data the researcher was looking for,
- The tools used for data collection were ideal to achieve the stated objectives,
- The information included in the data collection tools was clear and unambiguous and
- Time taken with each participants when administering the research tools was not too long.

The PHC facility where pilot study was conducted, study participants and the data collected will not be included in the main study.

Pretest process

The pretest study was conducted in one Primary Health Care (PHC) facility that was randomly selected from the PHC facilities in the study area (eThekweni District). Prior to the pretest study, the interview guides, questionnaire and checklists were validated for accuracy and appropriateness by both the researcher, supervisors and the statistician.

Appendix 6: Sample of request to access PHC facility

From: [Pretty Ndlovu](#)
To: [Ntombfuthi Mazibuko](#)
Subject: RE: Request to Access Facility
Date: Wednesday, 31 May 2023 13:24:57
Attachments: [image001.png](#)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good day Ms Mazibuko

I trust this e-mail finds you well.

This e-mail serves as an acknowledgement for request to access the facility in-terms of data collection for your research.

Wishing you all the best in your study journey

Warm regards

Gabi Hambanathi clinic

From: Tholi Majosi <Tholi.Majosi@durban.gov.za>
Sent: Wednesday, 31 May 2023 08:48 AM
To: Ntombfuthi Mazibuko <NtombfuthiM@dut.ac.za>; Pretty Ndlovu <Pretty.Ndlovu@durban.gov.za>
Subject: RE: Request to Access Facility

Good day

I am in support, however Pretty as manager please confirm suitability if date

Regards

Tholi

From: Ntombfuthi Mazibuko <NtombfuthiM@dut.ac.za>
Sent: Tuesday, 30 May 2023 09:36
To: Pretty Ndlovu <Pretty.Ndlovu@durban.gov.za>; Tholi Majosi <Tholi.Majosi@durban.gov.za>
Subject: Request to Access Facility

You don't often get email from ntombfuthim@dut.ac.za. [Learn why this is important](#)

Good morning

I trust that this email finds you well.

I am Norah N. Mazibuko, a second year Doctoral student at Durban University of Technology student no: 19550253. I was authorised to conduct the Study at Hambanathi Primary Health Care clinic. Kindly refer to the attached permission from eThekweni Municipality Head of Health Unit and the Durban University of Technology Institutional Research Ethics Committee (IREC270/22). I am therefore requesting to come to the facility to brief the staff and clients

Appendix 7: Information letter and consent for Professional nurses

Appendix 7: Letter of information and consent for Healthcare Providers



Title of the Research Study: Critical evaluation of the influence of Ideal Clinic status on the quality of Primary Health Care services provision in eThekweni District, South Africa.

Principal Investigator/s/researcher: Ms Ntombifuthi Norah Mazibuko (PhD Student)

Co-Investigator/s/supervisor/s: Prof. TSP Nxongo (PhD: Nursing) and Dr. DG Sokhela (PhD: Nursing).

Brief Introduction and Purpose of the Study: I will be conducting research on the influence of ideal clinic status on the quality of services provision at Primary Health Care (PHC) clinics. I am interested in learning about three things (1) your views about the quality of health care that you provide in ideal PHC clinics, (2) review of clinical records to determine if the recording of care provided is in alignment with the ideal clinic and (3) observe the clinic activities to check if they are in line with ideal clinic. I will use the information to assist in establishing a better understanding of the state of quality of clinical service provision to healthcare users. The findings will add patient-perspective on the current ideal clinic initiative model thus enhancing an improved quality health care services provision irrespective of ideal clinic status.

Good morning

I am a 2nd year student at Durban University of Technology doing Research for my Doctoral studies (PhD) degree in Nursing.

Invitation to the potential participant: I would like to invite you to participate in my study where I will be researching on the influence of ideal status of your clinic on the quality of services that you provide to healthcare users.

What is Research: Research is a systematic search or enquiry for generalized new knowledge. This knowledge can either be development of new concepts or advancement of existing knowledge, leading to a new understanding that was not previously known. Research can be conducted by asking pre-planned questions, observations or reviewing patient's records. In this research, you will be asked pre-determined questions and follow up questions will be asked where clarity is needed, the clinical records where patient care is recorded will be reviewed and clinic activities in service areas will be observed by the researcher. You will be allowed time if you want to consult with your colleagues or family first before participating in the study and you can take information letter with you to have enough time to read. You will be allowed to ask any questions before, during and after the study.

Outline of the Procedures: The research is about checking if the healthcare services that are provided in your clinic are in alignment with ideal clinic prescripts. The aim of the study is to analyse the influence of ideal clinic status on quality services provision at PHC clinics. The objectives of the study are (1) to examine the current practices in clinics with ideal status to get an understanding of whether the status is aligned with the clinic activities, (2) explore perspectives of healthcare providers regarding the influence of ideal clinic status on quality of patient care provision in PHC clinics, (3) determine if the clinical records are in alignment with the ideal clinic status and (3) propose a modified ideal clinic model to enhance an improved quality healthcare provision in clinics irrespective of ideal clinic status.

Research will include asking you pre-planned questions about your opinion regarding service provision in ideal clinic, reviewing clinical records and observing the activities happening at the service points. I will ask you few questions (in the form of one-on-one interview). The interview will last between 45-60 minutes. Interviews will be done while the clinic is operating to minimize disruption of services. Interviews will be recorded after getting

9 June 2022

Appendix 8a: Information letter and consent for Healthcare users' record review (English)

Appendix 8a: Letter of information and consent for Healthcare Users - Record Review (English)



LETTER OF INFORMATION

Title of the Research Study: Critical evaluation of the influence of Ideal Clinic status on the quality of Primary Health Care services provision in eThekweni District, South Africa.

Principal Investigator/s/researcher: Ms Ntombifuthi Norah Mazibuko (Doctoral Student)

Co-Investigator/s/supervisor/s: Prof. TSP Ngxongo (D Nursing) and Dr. DG Sokhela (D Nursing).

Brief Introduction and Purpose of the Study: I will be conducting research on the influence of ideal clinic status on the quality of services provision at Primary Health Care (PHC) facilities. I will be reviewing your clinic records to check if the recording in your files is according to the requirements of ideal clinic. I will use the information to assist in establishing a better understanding of the state of quality in clinical service provision as you experience it and thereby put some recommendations for improvement. All information that is recorded in your clinic file will be kept confidential as per Protection of Personal Information Act, No 4 of 2013 (POPI Act).

Good morning

I am a 2nd year student at Durban University of Technology doing Research for my Doctoral studies in Nursing.

Invitation to the potential participant: I would like to invite you to participate in my study where I will be researching on the influence of ideal status of the PHC facility on the quality of services that are provided to you.

What is Research: Research is an investigation aimed at discovery and interpretation of facts about a particular subject in the light of new findings. In this research your clinic records will be checked after receiving your written permission. You will be allowed time if you want to consult with your family first before participating in the study, ask any questions before, during and after the study and you can take information letter with you.

Outline of the Procedures: The research is about checking the quality of healthcare services that you receive from the ideal facility. The aim of the study is to analyse the influence of ideal clinic status on quality services provision at PHC clinics. You will be expected to sign the written consent form before participating in the study. The written consent contains your file

Appendix 8b: Information letter and consent for Healthcare users' record review (IsiZulu)

Appendix 8b: Letter of information and consent to Healthcare users – Record Review (IsiZulu)



INCWADI YOLWAZI

Isihloko socwango: Ukubukisisa kabanzi mayelana nomthelela wesicoco somtholampilo kusizo olutholakala emitholampilo yaseThekwini, eMzansi neAfrica.

Uncwangingi omkhulu: Ms NN Mazibuko (Doctoral Student)

Abambekile: Prof. TSP Ngxongo (D: Nursing) and Dr. DG Sokhela (D: Nursing).

Isingeniso esifishane kanye nenhloso yocwango: Ngenza ucwango ngomthelela wesicoco esinikwa umtholampilo emva kokuvinywa watholwa wenza kahle. Ucwango luzobheka ukwenza komtholampilo onesicoco. Ngifisa ukubheka amafayela akho asemtholampilo ukuthi ingabe ahambisana kanye nemigomo yesicoco somtholampilo na? Ulwazi oluzotholakala ngizolusebenzisa ukuqonda izinga lokulethwa kosizo kuziguli emitholampilo. Ulwazi luzosetshenziswa ukuzama ukufaka izimvo zeziguli kokwenzekalayo emitholampilo ukuze kuqhutshwe ukunakekela iziguli. Lonke ulwazi oluyotholakala kuma rekhodi akho luyogcinwa luyimfihlo ngumcwaningi, ngokubophezelwa ngumthetho wokugcinwa kolwazi luyimfihlo mayelana nomuntu ngamunye okuwu Protection of Personal Information Act, No. 4 of 2013 (POPI Act).

Isibingelelo: Ngiyakubingelela

Ngingumfundi owenza unyaka wakhe wesibili wocwango weziqu zobuDocotela emkhakheni wobuhlelengikazi esikhungweni i-Durban University of Technology.

Isimemo sokuba ube inxenye yocwango: Ngiyakumema ukuba ube ingxenye yocwango engilwenzayo. Ngiphenya ukuthi emitholampilo evinyiwe yatholwa ukuthi yenza kahle, ngabe usizo lwezempilo elinikwa iziguli luyahambelana yini kanye nesicoco sokwenza kahle esitholwe ngumtholampilo. Inhlosongangi yalolucwango ukubheka umthelela wesicoco somtholampilo kusizo olunikwa iziguli emitholampilo. Ngizobheka amafayela eziguli ukuthi okubhalwe phakathi kuyahambisana yini nemigomo ebekiwe yesicoco leso somtholampilo. Ulwazi luzosetshenziswa ukuza nemibono ekuletheni usizo olusezingeni eliphezulu kuziguli kungabhekiwe izicoco zemitholampilo. Lonke ulwazi neminingwane yakho ebhalwe efiyilini lakho izogcinwa iyimfihlo ngumcwaningi ngokubophezelwa umthetho Protection of Personal Information Act, No 4 ka 2013 (POPI Act).

Lolucwango lubheka Amarekhodi akho lapho kubhalwa khona mayelana nawe. Umuntu ngamunye ovuma ukuba inxenye yocwango, komthatha imizuzu engaba. Amarekhodi akho azobhekwa emva kokuthola invume ebhalwe phansi kuwe. Inamba

Appendix 8c: Information letter and consent for Healthcare user's interview (English)

Appendix 8c: Letter of information and consent for Healthcare users – interview (English)



LETTER OF INFORMATION

Title of the Research Study: Critical evaluation of the influence of Ideal Clinic status on the quality of Primary Health Care services provision in eThekweni District, South Africa.

Principal Investigator/s/researcher: Ms Ntombifuthi Norah Mazibuko (Doctoral Student)

Co-Investigator/s/supervisor/s: Prof. TSP Ngxongo (D: Nursing) and Dr. DG Sokhela (D: Nursing).

Brief Introduction and Purpose of the Study: I will be conducting research on the influence of ideal clinic status on the quality of services provision at Primary Health Care (PHC) facilities. I am interested in your views about the quality of health care that you receive in ideal PHC facilities. I will use the information to assist in establishing a better understanding of the state of quality in clinical service provision as you experience it and thereby put some recommendations for improvement. All information that is recorded in your clinic file will be kept confidential as per Protection of Personal Information Act, No 4 of 2013 (POPI Act).

Good morning

I am a 2nd year student at Durban University of Technology doing Research for my Doctoral Studies Doctoral degree in Nursing.

Invitation to the potential participant: I would like to invite you to participate in my study where I will be researching on the influence of ideal status of the PHC facility on the quality of services that are provided to you.

What is Research: Research is an investigation aimed at discovery and interpretation of facts about a particular subject in the light of new findings. In this research, you will be asked questions regarding the healthcare you are receiving at ideal clinic. You will be allowed time if you want to consult with your family first before participating in the study, ask any questions before, during and after the study and you can take information letter with you.

Outline of the Procedures: The research is about checking the quality of healthcare services that you receive from the ideal facility. The aim of the study is to to analyse the influence of ideal clinic status on quality services provision at PHC clinics. You will be expected to sign the written consent form before participating in the study.

Research will include asking you questions about services that you are receiving from the facility. The interview will be conducted before or after you have consulted with a healthcare provider so that no unnecessary interruptions will occur during your stay at the facility. A 45 - 60 minutes Interviews will be done individually in a private space that will be identified at the

Appendix 8d: Information letter and consent for Healthcare user's interview (IsiZulu)

Appendix 8d: Letter of information to Healthcare users – interview (IsiZulu)



INCWADI YOLWAZI

Isihloko socwango: Ukubukisisa kabanzi mayelana nomthelela wesicoco somtholampilo kusizo olutholakala emitholampilo yaseThekwini District, eMzansi neAfrica.

Uncwani ngi omkhulu: Ms NN Mazibuko (Doctoral Student)

Abambekile: Prof. TSP Ngxongo (D: Nursing) and Dr. DG Sokhela (D: Nursing).

Isingeniso esifishane kanye nenhloso yocwango: Ngenza ucwango ngomthelela wesicoco esinikwa umtholampilo emva kokuvivinywa watholwa wenza kahle. Ucwango luzobheka ukwenza komtholampilo onesicoco. Ngifisa ukuzwa uvolwakho mayelana nezinga losizo olutholayo emtholampilo ukuthi ingabe luyahambisana yini kanye nemigomo yesicoco somtholampilo. Ulwazi oluzotholakala ngizolusebenzisa ekuqonda izinga lokuletha usizo kuziguli emitholampilo. Ulwazi luzosetshenziswa ukuzama ukufaka izimvo zeziguli kokwenzekalayo emitholampilo ukuze kuqhutshwe ukunakekela iziguli. Lonke ulwazi oluyotholakala luyogcinwa luyimfihlo ngumcwani ngi, ngokubophezelwa ngumthetho wokugcinwa kolwazi oluyimfihlo mayelana nomuntu ngamunye okuwu Protection of Personal Information Act, No. 4 of 2013 (POPI Act).

Isibingelelo: Ngiyakubingelela

Ngingumfundi owenza unyaka wakhe wesibili wocwango weziqu zobuDokotela emkhakheni wobuhle ngakazi esikhungweni i-Durban University of Technology.

Isimemo sokuba ube inxenye yocwango: Ngiyakumema ukuba ube ingxenye yocwango engilwenzayo. Ngiphenya ukuthi emitholampilo evivinywe yatholwa ukuthi yenza kahle futhi yanikwa isicoco, ngabe usizo lwezempilo elinikwa iziguli luyahambelana yini kanye nesicoco sokwenza kahle esitholwe ngumtholampilo. Inhlasonqangi yalolucwango ukubheka umthelela wesicoco somtholampilo kusizo olunikwa iziguli emitholampilo. Ezinye izinhloso kungukuzwa uvo lweziguli mayelana nosizo olutholakala emitholampilo onesicoco. Ulwazi luzosetshenziswa ukuza nemibono ekuletheni usizo olusezingeni elifiswa iziguli kungabhekiwe izicoco zemitholampilo. Lonke ulwazi luyogcinwa luyimfihlo ngumcwani ngi ngokubophezelwa umthetho Protection of Personal Information Act, No 4 ka 2013 (POPI Act).

Lolucwango lufaka imibuzo ezobuzwa kuwe njengesiguli mayelana nosizo olutholayo. Uzobuzwa ngamunye esithe futhi uvumelekile ukuthi nawe ubuze ngezinto ongaziqondi ngalolucwango. Umuntu ngamunye ovuma ukuba inxenye yocwango,

Appendix 9: Letter of support from Statistician

Gill Hendry B.Sc. (Hons), M.Sc. (Wits), PhD (UKZN)
Mathematical and Statistical Services

Cell: 083 300 9898
email : gillhendrystats@gmail.com

14 December 2022

To whom it may concern

Please be advised that I will be assisting Ntombifuthi Mazibuko (student number 19550253) who is presently studying for a Doctorate in Nursing with the statistical aspects of her study.

Yours sincerely

Gill Hendry (Dr)

Appendix 10a: Checklist for Child record review

Appendix 10a Checklist for Child Record Review



Section A:

Identification Information

Facility Code
Health Authority Code

Visit No

Date..... **Day**.....

Record Type: Indicate with an X

Road to Health Booklet		Non-Road to Health Booklet	
------------------------	--	----------------------------	--

Facility operating hours	From	To	Total	Monday to Friday		Weekends and/or Public holidays	
				Yes	No	Yes	No

Appendix 10b: Checklist for Adult record review

Appendix 10b: Checklist for Adult Record Review



Section A:

Identification Information

Facility Code

Health Authority Code

Visit No

Date..... Day.....

Facility operating hours	From	To	Total	Monday to Friday		Weekends and/or Public holidays	
				Yes	No	Yes	No

Type of Record: Indicate with X

Acute		Chronic		Maternity case	
Hand-held record		Facility-based record			

Appendix 11: Questionnaires for Professional nurses and Managers

Appendix 11: Questionnaire for Professional nurses and Managers



A. Identification information:

Facility Code Health Authority Code

Visit No.

B. Demographic information:

Professional category: Indicate with an X on appropriate space

Facility Manager	
Professional nurse	

Age: Gender Years of experience

Quality Domain		Strongly Agree	Agree	Strongly disagree	Disagree	Not applicable
Effectiveness of care	All patients in the waiting area have a chair to seat whilst waiting to be consulted.					
	There is always a dedicated staff member who frequently does rapid appraisal for all patients and urgent attention given where necessary.					

Appendix 12a: Interview guide for Professional nurses

Appendix 12a: Interview Guide for Professional nurses



Identification Information

Facility Code

Health Authority Code

Visit No

Date..... Day:

Demographic Data

Age.....

Gender.....

Race.....

Years of experience.....

Grand Tour Question:

- What influence does ideal clinic status have on quality healthcare provision in your clinic?

Guided Tour Questions:

- What can you say about the quality of services that you provide in this facility?
- Describe the support system that you get in working at ideal clinic.
- What challenges are you experiencing in working at ideal clinics?
- What would be your recommendations regarding solutions to these challenges?

Appendix 12b: Interview guide for Healthcare users (English)

Appendix 12b: Interview Guide for Healthcare users (English)



Identification Information

Facility Code Health Authority Code

Visit No

Date..... Time:

Demographic Data

Age..... Gender.....

Race.....

Grand Tour Question:

- What influence does ideal clinic status have on quality healthcare provision in the clinic that you are attending?

Guided Tour Questions:

- What can you say about the quality of services that you are receiving in this clinic?
- What challenges are you experiencing in about the service provision in this clinic?
- What would be your recommendations regarding the ideal services that you would like to receive?

Appendix 12c: Interview guide for Healthcare users (IsiZulu)

Appendix 12c: Interview Guide for Healthcare users (IsiZulu)



Imininingwane ngolwazi

Facility Code

Health Authority Code

Visit No

Usuku.....

Isikhathi.....

ULWAZI

Iminyaka.....

Ubulili.....

Ubuzwe.....

Umbuzo omkhulu womhlangano:

- Sinamthelela muni isicoco sokwenza kahle komtholampilo kusizo oluthola wena njengesiguli kulomtholampilo?

Imibuzo yokusekela umhlangano:

- Ungathini ngezinga losizo olutholayo kulomtholampilo?
- Iziphi izinqinamba ohlangabezana nazo ngosizo kulomtholampilo.

Appendix 13a: Record review data analysis report whole sample (Adult Records)

Appendix 13a: Record review data analysis report whole sample (Adult Records)

Type of information	Yes	Incomplete	No	Total
Biographic data				
Patient's name, surname and date of birth or ID number.	339 (94.1%)	20 (5.6%)	1 (0.3%)	360 (100%)
HPRS number and File number.	103 (28.6%)	0 (0%)	257 (71.4%)	360 (100%)
Patient's physical address, next of kin and contact details.	303 (84.2%)	46 (12.7%)	11 (3.1%)	360 (100%)
Each patient has single record regardless of illness.	315 (87.5%)	0 (0%)	45 (12.5%)	360 (100%)
Sub-total	1060 (73.6%)	66 (4.6%)	314 (21.8%)	1440 (100%)
Evidence of health assessment				
Main complaint documented.	353 (98.0%)	0 (0%)	7 (2.0%)	360 (100%)
Main complaint explored.	77 (21.4%)	178 (49.4%)	105 (29.2%)	360 (100%)
Comprehensive general history taken.	11 (3.1%)	258 (71.6%)	91 (25.3%)	360 (100%)
All observations including screenings done.	145 (40.3%)	133 (36.9%)	82 (22.8%)	360 (100%)
Full physical examination and findings documented.	31 (8.6%)	90 (25%)	239 (66.4%)	360 (100%)
Relevant diagnostic tests done and results available or documented.	148 (41.1%)	96 (26.7%)	116 (32.2%)	360 (100%)
Provisional diagnosis and/or differential diagnoses documented.	323 (89.7%)	0 (0%)	37 (10.3%)	360 (100%)
Treatment or management plan for the patient documented.	163 (45.3%)	173 (48%)	24 (6.7%)	360 (100%)
Correct Drug management according to EDL based on diagnosis documented.	270 (75%)	71 (19.7%)	19 (5.3%)	360 (100%)
Non-drug and Drug management documented.	95 (26.4%)	227 (63%)	38 (10.6%)	360 (100%)
Follow-up date or referral to the next level of care as per facility referral pathway done.	164 (45.6%)	183 (50.8%)	13 (3.6%)	360 (100%)
Hand writing on patient's files is eligible and recording is concise.	336 (93.3%)	0 (0%)	24 (6.7%)	360 (100%)
Sub-total	2116 (49%)	1409 (32.6%)	795 (18.4%)	4320 (100%)
Health Professional				

Appendix 13b: Record review data analysis report whole sample (Child records)

Appendix 13b: Record review data analysis report whole sample (Child Records)

Type of information	Yes	Incomplete	No	Total
Biographic data				
Child's name, surname and date of birth.	44 (97.8%)	0 (0%)	1 (2.2%)	45 (100%)
Child's physical address, next of kin and contact details.	16 (35.6%)	24 (53.3%)	5 (11.1%)	45 (100%)
Child has Road to Health Booklet.	45 (100%)	0 (0%)	0 (0%)	45 (100%)
Sub-Total	105 (77.8%)	24 (17.8%)	6 (4.4%)	135 (100%)
Evidence of assessment using IMCI strategy				
Child's main complaint and its duration documented.	44 (97.8%)	0 (0%)	1 (2.2%)	45 (100%)
Child's weight, temperature, height or length and/or respiratory rate documented.	9 (20%)	36 (80%)	0 (0%)	45 (100%)
Mid-upper arm circumference measured.	16 (35.6%)	0 (0%)	29 (64.4%)	45 (100%)
All main five symptoms checked and/or assessed.	2 (4.4%)	36 (80%)	7 (15.6%)	45 (100%)
Correct classification per symptom documented.	13 (28.9%)	21 (46.7%)	11 (24.4%)	45 (100%)
Child assessed and correctly classified for malnutrition and anaemia.	4 (8.9%)	37 (82.2%)	4 (8.9%)	45 (100%)
Child assessed and correctly classified for HIV infection and TB risk.	41 (91.1%)	4 (8.9%)	0 (0%)	45 (100%)
Immunisation status assessed and vaccination given where applicable.	38 (80.0%)	7 (15.6%)	2 (4.4%)	45 (100%)
Child's other problems assessed and managed where necessary.	12 (26.7%)	33 (73.3%)	0 (0%)	45 (100%)
Special investigations like TB, blood glucose or HIV test done where indicated and results documented.	14 (31.1%)	25 (55.6%)	6 (13.3%)	45 (100%)

Appendix 14a: Record review data analysis report Authority A (Adult Records)

Appendix 14a: Record review data analysis report Authority A (Adult Records)

Type of information	Yes	Incomplete	No	Total
Biographic data				
Patient's name, surname and date of birth or ID number.	234 (97.5%)	6 (2.5%)	0 (0%)	240 (100%)
HPRS number and File number.	57 (23.7%)	0 (0%)	183 (76.3%)	240 (100%)
Patient's physical address, next of kin and contact details.	229 (95.4%)	9 (3.8%)	2 (0.8%)	240 (100%)
Each patient has single record regardless of illness.	239 (99.6%)	0 (0%)	1 (0.4%)	240 (100%)
Total	759 (79.1%)	15 (1.5%)	188 (19.4%)	960 (100%)
Evidence of health assessment				
Main complaint documented.	233 (97.0%)	0 (0%)	7 (3.0%)	240 (100%)
Main complaint explored.	44 (18.3%)	121 (50.4%)	75 (31.3%)	240 (100%)
Comprehensive general history taken.	2 (0.8%)	152 (63.3%)	86 (35.8%)	240 (100%)
All observations including screenings done.	81 (33.8%)	34 (14.2%)	125 (52%)	240 (100%)
Full physical examination and findings documented.	10 (4.2%)	70 (29.2%)	160 (66.6%)	240 (100%)
Relevant diagnostic tests done and results available or documented.	95 (39.6%)	100 (41.7%)	45 (18.7%)	240 (100%)
Provisional diagnosis and/or differential diagnoses documented.	218 (90.8%)	0 (0%)	22 (9.2%)	240 (100%)
Treatment or management plan for the patient documented.	124 (51.7%)	18 (7.5%)	98 (40.8%)	240 (100%)
Correct Drug management according to EDL based on diagnosis documented.	174 (72.5%)	11 (4.6%)	55 (22.9%)	240 (100%)
Non-drug and Drug management documented.	69 (28.7%)	36 (15%)	135 (56.3%)	240 (100%)
Follow-up date or referral to the next level of care as per facility referral pathway done.	134 (55.8%)	14 (5.8%)	92 (38.3%)	240 (100%)
Hand writing on patient's files is eligible and recording is concise.	229 (95.4%)	0 (0%)	11 (4.6%)	240 (100%)
Total	1413 (49.1%)	558 (19.3%)	911 (31.6%)	2880 (100%)
Health Professional				

Appendix 14b: Record review data analysis report Authority A (Child Records)

Appendix 14b: Record review data analysis report Authority A (Child Records)

Type of information	Yes	Incomplete	No	Total
Biographic data				
Child's name, surname and date of birth.	30 (100%)	0 (0%)	0 (0%)	30 (100%)
Child's physical address, next of kin and contact details.	14 (46.7%)	14 (46.7%)	2 (6.6%)	30 (100%)
Child has Road to Health Booklet.	30 (100%)	0 (0%)	0 (0%)	30 (100%)
Sub-total	74 (82.2%)	14 (15.6%)	2 (2.2%)	90 (100%)
Evidence of assessment using IMCI strategy				
Child's main complaint and its duration documented.	30 (100%)	0 (0%)	0 (0%)	30 (100%)
Child's weight, temperature, height or length and/or respiratory rate documented.	5 (16.7%)	18 (60%)	7 (23.3%)	30 (100%)
Mid-upper arm circumference measured.	15 (50%)	0 (0%)	15 (50%)	30 (100%)
All main five symptoms checked and/or assessed.	2 (6.7%)	21 (70%)	7 (23.3%)	30 (100%)
Correct classification per symptom documented.	7 (23.3%)	7 (23.3%)	16 (53.4%)	30 (100%)
Child assessed and correctly classified for malnutrition and anaemia.	1 (3.3%)	25 (83.3%)	4 (13.3%)	30 (100%)
Child assessed and correctly classified for HIV infection and TB risk.	25 (83.3%)	5 (16.7%)	0 (0%)	30 (100%)
Immunisation status assessed and vaccination given where applicable.	26 (86.7%)	3 (10%)	1 (3.3%)	30 (100%)
Child's other problems assessed and managed where necessary.	11 (36.7%)	1 (3.3%)	18 (60%)	30 (100%)
Special investigations like TB, blood glucose or HIV test done where indicated and results documented.	4 (13.3%)	19 (63.4%)	7 (23.3%)	30 (100%)
Correct Drug treatment based on child's classification using IMCI guidelines.	18 (60%)	0 (0%)	12 (40%)	30 (100%)
Health information given to care giver documented.	9 (30%)	16 (53.3%)	5 (16.7%)	30 (100%)

Appendix 14c: Record review data analysis report Authority B (Adult Records)

Appendix 14c: Record review data analysis report Authority B (Adult Records)

Type of information	Yes	Incomplete	No	Total
Biographic data				
Patient's name, surname and date of birth or ID number.	108 (90%)	0 (0%)	12 (10%)	120 (100%)
HPRS number and File number.	23 (19.2%)	0 (0%)	97 (80.8%)	120 (100%)
Patient's physical address, next of kin and contact details.	80 (66.7%)	37 (30.8%)	3 (2.5%)	120 (100%)
Each patient has single record regardless of illness.	82 (68.3%)	0 (0%)	38 (31.7%)	120 (100%)
Total	293 (61%)	37 (7.7%)	150 (31.3%)	480 (100%)
Evidence of health assessment				
Main complaint documented.	114 (95.0%)	0 (0%)	6 (5.0%)	120 (100%)
Main complaint explored.	27 (22.5%)	62 (51.7%)	31 (25.8%)	120 (100%)
Comprehensive general history taken.	4 (3.3%)	106 (88.3%)	10 (8.3%)	120 (100%)
All observations including screenings done.	63 (52.5%)	35 (29.2%)	22 (18.3%)	120 (100%)
Full physical examination and findings documented.	6 (5.0%)	16 (13.3%)	98 (81.7%)	120 (100%)
Relevant diagnostic tests done and results available or documented.	52 (43.3%)	25 (20.8%)	43 (35.8%)	120 (100%)
Provisional diagnosis and/or differential diagnoses documented.	112 (93.3%)	0 (0%)	8 (6.7%)	120 (100%)
Treatment or management plan for the patient documented.	40 (33.3%)	74 (61.7%)	6 (5.0%)	120 (100%)
Correct Drug management according to EDL based on diagnosis documented.	86 (71.7%)	28 (23.3%)	6 (5.0%)	120 (100%)
Non-drug and Drug management documented.	31 (26%)	9 (8%)	80 (66%)	120 (100%)
Follow-up date or referral to the next level of care as per facility referral pathway done.	45 (37.5%)	15 (12.5%)	60 (50%)	120 (100%)
Hand writing on patient's files is eligible and recording is concise.	106 (88.3%)	0 (0%)	14 (11.7%)	120 (100%)
Sub-total	688 (47.6%)	370 (25.7%)	384 (26.7%)	1440 (100%)
Health Professional				
Name and surname of the health professional.	10 (8.3%)	3 (2.5%)	107 (89.2%)	120 (100%)

Appendix 14d: Record review data analysis report Authority B (Child records)

Appendix 14d: Record review data analysis report Authority B (Child Records)

Type of information	Yes	Incomplete	No	Total
Biographic data				
Child's name, surname and date of birth.	15 (100%)	0 (0%)	0 (0%)	15 (100%)
Child's physical address, next of kin and contact details.	3 (20.0%)	9 (60.0%)	3 (20.0%)	15 (100%)
Child has Road to Health Booklet.	14 (93.3%)	0 (0%)	1 (6.7%)	15 (100%)
Sub-total	32 (71.1%)	9 (20%)	4 (8.9%)	45 (100%)
Evidence of assessment using IMCI strategy				
Child's main complaint and its duration documented.	15 (100%)	0 (0%)	0 (0%)	15 (100%)
Child's weight, temperature, height or length and/or respiratory rate documented.	4 (26.7%)	10 (66.7%)	1 (6.6%)	15 (100%)
Mid-upper arm circumference measured.	6 (40%)	0 (0%)	9 (60%)	15 (100%)
All main five symptoms checked and/or assessed.	1 (6.7%)	14 (93.3%)	0 (0%)	15 (100%)
Correct classification per symptom documented.	4 (26.7%)	8 (53.3%)	3 (20%)	15 (100%)
Child assessed and correctly classified for malnutrition and anaemia.	1 (6.7%)	14 (93.3%)	0 (0%)	15 (100%)
Child assessed and correctly classified for HIV infection and TB risk.	15 (100%)	0 (0%)	0 (0%)	15 (100%)
Immunisation status assessed and vaccination given where applicable.	13 (86.7%)	2 (13.3%)	0 (0%)	15 (100%)
Child's other problems assessed and managed where necessary.	3 (20%)	10 (66.7%)	2 (13.3%)	15 (100%)
Special investigations like TB, blood glucose or HIV test done where indicated and results documented.	10 (66.7%)	5 (33.3%)	0 (0%)	15 (100%)
Correct Drug treatment based on child's classification using IMCI guidelines.	12 (80%)	3 (20%)	0 (0%)	15 (100%)
Health information given to care giver documented.	9 (60%)	4 (26.7%)	2 (13.3%)	15 (100%)

Appendix 15: Summary of findings for the study based on theoretical framework (Clinical Microsystems Model)

Appendix 15: Summary of the findings based on Theoretical Framework that guided the study

INFORMATION	STUDY FINDINGS
PROFESSIONALS: Professionals involved in the provision of healthcare in PHC facilities.	
Professional nurses (healthcare providers) who provided care at PHC facilities with ideal status.	- The HCPs working at different facility streams responsible for consultation with HCUs (n=63; 100%). - The HCPs were allocated in each facility stream. - Number of HCPs per stream ranged from one to two nurses. - All nine facilities included in the study had operational managers (n=9; 100%).
Facility managers responsible for all operations in PHC facilities.	The facility managers were always available and responsible for supporting staff in terms of resource provision and guidance in clinical practice.
Themes, sub-themes and concepts that emerged from the study	
Staff establishment in PHC facilities	Staff establishment in terms of HCPs per stream ranged from one to two professional nurses consulting. In some facilities, HCUs from both acute and MCWH facility streams were combined and consulted by only two HCPs.
Staff training and support.	All HCPs had training in general nursing and some had a specialized qualification in primary health care.

Appendix 16: Data analysis: face to face semi-structured interviews with health care provider

Appendix 16: Data analysis: face -to- face semi-structured interviews with Healthcare Provider

DATE: 05 July 2023

Interviewer: Good morning sister, how are you today?

Participant: Good morning mam, I am okay and sorry to keep you waiting.

Interviewer: I understand you are busy, thank you for agreeing to participate in this study and thank you for allowing me to record this interview. Do you have any questions or concerns before we start?

Participant: No, we can start.

Grand tour question: What influence does ideal clinic status has on quality healthcare provision in your clinic?

Interviewer: What can you say about the quality of services that you provide in this facility?

Participant: I personally don't think that we are giving our community quality care they deserve because most of the things here are short or out of stock.

Interviewer: Please, if you can tell me more on what do you mean by everything being short?

Participant: We don't have medical supplies like pregnancy test kits, gloves just to name a few, yet we are expected to do pap smears, short of auroscopes that we even share among ourselves. Most of the time we don't receive all our order of medicines and we are told that it's out of stock.

Interviewer: How does shortage of medical supplies impact on services that you provide? (Theme 3: Facility organization. Sub-theme 3.3: Package of services and service days).

Participant: We postpone procedures like pap smears, removal or insertion of the implanon and in most cases, patients get angry with us.

Interviewer: Can you describe the support system that you get in working in ideal clinic?

Appendix 17: Data analysis: face to face semi-structured interview with health care user

Appendix 17: Data analysis: face -to- face semi-structured interviews with Healthcare User

DATE: 07 July 2023

Interviewer: Good morning, how are you today?

Participant: Good morning mam.

Interviewer: Thank you for agreeing to participate in this study for allowing me to record this interview. Do you have any questions or concerns before we start?

Participant: No, I don't have anything for now, we can start mam.

Grand tour question: What influence does ideal clinic status have on quality healthcare provision in the clinic you are attending?

Participant: I don't understand what do you mean by ideal clinic mam.

Interviewer: Ideal clinic is a clinic that daily provides you with all services that you need, at the level which is acceptable to you as a patient.

Participant: Now I understand, no in this clinic it depends on who sees you. Some nurses will not do our pap smears or implanon but gives us appointment for insertion of implanon. There is one in room two who sees pregnant women, she always shouts at us and she take long tea and lunch breaks. (Theme 4: Experience of care at PHC facilities. Sub-theme 4.1: Long waiting times for services. Sub-theme 4.3: Negative staff attitudes. Sub-theme 4.4: Patient satisfaction with services).

Interviewer: What can you say about the quality of services that you are receiving in this clinic?

Participant: Firstly, we are made to wait outside in cold weather like this. When we finally get to see the sister, she just asks few questions and gives Panado without even touching us. (Theme 2: Physical space in facilities. Sub-theme 2.1: Non-availability of waiting areas. Theme 4: Experience of care at PHC facilities. Sub-theme 4.2: Nature of consultation).

Interviewer: What challenges are you experiencing about the service provision in this clinic?

Appendix 18: Data analysis: face to face semi-structured interview with adult caregiver (ACG)

Appendix 18: Data analysis: face -to- face semi-structured interviews with Adult Care Giver

DATE: 23 September 2023

Interviewer: Good morning, how are you today?

Participant: Good morning mam.

Interviewer: Thank you for agreeing to participate in this study for and allowing me to record this interview. Do you have any questions or concerns before we start?

Participant: No, I don't have anything for now, we can start mam.

Grand tour question: What influence does ideal clinic status have on quality healthcare provision in the clinic you are attending?

Participant: I don't understand what do you mean by ideal clinic mam.

Interviewer: Ideal clinic is a clinic that daily provides you with all services that you need, at the level which is acceptable to you as a patient.

Participant: We don't get told of such things nurse, this is the first time I am hearing that our clinics are rated. (Theme 4: Experience of care at PHC facilities. Sub-theme 4.3: Negative staff attitudes).

Interviewer: Now that you know this clinic is rated platinum and is supposed to provide quality care, what can you say?

Participant: Nurses here are not the same, the other day I requested replacement of the lost baby's card, she told me that I must go back to Eastern Cape and ask them. (Theme 3: Facility organization and patient flow. Sub-theme 3.2: Clinical records and replacements).

Interviewer: How did you feel about that?

Participant: I think that nurse hates IsiXhosa speaking people, I felt so humiliated. (Theme 4: Experience of care at PHC facilities. Sub-theme 4.3: Negative staff attitudes).

Interviewer: What can you say about the quality of services that you are receiving in this clinic?

Appendix 19: Letter to request expert participation in review process of Practice Framework

Appendix 19: Letter to request expert participation in review process of Practice Framework

Letter to request expert participation in review process of Practice Framework

5 Grandale Place
Briardale Newlands West
4037
27th August 2024

To: PHC Area Managers, PHC Facility Managers and Quality Assurance Managers

Address: Municipality Health Unit

9 K.E. Masinga Road
Durban 4001

Request for participation in review process for Practice Framework

Dear madam

My name is Ntombifuthi N. Mazibuko, a Doctoral student at Durban University of Technology. I have just completed a research project towards my Doctoral qualification. As part of my research project and the last objective of the study, I have developed a practice framework to enhance an improved healthcare provision in PHC facilities in eThekweni district.

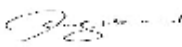
I am hereby requesting your assistance based on your expertise to review the practice framework that I have developed and to provide input that will assist in improving the framework, make it user friendly for the intended purpose. I have provided you with a template to capture your comments.

The review process will continue until all experts that are invited to participate have reached consensus. The review rounds will be online via email communication. The final round and consensus will also be shared online to the experts that participated in the review.

If you require further information, please do not hesitate to contact me on: 031 373 2583.

Thank you for your time and consideration in this matter.

Yours sincerely,

Ntombifuthi N Mazibuko 
(Durban University of Technology)

Appendix 20: Statement of confidentiality for experts

Appendix 20: Statement of confidentiality for experts



STATEMENT OF CONFIDENTIALITY

NB: This statement is to be signed by all participants before engaging in the review of the guidelines. This statement aims to ensure that all information discussed, reviewed, and shared during the review process remains confidential.

Confidentiality Agreement

I,.....(FULL NAME AND SURNAME) acknowledge that as a reviewer for the ["Practice Framework to enhance an improved healthcare provision at PHC facilities"], I will have access to sensitive and proprietary information. I understand that maintaining the confidentiality of this information is critical to the integrity of the research and the protection of intellectual property.

I agree to the following terms:

Confidential Information: All documents and discussions, and any other information shared during the review process shall be considered confidential.

YES	NO
-----	----

Non-Disclosure: I will not disclose, discuss, or share any confidential information with individuals outside of the review process without prior written consent from the researcher.

YES	NO
-----	----

Use of Information: I will use the confidential information solely to review and provide feedback on the guidelines. I will not use the information for any other purpose.

YES	NO
-----	----

Appendix 21: Template for experts' comments on Practice Framework

Appendix 21: Template for experts' comments on Practice Framework

TEMPLATE FOR REVIEWER'S COMMENTS

Review No: 1

Reviewer's expertise: Please tick appropriate box:

PHC Facility Manager	☐	PHC Area Manager	☐	Quality Assurance Manager	☐
Clinical Nurse Practitioner	☐				

Review Round: Please tick appropriate box:

1	☐	2	☐
---	--------------------------	---	--------------------------

Title of the study: Critical evaluation of the influence of Ideal Clinic status on the quality of Primary Health Care services provision in eThekweni District, South Africa.

CHECKING INFORMATION

Information	Appropriate	Amendments required	Comments/ Suggestions
Name of Framework	☐	☐	
Relevance of structure for end user	☐	☐	
Language clarity	☐	☐	
Relevance of content to address problem	☐	☐	
Sufficiency of information to address problem.	☐	☐	
Adaptability	☐	☐	

Additional comments:

.....
.....

Signature:

Date:

Appendix 22: Editing certificate

DR RICHARD STEELE

BA HDE MTech(Hom)

HOMEOPATH

Registration No. A07309 HM

Practice No. 0807524

Freelance academic editor

Associate member: Professional Editors'

Guild, South Africa

154 Magenta Place

Gxarha [Morgan Bay]

5292

Eastern Cape

082-928-6208

rsteele@vodamail.co.za

rsteele201@outlook.com

EDITING CERTIFICATE

Re: Nora N Mazibuko

DUT doctoral thesis: Critical Evaluation of the Influence of Ideal Clinic Status on the Quality of Primary Health Care Services Provision in eThekweni District, South Africa

I confirm that I have edited this thesis and the references for clarity and language. I returned the document to the author with track changes so correct implementation of the changes and clarifications requested in the text and references is the responsibility of the author. I am a freelance editor specialising in proofreading and editing academic documents. My original tertiary degree which I obtained at the University of Cape Town was a B.A. with English as a major and I went on to complete an H.D.E. (P.G.) Sec. with English as my teaching subject. I was a part-time lecturer in the Department of Homoeopathy at the Durban University of Technology for 13 years and supervised many master's degree dissertations during that period.

Dr Richard Steele

08 October 2024

per email