

**UNIVERSITY OF GHANA
COLLEGE OF HEALTH SCIENCES
SCHOOL OF PUBLIC HEALTH**

**POWER RELATIONS AMONG DISTRICT HEALTH MANAGERS AND THE
DELIVERY OF HEALTH CENTRE CLINICAL CARE IN GHANA**

BAWONTUO VITALIS

**A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES IN PARTIAL
FULFILMENT OF THE AWARD OF DEGREE OF DOCTOR OF PHILOSOPHY
DEGREE (PhD) IN PUBLIC HEALTH**

DEPARTMENT OF HEALTH POLICY, PLANNING AND MANAGEMENT

MAY, 2018

**UNIVERSITY OF GHANA
COLLEGE OF HEALTH SCIENCES
SCHOOL OF PUBLIC HEALTH**

**POWER RELATIONS AMONG DISTRICT HEALTH MANAGERS AND THE
DELIVERY OF HEALTH CENTRE CLINICAL CARE IN GHANA**

BY

**BAWONTUO VITALIS
(ID. NO. 10396393)**

**A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES IN PARTIAL
FULFILMENT OF THE AWARD OF DEGREE OF DOCTOR OF PHILOSOPHY
DEGREE (PhD) IN PUBLIC HEALTH**

DEPARTMENT OF HEALTH POLICY, PLANNING AND MANAGEMENT

MAY, 2018

DECLARATION

I, Bawontuo Vitalis, do hereby declare that except for other scholarly works, which have been duly acknowledged, the materials contained in this thesis are my own original efforts and that I have not submitted this work, either in part or in whole, for the award of any degree elsewhere.

Bawontuo Vitalis		
(Student)	Signature	Date

Dr. Irene Akua Agyepong		
(Primary Supervisor)	Signature	Date

Dr. Augustine Adomah-Afari		
(Secondary Supervisor)	Signature	Date

ABSTRACT

Background: Power relations among district health managers border on which district health manager has formal as well as any informal powers to do what, and to what extent, and the manifestation of power among these managers. A healthy relationship between health institutions at the district level is dependent on the clarity of formal and informal rules governing the arrangements of these healthcare institutions. These rules translate into the power structure for district health managers in the discharge of their duties. However, in practice, these formal power arrangements are likely to be distorted by informal powers.

Objective: The study explored how power relations between district directors and medical superintendents were likely to affect the delivery of healthcare services, such as supervision of health centre clinical care from the district hospital and the patient referral system, which are pivotal to the quality of clinical care delivery in rural districts of Ghana.

Methods: The study was conducted in three districts in Ghana; Bongo, Kintampo North and Juaboso, using the constructivist / interpretivist approach. Purposive sampling technique was used to select study sites and the study participants. The study used participant observation, conducted 11 interviews, 9 focus group discussions (with 61 participants) and documentary review for data collection across the three case study districts. Transcription of the voice-recordings was done verbatim, cleaned and imported into the Nvivo version 11 platform for analysis. Data was analysed using the inductive content analysis approach. Ethical clearance was granted by the ethics review committee of Ghana Health Service.

Findings: The study revealed that, the district directors derive legitimate powers from their positions as heads of the district health services. The medical superintendents also have legitimate powers to oversee and supervise district hospitals' activities. However, the study revealed that informal sources of power contribute to how district directors relate to medical superintendents in practice. These informal power sources are broadly described as financial and medical dominance. The study revealed that health centres organise and deliver a wide range of services. It was observed that health centre services delivery are supported by a borrowing system between district health institutions, knowledge sharing between health centres and district hospitals, and use of multi-task approach by healthcare providers; to minimise staff inadequacy challenges in the health centres in order to make clinical care services accessible to the rural communities. The study also found that power relations between district directors and medical superintendents affect the pivotal role of district hospitals in the delivery of clinical care at the health centre levels. It was reported that health centre clinical care is inadequately supervised and health centres delay in referring patients to district hospitals for further management.

Conclusion/Recommendations: The study concludes that legitimacy, medical dominance and financial dominance are sources of power for district health managers. The manifestation of these power relations among the district health managers affect clinical supervision of health centres and the patient referral system, which are integral to the organisation and delivery of health centre clinical care services. The study recommends that district health managers should be orientated to understand the power dynamics in the district health system.

DEDICATION

This thesis is dedicated to the Almighty God for how far He has brought me, to my parents Leopold Bawontuo and Jacqueline Nyewie (both of blessed memory), my lovely wife (Paula Tuonibe) and my children (Prosper and Pearl).

ACKNOWLEDGEMENT

I acknowledge the contribution of many individuals to this piece of work. First, I thank my supervisors Dr. Irene Akua Agyepong, and Dr. Augustine Adomah-Afari, for their generous comments, contributions and advice throughout the PhD journey. In spite of their busy schedules, they made time to read and gave comments that moved the research from one stage to the next until its completion. I deeply appreciate their efforts.

My second appreciation goes to my sponsors: African Doctoral Dissertation Research Fellowship (ADDRF) and Ghana Education Trust Fund (GETFund). ADDRf supported the data collection aspect of this work, trained and mentored me through this process. I am so grateful to you and your donor. Similarly, GETFund paid my fees for the third and fourth year of this PhD journey. I appreciate your support.

My third appreciation goes to the Catholic University College of Ghana – Fiapre, for granting me the permission to pursue the PhD programme. I acknowledge your support from inception to this very end. Fourthly, I appreciate the efforts of the entire faculty of the School of Public Health, University of Ghana, Legon in this PhD journey, as well as my colleagues on the PhD programme for the knowledge we shared among ourselves.

The next appreciation goes to my study participants. I thank the district directors of health services for Bongo, Kintampo and Juaboso districts (and their staff); medical superintendents of Bongo, Kintampo and Juaboso district hospitals (and their staff); and sub-district health team leaders of Bongo-Soe, New Longoro and Bonsu Nkwanta sub-districts (and their staff) for willingly participating in the data collection.

I cannot forget you, family and friends. To my wife and children, I enjoyed your love, understanding, patience and encouragement in this four-year period.

TABLE OF CONTENT

Table of Contents

DECLARATION	i
ABSTRACT.....	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENT	v
LIST OF FIGURES	x
LIST OF TABLES.....	xi
LIST OF ABBREVIATIONS.....	xiii
CHAPTER ONE	1
INTRODUCTION	1
1.1. Background to the Study	1
1.2. Problem Statement	4
1.3. Justification of the Study.....	6
1.4. Objectives of the Study	8
1.4.1. General Objective	8
1.4.2. Specific Objectives	8
1.5. Research Questions	8
1.6. Outline of the Thesis	9
CHAPTER TWO	10
THEORETICAL FRAMEWORK	10
2.1 Introduction	10
2.2. The Concept of Power.....	10
2.2.1 Definition of Power	10
2.2.2. The Perception of Power	12
2.2.3. Power, Status and Leadership.....	14
2.3. Theoretical framework of the Sources of Power.....	16
2.3.1. French and Raven's Sources of Power	16
2.3.2. Finkelstein's Sources of Power	22
2.3.3. Anderson and Brion's Sources of Power.....	24

CHAPTER THREE	29
LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK	29
3.1. Introduction	29
3.2. Sources of Power in the Delivery of Healthcare	29
3.3. Organisation and Delivery of Clinical Care	33
3.3.1. Clinical supervision	33
3.3.2. Patient referral system	34
3.3.3. Resource sharing.....	37
3.4. Power Relations among Health Managers in the Delivery of Healthcare.....	38
3.5. Conceptual Framework of the Study.....	44
3.6. Summary of the Chapter	49
CHAPTER FOUR.....	50
THE HEALTH SYSTEM.....	50
4.1. Introduction	50
4.3. Concept of the District Health System.....	51
4.4. Concept of the Primary Health Care	54
4.5. The Health Sector of Ghana	56
4.5.1. History of Healthcare in Ghana	56
4.5.2. Health Status Indicators.....	57
4.5.3. Structure of Health Service Delivery in Ghana	58
4.5.4. Administrative Structure of Health in Ghana	60
4.6. Summary of the Chapter	62
CHAPTER FIVE	63
METHODOLOGY	63
5.1. Introduction	63
5.2. Epistemological Orientation of the Study	63
5.3. Methods.....	64
5.3.1. Study Design.....	64
5.3.2. Case Study Approach	66
5.3.3. Multiple case studies	66
5.4. Study Area / Selection of Study Sites	67

5.4.1. Background to the Bongo District	68
5.4.2. Background to the Kintampo North Municipal	70
5.4.3. Background to the Juaboso District.....	72
5.5. Study Population	74
5.6. Sampling Technique / Selection of Study Participants	75
5.6.1. Homogenous Sampling Technique.....	76
5.6.2. Maximum Variation Sampling Technique	77
5.6.4. Recruiting and Retaining the Study Participants	82
5.7. Data Collection Methods.....	83
5.7.1. Participant Observation	83
5.7.2. Documentary Review	86
5.7.3. In-depth Interview	87
5.7.4. Focus Group Discussion (FGD)	90
5.8.1. Composition of Research Team	94
5.8.2. Data Collection Training sessions	94
5.8.3. Pre-testing of Research Instruments	95
5.8.4. Validity Testing	95
5.9. Data Analysis	96
5.10. Ethical Issues.....	99
5.10.1. Submission of research protocol.....	99
5.10.2. Introductory processes	100
5.10.3. Explanation of research process	100
5.10.4. Coding of study participants.....	101
5.10.5. Confidentiality / Content Form.....	101
5.10.6. Risk and benefits of participating.....	102
5.10.7. Privacy and security of information	102
5.10.8. Conflict of interest	103
CHAPTER SIX.....	104
RESULTS: SOURCES OF POWER AND POWER RELATIONS AMONG DISTRICT HEALTH MANAGERS	104
6.1. Introduction	104

6.2. Formal sources of district health managers' power	105
6.2.1. Legitimate power of the district director	105
6.2.2. Legitimate power of the medical superintendent	109
6.3. Informal sources of district health managers' power	111
6.3.1. Financial dominance – Access to cash/ funds	112
6.3.2. Medical dominance.....	115
6.4. Manifestation of power among district health managers	118
6.5. Summary of the chapter	120
CHAPTER SEVEN	122
RESULTS: ORGANISATION AND DELIVERY OF HEALTH CENTRE CLINICAL CARE	122
7.1. Introduction	122
7.2. Range of clinical care services at the health centre.....	122
7.2.1. Clinical case management	123
7.2.2. Outpatient Care.....	126
7.2.3. Clinical Laboratory Services	127
7.2.4. Suturing and Minor Surgical Procedures.....	128
7.2.5. Pharmaceutical Services	130
7.2.6. Detention of patients.....	131
7.3. Borrowing and Exchange of Medical Supplies.....	132
7.4. Knowledge Sharing.....	136
7.5. Multi-task Approach to Health Centre Clinical Care.....	138
7.6. Summary of the Chapter	141
CHAPTER EIGHT	143
RESULTS: EFFECTS OF POWER RELATIONS ON THE ORGANISATION AND DELIVERY OF HEALTH CENTRE CLINICAL CARE.....	143
8.1. Introduction	143
8.2. Clinical Supervision of Health Centres	144
8.3. Patient Referral in the District.....	146
8.4. Effects of Power Relations.....	148
8.4.1. Inadequate Supervision of Clinical Care Services at the Health Centre	152

8.4.2. Delayed Referral.....	156
8.5. Summary of the Chapter	159
CHAPTER NINE.....	161
DISCUSSION OF FINDINGS	161
9.1. Introduction	161
9.2. Sources of Power and the Power Relations among District Health Managers	161
9.2.1. Formal Sources of District Health Managers’ Power.....	162
9.2.2. Informal Power Sources of District Health Managers.....	171
9.3. Organisation and Delivery of Health Centre Clinical Care.....	179
9.3.1. Range of Clinical Care Services at the Health Centre.....	179
9.3.2. Medical Supplies at the Health Centres.....	185
9.3.3. Clinical Healthcare Providers at the Health Centres	191
9.3.3.2. Multi-task Approach to Health Centre Clinical Care	192
9.4. Effects of Power Relations on the Organisation and Delivery of Health Centre Clinical Care	193
9.4.1. Clinical Supervision of Health centres	194
9.4.2. Patient Referral	200
9.5. Summary of the Chapter	205
CHAPTER TEN.....	206
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.....	206
10.1. Introduction	206
10.2. Summary of the Study.....	206
10.3. Conclusions of the Study.....	207
10.3.1. Sources of power and power relations among district health managers.....	207
10.3.2. Organisation and delivery of health centre clinical care services	209
10.3.3. Effects of power relations among district health managers on the organisation and delivery of health centre clinical care.....	210
10.4. Recommendations of the Study / Contribution to Knowledge	211
10.4.1. Contribution to Policy	212
10.4.2. Contribution to Theory	213
10.4.3. Limitations to the Study	214

10.4.4. Future Research	214
REFERENCES	215
APPENDICES	251
Appendix A: In-Depth Interview Guide for District Directors of Health Services and Medical Superintendents	251
Appendix B: In-Depth Interview Guide for Sub-district Health Leaders	256
Appendix C: In-Depth Interview Guide for Regional Directors of Health Services.....	260
Appendix D: Focus Group Discussions Guide for District Hospital Frontline Service Providers	264
Appendix E: Focus Group Discussions Guide for Health Centre Frontline Service Providers	268
Appendix F: Focus Group Discussion Guide for District-Level Health Managers	273
Appendix G: Participant Observation Checklist	278
Appendix H: Documentary Review Checklist	282
Appendix I: PARTICIPANTS INFORMATION SHEET / CONSENT FORM	286
PARTICIPANT STATEMENT AND SIGNATURE	289

LIST OF FIGURES

Figures

Page

Figure 1.1: A hierarchical relationship of district health services delivery levels in Ghana	2
Figure 3.1: Framework for power sources, organisation of health centre clinical care and the effects of power relations on health centre service delivery	45
Figure 4.1: Role of District Hospitals	54
Figure 4.2: District Health Care Organisation	60
Figure 5.1: Summary of the number of in-depth interview participants at the various levels	89
Figure 6.1: Formal and informal sources of power for district health managers	105
Figure 8.1: How and why power relations affect the organisation and delivery of health centre clinical care services.....	152
Figure 9.1: Concept of French and Raven's bases of power examined in relation to district directors and medical superintendents in Ghana's district health system	178

LIST OF TABLES

Table	Page
--------------	-------------

Table 4.1: Health Status Indicators in Ghana	58
Table 5.1: Summary of the number and type of health facilities in Bongo District	70
Table 5.2: Summary of the number and type of health facilities in Kintampo North Municipality	72
Table 5.3: A summary of sub-districts and their facilities in the Juaboso District.....	74
Table 5.4: Summary of study participants showing their categories and districts/regions	79
Table 5.5: Summary of FGD per district and the number of participants in each FGD	93
Table 5.6: Validity Checklist showing strategies used to ensure study validity	97
Table 5.7: A summary of themes and sub-themes generated from the data	100

LIST OF ABBREVIATIONS

BASICS	-	Basic Support for Institutionalizing Child Survival Project
BMC	-	Budget Management Centre
CE	-	Clinical Expertise
CHAG	-	Christian Health Association of Ghana
CHPS	-	Community-based Health Planning and Services
DHFP	-	District Hospital Frontline Providers
DHM	-	District Health Manager
DHMT	-	District Health Management Team
FD	-	Financial Dominance
FGD	-	Focus Group Discussion
GHS	-	Ghana Health Service
HCFP	-	Health Centre Frontline Providers
HIV	-	Human Immunodeficiency Virus
IDI	-	In-depth Interview
IGF	-	Internally Generated Fund
LP	-	Legitimate Position
LPF	-	Legal and Policy Framework
MD	-	Medical Dominance
MOH	-	Ministry of Health
NDPC	-	National Development Planning Commission
NHIA	-	National Health Insurance Authority
NHIS	-	National Health Insurance Scheme

OPD	-	Out-patient Department
PCE	-	Preventive Care Expertise
PHC	-	Primary Health Care
PI	-	Principal Investigator
RA	-	Research Assistant
RHD	-	Regional Health Directorate
RuDASA	-	Rural Doctors' Association of Southern Africa
TB	-	Tuberculosis
UK	-	United Kingdom
UNDP	-	United Nations Development Programme
USAID	-	United States Agency for International Development
WHO	-	World Health Organisation

CHAPTER ONE

INTRODUCTION

1.1. Background to the Study

Most health systems are ambitious to enhance performance by improving access, quality, equity and financial protection during health service delivery (WHO, 2000). This desire supports the core values of the Primary Health Care (PHC) under the Alma Ata declaration in 1978 (Daire & Gilson, 2014). For this reason, efforts to strengthen health systems are directed towards improving the performance of PHC institutions in order to meet the requirements of the PHC concept (Mutale, Godfrey-Fausset, Mwanamwenge, & Kasese, 2013).

In Sub-Saharan Africa, most countries have integrated the PHC concept into decentralised units (district health system), serving as building blocks of national health systems (Engelbrecht, Jooste, Muller, Chababa, & Muirhead, 2002; WHO, 1988). Thus, a well-integrated PHC-based district health system is made-up of healthcare institutions that are linked in harmonious relationships to provide appropriate treatment for common diseases and injuries, basic laboratory services, essential drugs and referral services, as well as preventive healthcare services (Barron, Monticelli, Leon, Baez, & Kumalo, 2003). These core activities ensure that quality, affordable and comprehensive healthcare services are delivered to sick individuals, families and communities (Sambala, Sapsed, & Mkandawire, 2010). In low and middle income countries, PHC is the first point of healthcare, responsible for ensuring person-centred, comprehensive and coordinated healthcare to the community (Starfield, 2012).

Ghana's district health system has been structured into three service delivery levels (GHS, 2005). These service delivery levels include the district hospital (level C), the sub-district health centre

(level B) and the Community-based Health Planning and Services (CHPS) zone (level A) as illustrated in Figure 1.1.

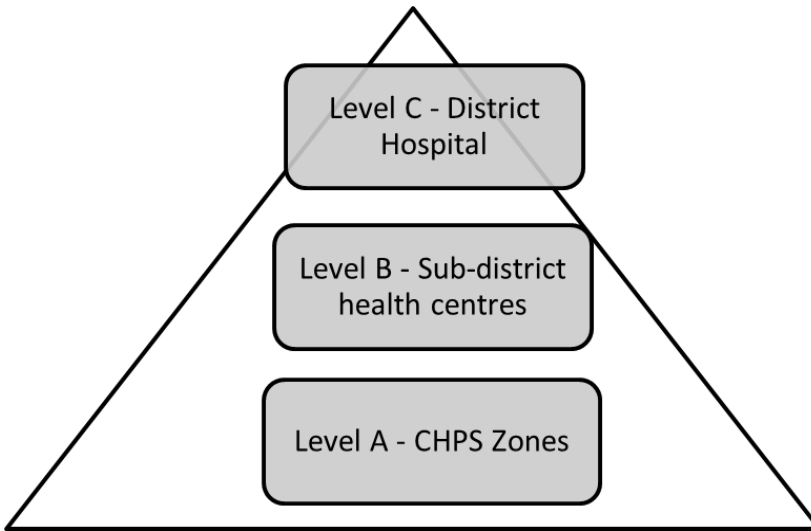


Figure 1.1: A hierarchical relationship of district health services delivery levels in Ghana

Source: GHS, 2005

As shown in Figure 1.1, the district hospital is the uppermost clinical service delivery level within the district health system. It is headed by the medical superintendent and primarily provides clinical services as well as preventive care services. Within the district health settings is the district health directorate, headed by the District Director of Health Services (DDHS). In this study, the DDHS is referred to as the District Director. It provides managerial support, oversight and coordination to the sub-districts and their CHPS zones, and all preventive care activities (Byleveld, Haynes, & Rakshika, 2009).

Health centres are lower level institutions that relate directly to district hospitals at the service provision level, and to the district health directorate at the managerial level. The district health system, therefore, presents a complex structure in which health centres work with two giant

institutions (district health directorate and district hospital) and their actors. Here, the actors are the district directors and the medical superintendents. In this complex structure, a healthy relationship between the district health institutions remains critical to health centre performance (Ridde, Queuille, Atchessi, & Samb, 2012).

In this study, the relationship between district health institutions is considered from two perspectives. First, the relationship reflects power relations between district directors and medical superintendents. Power is a vital resource for organisational actors (Anderson & Brion, 2014). It is defined as the ability to exert individual will (Finkelstein, 1992), or having control over valued resources (Keltner, Van Kleef, Chen, & Kraus, 2008). The concept of power relations reflects how individuals, groups, and organisations gain power relative to others, and manifest same in their interactions (Bacharach & Lawler, 1980). Power is an important constituent of the relationships that are inherent in the health system and plays significant roles in maintaining the network-based mode of healthcare organisations (Addicott & Ferlie, 2007). Thus, power relations between district directors and medical superintendents border on which of these district health managers has formal power as well as any informal powers to do what, and to what extent, and the manifestation of power among these managers.

Secondly, the relationship reflects service provision arrangements between district hospitals and health centres in order to enhance the delivery of clinical care at the health centre levels. For instance, district hospitals pay periodic clinical supervisory visits to health centres, and health centres refer patients to district hospitals for further management (GHS, 2005). Clinical supervision of health centres and quality patient referrals to district hospitals are integral parts of sub-district and community health services (Aikins et al., 2013; Bosch-Capblanch & Garner, 2008; Sanders, Kravitz, Lewin, & Mckee, 1998; Valadez & Vargas, 1990).

The delivery of clinical care reflects the kind of services provided at the health centre levels in order to meet the clinical care needs of the rural community. These clinical care services provide early diagnosis and treatment of basic ailments at the community levels, promptly refer serious medical conditions to district hospitals, and ensure continuity of care for surrounding communities. Medical supplies as well as professional healthcare providers remain critical to the organisation of healthcare at the health centre levels (Manjit & Sarah, 2002).

At the service provision level, medical superintendents provide clinical support (supervision, patient referral, resource sharing) to health centres in order to strengthen the clinical aspect of healthcare services to surrounding communities. However, the management and administration of health centres are the direct responsibility of the district directors. In this scenario, power relations between district directors and medical superintendents have the potential to affect the delivery of clinical care at the health centre levels in the districts (Simwaka, 2008).

It is in the light of such power relations that the study focused on understanding the sources of power and power relations between district directors and medical superintendent, how the power relations manifest in the discharge of their day-to-day activities, and the effects of these power relations on the delivery of clinical care in the rural settings. In the midst of these power relations, the study also focused on understanding how clinical care services are organised and delivered in the health centres in order to meet the healthcare needs of the rural communities.

1.2. Problem Statement

Despite the dependent relationship between district hospitals and health centres in the delivery of clinical services in rural settings (English, Lanata, Ngugi, & Smith, 1999), district hospitals management and their services appear to be disconnected from the management and service

delivery of health centres and their CHPS zones. Some authors have recognised the relational gaps between district hospitals, district health directorates and health centres, despite the pivotal role of district hospitals to maintain quality clinical care services in the surrounding communities (Department of Health, 2002; English *et al.*, 1999; GHS, 2005; MOH, 2011; RuDASA, 2013).

There also appears to be a lack of clarity in Ghana's health sector as to how a district hospital and its management team should relate to the managers of the district health directorate in order to facilitate quality organisation and delivery of health centre clinical care services. The situation leaves a seemingly ambiguous relationship between district hospitals and health centres in organising and delivering quality district health services (MOH, 2011).

The reasons why district hospitals and their management appear disconnected from management of other aspects of district health services are not completely clear. The GHS operates a predominantly hierarchical system (GHS, 2002), and therefore, actors and leaders in the health system are conditioned to manage inter-dependency in the context of a hierarchy. Consequently, district-level actors, such as district directors and medical superintendents, may not be skilled at managing inter-dependent relationships that do not involve hierarchy and hierarchical power, but involves peers of more or less equivalent power. Failure to manage these power relations may affect the relationship between the primary care institutions that are meant to provide support to, and strengthen the organisation and delivery of clinical care services at the lower level institutions (health centres) in the district (Simwaka, 2008).

It is in the light of these power issues that the study argues that power relations between district directors and medical superintendents are likely to affect the organisation and delivery of health centre clinical care services, such as the supervision of health centre clinical care from district

hospital and the patient referral system, which are pivotal to the quality of clinical care delivery in rural districts of Ghana. The reason for this is that, depending on its nature, the power relation between district directors and medical superintendents has the potential to distort harmonious working relationships (through supervision, patient referral and resource sharing) between district hospitals and health centres in the district.

1.3. Justification of the Study

The rationale for this study stems from the fact that a healthy relationship between health institutions at the district level is dependent on the clarity of formal and informal rules governing the arrangements of these healthcare institutions (Hippmann & Windsperger, 2012). These rules translate into the power structure for district health managers in the discharge of their duties. District health managers' powers are derived from health policies such as the GHS organogram. However, in practice, these formal power arrangements are likely to be distorted by informal powers. Literature is almost silent about which district health manager has what power, from what source (formal or informal), with whom and over who and why s/he has that power; and how these district health managers use power within the district health system. Nonetheless, issues of power among district health leaders have been researched in some African countries. In Kenya for instance, a recent study examined the influence of power dynamics among district health leaders on the implementation of priority setting and resource allocation processes in public hospitals (Barasa, Cleary, English, & Molyneux, 2016).

Regarding Ghana's health system, research on power dynamics have emphasised the contribution of power in health policy formulation at the national level (Koduah, Agyepong, & van Dijk, 2016). Additionally, power has been researched in relation to decision space of district

health managers in the decentralisation of healthcare to the district health system (Kwamie, van Dijk, Ansah, & Agyepong, 2016). Furthermore, studies of the power dynamics in Ghana's health sector have focused on the service delivery levels, and how unequal power relations among health professionals working as a team result in conflicts among team members (Aberese-Ako, Agyepong, Gerrits, & van Dijk, 2015).

In spite of these research works, there is paucity of information on sources of power and the power relations between district directors and medical superintendents in practice. Literature is also almost silent on how the power relations between district directors and medical superintendents affect the role of district hospitals that supervise clinical care at the health centres and maintain a quality referral system in the district, which are essential for the organisation and delivery of clinical care services at the health centre levels.

In addition, the study is helpful to health managers and decision makers, who are faced with difficult situations of formulating evidence-based policies. The findings of the study include simple practical information on the power structure of district health managers (sources and relations of power between district directors and medical superintendents) as well as health centre clinical care organisation and delivery initiatives in order to enhance health decisions. Similarly, the output of the study is a source material that facilitators of leadership training programmes for district health managers in Ghana and beyond can rely on to organise and deliver effective training workshops.

At the service delivery level, the findings of the study have practical information on innovative ways clinical care services are organised and delivered at the health centre level in order to meet the healthcare needs of the rural population. This information will again serve as source material

for frontline healthcare providers to learn and implement at the various level of the healthcare delivery system.

1.4. Objectives of the Study

The objectives of the study are presented as general and specific below.

1.4.1. General Objective

The general objective of the study was to explore the sources of power and the power relations between district directors and medical superintendents, and the effects of these power relations on the organisation and delivery of clinical care in rural Ghana.

1.4.2. Specific Objectives

The specific objectives of the study were:

1. To examine the sources of power and the power relations between district directors and medical superintendents in Ghana.
2. To explore how health centre services are organised in order to deliver quality clinical care in rural Ghana.
3. To analyse how and why the power relations among district directors and medical superintendents affect the role of district hospitals in the organisation and delivery of clinical care services at the health centres in Ghana.

1.5. Research Questions

The questions below helped to find answers to address the specific objectives of the study:

1. What are the sources of power and the power relations between district directors and medical superintendents in Ghana?
2. How are health centre services organised in order to deliver quality clinical care in rural Ghana?
3. How do the power relations between district directors and medical superintendents affect the role of district hospitals in the organisation and delivery of health centre clinical care services in Ghana?

1.6. Outline of the Thesis

This study is organised into ten chapters. Chapter One gives the background to the study, articulates the research problem, provides the significance of the study, and as well sets out the research objectives and questions. The second chapter discusses the theoretical framework of the study. Chapter Three discusses relevant literature to the study. Chapter Four describes the health system. Chapter Five describes the methodology for the study, which includes the epistemological orientation, research design, study participants and their selection, data collection methods, data analysis and ethical consideration. Chapter Six presents the results on the sources of power and power relations between district directors and medical superintendents, and how these power relations manifest among these district health leaders. Chapter Seven presents the results on the organisation and delivery of health centre clinical care services. Chapter Eight presents how power relations between district directors and medical superintendents affect the organisation and delivery of health centre clinical care services. Chapter Nine discusses the findings and their relationship to theory and existing literature, while Chapter Ten is conclusion and recommendations.

CHAPTER TWO

THEORETICAL FRAMEWORK

2.1 Introduction

The chapter discusses the theories of power used in this study. The chapter is divided into five sections. The main topics are the concept of power, theoretical framework of the bases of power, and the resource dependence theory. The chapter ends with a summary.

2.2. The Concept of Power

Power is a vital resource for organisational actors (Anderson & Brion, 2014). It is one of the most important concepts that have been studied with respect to organisational analysis. Over the years, many of the studies have revealed large and enduring literature that tries to understand how individuals, groups, and organisations gain power relative to others (Bacharach & Lawler, 1980; Brass, 1984; Clegg & Dunkerley, 1980; Jermier, Knights & Nord, 1994; Krackhardt & Mintzberg, 1985; Pfeffer, 1981; Pfeffer & Salancik, 1978). In the literature, many authors have defined power differently leading to an inconclusive definition of the concept.

2.2.1 Definition of Power

The definition and concept of power is often a subject of contention and regular evaluation (Lukes, 1974). Nonetheless, many of such definitions are noted below; for example, power is perceived as a medium by which conflicts are resolved (Morgan, 1997). Interestingly, Morgan's (1997) study emphasised the extent to which power influences who gets what, at what time and by what means. Similarly, Blackler and McDonald (2000) point to power as a medium for, and a

product of collective action. They, thus, agree with Morgan (1997) that power is a medium for acquiring and achieving ones' end.

Dahl's (1957) conceptualisation of power is probably one of the most popular. In a simple definition, he sees power as when "A has power over B to the extent that he can get B to do something that B would otherwise not do" (Dahl, 1957, p 202). Consequently, any situation that allows an entity to get others to do or accept something that is reasonably against their wish, power is said to have been exercised. Galinsky and colleagues define power as the "ability to control resources, own and control others without social interference" (Galinsky, Gruenfeld, & Magee, 2003, p 454).

Meanwhile, other authors capture the concept from the perspective of an agency. For instance, in the typical principal-agent theory where the agent is always seen as a subordinate to the principal, it makes it both theoretically and practically acceptable for the principal to exercise power over the agent (Overbeck & Park, 2001). In this regard, when an individual can have an agency then there is power in that individual, organisation or group (Overbeck & Park, 2001). In such circumstances, it is expected that the principal can exercise power to the extent of bringing the outcomes they so desire (Mooney & Ryan, 1993; Pfeffer & Salancik, 1978).

Power is generally considered as unequal control over important resources (Fiske, 2010; Keltner, Gruenfeld, & Anderson, 2003; Magee & Galinsky, 2008). In that regard, it generally puts the entities that possess it in a position that allows for them to influence others. Of course, the mere existence of power or being in possession of it does not guarantee it can bring out results. Hence, usually power is maximised in the context of relationships. Therefore, power only exists in relation to others; in situations where the subjects are dependent on superiors to obtain rewards

and avoid sanctions (Emerson, 1962; Thibaut & Kelley, 1959). In other words, power is a typical feature of relationships where the beliefs or behaviours of the actors are affected by each other.

Unsurprisingly, power is regarded as a relational phenomenon, rather than a product (Clegg, Courpasson, & Phillips, 2006; Foucault, 1977); and thus, point to the interesting conception that, power is not something an actor can have, or hold rather it is always an effect of social relations (Dahl, 1957). Eze and Umar (2014) probably have a better conclusion to this, “that exercising power is a function of the dependency relationship that exists between the parties; the higher the dependency ratio; other things being equal, the higher the power and vice versa” (p. 176).

From a different perspective, Magee and Galinsky (2008) note that job security, better financial rewards, ease of influencing others and effective performance of one’s job are always linked to the possession of power. Additionally, power in the view of Eze and Umar (2014) is the potential as well as the actual ability of a person to influence the behaviour of others. Here, the authors acknowledge that such ability may spring from knowledge, personality and authority. Different perspectives of power have been espoused by different analysts as presented below.

2.2.2. The Perception of Power

It is noteworthy that there are other authors (e.g. Kumar, van Dissel, & Bielli, 1998; Naudé & Buttle, 2000) who, by deduction, make power seem negative; particularly when they present the concept to be detrimental to those without it. For example, Keltner et al., (2008) opine that lacking power means absence of independence and control in one’s job, susceptibility to unfair treatment, poor job satisfaction as well as lower morale. Worse yet, some avow that power contravenes cooperation (Naudé & Buttle, 2000), and yet again there are others who view power as the antithesis of trust (Kumar et al., 1998) an important tool that is critical to effective

cooperation. Such view of power may not present the true nature of power especially for the individuals, groups or entities without it. There may be several situations where those without power may well be able to get the best out of themselves in the presence of the ones with it. Therefore, any view of power from such extremely negative perspective may be deemed overly critical.

On the contrary, many scholars view the concept of power from the positive perspective (Foucault, 1974; Galinsky, Maddux, Gilin, & White, 2008). For example, power is viewed as an important tool for the achievement of effective coordination and cooperation among group members (Anderson & Brown, 2010). The role of power to ensure such effective coordination and cooperation may be necessary in the absence of trust or even alongside it. Moreover, others emphasise that power leads individuals to concentrate on goal-relevant aspects of a circumstance (Galinsky et al., 2008; Guinote, 2008; Slabu & Guinote, 2010; Smith, Jostmann, Galinsky, & Van Dijk, 2008). This may spring from Braynion's (2004) assertion that power could be used in shaping the preferences and views of people. More emphatically, Foucault (1991) puts this across "we must cease once and for all to describe the effects of power in negative terms: it 'excludes', it 'represses', it 'censors', it 'abstracts', it 'masks', it 'conceals'. In fact, power produces; it produces reality, it produces domains of objects and rituals of truth. The individual and the knowledge that may be gained of him belong to this production" (p. 194)

Throughout the different definitions of power, some things are prevalent and are obvious; the fact that power is a function of control over resources, is relational rather than a product that can be possessed, power has a source, and it is distinct from other closely related concepts such as status, leadership, and influence (Magee & Galinsky, 2008; VeneKlasen & Miller, 2006) . Against this backdrop, the authors liken power to the concept of energy in the physical science

that enables work to be done (Simpson, Farrell, Oriña, & Rothman, 2015). Accordingly, power is not an end in itself; rather it is a means to an end where the one with power tries to get the others to do without to achieve desired outcome. Of course, this is particularly necessary in organisational contexts such as the healthcare institutions because of the need for proper functioning of all entities that make-up the health system. Proper display and exercise of power will therefore benefit the district health system as well as primary health care delivery.

2.2.3. Power, Status and Leadership

There are other studies that have tried to distinguish power from other related concepts by setting boundaries for the construct (Magee & Galinsky, 2008). Influence for instance, has been differentiated from power in the sense that power requires compliance (Cialdini & Goldstein, 2004). Therefore, it is assumed or even believed that under any circumstance when compliance from others is not being effected, then something else is being exercised other than power. In this sphere, it is worth acknowledging that the relationship between power and influence may be one of interdependence. For instance, power is only a potential source of influence which may be realised through compliance by others. On the other hand, influence is realised in its entirety whenever it is at work, it is an end and it can be positive or negative.

Additionally, the concepts of power and leadership are usually used interchangeably in some circumstances; nonetheless they are two distinct concepts if evaluated critically. Perhaps the main property of leadership is “influencing”. It involves getting followers to buy into the vision of a group by pursuing that vision concerns the group rather than the individual. Leadership thus, involves those functions of planning, problem solving, motivating others, organising, among

others; that are not necessarily reflected in power and its definition. It is also noteworthy, that leaders are not always those powerful in their society or organisations.

Moreover, status and power have also been distinguished. Contrary to the view of status which is a social-perceptual construct in which individuals are accorded respect and admiration by others (Fiske & Berdahl, 2007; Fragale, Overbeck, & Neale, 2011; Magee & Galinsky, 2008), power involves an essential position in which individuals wield control over resources (Fiske & Berdahl, 2007; Galinsky et al., 2003). These distinctions that are drawn between the concepts are very important because as closely related as they may be, they are never the same. Therefore, in a typical study of power in organisations and how it influences healthcare institutions performance it is necessary that such differentiations are made clear.

Despite the efforts by some authors (such as Magee & Galinsky, 2008) to draw boundaries for power and constructs such as status, influence and leadership so that the conceptual differences will be obvious, practically, these constructs correlate with each other often. For instance, Kipnis (1972) observed that those who exercise control over key resources usually use their power to influence others. It is also noticeable that actors who have power are usually in a position to influence others. Similarly, in as much as power and status were distinguished conceptually, both concepts are closely linked in many respects. Finkelstein (1992) categorically identifies status to be an important source of power. More so, individuals with power are more likely to be admired and respected (Davis & Moore, 1945). Hence, some statuses that may be accorded some individuals are practically dependent on the power they hold, even though there is possibility of others enjoying status in the absence of power. Arguably, leadership and power are the most closely related concepts amongst all. It is reasonable to assume that every leader has power since leadership naturally transfer decision making authority, control of resources and other group

processes (Van Vugt, 2006) to those put in leadership positions. Moreover, once there are leaders, there are followers who accept their responsibility towards the leader. Of course, such stance only entrenches the leader's ability to exercise power over the followers.

2.3. Theoretical framework of the Sources of Power

Power is believed to be derived from different sources in society as well as organisations (Dunbar, 2004). Power sources refer to those individual resources that constitute the basis to have control over others (Dunbar, 2004). The need for managers to know the source of their power is important for effective performance in every organisation. In more complex relationships such as a district health system which involves a chain of entities that must function together for effective performance, knowledge of power sources by management is vital. Thus, the study reviewed the sources of power as by French and Raven (1957), Finkelstein (1992) and Anderson and Brion (2014). The theoretical frameworks of power sources are discussed in subsequent subsection.

2.3.1. French and Raven's Sources of Power

In their original paper on the typology of power, French & Raven (1959) identified five types as: legitimate, reward, expert, referent, and coercive power as important sources of power. The sources of power according to French and Raven (1959) are discussed below:

2.3.1.1. Legitimate Power

Legitimate power is the most complex of the five types. It stems from "internalised values in P which dictate that O has a legitimate right to influence P, and that P has an obligation to accept this influence" (French & Raven, 1959, p. 159). Thus, subordinates' recognition and acceptance

is based on the laid down structures, rules, regulations that both entities consider legitimate. Often this power is related to position in the organisation or generally hierarchical in nature. This is irrespective of the personality or his/her attributes but rather the structures of the organisation or society. Some authors refer to this as rational power and it is vested in an office. So irrespective of the person who occupies the office, people must subordinate to his/her power. Therefore, this form of power is generally viewed as a right of the possessor and hence positions him/her in a state of influence that the subordinates are mandated to comply with his/her orders.

This power source is because of the formal organisational structure which provides the basis of the legitimacy. Thus, the formal framework that defines rights, roles, and responsibilities in the organisation is a good foundation for this power. Hence, other management principles such as “chain of command” and “unity of command” naturally spring from the formal organisational structures which further substantiate the legitimate power. Nonetheless, the effectiveness of legitimate power is subject to the perceived value put on the role or position in the organisation (Handy, 1992). Meanwhile for Hersey, Blanchard, and Johnson (2001), the effectiveness of legitimate power naturally rests on the perception of the subordinates; arguing that the “readiness” of followers is critical because unwilling followers are careless about the perceived legitimate power of a leader.

Furthermore, there seem to be a close link between legitimate power and other types of power such as coercive power and reward power. Thus, once there is that right bestowed on the agent, and the subordinates or targets acknowledge that, it substantiates the authority of the agent. Hence, issuing punishment and reward based on his/her authority is enhanced. For instance, those who are in top positions in the organisational hierarchy are mostly in a capacity to dispense punishment and rewards based on their position or office. For example, in the district health

system of Ghana, district directors are in positions that bestow legitimate power on them and by their positions can mete out punishment to persons who are under their authority. This manifests in district directors transferring staff from one sub-district or CHPS zone to another within the district as a form of punishment or reward.

2.3.1.2. Expert Power

Expert power is based on expertise, skills, knowledge, or special abilities concerning a manager's job (Gioia & Sims, 1983, p. 10). Here, there is a generally accepted belief that the agent possesses unique skills or capabilities that are valuable in the eyes of the target. So, subordinates may be responsive to such power because they value what the manager or leader has in the form of knowledge, skills and expertise that they may need as well. In other words, it is the expertise that serves as the "pull factor" for the expert. This means that expert power is autonomous of hierarchy, job title or any position. Thus, expert power is appropriate to be accomplished through reasoning and empowerment activities and consistent acquisition of skills and knowledge (Mossholder, 1998).

Expert power is sometimes viewed as the least difficult and/or controversial amongst the power sources as society generally accepts and expects more from experts on the premise that they know best and will frequently be sought for by organisations (Shackleton, 1995). Yet, there is this argument that everyone is an expert in their own eyes. It is against this background that Handy (1992) cautions that expert power is comparative. This means that for this source of power to be maximised in an organisation, the power relations should be clear in the minds of everyone especially those who look up to the one with the expertise. It should be clear to them that they stand to benefit from the skills, knowledge, capabilities and even experience of the

person in possession of such power. Consequently, such position will confer some respect on the expert and thus power can be exercised as those who need the expertise to solve problems will readily subordinate themselves.

Classical example may point to the healthcare delivery system setting where because of the biomedical model conception of health, medical doctors and other health professionals have almost taken centre stage. Other stakeholders and actors subordinate to them because they are perceived to possess special skills, knowledge and capabilities that are essential and valuable for the benefit of the healthcare system. Usually, irrespective of their position on the structural organisational hierarchy, they seem to wield some control in official discussions that concern the healthcare system. Their contributions are critical to the decisions that are made by the actors and subsequent implementation is influenced by them. Unsurprisingly, almost every health policy decision making involves medical doctors and other health professionals; and their involvement is based on the skills, knowledge and experiences that they are believed to possess. It therefore stands to reason that the potency of expert power will be very contextual, and that the potency will be stronger within the sphere where the expertise is needed most and vice versa.

2.3.1.3. Reward Power

It basically refers to others ability to reward. This power sources stems from the ability of the possessor to offer positive incentives such as promotion, increased wages, and special work privileges to others. This means that whoever will have this power should first be in possession or have control over valued organisational resources such as remuneration (e.g salaries, pay and wages), promotion, information, future work assignment, etc. On the other side, the ability to dispense or withhold the resources should be inherent in the agent. Thus, it is out of these

properties that give the individual, group, organisation power over the others and subsequently affect their behaviour.

Primarily, the extent to which this could be exercised is believed to be subject to two major forces; the size of the reward and the belief that it will be meted out (Bozaykut & Gurbuz, 2015). In as much as these propositions and assumptions exist, it is also argued that pay structures that are formalised, career progression and union's influence may limit the use of reward power (Shackleton, 1995). In effect, the extent to which this reward power can be exercised to influence subordinates' behaviour is contingent on the effective functioning of the structures surrounding these factors. Fascinatingly, amongst the different sources of power, this is considered the least popular because people do not want to feel being bought (Handy, 1992). The perception of this form of power dwindling in efficacy is also argued from the perspective that, it can "run its course" because once a reward is dispensed the influence over the target wanes (Hersey et al., 2001).

2.3.1.4. Coercive Power

Coercive power literally means "force". Thus, this form of power is based on when the agent has control over punishments (Starling, 2010). Suspensions, pay cuts, demotions and even firing an employee are all common examples of punishments that can be given to subordinates. Consequently, any of these forms of punishments presents an opportunity for the possessor of power to bring about change through threatening the target. Essentially, it is one of the means of securing compliance from others. It is sometimes considered to be the obverse of reward power (Eze & Umar, 2014).

There is an interesting assertion by Bachmann (2001) about power which very much reflects this type of power in every sense. Thus, when he tried to explain how distinct trust is from power, he argued “the powerful actor does not simply make assumption that the subordinate actor will comply with what he wants him to do. He prefers to construct an undesirable hypothetical possibility regarding the subordinate actor’s future behaviour and connects it with threats of sanction” (Bachmann, 2001, p. 350). In agreement, Vecchio (1987) admits, the difficulty of using coercive power as there is a need to balance the act of leniency and harshness. Emphasising this source of power, the original authors of this typology remarked “the subordinate’s perception of the superior’s ability to execute punishment for failure in conformance to requests of the superior” (French & Raven, 1959, p.157-9) is what substantiates this power source. It is fair to say that by deduction; this power source is generally carrying a negative connotation. Yet, coercive power remains one of the commonly used in many settings to ensure everyday compliance issues such as meeting deadlines (Shackleton, 1995). It is usually used so that organisational expectations will be met. Similarly, organisational policies, codes of ethics, and procedures are expected to be enforced through appropriate application of coercive power. In as much as it has a negative connotation and always associated with punishment, does not necessarily have to be harsh.

2.3.1.5. Referent Power

Referent power, according to French and Raven (1959), is based on a subordinate’s aspiration to identify with a superior because he or she admires or personally likes the supervisor. In other words, for leadership, it is about how much followers admire, regard, like and desire to like the leader (Braynion, 2004). Thus, basically, referent power is based upon others’ desire to emulate the manager/leader (Gioia & Sims, 1983). This may be because of some quality or ability that

subordinates may be interested in (Mossholder, 1998); there is therefore the desire on the part of subordinates to be closely associated with the manager/leader and what he/she does. Fuqua and colleagues (2000) observe that leaders exercise referent power when they are perceived as attractive persons who show understanding, charisma and warmth (Fuqua, Payne, & Cangemi, 2000). Furthermore, referent power is critical to the building of trust and confidence of others (Hersey et al., 2001).

Referent power and expert power are distinct according to French and Raven's (1959) categorisations, however, Fedor and colleagues assert that there is a positive association between the two (Fedor, Davis, Maslyn, & Mathieson, 2001). Thus, the two are both independent of position or job title while at the same time attracting admiration and emulation (Barksdale, 2008). It is intriguing to also note that sometimes referent power may even be invisible to the one who possess it. Thus, until those who admire and want to emulate the agent notify him/her, the agent may be unable to fully utilize the power at his/her disposal. It is based on this observation that some authors conclude that power relationships may not be noticed in referent power (Eze & Umar, 2014).

2.3.2. Finkelstein's Sources of Power

Over the years, some authors have added to French and Raven's (1959) typology by identifying informational power and credibility power (Rahim, 1989). Furthermore, Yukl and Falbe (1991) came up with persuasive and charismatic power. For Finkelstein (1992) however, structure, ownership, expert and prestige were proposed as important sources of power in organisations. In his classification of power, he explains that formal organisational structure and hierarchical authority form the source of the structural power. This definition is consistent with French and

Raven's (1959) explanation of legitimate power and therefore makes it formal and position power as well. Subsequently, he explains that managers who hold legislative right to exercise influence are influential (Finkelstein, 1992). Essentially, this explains why chief executive officers who are seen to possess high structural power over others are very influential even over members of dominant coalitions because of their formal organisational positions (Finkelstein, 1992).

Prestige is the next source of power according to Finkelstein (1992). He argues that the reputation of managers within their institutions and among stakeholders affect others' view of their influence (Finkelstein, 1992). Again, this type of power is in semblance of referent power, because in effect, it is more personal and informal; and can also make people want to identify with the one with the prestige or status. Furthermore, he identifies ownership as an additional source of power; stating that managers gain power when they act on behalf of their shareholders as agents (Finkelstein, 1992). Thus, the strength of the position of the agents in the principal-agent relationship is the main determinant of ownership power (Finkelstein, 1992). Here, the emphasis is on how ownership bestows power on individuals. For many organisations, the founders wield much power and exercise it over many of the stakeholders. Similarly, those who are managers and at the same time own shares in the organisation (depending on size of the shares) are more powerful and exercise control more than managers who are not part owners. Expertise power is the last of his classification of power sources and acknowledges that when top managers can deal with environmental eventualities and contribute to organisational success, they amass power (Finkelstein, 1992). Because, managers with expertise may have substantial influence on particular strategic choice (Yetton & Bottger, 1982), and advice are often needed (Tushman & Scanlan, 1981).

Interestingly, Finkelstein's (1992) proposal fits more in a business top management context rather than the general management and social context of power relations. He therefore concedes that these four dimensions of power are the most important sources of power for organisational top management. Thus, he acknowledges its limitation as non-generalisable because it is not representative of the social-psychological power sources (Finkelstein, 1992).

2.3.3. Anderson and Brion's Sources of Power

Anderson and Brion (2014) present the most recent sources of power in the literature. The authors identify four main sources of power – competence, structural position, demographics and morphology, and personality. The authors claim that higher ranks amongst groups are usually rendered on those individuals who are perceived to possess superior competence, intelligence and expertise. Subsequently, they identify competence to be either task-related abilities such as general intelligence, quantitative skills or specific expertise that are needed to solve technical problems faced by the group or organisation; or social skills such as leadership, verbal acuity, empathy that enhances group coordination, conflict resolution, motivation of others and communication of critical information (Anderson & Brion, 2014). Hence, any individual who can exhibit such characteristics is likely to gain power and control others.

Structural position is another source of power identified by the authors. Here, they use social network to represent structural position where it is assumed that people's position in the network is a determinant of their access to information which is an invaluable resource that can consequently help people to gain power. This is believed to affect competence as access to information and exercising control over it enables individuals and groups to achieve their goals (Anderson & Brion, 2014). Additionally, the authors identified demographics and morphology to

be equally important for obtaining power. Physical characteristics such as sex, race, height, facial appearance, and age are all considered to be instrumental to gaining power as it is believed that some features are associated with competence. For example, some facial features are identified to be predictors of dominance and power perception among human beings (Little & Craig Roberts, 2012; Rule & Ambady, 2008; Wong, Ormiston, & Haselhuhn, 2011).

Finally, Anderson and Brion (2014) identified personality and its constituents – motives, traits and interpersonal style - as critical to power attainment. Foremost, motives refer to the desire of the individual to attain power; which initially has been thought to be universal but research evidence shows otherwise. Van Doesum and colleagues asserted that individuals may be different not only because of their ability to act in ways that enable them to acquire power, but in their desire to obtain power also (Van Doesum, Van Lange, & Van Lange, 2013). Therefore, it is believed that the need or desire by individuals to acquire power naturally affects their chances of attaining power. Hence, those who highly desire power and create the need for it are more likely to attain power. On the other hand, traits such as dominance, narcissism, self-monitoring, and extraversion are often associated with the likelihood of obtaining power especially those who show higher levels of these traits (Anderson & Brion, 2014). Furthermore, interpersonal style or communication style refers to the verbal, non-verbal or para-verbal communication between people or within a group (Anderson & Brion, 2014). Tone, voice pitch, volume, vocal frequency which are verbal behaviours are believed to affect perceptions of power (Hall, Coats, & LeBeau, 2005; Puts, Hodges, Cárdenas, & Gaulin, 2007). Likewise, non-verbal expressions of pride, expansive body gestures, less smiling, gazing, and more gesturing have also been revealed to impact perceptions of power (Anderson & Brion, 2014).

2.4. Resource Dependence Theory

Resource dependence theory remains one of the numerous theories widely used for the understanding of inter-organisational relationships. It has had an expansive influence that spread from management and sociology to healthcare, public policy; and more so, scholars draw on resource dependence theory when they study power in and around organisations (Davis & Cobb, 2009). This theory which stems from the open system emphasises that there are contingencies that emanate from the external environment, and so organisations that depend on the environment should be aware and make provisions to minimise such uncertainties (Pfeffer & Salancik, 1978). It is therefore important to understand the ecology of the organisation of which one seeks to understand its behaviour (Pfeffer & Salancik, 1978).

Thus, resource dependence theory recognises the effect external factors can have on organisations such that necessary action must be taken by managers to reduce any uncertainty and dependence. It is also rooted in the fact that organisations depend on exchanges with the external environment to acquire the needed resources for successful operations (Barringer & Harrison, 2000). Power is critical to such relationships between organisations and their environment; where power in this context means control over vital resources (Ulrich & Barney, 1984). Hence, the need to minimise dependence of an organisation on others is an important aspect of reducing others' power over them.

The theory has underlying ideas (Davis & Cobb, 2009):

1. Social context matters;
2. Organisations adopt strategies that enhance their autonomy and follow their interests; and

3. To understand internal and external organisational actions, power is imperative (not just rationality or efficiency).

In all these ideas, it is the last one which probably significantly reflects in this study; of course, the emphasis on power is an important hallmark of resource dependence theory. As noted by Davis & Cobb (2009) asserting that exchanged-based power emanated from earlier work of Emerson (1962) who explained that A has power over B because A is in control of resources that B values and such resources may be unavailable elsewhere. It is such extent of dependence of B on A that gives A the power over B.

There is also the assumption that under resource dependence theory, organisations make active choices towards achievement of specific goals, such that those decisions are rational in terms of resource dependence. Moreover, the basic principle of scarcity that underpins economics is reflected in resource dependence theory. Here, resources are always in short supply and therefore creates avenue for competition between and within organisations for the same scarce resources. It is the acceptance of this condition that makes it necessary for organisations to depend on others for their resources to operate successfully. Resource dependence theory generally is underscored by the fact that the success of organisations is contingent on key strategic resources therefore access and control over such resources is the basis of power. Resources may come in different forms and for every organisation, the need for some resources may be more critical than others. Even though resource dependence theory has been largely applied in business/profit oriented organisations to test it empirically, its relevance in other non-profit organisations cannot be overemphasised.

Similarly, resource dependence theory suggests that units are differentially valuable in dealing with crises emanating from its external environment. Units that control resources that are

strategic in terms of managing critical relationships between the organisation and its environment achieve power within the organisation. Even within organisations, different units may have control over key resources that other units/departments may depend on for successful operation. In that regard, the department that controls such vital resources gains power advantage over those who need the resources for their operations. Therefore, the organisation depends disproportionately for success on units that control strategic resources.

2.5 Summary of the Chapter

The literature review chapter discussed three theoretical frameworks on sources and typology of power from the perspective of French and Raven (1959), Finkelstein (1992) and Anderson and Brion (2014). It defined and conceptualised power from the perspectives of several authors who studied power. It is concerned with control over resources and as a result, it allows individuals, groups and organisations to influence the behaviour of others. Thus, the exercise of power to influence the behaviour of others may be conceptualised as positive or negative. From the negative perspective, power may be detrimental to those without it. For instance, lack of power means lack of control over valuable resources. From the positive perspective, power plays important roles in the coordination of individual, group or organisational activities

CHAPTER THREE

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

3.1. Introduction

This chapter discusses scholarly works that are relevant to the study objectives. It has empirical literature on sources of power, organisation and delivery clinical care and power relations among managers. It also has the conceptual framework that guides the assumptions of the study. The chapter ends with a summary.

3.2. Sources of Power in the Delivery of Healthcare

In the literature, just as scholars have failed to agree on a single definition for power, the same contestation is faced in the appropriate term for where power is derived from. Nonetheless, the five primary sources of power identified by French and Raven (1959) remain among the most commonly cited (see Muchinsky, 2006; Robbins, 1996). While other authors use terms as “types” (Olsen, 1978); Etzioni (1961), in his work on leadership and power, used “kinds”; yet again others stick to “sources” (Astley & Sachdeva, 1984; Bacharach & Lawler, 1980; Pfeffer, 1981).

The French and Raven’s sources of power have two main themes running through them and that have led to further classification of power sources into two main typologies in the literature – personal power and position power (Etzioni, 1961; Rahim, 2009). Reward, coercive and legitimate powers are associated with the position a manager or leader occupies in an organisation. On the other hand, expert and referent power, which are classified as personal power are typified by managers’ or leaders’ ability, skills, qualities, knowledge and experiences.

Consequently, these categorisations have been further grouped into formal and informal power. Here, the position power is equated to formal power while the personal power is referred to as informal power. Empirically, there are some studies that have tried to test these two categorisations of power (Ringer & Boss, 2000; Steensma & Miligen, 2003).

Interestingly, the literature has identified divergent sources of power; yet, all these sources ultimately converge on “resources”. Thus, throughout the literature, control over resources is the fundamental source of power; only that these resources come in different forms. For instance, control over financial resource is a major source of power for many people in the organisational setting. Likewise, control over information and possession of special knowledge or expertise.

The resource in the form of expertise for example, may explain why there is medical dominance in the healthcare system because medical doctors and other health professionals’ expertise and special knowledge are viewed as an asset or resource. Hence, it gives them power over their patients as well as other non-medical professionals in their organisational settings.

The concept of medical dominance has been an important aspect of healthcare and an inevitable phenomenon that the healthcare system has to deal with. The concept which was introduced by Turk and Freidson (1971) considers how occupational and professional controls play a role in the healthcare system. Here, more emphasis is placed on the fact that medical doctors have been successful in the establishment of some form of monopoly. Thus, their ascendance is founded within the division of labour via their control over work processes in the hospital setting (Dent, 2006). As Turk and Freidson (1971) originally proposed that the organization of healthcare is a function of the relations between occupations within the health division of labour. An important contributing factor may be, as Dent (2006) notes, is the perception that medicine exercise

autonomy responsibly. In other words, the social authority (or dominance) of medicine depends on this view or perception. Obviously, the above assertion may not have the support of everyone given that there have been circumstances where the very trusted knowledge and skill that give medicine grounds to exercise social authority have failed. For instance, characteristics such as the relationship between professionals' tasks and market demand, training, and degree of privileged access to the market are important features that Freidson (1983, 1984) concludes are essential for professionals such as medical doctors. The claim by Freidson is essential to the exercise of dominance alongside the role of autonomy enjoyed by high profile professions such as medicine. In those contexts where it is relatively easier for professionals to have all these conditions suggested by Freidson to be exhibited, it favors their course (Freidson, 1983, 1984). Additional factors such as concealing teaching, research and practice enhances physicians chance of creating a powerful clinical enclave for themselves (Ackroyd, 1996).

Furthermore, Luzio (2008) identifies three main aspects of the dominance of medicine. Firstly, the right of doctors to give instructions to colleagues they work with; thus, those who must wait for a doctor's order, prescription or referral before they can act. Secondly, supremacy of medicine as the scientific framework gives dominion to doctors. Thus, doctors as heads of institutes, teachers and examiners further give them significant influence over other health professions (Luzio, 2008). These authors claim may well be summed up in the suggestion of Thorne (2002) who attributes the sustenance of medical dominance partly on the doctors' medicalisation of healthcare.

There is, however, a call for the exercise of wariness when drawing any conclusion about medical dominance. Coburn (2006) has countered the extent of medical dominance over history and contexts. Similarly, through empirical observations, other authors challenge the concept

from the perspective that the state has embarked on reforms that empower subordinate professions as well as minimise medical dominance (e.g Boyce, 2006; Fox, 1995; Gray & Harrison, 2004; Luzio, 2008; Willis, 2006). The dominance of the medical profession has been prevalent in many studies and no single empirical study entirely denies exercise of this concept in the healthcare system albeit its diminishing magnitude. It must be acknowledged that the combination of factors such as health policy, supply of medical doctors, regulation of practice, and alternative medicine practice will affect medical dominance. Therefore, subject to the prevailing factors in each country the degree of medicine's power/dominance in the health system may be affected.

Additionally, financial resource is an indispensable asset to every organisation and ability to exercise control over it automatically confers power upon the individual who controls the funds. In many circumstances where the individual or his/her department in the organization needs funds to function effectively, such departments become reliant on the ones controlling the financial resources. In effect, such dependency makes it relatively easier for power to be exercised over those who need the funds. In many organisations occupants of top positions may have the responsibility of controlling financial resources, a situation that entrenches their power. Similarly, departments such as accounting and finance usually have control over funds in organisations and in turn that bestows power on them. It is interesting to note that such resource dependency extends beyond inside the organisation. There are several instances where some organizations depend on other organizations for financial resources. Hence, financial dependency relationship makes the organisation in possession of the funds have power over the organisation without and consequently exercise control over it.

3.3. Organisation and Delivery of Clinical Care

Healthcare organisations exhibit both internal and external relationships with varying degrees of interaction that enable patient-centered health care delivery. Structural relationship in healthcare settings is defined by the hierarchical arrangement of the health institutions within the system. Thus, a health system is a typical manifestation of organisational relationship characterized by a network of resource inter-dependence (Gibbons, 2007). Healthcare organisations develop relationship with each other to form patterns of interactions and relationship which enhance collaborative support (such as clinical supervision and patient referral), knowledge sharing and access to resources (Carley, 1990).

3.3.1. Clinical supervision

Formal supervisory structures are in-built in the organisation of healthcare that provide support to health systems at the peripheral level (GHS, 2005; WHO, 1994) and enable staff to perform to their maximum potentials. Supervision is described as a complex intervention that is implemented in different ways, and has enormous benefits to the health sector (Bosch-Capblanch & Garner, 2008). Several studies support this assertion and some of these studies are discussed as follows.

Frimpong and colleagues (2011) assessed whether supervision of PHC workers improves their productivity in the north east part of Ghana. The study concluded that supportive supervision could maximise the efforts of scarce human resources in the PHC facilities and thus increase productivity (Frimpong, Helleringer, Awoonor-Williams, Yeji, & Phillips, 2011). Two years after, Aikins and colleagues (2013) evaluated facilitative supervisory visit in the North West part

of Ghana. The study concluded that facilitative support visit is essential to both the individual health workers and the institutions (Aikins et al., 2013).

However, the challenges of supervision hubs around availability of resources, supervisor's knowledge and skills, irregular supervisory visits, and the supervisee's understanding of the benefits of supervision (Benavente & Madden, 1993). The knowledge and communicating skills of supervisors in executing their duties have been studied. Sennun and her colleagues assessed the strength and challenges of two different supervision models – one with district level managers and another involving the community (Sennun P, Suwannapong N, Howteerakul N, 2006). The study concluded that effective supervision requires supervisor's knowledge and ability, and supervisory communication skills.

In addition to this, the orientation of the supervisor contributes significantly to the supervision process. A study conducted in rural Guatemala highlighted the supervisor' orientation as contributing to the nature of support supervisees receive during supervision (Hernández, Hurtig, Dahlblom, & Sebastián, 2014).

3.3.2. Patient referral system

A referral can be defined as a process in which a health worker at a one level of the health system, having insufficient resources (drugs, equipment, skills) to manage a clinical condition, seeks the assistance of a better or differently resourced facility at the same or higher level to assist in, or take over the management of, the client's case (Ghana Health Service, 2003). Thus, an effective patient referral system is a reflection of how well all levels of the health system are closely related and generate support for patient care continuity. The patient referral system has the following key components (World Health Organization, 2010):

1. The health system as a component of patient referral creates the enabling environment for service providers to produce quality care to patients.
2. The patient referral system has an initiating facility which understands the conditions of the patient at that level and initiates the decision to refer.
3. The referral practicalities of the patient referral system ensure that adequate preparations are made for the patient referral. By this, adequate arrangements are made with the receiving facility, sufficient counseling of the patient and family to appreciate the referral, and keeping a referral register that allows monitoring and follow-up.
4. The receiving facility as a component of the patient referral system anticipates, receives and provides appropriate care for the referred patient.
5. An important component of the patient referral system is supervision and capacity-building. The component monitors outward and back referrals to ensure compliance with protocols and adequate documentations. The component also provides feedback support, and training for health workers.

The effective functioning of patient referral systems is a major concern throughout the world. In Northern Europe for instance, a cross-sectional questionnaire survey was conducted to assess the referral system and potential professional gains by interactive communications (Bjornsson, Sigurdsson, Svavarsdottir, & Gudmundsson, 2013). The main respondents were general practitioners working in Iceland at the time of the study. The study concluded that referral systems increase the flow of information and mutual communications between general practitioners and specialists to the benefit of the patients (Bjornsson et al., 2013).

The effective functioning of patient referral systems have recently been studied in some African countries. Sanders, Kravitz, Lewin and Mckee (1998) assessed two rural districts in Zimbabwe to

ascertain whether the patient referral system was functioning effectively. The study found some weaknesses in the system and recommended that the patient referral system should be improved through the strengthening of facilities, improved access to specialist care and building the capacity of health professionals especially at the community level (Sanders et al., 1998).

Four years down the line, the appropriateness of the patient referral system within the Tanzanian health system was examined. The study concluded that the decision to refer cases was appropriate, however too few referrals were recorded (Font et al., 2002). Similar findings were also reported in Kenya as lack of coordination between various health care providers resulted in a poor referral system (Kenyan MOH, 2015). In Iran, Eskandari, Abbaszadeh, & Borhani, (2013) also found the lack of connection between different levels of the referral system, self-referential and bypassing the referral system as obstacles to not only the referral system but quality of health care.

In Ghana, three districts were studied to assess the status of and constraints to referral of severely ill children from first level care to secondary and tertiary levels. The study concluded that a little over 50% of patients referred complied and reported to the receiving health facility, with 0.9% “missed referrals” (Ghana Health Service, 2003). Drawing on lessons from tuberculosis programme, Keugoung, Macq, Buve, Meli, & Criel, (2013) concluded that lack of coordination between the district health management teams and facilities that manage TB cases was an impediment to effective tuberculosis control programme, and that well managed facilities and facilities that coordinated well with other associate facilities performed better.

Akande (2004) also examined the patient referral system with reference to tertiary health facilities in Nigeria. The cross-sectional study focused on new entrants to the tertiary facility

over a period of four weeks. The study found that a high proportion of patients seen in the tertiary health facility was self-referred (Akande, 2004).

An effective patient referral system also implies that scarce resources are used to achieve maximum results. A poor performing patient referral system is therefore associated with under-utilisation of health resources, in which case, high skilled human resource and advanced equipment are inappropriately used to solve health problems (Akande, 2004; Sanders et al., 1998). Additionally, a major challenge of the patient referral system is the geographical location of the health centres in the referral network (Bjornsson et al., 2013).

Despite these challenges, an emerging trend in the case management is the introduction of the down-referral system, where stable patients are decentralised to lower levels for continuity of care. Down referral of case management is an innovative and cost-effective patient care mechanism (Long et al., 2011). A down referral system requires well integrated system where institutional interactions are well coordinated to ensure effectiveness. A study evaluated TB treatment outcomes among TB/HIV co-infected patients in an integrated and decentralised system in rural KwaZulu Natal. The retrospective study concluded that down referral of TB treatment to peripheral health centres for care continuity was feasible (Jacobson, Moll, Friedland, & Shenoi, 2015). The study also identified active communication between hospitals and PHC centres as a linkage mechanism for effective down referral system.

3.3.3. Resource sharing

A resource sharing system is embedded in the hierarchical relational network between the PHC institutions. Available resources for sharing at the PHC level may include; human resource knowledge, skills and expertise; drugs and consumables; equipment; and information. Vest and

colleague (2012) assessed the current state of resource sharing among local health departments and to identify factors associated with resource sharing. The study examined the extent of resource sharing using programme shared activities and shared organisational functions among a sample of local health departments. The study concluded that resource sharing is highly practiced among many local health departments, and organisations could take advantage of resource sharing practices to meet their needs (Vest & Shah, 2012).

Considering the importance of information in an inter-institutional relationship, a study examined information sharing as prerequisite for effective inter-institutional relationship. Using a sample of hospital administrators, the study among other things, assessed the frequency of vital sharing information such as operating statistics, utilization statistics, wages and salary information, employment policies, and fringe benefits with other colleague administrators. A major finding of this study was the failure of administrators to use the inter-institutional platform for information sharing, despite the benefits (Schermerhorn, 1977). Over three (3) decades down the line, a similar study was conducted to assess the current levels of employee information sharing among hospitals. The conclusion was that hospital executives are reluctant to share employee information, probably for fear of being sued (Malvey, Fottler, & Sumner, 2013).

3.4. Power Relations among Health Managers in the Delivery of Healthcare

In a study to ascertain power in healthcare organisations from the perspective of first-line managers, Isosaari (2011) examined the healthcare organisation's power structure. Using data from Finnish hospital districts offering specialised and primary care, the author analysed data from 1197 respondents with the following key findings. Foremost, the kind of organisational structure in existence necessarily affects the type of power that is generated. Explaining further,

he noted that bureaucratic organisational structure generates closed system while professional organisations generate meritocracy and policy arena. Meanwhile result-based organisations are directly linked to political arena and meritocracy. The study also revealed that first-line managers consider healthcare organisations as instruments but for staff they understand healthcare organisation as mainly meritocracies that possess characteristics of political arena. With opposing views, managers acknowledged their positions are constrained by rules whereas staff enjoy a lot of freedom and space. Moreover, the study explains meritocracy to mean internal system of influence which diffuses power in the organisation to the degree of expertise. On the other hand, political arena is when an organisation's actors aim towards their own personal ends, causing constant competition and conflicts. In this study the use of the term "instrument" refers to an organisation with strong external influence that centres power at the top of the organisation with the organisation being hierarchical, bureaucratic, with clear and operational goals (Isosaari, 2011). Based on the study findings, the author concluded that meaningful management may be subject to change in organisational structure and redistribution of work.

In another study, Frumence and colleagues (2014) examined the coping strategies for dependency challenges faced by district health system in Tanzania. Examining the experiences of the council of health management teams in terms of financial resources from the central government, the study found that the funds are unduly delayed for months before council of health management teams can access them. Moreover, under certain circumstances, the funds do not come at all (Frumence, Nyamhanga, Mwangi, & Hurtig, 2014). These challenges have made council of health management teams devise informal coping strategies of obtaining supplies and other services on credit, borrowing money from other project funds under the council, and using generated money from cost sharing. Such experience of delay in the release of funds negatively

affects service delivery in the district health system, and the innovative coping strategies are always a welcome idea for managers. It was also observed that the delay may be as a result of bureaucratic processes. Therefore, the study recommended that decision makers should reduce the complex bureaucratic procedures involved in resource allocation to the district health system to enhance primary health care delivery.

Akin to the study by Frumence and colleagues (2014), Asante, Zwi and Ho (2006) analysed the coping strategies of district health managers in Ghana when there is untimely release of funds from the government. However, through a qualitative semi-structured interview of 16 district health managers, the findings revealed that delay of funds from the central government negatively affects implementation of health activities and discourages district health staff. The district health managers as a way of keeping the system running resort to purchasing on credit the supplies needed for service delivery such as medicine, or borrowing of cash internally from the internally generated funds (IGF) of the district hospitals (district hospitals generate funds internally through service charges on patients); pre-purchasing and saving materials as well as conserving donor funds for first quarter. The pre-purchasing of materials and saving them for future use is an innovative way of retaining left-over of government allocated funds for district health directorates that must be returned after a defined financial year. With the glaring knowledge of delay of government funds managers prefer to use the funds to purchase materials and keep them for future use; even though some admit it is not financially appropriate in terms of accounting but proactive somehow continuous healthcare delivery.

Kwamie and colleagues (2016) researched into decision making amongst district health managers with emphasis on what governs that decision making. In a theory driven study that drew on concepts of decision space, power and trust, the study sought to understand how the

balance of traditional top-down and bottom-up dynamics influence decision making among the district health managers in the Dangme West District of Greater Accra region. Using document reviews, semi-structured interviews as well as participant observation as data collection tools, the study found that decision space of district managers was constrained by the unpredictable nature of resource availability and hierarchical authority (Kwamie et al., 2016).

Notably, the study revealed that financial resource decision making is constrained as the flow of funds to the district health directorate to sub-districts is irregular especially the part from the government of Ghana (Kwamie et al., 2016). Thus, the district health management teams usually rely on the district hospital's IGF. Unlike the district hospitals that can provide healthcare to the public and generate income for their own use, the district health management teams rely largely on government of Ghana funds that are either delayed or fail to come at all. As the study revealed, the district health management teams and the sub-districts co-manage their funds (IGF) unlike the district hospitals that run their own account. This is a situation which the authors explain results in the district health management teams exercising greater supervisory control over sub-districts than the district hospitals.

Furthermore, the study revealed that development partners are important contributors to the financial resources of district health system yet the funds that come in are usually earmarked for vertical programs and limits their use for other purposes. The study concluded that the existing power relations made district level managers and leaders less responsive in addressing challenges faced in maternal and newborn health service delivery (Kwamie *et al.*, 2016).

Using a descriptive literature review, Cleary, Molyneux and Gilson (2013) examined the factors that influence accountability mechanisms and relationships in primary health care context

(district health system). A total of 26 empirical and five review articles analysed and synthesised showed the following concerning accountability in the district health system. Two main accountability were identified – external which is mainly to patients and citizens generally and bureaucratic which is more internal-based and for bureaucrats, politicians, and policy makers. The highlight of the study points to the fact that bureaucratic accountability mechanisms are constraints to proper functioning of external accountability mechanisms. Typical example was cited to be when the expectations of relatively powerful managers need to be met; such expectations end up ousting attempts to meet that of patients and citizens. In addition, factors such as supervision and management system which focused on adherence to centrally defined outputs and targets can make frontline managers and providers less responsive to patient and population needs (Cleary et al., 2013).

In another study conducted in Finland, Elina and colleagues (2006) describe the factors that influence doctor-managers' decision making at different management levels as well as in specialised care and primary health care. The study gathered data through a survey of physicians who graduated between 1977 and 1991 according to the Finnish Medical Association's register. The study defined doctor-managers as physicians occupying principal or assistant physician position in a hospital, medical director or principal physician of a health centre, senior ward physician of a hospital and health centre physician in charge of a population area. Conceptually, these categories may represent medical superintendents, and sub-district health leaders in Ghana's district health system. The study found that in terms of decision making personal professional experience was the single most important base for decision making for doctor-managers. Interestingly, decision making was revealed to be independent of position in organisation (first line managers, principal physician) because it had no impact. Furthermore,

compared with doctor-managers in specialised health care, their counterparts in primary health care made use of knowledge on norms and knowledge available from their organisation to support their decision making. The study therefore concluded that doctor-managers should have a re-orientation to act more as managers than clinicians (Elina et al., 2006).

Addicot and Ferlie (2007) studied power relationships in healthcare networks in the national health service of United Kingdom (UK). The study sought to understand the role of power relations in public sector networks with the objective of exploring and theorising the nature of power relations within a network of governance. The study used empirical data from five case studies of managed clinical networks for cancer. The study was situated in the three theories of power – structuralist, post-structuralist and pluralist. Analysis of the five cases showed that the study could not provide support for any one of the three theories of power that were proposed in the study. Thus, some findings supported the structuralist theory (Alfred, 1975), others supported the pluralist (Dahl, 1986; Dahl, 1958, 1961) even though none was unequivocal. The overlaps led the authors to propose a model called “bounded pluralism” for the understanding of power relations. This follows from their finding that shows that a small group of bounded elite medical professionals (instead of senior managers) from large teaching hospitals shared resources and power to the neglect of smaller district hospitals’ interest. It was observed that even amongst the networks, only some (elite) groups could exercise dominance over the distribution of resources and power. Hence the study concluded by suggesting the dominance of the medical professionals even over resource distribution and decision making as only a reflection of historical power relationships within the health service.

3.5. Conceptual Framework of the Study

This section presents the framework of the study. It consists of concepts associated with power sources, the delivery of health centre clinical care and how power relations among district health managers affect clinical care delivery at the health centre levels.

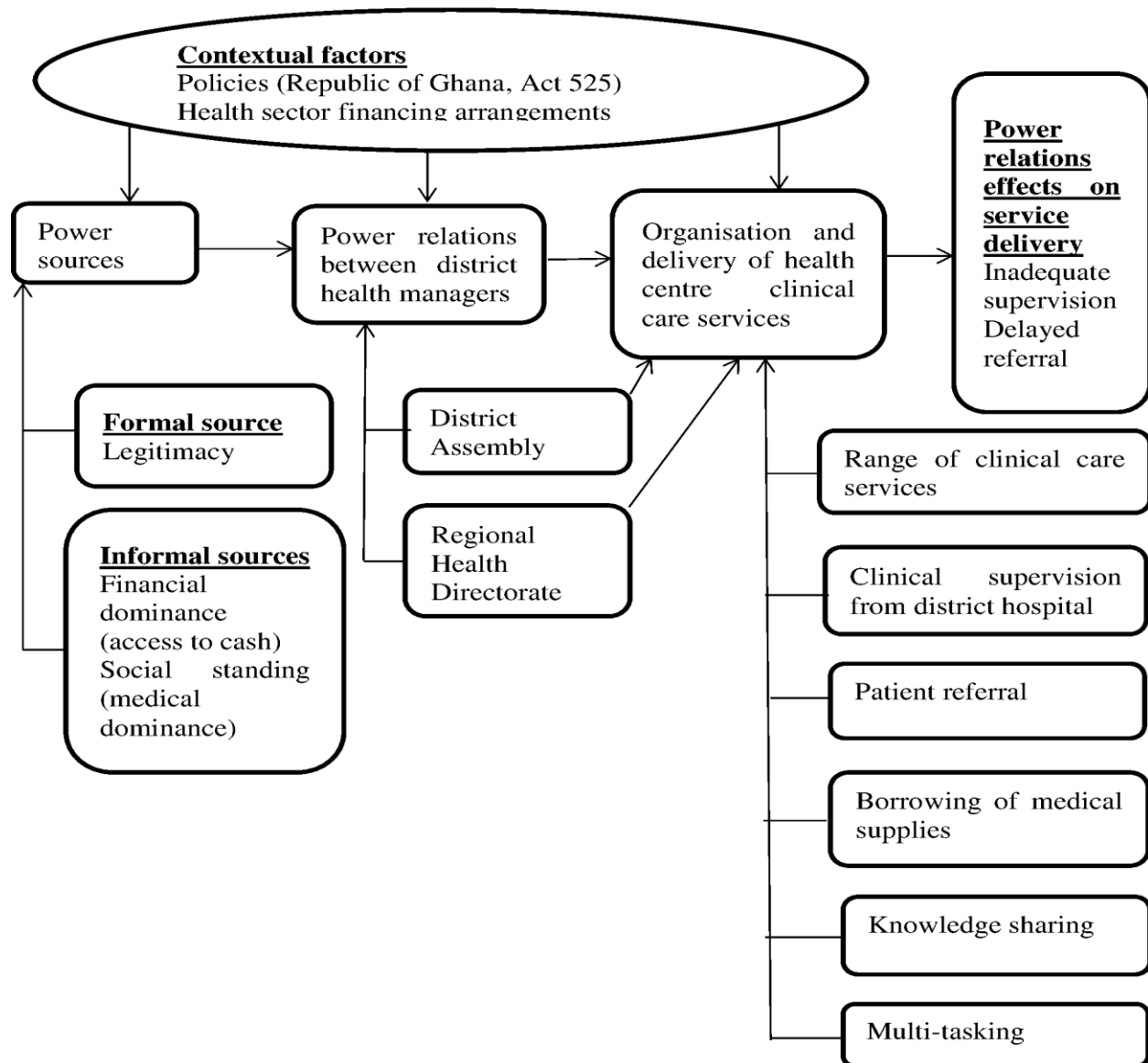


Figure 3.1: Framework for power sources, organisation of health centre clinical care and the effects of power relations on health centre service delivery.

The framework in Figure 3.1 shows the power sources, organisation of health centre clinical care and the effects of power relations on health centre service delivery. District health managers are made-up of district hospital managers – a management team (with the medical superintendent as the leader) directly responsible for the day-to-day activities of the district hospital; and district health directorate managers – a management team (with the district director as the leader) also directly responsible for the day-to-day activities of the district health directorate. The study concentrated on the power relations between the leaders of the two management teams, i.e the medical superintendent representing district hospital managers and the district director representing district health directorate managers. In this study, it is assumed that the nature of power relations between district directors and medical superintendents is likely to affect the organisation and delivery of health centre clinical care services. For instance, depending on the nature of the power relations, medical superintendents are likely to concentrate on their core business of providing care for sick individuals, paying less attention to activities that are meant to strengthen clinical care services at the health centre levels. Failure to strengthen health centre clinical care services potentially undermines the PHC concept of making quality healthcare accessible to people in their communities (WHO, 1978).

The relationships between district directors and medical superintendents are fundamental to the structural arrangements of district health institutions that make-up the district health system. These relationships are affected by the clarity and nature of the formal and informal rules governing the arrangements of district health institutions, that define who has what power or authority, with whom and over who and why, and how the managers use these powers in performing their duties.

Thus, district health managers have diverse sources of power, categorised into formal and informal. Formal source of power is the most obvious power source, and stems from the authority vested in an individual to take decisions and/or actions that affect part or the whole of an organisation (Aghion & Tirole, 1997; Hippmann & Windsperger, 2012). Formal powers of district health managers are derived from the authority vested in them within the context of policies and regulations governing Ghana's health system, such as the Republic of Ghana Act 525 of 1996, and the organisational structure of the GHS. The implementation of these policies and regulations at the district level is expected to define clearly the lines of authority, and consequently the formal power structure for district health managers.

The hierarchical nature of the health sector reflects the hierarchical authority that defines a hierarchical power relationship among district health managers that scales from top to down. These power relations among the district health managers are designed to ensure teamwork among the district health institutions. The relationship allows higher level instructions (district hospitals) to support and coordinate the organisation and delivery of lower levels (health centres) clinical care services in the districts.

Besides the formal power structure, district health managers also have informal sources of power. These informal sources of power are usually less noticed within organisational settings, but serve as major determinants of how these district health managers relate to each other in practice.

One such informal source of power among district health managers is financial dominance (access to cash/funds). Financial dominance in this study is described within the context of the health sector financial arrangements in Ghana. Over the past years, government subventions to

health institutions have been suspended, leaving health institutions to operate with limited budgets (MOH, 2011). For this reason, health sector financing is modeled to depend solely on income generated from services delivered and donor support. This financial arrangement implies that health institutions (such as hospitals) that generate funds from their services and/or implement programmes that attract donor funding (such as malaria control), are likely to be in good financial standing as compared to their district health directorates that do not have any internally generated funds.

Another informal source of power that determines power relations among district health managers is social standing. In this study, social standing as a source of power is considered from the perspectives of medical dominance. Medical dominance reflects how medical doctors use their positions within the social ladder, their knowledge and experience as compared to other health professionals, and participation in major health decisions (such as resource allocation, treatment options) as sources of power.

These power sources (formal and informal) contribute strongly to power relations between district directors and medical superintendents. These power relations usually manifest in the discharge of their duties as district health managers. The study also recognises the contributions of district Assemblies and regional health directorates to the power relations between district directors and medical superintendents in their respective districts.

In the context of this study, the organisation and delivery of clinical care services include the range of services provided at the health centre levels, borrowing system between district health institutions, knowledge sharing between frontline healthcare providers of district hospital and

health centres, and the use of multi-task approach to ensure quality care at the health centre levels.

Similarly, the organisation and delivery of health centre clinical services, as far as district health service is concerned, are built on dependency relationships in which health centres refer patients to the district hospitals for further management, and the district hospitals also supervise health centre clinical activities. This effort is to provide support for lower level institutions (health centres and CHPS zones/compounds) to improve their service delivery performance (Kjekshus, 2005). Through this relationship, district hospitals provide expertise and other resources to facilitate quality clinical care services at the health centre levels (Bradley, Lehmann, & Butler, 2015). Moreover, district hospitals provide clinical supervision to health centres, and maintain a quality referral system to improve clinical service delivery at the health centre levels. Clinical supervisory structures are inbuilt in the organisation and delivery of care that provide support to health systems at the peripheral level (GHS, 2005; WHO, 1994), and enable staff to perform to their maximum potentials.

A patient referral can be defined as a process in which a health worker at one level of the health system, having insufficient resources (drugs, equipment, skills) to manage a clinical condition, seeks the assistance of a better or differently resourced facility at the same or higher level to assist in, or take over the management of the client's case (Ghana Health Service, 2003). Thus, an effective patient referral system is a reflection of how well all levels of the health system are closely related and generate support for continuity of patient care.

Finally, the framework shows that power relations between district directors and medical superintendents may result in inadequate clinical supervision of the health centre activities and delayed patient referrals from health centres to the district hospital.

3.6. Summary of the Chapter

The chapter discussed some studies on power in the health sector. These studies concentrated on how power influence decision-making among district health managers, the use of power to influence national policies, and how power influence decisions among team members during service delivery. Interestingly, these studies acknowledge the existence and use of power in the health sector. However, the study of the relations of power in the health sector is limited and thus affects empirical evidence of the subject matter in literature. For instance, literature is almost silent about who has what power and from what source, how power relations likely affect service delivery in the health sector. As a result of the limited empirical literature, an exploratory study was conducted into the relations of power among district health managers in Ghana. The study focused on the sources of power and the power relations between district directors and medical superintendents. It also explored how the power relations affect clinical care at the sub-district levels in Ghana.

CHAPTER FOUR

THE HEALTH SYSTEM

4.1. Introduction

The chapter presents a brief description of the health system relating to the objectives of the study. The chapter describes the district health system, the Primary Health Care (PHC) concept, as well as the health sector in Ghana. The chapter is organised into six sections as described below.

4.2. Definition of Health System

The health system has been understood as a system made-up of many interconnected parts that work together to achieve a common purpose (Packard, 2007). The World Health Organization (WHO) defines health system as consisting of all organisations, activities, individuals, and groups whose primary purpose is to promote, restore, and maintain health (World Health Organization, 2017). The definition emphasises the importance of organisations and actors working together once they share similar characteristics and work towards achieving one desired goal, that is, providing improved and equitable healthcare in a manner that is responsive, financially fair, and make the best or most efficient use of available resources (WHO, 2009).

Effective and comprehensive health systems are needed as emerging infectious diseases, non-communicable diseases and other disease conditions increase in resource limited countries. Thus, the need for health systems strengthening to improve health and health equity, in ways that are responsive, financially fair and makes the best or most efficient use of available resources (WHO, 2009). The WHO “Framework for Action” described health systems as supported by the

six building blocks; Governance and Leadership, Service delivery, Health work force, Health information, Essential medical products and technology, and Health financing (WHO, 2009). The effectiveness of a health system requires a strong sense of direction and coherent investment in all six health systems building blocks, monitoring their interaction in order to provide the kind of services that produce results (WHO, 2010). Health service organisation and its management structure remains the core building block of the entire health system.

Today, health system strengthening is a major concern worldwide since stronger and resilient health systems are required to improve health at the local national and global levels. In their study to understand the need for a differentiation between the health system supports and health system strengthening, the authors indicated that health system support is meant to manage input constraints and health system strengthening is concerned with other performance drivers such as policies and regulations (Chee, Pielemeier, Lion, & Connor, 2013). Thus, building a resilient health system implies efforts to identify and improve health system support systems as well as identify and improve other performance drivers.

4.3. Concept of the District Health System

National health systems are broken down into decentralised units, referred to as district health systems, which serve as building blocks (Engelbrecht et al., 2002). The district health system concept was formulated in 1983 by the WHO (Levers, Magweva, & Mpofu, 2007) in order to facilitate the implementation of the PHC agenda of bringing healthcare closer to the people. Thus, low and medium income countries have used the district health system as vehicle to implement the PHC strategy (Barroni & Asiaii, 2002).

A district health system based on PHC is a more or less self-contained segment of the national health system. It consists of, first and foremost, a well-defined population, living within a clearly delineated administrative and geographical area, whether urban or rural. It includes all institutions and individuals providing healthcare in the district, whether governmental, social security, non-governmental, private or traditional. A district health system, therefore, consists of a large variety of interrelated elements that contribute to health in homes, schools, work places and communities, through health and other related sectors. It includes self-care and all healthcare workers and facilities, up to and including the hospital at the first referral level as well as the appropriate laboratory, diagnostic and logistic support services. Its component elements need to be well coordinated by an officer assigned to this function in order to draw together all these elements and institutions into a fully comprehensive range of promotive, preventive, curative and rehabilitative health activities (WHO, 1988: 9; WHO, 1992: 5-6 as cited in Levers et al., 2007). The definition recognises that elements or institutions of a district health system are interrelated in providing services. The definition also recognises the need for coordination mechanisms to support the interrelatedness of these institutions in order to enhance quality healthcare organisation and delivery at the lower levels of the district.

The district hospital is one such institution which is pivotal to the organisation and delivery of healthcare at the district level (Department of Health, 2002). Before and shortly after the Alma Ata declaration in 1978, district hospitals received least attention and were sidelined until the late 80s and early 90s when health policy-makers reconsidered the rightful position of hospitals within the entire health system (Barroni & Asiaii, 2002; English et al., 1999). Subsequently, all aspects of the hospital received the needed attention. For instance, the capacities of first referral hospitals, regional and national hospitals were enhanced in order to facilitate clinical care

services. As a result, most countries have district hospitals that are well integrated into a comprehensive system of healthcare delivery (English et al., 1999). Even though integrated, district hospitals retain responsibility for hospital operations and budgets; however hospital management teams must recognise the District Health Management Team (DHMT) as the dominant coordinating body for the district (Barroni & Asiaii, 2002). In this light, the organisation and delivery of health services at the district hospitals should complement the organisation and delivery of health services at the peripheral levels. This promotes an effective gatekeeping system, usually described as the most cost-effective model of health care.

Apart from providing clinical care to formal and self-referred clients, the wider roles of district hospitals within the district health system are summarised in figure 4.1.

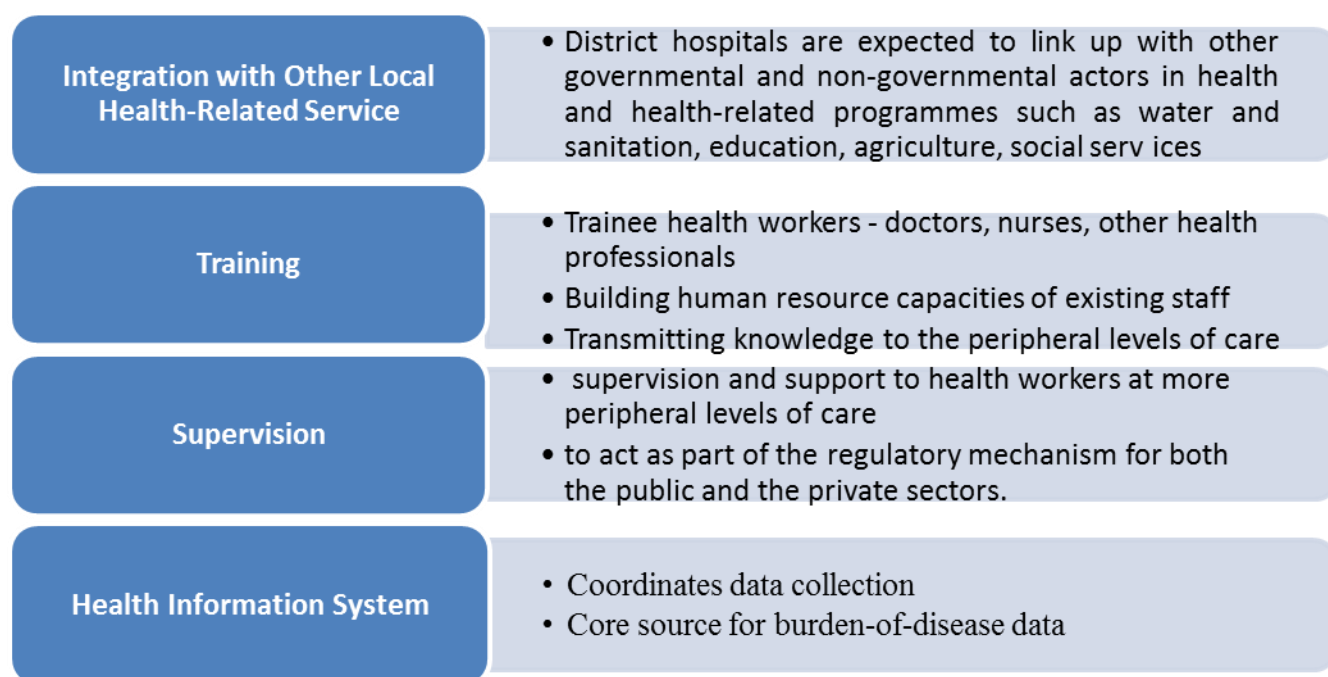


Figure 4.1: Role of District Hospitals

4.4. Concept of the Primary Health Care

PHC is a practical approach to making essential healthcare universally accessible to individuals and families in communities, in an acceptable and affordable way, and with their full participation. Since the Alma Ata declaration, the concept of PHC has been discussed widely to monitor the implementation in member states (Dookie & Singh, 2012; Maeseneer, Willems, Sutter, Geuchte, & Billings, 2007; Magnussen, Ehiri, & Jolly, 2004; Rohde et al., 2008). The strategy is aimed at building resilient health systems, whose resources are channeled to meet essential health needs of the majority in communities (WHO, 2000).

PHC-based healthcare is an all-embracing strategy that organises and delivers quality, accessible and equitable healthcare at the community level. The strategy initiated a change in the context of framing and implementing health policies in order to benefit the wider population health needs (WHO, 2000). Most countries have used the PHC concept to bring healthcare closer to where people live and work. Thus, PHC is the first level of contact for individual, families and communities within the national health system.

Inherently, some guiding principles have been incorporated into the Alma Ata declaration of 1978. The principles serve as the bridge between broader social values, and the structural and functional elements of health systems (Rasanathan, Montesinos, Matheson, Etienne, & Evans, 2010). Walley et al., (2008) identified the following as principles that make the PHC strategy a reality:

1. Responsiveness – Health systems are expected to be people-centred (WHO, 2009).
Health system responsiveness to the expectations of individuals is concerned with the non-health enhancing aspects of care. Responsiveness as defined in the context of

- health systems is the outcome achieved as a result of designed institutional relationship that are cognizant and respond appropriately to the universally legitimate expectations of individuals (De Silva, 2000). As a health system goal, responsiveness has its own intrinsic values that improve a person's quality of life.
2. Quality-oriented – A PHC-based health system ensures that evidence-based clinical care services are available to the population. A continuous update of health professionals' knowledge is a pre-requisite for evidence-based service provision.
 3. Accountability – As people-centred health system, PHC-based services requires policies and procedure that allow citizens to probe the activities of the system, where population needs are not met.
 4. Social Justice – The PHC declaration indicated the need for governments to commit and channel resources to support the strategy (WHO, 1978). An effective and efficient health system is a means of assessing the extent to which government is committed to the welfare of citizens, especially the rural populace (Whitehead, 1992).
 5. Community participation – A health system based on PHC involves individuals, families and communities in promoting their own health and welfare. As an essential ingredient, community participation in PHC ensures effective planning, implementation and maintenance of health services.
 6. Inter-sectoral collaboration – the declaration of Alma Ata states that PHC involves, in addition to the health sector, all related sectors and aspects of national and community developments such as education, agriculture, industries among others. Country level planning and collaborative mechanisms are required to achieve cooperation.

PHC services are preventive as well as primary care services at the district level. Provided at the personal level, primary care services concentrate on the medical and health management of a child, adult, or family when the patient first presents to the formal health system (Gonzalez, 1984; Starfield, 2012). District level PHC services are provided by a range of health workers, who received the requisite training both technically and socially, and work together as a team to deliver the needed services. These health workers include physicians, nurses, physician assistants, midwives, other paramedical staff, auxiliaries and community workers where applicable (Valley, Obioha, & Molale, 2011).

4.5. The Health Sector of Ghana

Health is viewed as a fundamental human right thus access to healthcare is inextricably tied to this assertion. It is in respect of this that the constitution of Ghana provides that “the state shall safeguard the health, safety and welfare of all persons in employment, and shall establish the basis for the full deployment of the creative potential of all Ghanaians” (Republic of Ghana, 1992, Article 36/10). Over the years, governments, international development partners, among other stakeholders of health have made ceaseless efforts to improve the health needs of Ghanaians (Yeboah, 2007). Some emphasis has been on universal health coverage (UHC) prioritising health financing through social health insurance and expanding primary health care service at grass roots level (MOH, 2015a).

4.5.1. History of Healthcare in Ghana

The healthcare system in Ghana advanced from stage to stage before and after independence. The 1471- 1844 period was the initial stage where healthcare was established to prevent infectious diseases among the missionaries and the colonial masters (Senah, 2001). In the second

stage of healthcare advancement, popularly known as the bond of 1844, healthcare was extended to Ghanaian citizens who worked with the colonial governments (Patterson, 1981). From 1868 to 1957 marked the third stage of healthcare development in Ghana where the first two hospitals were built (one in Cape Coast and another in Korle-Bu), as well as dispensaries in rural communities (Patterson, 1981). Post-independence, government prioritised and developed the health sector through state funds. In about 6 years (1957 – 1963), healthcare facilities numbered 41 whilst government expenditure on health increased to 8.2% in 1969 (Patterson, 1981). In 1990, Ghana’s health sector saw the CHPS initiative which aimed at improving access to PHC services (GHS, 2003). In this way, the country’s health status indicators are likely to improve. These indicators are discussed below.

4.5.2. Health Status Indicators

Ghana’s health status indicators have seen some improvement over the past years. The performance of the country’s health sector indicators as at the end of 2014 are presented in Table 4.1 below.

Table 4.1: Health Status Indicators in Ghana

Serial No.	Health Status Indicators	2008	2014
1.	Infant Mortality Rate (per 1,000 live births)	50	41
2.	Under 5 Mortality Rate (per 1,000 live births)	80	60
3.	Neonatal Mortality Rate (per 1,000 live births)	30	29
4.	Post-Neonatal Mortality Rate (per 1,000 live births)	21	13
5.	Child Mortality	31	19
6.	Crude Birth Rate (per 1,000)	29	30.6
7.	Total Fertility Rate	4.0	4.2
8.	Institutional maternal mortality ratio	199.7	143.9

Source: GHS, 2015b

As indicated in Table 4.1, infant mortality rate reduced from 50 to 41 per 1000 live births. This shows 18% decline rate over the period of six years (2008 – 2014). During the same period, under five mortality rate per 1000 live births decreased from 80 to 60, achieving a 25% reduction over the six-year period. Similarly, neonatal mortality rate per 1000 live births reduced by 1 representing 0.03% (30 in 2008 and 29 in 2014) in six years. In all, child mortality rate reduced by 12 representing 39% (31 in 2008 and 19 in 2014) in the six-year period. Ghana recorded significant achievements over the six-year period as institutional maternal mortality ratio reduced from 199.7 in 2008 to 143.9 in 2014 (GHS, 2015b).

Malaria is a major cause of illness and death in Ghana, particularly among children and pregnant women (Ministry of Health, 2014). Among all ages malaria accounted for 18.4% of all patients, and 46.9% of all children under five years, admitted to our hospitals in 2014 (GHS, 2015b). Similarly, malaria accounted for 38.9% of all out-patient attendance in 2012, and slightly reduced to 34.7% in 2013 (GHS, 2015b). Malaria infection during pregnancy causes maternal anaemia and placental parasitaemia both of which are responsible for miscarriages and low birth weight babies (Ministry of Health, 2014).

4.5.3. Structure of Health Service Delivery in Ghana

Services provided at the community, sub-district, and district levels constitute the district PHC and are delivered in the context of a district health system (GHS, 2005).

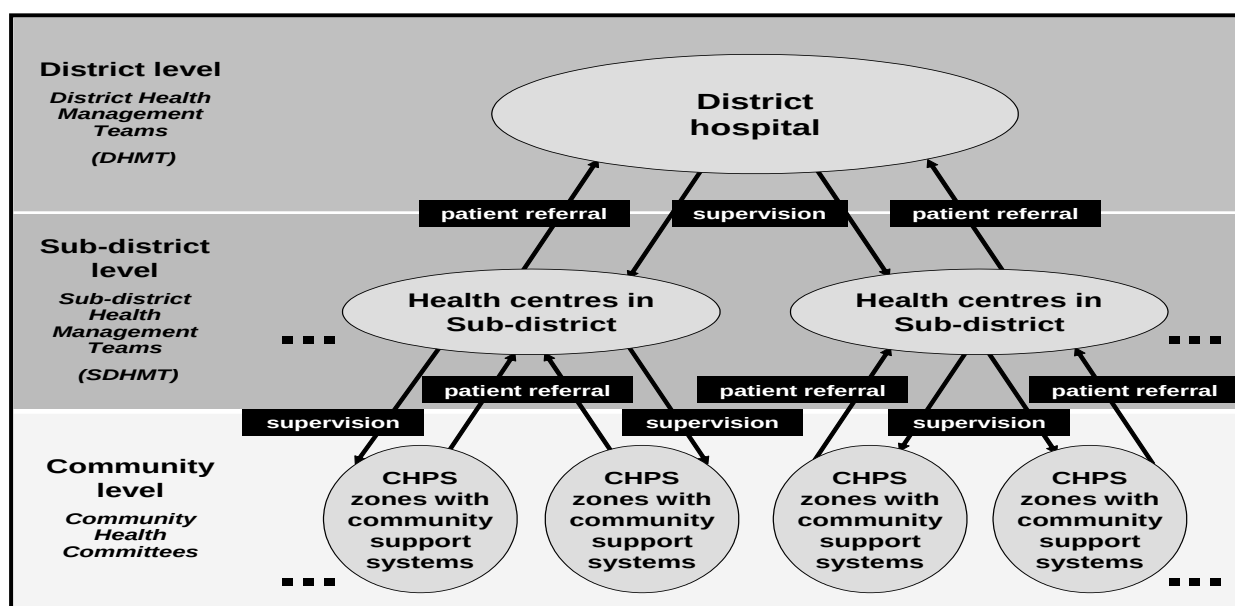


Figure 4.2: District Health Care Organisation

Source: GHS, 2005

Figure 4.2 shows district health service provision arranged in a 3-tier hierarchical structure, with the community level at the bottom, sub-district level at the middle and the district level at the top (GHS, 2005). The policy document further indicates that the CHPS initiative facilitates community health services and is supported by the sub-district health team.

Following the introduction of CHPS which is functionally for the provision of preventive healthcare in rural communities, the intent is to increase access to and use of health service (Johnson et al., 2015; Russell, 2008). CHPS is a national community healthcare reform that seeks to shift emphasis from curative services to a comprehensive community-based care, focusing on preventive care that involves the community (Nyonator, Awoonor-Williams, Phillips, Jones, & Miller, 2005). In communities with CHPS compounds, there are resident community health workers who provide basic healthcare to people who may need it. It is believed that the CHPS initiative is a platform for effective and efficient healthcare delivery in Ghana's rural communities (Johnson et al., 2015; Russell, 2008).

A relatively higher level of healthcare is the health centre located at the sub-district level. Traditionally, the health centre has been the first point of contact between the formal healthcare system and the client. It is designed to provide basic curative as well as preventive services for adults and children as well as reproductive health services. Each health centre serves a population of approximately 20,000. At the district level as shown in Figure 3.2, the district hospital provides curative as well as preventive care services. It serves as referral hospitals for the lower levels of care within the district health system.

Additionally, healthcare delivery in Ghana is under three main streams per type of provider. The largest providers are the government-owned healthcare facilities which include regional hospitals, district hospitals, health centres and CHPS compounds managed by the GHS and the teaching hospitals. Next to the government-owned healthcare facilities are the faith-based organisations that provide private-not-for-profit services. The third healthcare provider-type is the private practitioners who provides private-for-profit services. These practitioners include private hospitals, clinics and maternity homes; traditional health practitioners such as herbalist, bone setters and birth attendants; and community individuals and families.

4.5.4. Administrative Structure of Health in Ghana

Ghana's MOH is a central body supported by various agencies. By regulations, the GHS and teaching hospitals are service delivery agencies of the MOH (Republic of Ghana, 1996). MOH make policies and the agencies implement.

At the national level, GHS headquarters directly manages the regional and district levels. The GHS headquarters serves as an interface between the MOH and the lower levels of the health system. The headquarters links with MOH to develop broad policies relating to planning and

budgeting, coordinating mechanisms for donor support, resource mobilization and other healthcare delivery needs of the country (Republic of Ghana, 1996).

At the regional level, two health institutions are prominent: regional health directorates and regional hospitals. The regional health directorate links the national headquarters with the district levels. It provides managerial and technical support in order to translate central policies into practicable actions at the district level. Additional roles include providing guidelines, protocol and procedures for district health services, develop coordinating mechanisms for inter-district interactions, monitor and supervise programme at the district levels and provide feedback to districts and national level (Republic of Ghana, 1996). The district levels are the operational units of Ghana's health system, where health policies are implemented.

Furthermore, there are three main administrative divisions in the health administration of Ghana; the national, regional and district levels. Further functional levels of national, regional, district, sub-district and community exist extending the levels to five. As part of decentralisation, decision making authority has been transferred from the national level to lower levels of regional, district and sub-district (Kwamie et al., 2016). Moreover, these administrative levels are organised as cost centers which are popularly known as Budget Management Centres (BMCs) and that is for managing financial resources from different sources such as government of Ghana (Salisu & Prinz, 2009).

Thus, the administrative structure of health in Ghana requires that those at lower levels of the structure report back to the top in the natural chain of bottom-up. Therefore, in a hierarchical order where the national is at the topmost followed by regional, district and sub-district the reporting takes similar fashion. Thus, the district health management teams, district hospitals,

and sub-districts report to the district director, who also is responsible to the regional director of health services and the regional director in turn report directly to director general of GHS (Kwamie et al., 2016).

Consequently, the medical superintendent is expected to report to the district director. However, Kwamie et al., (2016) admit that there is ambiguity surrounding the relationship between the medical superintendent and district director because of the perception of peer-to-peer rather than superior-subordinate relationship. Hence, there is a possibility of this perception affecting the exercise of power in the district health system, and the exercise of power also affecting PHC delivery. In the light of this ambiguity, the study explored the sources of power and the power relations between district directors and medical superintendents, and the effects of the power relations on the organisation and delivery of clinical care at the health centres in Ghana.

4.6. Summary of the Chapter

The chapter described the various institutions that make-up the district health system and the role district hospitals play in health delivery as well as the training of healthcare professionals. The PHC strategies are integrated into the district health system in order to build resilient health systems where resources are harnessed to meet community health requirement. The health sector in Ghana was described. The section gave an overview of the history of healthcare, health indicators and the structure of health administration in Ghana.

CHAPTER FIVE

METHODOLOGY

5.1. Introduction

This chapter discusses the methods of the study. The chapter addresses the epistemological foundations of the research and as well discusses the procedures used to collect data.

5.2. Epistemological Orientation of the Study

The nature of the study, with focus on understanding the sources of power and the power relations among district health managers and how these power relations affect the organisation and delivery of health centre clinical care services, is consistent with an interpretivist epistemological paradigm or constructivist ontological orientation (Gialdino, 2009). The constructivist approach to research attempts to understand reality of life and argues that the social construction of reality is dependent on one's perspective (Stake, 1994; Creswell, 2003). Thus, "reality" is constructed by how actors understand and see it. As such "reality" does not exist independent of the construction and interpretation of the actors in that "reality". In this way, the paradigm followed in this research considered the subjective views of the participants and their background, as well as the experiences of the researcher as a health professional. But the approach does not undermine the need to ensure objectivity in the design, data collection and interpretation of results (Creswell, 2003).

The constructivist / interpretivist approach mostly uses qualitative methods to understand participants' judgments that count as knowledge (Kemp, 2012). Through this approach, the participants in this study freely shared what is the reality (from their perspective) about the

sources of power and the power relations among district health managers and the effects on the organisation and delivery of clinical care at the health centres in Ghana.

In contrast, researchers in the positivist paradigm are commonly aligned with quantitative methods of data collection and analysis to understand causal mechanisms independent of any social construction or interpretation (Creswell, 2014). Thus, the positivist world view is reflected in much clinical, biomedical, epidemiological, and some social science research; a position that holds that the goal of knowledge is simply to describe the phenomena that we experienced.

In between these two perspectives of constructivism / interpretivism and positivism is critical realism. It is one of the most common forms of post-positivism. Critical realism believes that there is a reality independent of our thinking about it that science can study (Patomäki & Wight, 2000). The post-positivist emphasises the importance of multiple measures and observations, each of which may possess different types of error, and the need to use triangulation across these multiple sources in order to get a better understanding of what's happening in reality. The post-positivist also believes that all observations are theory-laden and that scientists (and everyone else, for that matter) are inherently biased by their cultural experiences, world views, and so on.

5.3. Methods

This section has three sub-sections as follows:

5.3.1. Study Design

The study adopted a cross-sectional exploratory qualitative study design. In this study, a cross-sectional study design implies that data was collected on more than one case at a specific point in time (Levin, 2006). Cross-sectional design is popular among quantitative researchers, and it is

also often employed in qualitative research (Creswell, 2014). Since this study was exploratory in nature and not concerned with measuring change over time or establishing causal relationships, cross-sectional design was appropriate to achieve the research objectives.

Given that the research problem requires an in-depth exploration to examine the sources of power and the power relations among district health managers and the effects of these power relations on the health centre clinical care delivery (Baxter & Jack, 2008), a quantitative empirical research would not have yielded a satisfactory and credible picture of this complex social phenomenon. The quantitative approach is concerned with statistical analysis (populated with numbers), and the research process is structured to generalise the study findings (Creswell, 2003; Patton, 1990). Thus, a multiple case studies approach using mixed qualitative methods was considered the best approach to answer the research questions. Broadly conceived, qualitative research is concerned with understanding how and why a phenomenon exists within a particular context using open-ended questions with flexible designs (Creswell, 2003; Scotland, 2012). Hence, qualitative studies rest on what is happening rather than what is predicted. Although the approach is often critiqued on grounds that it is often unstructured in design, very subjective, and less rigorous in generalising beyond a specific study context (Creswell, 2003), the nature of the research questions makes the qualitative approach more suitable for this study.

Yin (2003) identified narrative, phenomenology, grounded theory, ethnography and case study as separate approaches of inquiry in qualitative research. The approaches answer varied research questions and are originated from different disciplines (Yin, 2003). An in-depth understanding of these approaches reveals that case study would better serve this study.

5.3.2. Case Study Approach

A “case” is defined as a complex functioning unit, investigated in its natural context with a multitude of methods (Yin, 2009). Stake (1994) also described a case as either single or complex, one among others, specific and bounded, and usually has internal and external characteristics (such as context). This study defined the case as a health district which has a district health directorate, a district hospital (owned and managed by the GHS) and a functioning health centre (owned and managed by the GHS). GHS-managed institutions are selected because if ownership of the institutions is different, it becomes an added layer of complexity in trying to understand what is already a complex phenomenon. Moreover, GHS-managed institutions represent the majority of district level health institutions in Ghana.

The case study approach is considered by many researchers as an established research design used to generate in-depth understanding of complex scenarios in their natural contexts (Crowe et al., 2011). However, critics of case study approach (in comparison to other qualitative approaches) often focus on the fact that it depends on a single case which renders it incapable of providing a generalised conclusion as well as it being highly subjective (Flyvbjerg, 2006; Hsieh, 2006).

5.3.3. Multiple case studies

The study used multiple case studies involving three districts selected from the northern (Bongo district), middle (Kintampo North district) and southern (Juaboso district) belts of Ghana. The study used Bongo district as a nucleus district, while Kintampo North and Juaboso districts served as triangulation districts (Stake, 1994). The study employed the concept of nucleus and triangulation districts in the multiple case studies approach because the research problem is

nationwide, that is, potentially found in all districts in Ghana. The approach enabled the researcher to independently confirm emerging constructs and prepositions from the nucleus district (Bongo district) with constructs from the triangulation districts (Kintampo North and Juaboso). Here, the multiple case studies approach was not for comparison of the research problem across the three case study districts per se. This approach reduced the issues of single case and subjectivity associated with a case study.

Additionally, the multiple case studies approach introduced robustness (Hernon, 2004), and gave a fair view of the sources of power and power relations among district health managers, the effect of these power relations on the role of district hospitals in the organisation and delivery of health centre clinical care, and how health centre clinical care services are organised to provide quality clinical care in rural Ghana. The approach also increased the explanatory power and generalisability of the data collection process of this study. The study areas and how they were selected are discussed subsequently.

5.4. Study Area / Selection of Study Sites

The study was conducted in three of Ghana's 216 metropolitan, municipal and district Assemblies, which are distributed across the 10 administrative regions of the country. Bongo District (Upper East region) is in the north-east part of Ghana, Kintampo North Municipal (Brong Ahafo region) is in the central part, and Juaboso District (Western region) is in the south-west part of the country. These districts were selected to broadly give a fair representation of the relations of power among district health managers across the country. The sub-sections below provide detailed information on each of the three study districts.

5.4.1. Background to the Bongo District

The Bongo district is one of the 13 municipal and district Assemblies in the Upper East region of Ghana, created by Legislative Instrument 1446 (LI 1446) in 1988, with Bongo as its district capital (Ghana Statistical Service, 2014b). The district shares boundaries with Burkina Faso to the north, Kassena-Nankana East district to the west, Bolgatanga municipal to the south-west and Nabdam district to the south-east. The district has a total land area of 459.5 square kilometres. The population of Bongo district is approximately 84,545, representing 8.1% of the region's total population. Females constitute 52.4%, and males represent 47.6%. The district has 94% of the population living in the rural areas (Ghana Statistical Service, 2014b). The population in the age range of 15-64 years constitutes about 48%. Both the size and structure of the district's population could have implication for demand and planning for future population growth, social services (health and education) and employment.

The Bongo district is predominantly rural, and characterized by large household sizes, high population density, and high fertility rate. Apart from the district capital, Bongo, all the other communities are made up of small farm settlements scattered around the district. In terms of healthcare, Bongo district is divided into six sub-districts. The health facilities in the district are presented in Table 5.1.

Table 5.1: Summary of the number and type of health facilities in Bongo District

Serial No.	Type of Health Facility	Number of Health Facilities
1.	Hospital	1
2.	Health Centres	5
3.	CHPS zones	36

Source: Ghana Statistical Service, 2014

Major health concerns in the district include: low male involvement in reproductive services, low skilled delivery, low acceptance and utilization of family planning services, low TB case detection, inadequate midwives, low EPI coverage and late registration at antenatal clinic (1ST trimester) (Annual Report, 2014).

Selection of Bongo District

The selection of the Bongo district stemmed from the purposive selection of the Upper East region to represent the northern belt of Ghana. Upper East region was selected because of its position as one of the best performing regions in Ghana's health sector over the past five years (MOH, 2013, 2015b). The health sector performance reports indicated that Upper East region performs better as compared to the other two regions (Northern and Upper West) in the northern belt of Ghana. Expectations were that a best performing region such as the Upper East region should have adequate structures for service delivery and the districts in this region should have the potential to meet the criteria for selecting a case study district.

Out of the 13 districts in the Upper East region, six districts had no district hospitals at the time of the study. These districts did not meet the case definition criteria for this study. Of the remaining seven districts (with functional district hospitals), one district (Bawku municipal) had

a mission hospital as the district hospital. This district did not also meet the case definition criteria for the study. The researcher therefore had six districts (within the Upper East region) qualified to be chosen as case study districts for the study.

The Bongo district was purposively selected (out of the six qualified districts) because it is one of the oldest districts in the Upper East region, also because of proximity to the regional capital. Additionally, the Bongo district had a functional structure that conformed to the case definition criteria. That is, Bongo district had a district health directorate, an established district hospital and functional health centres all owned and managed by the GHS.

The Bongo district had six sub-districts, and five sub-districts had health centres. The five sub-districts (with health centres) were qualified to be selected for the study. Bongo-Soe sub-district was selected because it had a well-established health centre with high out-patient attendance and also because of proximity to district capital.

5.4.2. Background to the Kintampo North Municipal

The Kintampo North municipal is one of the 27 municipal/district assemblies in the Brong Ahafo region of Ghana. The Kintampo municipal was established in 1988 under LI 1480 (Ghana Statistical Service, 2014a). However, in 2004 the Kintampo South district was carved out from it, and it was renamed the Kintampo North municipal by the Local Government Act, Act 462, LI 1762 (Ghana Statistical Service, 2014a).

It is located between latitudes 8°45'N and 7°45'N and longitudes 1°20'W and 2°1'E and shares boundaries with five districts in the country: Central Gonja district to the north, Bole district to the west, East Gonja district to the north-east (all in the Northern region), Kintampo South district to the south and Pru district to the south-east (both in the Brong Ahafo region). The

municipal capital, Kintampo, has a surface area of about 5,108 square kilometers, thus occupying a land area of about 12.9% of the total land area of Brong Ahafo region (39,557km²). The municipality has an estimated population of 104,572, comprising 53,227 females (representing 50.9%) and 51,345 males (representing 49.1%) with a growth rate of 2.3% (Ghana Statistical Service, 2014a).

In terms of health, Kintampo North delivers care in seven sub-municipals. The number and type of health facilities in Kintampo North municipal at the time of study is shown in Table 5.2.

Table 5.2: Summary of the number and type of health facilities in Kintampo North municipal

Serial No.	Type of Health Facility	Number of Health Facilities
1.	Hospital	1
2.	Health centres	4
3.	CHPS	16
4.	Private Clinics	3
5.	Private Maternity Home	1
Total		25

Source: Annual Report (2015), Kintampo North Municipal Health Directorate

Selection of Kintampo North Municipal

The selection of the Kintampo North municipal stemmed from the purposive selection of the Brong Ahafo region to represent the middle belt of Ghana. Brong Ahafo region was selected because the region is performing well as compared to the other two regions (Ashanti and Eastern) in the middle belt of Ghana (MOH, 2013).

The Brong Ahafo regional health service was made-up of 27 health districts with 132 sub-districts at the time of the study. Out of the 27 health districts, eight districts had no district hospitals, and therefore did not meet the case definition criteria of the study. Of the 19 district hospitals in the region, 10 were CHAG institutions, so their districts did not meet the case criteria of the study. The researcher had nine districts qualified to be part of the study.

The Kintampo North municipal was purposively selected (out of the nine districts) because it is one of the oldest districts in the Brong Ahafo region, proximity to the regional capital, and because the district conforms to the case definition. That is, the municipal has a district health directorate, a district hospital and health centres all owned and managed by the GHS. Additionally, Kintampo North municipal is central to the landmass of Ghana and is thus chosen to represent the middle belt of Ghana in this study.

Kintampo North municipal had seven sub-districts, three of which had no health centres and did not qualify to be part of the study. Of the four sub-districts with health centres, New Longoro was purposively selected because of high OPD attendance.

5.4.3. Background to the Juaboso District

The Juaboso district is one of the 22 metropolitan, municipal and district Assemblies in the Western region of Ghana, and is located between latitude 6° 6'N and 7 °' N, and longitude 2 ° 40' W and 3 °, 15 W. The district administrative capital, Juaboso, is located 360 kilometers to the north-west of the regional capital with a surface area of 1,924 square kilometers and estimated population of 63,786. The district serves as entry and exit points between La Cote d'Ivoire and the Republic of Ghana. The district shares borders with Bia district and Asunafo North municipal

to the north, Asunafo South and Bodi districts to the east, Suaman district to the south and La Cote d'Ivoire to the west.

The economic activities carried out include cocoa farming, lumbering, surface mining and teak plantation. Majority of the people are peasant farmers, and they cultivate crops like cassava, yam, plantain and cocoyam. The main source of income for the farmers is the sale of seasonal cocoa beans. This has an impact on the health seeking behaviour of the people.

The road network in the district is very bad. There is only 15 kilometers of tarred road in the district i.e. from Barrier to Juaboso the district capital. Most of the communities become inaccessible during the rainy seasons, making health delivery services difficult in those areas. Some communities can only be reached by foot paths or motorbikes.

The district has 20 reporting facilities, comprising one public Hospital, one health centre, two mission clinics, six private maternity homes and 10 CHPS zones as shown in Table 5.3.

Table 5.3: A summary of sub-districts and their facilities in the Juaboso district

Serial No.	Type of Health Facility	Number of Health Facilities
1.	Hospital	1
2.	Health centre	1
3.	CHPS zones	10
4.	Clinics	2
5.	Maternity Home	6

Source: Annual Report (2015). Juaboso District Health Administration

Selection of Juaboso District

The selection of the Juaboso district stemmed from the purposive selection of the Western region to represent the southern belt of Ghana. The southern belt has four regions: Western, Central Greater Accra and Volta regions. Over the years, the holistic assessment reports of Ghana's health sector saw Western region improve performance in 2013 as compared to 2012, and the region maintained the trend in 2014 (MOH, 2015b). The study selected Western region because of its recent efforts to improve performance.

The Western regional health service is organised into 22 health districts. Of the 22 districts, five district hospitals were CHAG institutions, and their districts were not qualified to be part of the study as per the case definition criteria. Juaboso district was selected out of the remaining 17 districts that met the case definition criteria.

Juaboso district had four sub-districts, and only one sub-district had a functioning health centre at the time of the study. As per the criteria for selecting the sub-district, the remaining three sub-districts did not qualify to be part of the study since they had no health centres. The Bonsu Nkwanta health centre was therefore selected on this basis.

5.5. Study Population

The study population included all district health directorate managers, district hospital management team members, sub-district health team leaders, frontline healthcare providers of district hospitals as well as the staff of health centres in the Bongo, Kintampo North and Juaboso districts of Ghana. Here, frontline healthcare providers refer to those who directly provide services to both in and out-patients of the district hospitals and health centres.

However, to understand the research problem in detail, members of the regional health management teams (Upper East, Brong Ahafo and Western regions) were interviewed as actors who supervise and influence district health services in Ghana. Thus, the study population constituted managers of the district health institutions and their immediate supervisors, as well as the frontline healthcare providers of the district health services at the time of the study. This study population constitutes the primary participants of the study.

5.6. Sampling Technique / Selection of Study Participants

The study employed purposive sampling technique to select the case study districts, sub-districts and the study participants. The sampling process was particularly guided by a theoretical understanding of the issues under study, hence the sample was drawn carefully to maximize variability of the observations (Fitzpatrick & Boulton, 1994).

Purposive sampling technique is a strategy in which particular settings, persons, or events are deliberately selected for the important information they can provide that cannot be gotten as well from other choices (Maxwell, 2009). The technique can be used to achieve representativeness or typicality of the settings, individuals, or activities selected (Maxwell, 2009). With purposive sampling technique, the researcher ensured that participants conceived to have the desired experiences on the study problem were recruited. The study employed two types of purposive sampling techniques: homogenous and maximum variation sampling techniques. How these sampling techniques were used to select the districts, sub-districts and study participants are explained below.

5.6.1. Homogenous Sampling Technique

Homogenous sampling technique is the strategy of picking a small group having similar characteristics, in order to describe the particular subgroup in-depth (M. Patton, 1990). Since the research problem was nationwide, this sampling technique was used to select the regions, districts and sub-districts for the study.

The selection of regions, districts and sub-districts was because all regional, district and sub-district health directorates in Ghana operate under the same policies formulated by the MOH / GHS; and share similar structural and operational characteristics (Republic of Ghana, 1996). Some factors such as geographical location, status of the district (metropolitan, municipal or district) may affect the homogeneity of these health directorates. However, such factors have minimal effects on the study. Hence, the study considered all regional, district and sub-district health directorates as homogenous and selected three districts in three separate regions across the country for an in-depth study of the relations of power among district health managers.

The homogenous sampling technique was supported by three additional criteria to select the three districts with their corresponding regions and sub-districts. These criteria included:

1. The performance of the regions (as compared to other regions), districts (as compared to other districts within the selected region) and sub-districts (as compared to other sub-districts within the selected district) in the Ghanaian health sector;
2. Consistency with the case definition as per this study, that is, the district should have a district health directorate, district hospital and a functioning health centre all owned and managed by the GHS; and

3. Years of existence as health districts. The study considered districts that were less than 10 years as recently created, and were excluded from the study.

These criteria were used to select Bongo district of the Upper East region, Kintampo North municipal of the Brong Ahafo region and Juaboso district of the Western region as case study districts. Using the same criteria, the study also selected Bongo-Soe sub-district in the Bongo district, New Longoro sub-district in the Kintampo North municipal and Bonsu Nkwanta sub-district in the Juaboso district as subcases. The chosen homogenous sampling technique was used to select the case study sites earlier described in 5.4.1 to 5.4.3.

5.6.2. Maximum Variation Sampling Technique

The study also used maximum variation sampling technique to select the participants for the study. Maximum variation sampling involves choosing study participants across a wide spectrum relating to the topic of study (Patton, 1990). With this sampling technique, the study captured and described the views of a variety of study participants (health managers and frontline healthcare providers), and thus achieved a greater understanding of the phenomenon under study.

First, health managers were sampled from the regional, district and sub-district levels who shared the managers' perspective on the questions under study. The range of health managers, who sprang from the regional level (immediate supervisors of districts), to the district level (which includes the main actors), and the sub-district level ensured that the research questions were discussed at the different levels. Secondly, frontline healthcare providers were sampled from the district hospitals and health centres to share the providers' perspective on the questions under study. The chosen maximum variation sampling technique was used to select the study participants as described in the subsequent sub-sections.

5.6.3 Selection of Study Participants

The research sought to understand the subjective reality of the study participants. Hence, the researcher selected 72 participants within the study areas who shared their individual and unique slice of reality, so that all slices together illustrated the range of variations within the study areas.

Selection of Study Participants at the Health Centre Level

At the health centre levels, sub-district health team leaders and frontline healthcare providers were purposively selected to present the perspectives of the health centres relating to the study's problem under consideration. The sub-district health team leaders were selected because of their positions and contributions to the organisation and delivery of health centre clinical care services for in-depth interviews. The sub-district health team leaders shared their experience on the sources of power and power relations between district directors and medical superintendents, and the effects on the organisation and delivery of clinical care at the health centres.

The views of frontline healthcare providers at the health centre level were gathered through Focus Group Discussions (FGD) with the selected frontline providers. The criterion used to select these frontline providers was seniority and/or length of service in the health centre. These participants were selected because of their frontline roles in providing clinical care services at the health centres, and were likely to have knowledge of the research problem.

At the Bongo-Soe health centre, the researcher selected eight study participants. The participants included one midwife (the only midwife at post at time of the study), two staff nurses (the most senior and her immediate subordinate), one enrolled nurse (the most senior among two), one records staff (the only permanent staff), the only dispensing technician, and the only laboratory

technician. In addition, the only physician assistant, who was also the sub-district leader, was selected for in-depth interview.

Similarly, the researcher selected seven study participants from the New Longoro health centre. The researcher selected the only midwife, who was also the sub-district leader for an in-depth interview. The frontline healthcare providers selected were two enrolled nurses, the only laboratory technician, two records staff, and one community health nurse (the most senior among two).

The researcher also selected seven study participants from the Bonsu Nkwanta health centre. The only physician assistant, who was also the sub-district leader, was selected for an in-depth interview. The frontline healthcare providers selected were two staff nurses, one records staff, and three enrolled nurses (one working as dispensing staff and two at the OPD). The only midwife was at a workshop at the time of the study.

Selection of Study Participants at the District Hospital Level

The researcher selected two categories of study participants each from of the Bongo, Kintampo North and Juaboso government hospitals. First, the researcher selected four core hospital management team members in each hospital. These health managers were selected because of their role in the day-to-day management of the hospitals, and were likely to have deep insight of the power relations between the district directors and medical superintendents, and the effects on the organisation and delivery of health centre clinical care services. The medical superintendents were selected for in-depth interviews, and the hospital administrators, nurse managers and hospital accountants selected to participate in FGDs.

In each hospital, the researcher also selected eight frontline healthcare providers to participate in the study. The frontline healthcare providers were in-charge of outpatient departments, as well as maternity, children's, female and male wards. They also included the head of records section, the head of laboratory section, and the most senior physician assistants. These study participants represented the hospital frontline healthcare providers' perspective on the issues under consideration in FGDs.

Selection of Study Participants at the District Health Directorate Level

At the district health directorate levels, district health management members were selected from the Bongo, Kintampo North and Juaboso district health directorate. Four district health managers were selected from each district health directorate because of the various roles they play in the health district. As the district health leaders, the district directors were selected for in-depth interviews. The executive officers, district health information officers and the district health directorate accountants were also selected because they work closely with the district directors in the day-to-day management of the district health services. These district health managers participated in FGD, and represented the district directorates' perspective on the issues under consideration.

Selection of Study Participants at the Regional Health Directorate Level

At the regional level, the researcher selected the two deputy regional directors (clinical care) for in-depth interviews: one from the Upper East region, and one from the Brong Ahafo region. These health managers were selected because of their roles as supervisors of clinical care services in the health districts. These actors also served as the link between the health district and the national level regarding clinical care services in Ghana's health sector. Their participation in

the study gave the perspectives of the regional health management team on the power relations between the district directors and medical superintendents, and the effects on the organisation and delivery of clinical care from the health centres.

A summary of the study participants in all three districts is presented in Table 5.4.

Table 5.4: Summary of study participants showing their categories and districts/regions

Study Site	Health managers		Frontline Healthcare Providers		Total
	Male	Female	Male	Female	
Bongo District/Upper East Region	6	4	10	5	25
Kintampo North / Brong Ahafo Region	7	3	9	5	24
Juaboso district/Western Region	7	2	8	6	23
Total	20	9	27	16	72

Source: Field Data, 2016

The sample size in qualitative studies depends on when saturation (little new information is generated from the data) occurs and categories and themes are fully developed. Again, large samples do not imply how in-depth the research problem has been explored (Mason, 2010). This study was committed to have a full understanding of the research problem across the three districts in Ghana, rather than representing a wider population's interest (Marshall, 1996). Thus, the sample size was selected in order to generate information-rich data (Onwuegbuzie & Leech, 2005). For this reason, the researcher recruited a total of 72 study participants for the study. Individual interviews conducted involved 11 study participants and the 61 participated in nine

FGDs. All these study participants as well as the study sites were selected using non-probability sampling technique.

5.6.4. Recruiting and Retaining the Study Participants

This sub-section describes the actual processes used to recruit and retain individuals who met the criteria for participation in the study. The researcher followed the bureaucratic structure (submitted letters of introduction from the national level to the regional health directorates, then to district health directorates) to appropriately enter into each district. The researcher also considered individual participants commitment. Individual participants reserved the right to either participate (fully or partially) or refuse to participate, despite gate-keepers' permission to conduct the study in the selected districts. In this study, no incentives were offered during recruitment of participants. Whereas the role of incentives in recruiting and retaining study participants have been highlighted in clinical research (Groth, 2010), the act has been condemned by other researchers in the field (Grant & Sugarman, 2010).

The researcher used telephone conversations and personal interactions to build rapport with the individual participants who met the selection criteria. During these interactions, the researcher explained the purpose of the study, why he/she was selected, and ethical issues surrounding their participation as individual participants. In addition, these interactions were used to set interview dates and times, arrange meeting venues for the interview, as well as FGD sessions. Thus, the study encountered little challenges in the actual recruitment processes.

5.7. Data Collection Methods

Typical of case studies is a combination of data collection methods (Fitzpatrick & Boulton, 1994). Thus, multiple data collection methods (participant observation, interviews, focus group discussions and documentary review) were used to collect data in order to address a wide range of issues relating to the sources of power and the power relations among district health managers, and the effects of these power relations on the organisation and delivery health centre clinical care. All four data collection methods were employed across the three case study districts.

The methods enabled the researcher to provide a more convincing and robust description of the relations of power between district directors and medical superintendents, and the effects of the relationship on the organisation and delivery of clinical care services (Addicott & Ferlie, 2007).

The data collection process lasted for a period of three months, and generated field notes, audio recordings, and transcripts for analysis. The process started with the participant observation, followed by interviews, FGD and documentary review were done (Mack, Woodson, Macqueen, Guest, & Namey, 2005). How these tools and techniques were used to collect empirical data have been explained in subsequent sub-sections.

5.7.1. Participant Observation

Participant observation is described as a method which considers the investigator as an accepted outsider, paying close attention to what goes on, and making a careful record of it for future analysis (Fitzpatrick & Boulton, 1994). Participant observation was done at the Bongo-Soe, New Longoro and Bonsu Nkwanta health centres. The researcher spent three weeks working full time in each health centre. The participant observation was organised systematically, from one unit to

another, so as to maximize the period. In this study, the participant observation was done to answer the research question two: How are health centre clinical care services organised and delivered in order to provide quality healthcare in the rural Ghana and why?

The researcher personally conducted the participant observation in which an overt participant observation approach (Fitzpatrick & Boulton, 1994) was adopted. In this regard, the health centre staff understood that the researcher was only an observer, and the process was only for the research purpose. The background of the researcher as biomedical laboratory scientist enhanced the understanding of the participant observer's role in the entire participant observation process.

Health centre clinical (excluding preventive care service) service delivery was structured as follows:

1. Nurses' station – where out-patient healthcare was offered. The unit provided services such as temperature and blood pressure checks, history taking, and preparing patients for consulting room services.
2. Consulting rooms – where the prescriber sat and received patients. These rooms were located very close to the OPD.
3. Health records units – where patient folders were stored. Any patient who visited the health centres first reported to these units, either for a new folder or to retrieve an existing folder.
4. Laboratory unit – where patients visited for laboratory diagnosis of their ailments.
5. Maternity unit – where pregnant mothers received skilled delivery services
6. Dispensary – where drugs and other consumables were stored. The unit served as the point where patients received the drugs for their ailments.

7. Wards – where patients were detained. Health centres are allowed to detain a patient for a maximum of 24 hours, after which if the patient is not fully recovered, he or she is referred to the district hospital.

The researcher took part in the day-to-day clinical care activities, which included the OPD and consulting room services, laboratory services, filing and retrieval of patient folders, dispensary services, and maternity services. A normal working day started with the retrieval of patient records, to the OPD and consulting room, to the laboratory (where applicable) and finally, to the dispensary. In each health centre, the researcher participated in the daily processes, while observing how services were delivered. The observation included challenges that were faced during service provision and how these challenges were addressed.

As part of the participant observation, the researcher offered his car freely as service vehicle for the period. This offer was necessary because these health centres did not have any ambulance or vehicles for the transfer of referred patients and for other health centre activities. The car was mainly used to transfer referred patients to the district hospitals, as well as collecting drugs and other consumables from the district and regional medical stores. Through this effort, the researcher observed:

1. The referral process, including the reception of patients at the first referral hospitals
2. The supply chain. It also enabled the researcher to have close conversations with staff and patients for deep understanding of the situation.

As a biomedical laboratory scientist, the researcher contributed significantly to laboratory services in each of the three health centres. The researcher contributed by:

1. Offering on-the-job training to the laboratory technicians
2. Providing working support during working hours

3. On-call duty for laboratory services where emergency services were needed after normal working hours.

During the participant observation periods, informal conversations were a significant source of data for the study. Detailed notes were taken of what was observed. The researcher conducted the participant observation with an open mind (without structured observation checklist or guide) using a skeletal guide to help focus on the observation. In order not to introduce bias, notes were written at the researcher's private time. At the end of the participant observation period, the researcher understood how clinical care services were organised, the challenges associated with service delivery and efforts made to avert service delivery challenges in order to provide quality clinical care services to the rural population.

5.7.2. Documentary Review

Documentary review is a data collection method used to extract information from written as well as electronic documents (Mogalakwe, 2006). Documentary review enabled the researcher to gain a full contextual understanding of the sources of power and the power relations between district directors and medical superintendents and the effects of these power relations on the organisation and delivery of clinical care (Mogalakwe, 2006).

In this study, documents such as consulting register, annual action plans, referred feedbacks, visitors' book, patient records, dispensary records, laboratory register and skilled delivery register provided useful information for the study. The documents reviewed at the district level included training reports, performance reports, as well as minutes of meetings. At the national level, policy documents such as the GHS organogram, the GHS and Teaching Hospitals Act (Act 525) and the management guidelines for sub-districts (2011) were also reviewed. The

documentary review data were used to validate participants' subjective views gathered through the interview and FGD techniques.

The documentary review process took into consideration a one-year period before the start of the review process. Thus, all relevant documents from January 2015 to December 2015 were considered and reviewed. The documentary review process was organised systematically, from one unit to another as per the structure of the health centres. An appropriate checklist was designed to facilitate the documentary review process and to ensure that quality data was collected. Summary notes were taken and, where necessary, pictures of relevant document portions taken as empirical evidence.

In the documentary review process, the researcher retrieved the relevant documents with support from the health centre staff and personally conducted the review. The review was done daily after close of normal clinic day, from 3pm to 6pm at the health centres. During the process, the researcher went through the documents from page to page, and picked relevant information to support the study objectives.

At the end of the documentary review process, the researcher gathered data on how clinical care services were organised and delivered at the health centre levels in Ghana. Specifically, the researcher understood the service provision relationship between the district hospital and the health centres, as well as challenges during clinical care service delivery.

5.7.3. In-depth Interview

In-depth interviews are described as open-ended, discovery-oriented methods of data collection, used to deeply explore the participant's feelings and perspectives on a subject (Guion, Diehl, &

Mcdonald, 2011). Eleven in-depth interviews were conducted in this study, involving health managers at the health centres, district hospitals, district health directorates and regional health directorate levels as illustrated in Figure 5.1.

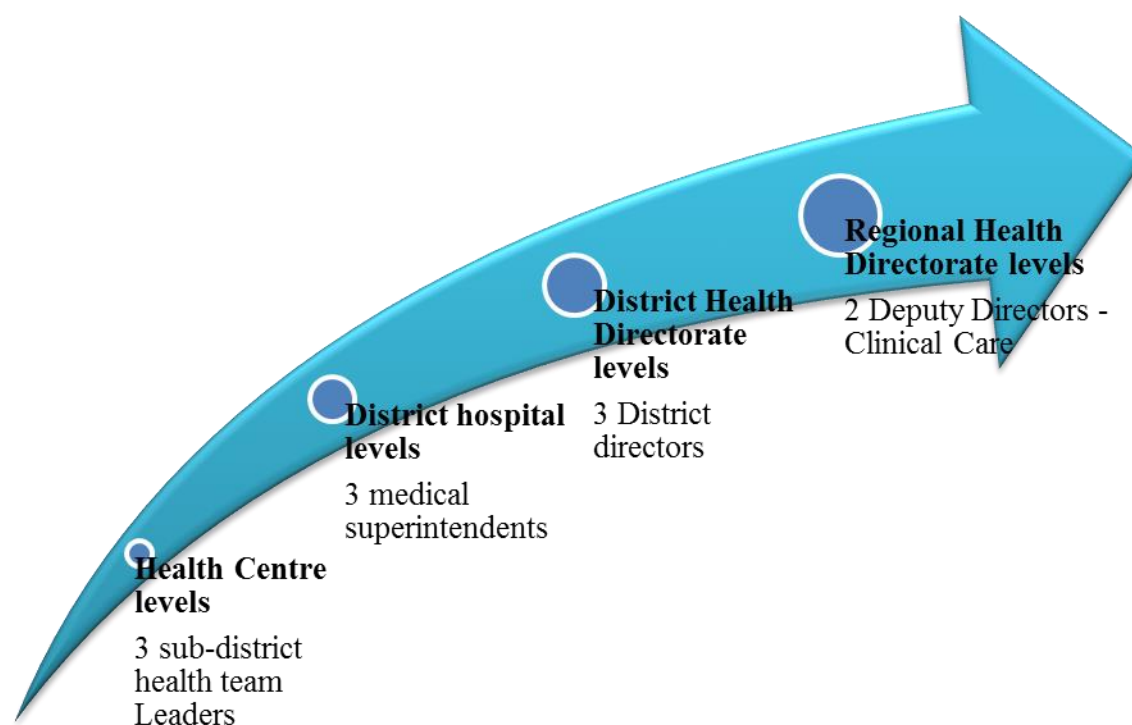


Figure 5.1: Summary of the number of in-depth interview participants at the various levels

Source: Field Data, 2016

Figure 5.1 shows the hierarchical positions of the health managers in Ghana's health sector. The sub-district health team leader oversees all health activities at the peripheral level (including the CHPS zones) of the district health system. The medical superintendent is the medical director in-charge of all health activities within the district hospital, and oversees all clinical care services within the district health system. The district director is the overseer of the entire district health services (both clinical and preventive care services), and finally the deputy regional director,

clinical care is a director at the regional level who supervises clinical care service in the entire region.

The selection of these health managers reflects the epistemology, methodological and practical issues associated with the research problem studied (Baker & Edwards, 2012). These health managers are at the heart of clinical care services, and their actions and inactions affect service delivery within the district health system. The study therefore, assumed that these health managers have in-depth knowledge of the sources of power and the power relations between district directors and medical superintendents and the effects of these power relations on the organisation and delivery of health centre clinical care services.

Across the three districts, the views of these health managers were gathered using semi-structured guides and designed to achieve all three research objectives. The interviews sought to gather the views of the health managers on:

1. The sources of power and the power relations among district health managers,
2. How health centre clinical care services are organised and delivered in order to provide quality healthcare in rural Ghana,
3. How and why the power relations among district health managers affect the organisation and delivery of health centre clinical care services.

In each district, the interview sessions started one week into the participant observation period. This allowed the researcher to familiarise himself with the environment, while making initial contacts with the participants to schedule convenient dates, times and venues for the interviews. The district directors were interviewed first (because they are the district heads), then the medical superintendents. This arrangement gave the researcher the perspective of the district-

level health managers on power issues and related effects on service delivery at the health centre level, which informed the subsequent interviews. The sub-district leaders were interviewed third, and finally the deputy regional directors. All 11 interviews were conducted in the English language, and average time period for each interview was 50 minutes. The interviews were conducted in the individual participant's office where doors were shut to minimise interference. Where it was necessary for the participant to attend to urgent issues, the audio recorder was pulsed to allow these managers attend to their issues.

Across the three districts, study participants cooperated with the researcher to schedule the interview dates with two days intervals. The schedule gave the researcher some time to listen carefully to initial interview recordings, and that improved the quality of subsequent interviews. The interviews were conducted by the researcher. At the end of the in-depth interviews, the researcher collected enough data to address all the research questions.

With the study participants' consent, the responses were audio-recorded to complement written notes by the interviewer. Written notes included observations of both verbal and non-verbal conducts and communications as they occurred, and immediate personal reflections about the interview.

5.7.4. Focus Group Discussion (FGD)

Nine (9) FGDs were conducted with different categories of study participants and the number of participants in each group varied from six to eight. The FGD participants were district-level managers, and frontline healthcare providers at the district hospitals as well as the health centres.

Among district health managers, three FGDs were conducted - one in each district. Each FGD with district health managers was made-up of six participants drawn from the hospital management teams and the managers of the district health directorates. A hospital management team is a five-member team (medical superintendent, nurse manager, hospital administrator, accountant and pharmacist) responsible for the day-to-day activities of the district hospital.

The district hospital administrators, nurse managers and the hospital accountants were recruited from the hospital management teams; while the executive officers, health information officers and the district accountants were recruited from the district health directorate to make-up the FGD groups in each district. The mix of participants generated fruitful discussions about the power play among their leaders and how this power play affects clinical care delivery at the health centre levels across the two management teams.

Among the district hospital frontline healthcare providers, three FGD (one in each district hospital) were conducted. Each group was made-up of eight in-charges and departmental heads in the hospitals as described in section 5.6.3. These study participants represented the health professionals providing healthcare at the district hospitals. At the health centre level, the study conducted three FGD (one in each health centre) with frontline healthcare providers. At the Bongo-Soe health centre, seven frontline healthcare providers were engaged in the FGD. At the New Longoro health centre, six frontline healthcare providers constituted the group, and again six frontline healthcare providers constituted the group at the Bonsu Nkwanta health centre. The irregular FGD numbers from health centre to health centre was informed by the number of staff working at the health centres at the time of the data collection. Table 5.5 summarises the number of FGDs and number of participants in each group.

Table 5.5: Summary of FGD per district and the number of participants in each FGD

	Bongo District / Bongo-Soe Health centre		Kintampo North Municipal / New Longoro Health centre		Juaboso District / Bonsu Nkwanta Health centre	
	Number of FGDs	Number of participants	Number of FGDs	Number of participants	Number of FGDs	Number of participant
Frontline Healthcare providers – Health Centre	1	7	1	6	1	6
Frontline Healthcare providers – District Hospital	1	8	1	8	1	8
District Health Managers	1	6	1	6	1	6
Total	3	21	3	20	3	20

Source: Field Data, 2016

The health managers and frontline healthcare providers shared their perspectives and experiences on the issues under study. The FGD used a semi-structured guide designed to collect data on the sources of power and the power relations among district health managers and the effects of these power relations on the organisation and delivery of health centre clinical care.

In each district, the FGDs were conducted within the participant observation period (three weeks period). The researcher used the first week to familiarise himself with the environment, and made initial contacts with the participants to schedule convenient dates, times and venues for the FGD. The FGDs took place in between two interview sessions. Hearing and synchronizing the views of the different categories of the study participants fortified the subsequent sessions.

Each FGD was facilitated by the researcher while the research assistant took notes. In each district, the district-level groups were conducted first, followed by the hospital frontline healthcare providers groups, and finally the health centre frontline healthcare providers. By these arrangements, the researcher synchronised the district-level participants' views before descending to the lower level.

In each FGD, participants and facilitators sat in circular-seating arrangements. Each participant in a FGD was given a code number (such as 01, 02, 03, 04 and so on). These code numbers were used to design seating charts to facilitate participant identification, notes-taking and transcription. All FGDs were conducted in the English language and the average time period for each FGD was 90 minutes. In each district, the FGDs were conducted in the various facilities (hospitals and health centres).

A notes-taking form was designed and used to capture places, times, dates and name of the moderator and a note-taker. To facilitate notes-taking, the form was designed with three columns entitled: Questions, Responses and Observations. In addition, audio recording of voices were done during the discussions to fortify quality of data collected. At the end of the FGD sessions, the researcher had collected enough data to address all the research questions.

5.8. Data Quality Assurance

This section of the chapter explains how quality of the data was assured. The section presents the quality issues as sub-sections.

5.8.1. Composition of Research Team

The research was conducted by a team of four persons, made-up of the researcher as principal investigator and three research assistants. One research assistant was selected for each case study district. The research assistants were selected based on prior knowledge of social science research, especially qualitative research. Each research assistant holds a Bachelor of Science degree in public health. The research assistants assisted the data collection process (interview and FGD), and verbatim transcription of voice-recordings. Involvement of the research assistants in the data collection process (interviews and FGDs) reduced subjectivity on the part of the researcher.

5.8.2. Data Collection Training sessions

For a detailed understanding of the research instruments, three training sessions were organised for the research assistants. They were trained individually at the case study districts. The study concept and data collection instruments were initially sent to the research assistants for them to get familiar with the data collection process, and then followed the actual training. The training systematically examined the research instruments, during which the research assistants practiced how interviews and FGDs are done. The training equipped the research assistants with the needed skills for quality data collection. Notes taking and how to effectively transcribe an audio-recording was also part of the training process. Detailed planning of the training workshop ensured effectiveness and helped to achieve the training objectives.

5.8.3. Pre-testing of Research Instruments

The research instruments were pre-tested in the Sunyani municipal of the Brong Ahafo region. The selection of the pre-test district was based on proximity to the researcher. During the pre-testing, the district director, medical superintendent, and the Abesim sub-district health team leader were interviewed. One FGD involving frontline healthcare providers at the Sunyani municipal hospital was conducted. The documentary review checklist was also pre-tested in the Abesim health centre. Analysis of the pre-tested data served as check to improve quality of the data collection process in the main study.

5.8.4. Validity Testing

Two broad validity threats (Maxwell, 2009) that could have affected this study were bias and reactivity. Bias estimates the degree to which the theory, value or preconceptions might distort the data collection and/or analysis. Reactivity comes about when an interviewer's influence has strong effects on data collected (Maxwell, 2009). In addition to avoiding leading questions during interviews, understanding the influence of power and using it ethically helped to reduce the researchers' influence on interviewees. Besides, most interviewees in this study were health managers, whose integrity in answering interview questions were respected.

A checklist as proposed by Maxwell (2009) was adopted, modified and tabulated to check the validity of the study. This is shown in Table 5.6.

Table 5.6: Validity Checklist showing strategies used to ensure study validity

Serial No.	Strategies	Description
1.	Prolonged and persistent field work to avoid inferences.	A participant observation for a period of three weeks was long enough to have protracted data from the field. This allowed for constant informal discussions on the issues under study till data saturation was reached. Thus, the study was less dependent on inferences.
2.	Verbatim transcriptions to avoid using scanty data.	The study obtained literal statements of participants and quotations from documents. For clarity and further data collection on specific issues, informal interviews were used to produce quality transcripts. The process produced a full and revealing picture of all the issues being studied.
3.	Search for discrepant or Negative data.	The study actively searched for, recorded, analysed and reported negative cases or discrepant data that are exceptions to or that modify patterns found in the data. In this situation, the study assessed whether it was plausible to retain or modify the conclusions.
4.	Triangulation	Triangulation as a validity-testing strategy reduces risk of chance associations and of systematic biases due to a specific method. The use of triangulation districts, multiple data collection methods and diverse range of study participants increased the rigour of the study. The check allowed for a better assessment of the generality of the explanations that the study developed.

Source: Field Data, 2016

5.9. Data Analysis

Qualitative data analysis is concerned with the development and management of concepts into analyses of underlying patterns (Patton, 2002). The study analysed data using content analysis approach (Zhang & Wildemuth, 2009), and it was done simultaneously with data collection to allow for a progressive focus on the data collection process. Content analysis is aimed at providing condensed and broad description of data in order to develop concepts or categories that

allow the researcher to identify core consistencies and meanings of the phenomenon under study (Patton, 2002).

Content analysis can be applied quantitatively or qualitatively, and can be inductive-based or deductive-based (Elo & Kyngas, 2007). Inductive content analysis and deductive content analysis are differentiated using availability (deductive), and limited or non-availability (inductive) of previous knowledge as basis. Thus, the inductive approach moves from a narrower perspective to a broader perspective, whilst the deductive approach moves from a broader perspective to a narrow perspective.

Based on the epistemological orientation of this study, and the fact that sources of power and the power relations between district directors and medical superintendents and the effects of the power relations on the organisation and delivery of health centre clinical care services are far less discussed in the literature, the researcher employed the inductive content analysis approach to analyse the research data. The approach allowed the researcher to understand (descriptive) and provide meaning (interpretive) to the research data (Marying, 2000).

At the end of the data collection, the study had 11 voice-recorded interviews with their corresponding field notes, nine voice-recorded FGDs, as well as field notes from the participant observation and documentary review processes. Transcription of the voice-recordings was done verbatim by the researcher and the research assistants. The researcher's involvement in the transcription facilitated the understanding of the data.

Starting the data analysis process, the researcher took time to read and re-read the transcripts. From time to time, the researcher listened to the voice-recordings to fully understand the content of the data. While reading and re-reading the transcripts, the researcher cleaned the content of the

data by correcting grammatical errors, as well as restructuring phrases without altering their meanings. The effort produced clean transcripts for analysis.

The Nvivo version 11 software was used in the data analysis process. The clean transcripts were imported into the Nvivo platform to begin the data analysis. On the Nvivo platform codes were developed and stored within nodes. Since the study adopted the inductive data analysis approach, the codes were derived from the data. The coding process divided the data into meaningful units.

Broadly, the data was divided using key words/phrases from the specific objectives of the study.

Hence, the data was divided into three units, coded into:

1. Sources of power and the power relations among district health managers,
2. Organisation and delivery of health centre clinical care, and
3. Effects of power relations on organisation and delivery of health centre clinical care.

The researcher further analysed the data to generate themes and sub-themes (where possible) under each of these broad units. These themes and their sub-themes have been summarised in Table 5.7.

Table 5.7: A summary of themes and sub-themes generated from the data

Key phrases from specific objectives	Themes generated	Sub-themes generated
Sources of power and power relations	Formal sources of power	Legitimate source of power of district directors, and legitimate source of power of medical superintendents.
	Informal sources of power	Financial dominance and medical dominance.
	Manifestation of power	No sub-themes.
Organisation and delivery of health centre clinical care	Range of clinical care services	Outpatient care, clinical laboratory services, suturing and surgical procedure, pharmaceutical services, and clinical care management
	Borrowing and exchange of medical supplies	No sub-themes.
	Knowledge sharing	No sub-themes.
	Multi-task approach to health centre clinical care	No sub-themes.
Effects of power relations on organisation and delivery of clinical care	Clinical supervision of health centres	Inadequate health centre clinical care supervision
	Patient Referral in the district	Delayed patient referral

Source: Field data, 2016

5.10. Ethical Issues

This section of the chapter presents the ethical concerns of the study. The section addresses the research protocol, processes, risks, confidentiality and privacy issues.

5.10.1. Submission of research protocol

Ethical clearance was sought from the Ethics Review Committee of GHS. The research protocols were submitted to the ethics review committee and were approved.

5.10.2. Introductory processes

Letters of introduction were written by the head of Health Policy, Planning and Management Department, School of Public Health, College of Health Sciences, University of Ghana, to the regional directors of health services for Upper East, Brong Ahafo and Western regions. Upon receipt of the clearance and introductory letters, each regional director of health services wrote another letter introducing the research team to the selected districts in their respective regions. The letters were addressed to the district directors, and copied to the deputy regional director (clinical care), the medical superintendents, and the sub-district leaders.

Following these introductory processes, the research team initially reported to the district directors at the district level; then moved to the medical superintendents at the district hospitals, and finally to the sub-district leaders. The purpose was to personally introduce the research team and interact with these gate-keepers, who were themselves study participants.

5.10.3. Explanation of research process

Before the interview and FGD sessions, the study participants were informed about the objectives of the study. That is, power relations among district health managers; how and why these power relations affect the organisation and delivery of clinical care at the health centres; and how health centres organise and deliver quality clinical care services in the rural settings.

A detailed explanation of the study also highlighted their roles as study participants, as well as the roles of the researchers. The study participants were made to understand that they reserved the right to withdraw from the interview or FGD sessions, either at the start or at any point in

time during the process. The study participants were also informed that they were not obliged to answer all questions and reserved the rights to decline providing any information.

Additionally, the participant observation and documentary review processes were guided by ethical practices. The researcher outlined clearly to management of the various health centres that the researcher would participate fully in the day-to-day activities of the centres for the period. Again, the study explained clearly the documentary review process, stating the documents to be reviewed and expected information extracts.

5.10.4. Coding of study participants

The coding of study participants was guided by two formulae. Firstly, interview participants were coded as “Data collection tool/Participant number/Region”. For instance, IDI_P04_Region A. Secondly, FGD participants were coded as “Data collection tool/Category of Participants /Participant number/Region”. For instance, FGD_HM _P06_Region B. The formula reflects the category of study participant [such as Health Managers (HM), District Hospital Frontline Providers (DHFP) and Health Centre Frontline Providers (HCFP)] who made the statement, in a FGD with participant number, and from which region. FGD study participants were given code numbers (such as 01, 02 and 03) during the discussions. Similarly, the three regions were denoted as “A”, “B” and “C”. For the purpose of anonymity, the connotations of the regions remain undisclosed.

5.10.5. Confidentiality / Content Form

Management of the various health centres were assured of confidentiality in the observation and documentary review processes. Consent was obtained from health centre managers regarding sensitive information and taking pictures as empirical evidence. Similarly, the study participants

and management of the health centres were assured that information gathered would be treated as private and confidential whether in whole or in part. The confidentiality issues were explained in the information sheet, which the participants read. Thus, verbal and written consents were obtained from the participants.

5.10.6. Risk and benefits of participating

In each district, the researchers fully explained the risk and benefits of participating in this research before the start of any data collection process. In this study, the anticipated risk to study participants included the provision of sensitive information, especially because voices were recorded. Participants were re-assured of the integrity of the research team.

The researcher explained to the study participants that the benefits of participating in this research would not be immediately seen, but the research findings would go a long way to improve working conditions at the district PHC levels. The district health managers, the frontline healthcare providers would benefit from an improved inter-institutional relationship framework. No remuneration was given for participating in the research however, the study guided against study participants spending their money and resources for the purpose of the research. Thus, the researcher provided for transport and any related expenses to the study participants. In addition, the researcher provided refreshment for FGD participants.

5.10.7. Privacy and security of information

To ensure privacy and security of information collected, the study employed good storage practices. Voice-recorded interviews, discussions, extracts from documents, pictures and any electronic information gathered were immediately transferred to a computer with security passwords. Study participants and managers of the health centres were assured that all the

research data would be safely stored for a period of five years, after which they would be deleted from the computer.

5.10.8. Conflict of interest

Conflict of interest issues were addressed in the study. Study participants and the health centre management were assured that the whole process was an academic exercise and not for any other purpose. Contact information of the School of Public Health, the primary and secondary supervisors, and the GHS ethics review committee administrator were provided to study participants.

CHAPTER SIX

RESULTS: SOURCES OF POWER AND POWER RELATIONS AMONG DISTRICT HEALTH MANAGERS

6.1. Introduction

This chapter presents findings relating to the objective, which was addressed by asking the following research question: What are the sources of power and the power relations between district directors and medical superintendents? This is in line with one underlying assumption of the conceptual framework, that is, district health managers derive power from formal as well as informal sources, and that the informal sources of power contribute significantly to how these district health managers relate to each other in course of normal duties.

The chapter is structured around the themes that emerged during the data analysis stage as summarised in Figure 6.1.

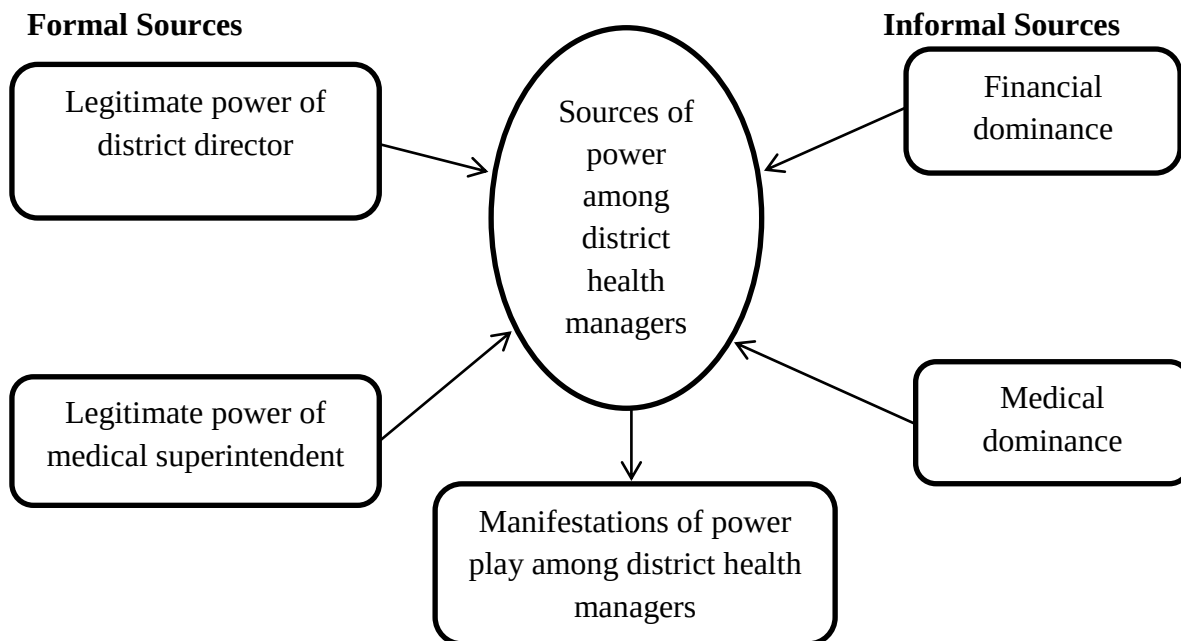


Figure 6.1: Formal and informal sources of power among district health managers

Source: Author's construct based on field data, 2016

These themes were extracted from the data bearing in mind the inherent assumptions of the conceptual framework. The themes, as shown in Figure 6.1, are related to the formal as well as informal power sources that define who has what power, with whom and over who, and why; and how these district health managers use power. The chapter is divided into three sections. Section one presents analysis of formal sources of power. Section two presents analysis of informal power sources and section three presents analysis of how power manifests among district health managers within the district health system. The chapter concludes with a summary.

6.2. Formal sources of district health managers' power

The study found that formal powers of district health managers are derived from diverse sources, including the legitimate position of the medical superintendent and that of the district director.

6.2.1. Legitimate power of the district director

The data analysis revealed that the district directors derive powers from their positions as legitimate heads of the district health system as the GHS organisational structure shows. The conceptual framework assumes that the GHS organisational structure gives the context within which district and PHC institutions are arranged, and thus define how district directors and medical superintendents should relate to each other in order to provide quality healthcare to the district population. Consequently, it was revealed that the district hospital, health centres and

CHPS zones/compounds at the district level are arranged in a hierarchical relationship, and are linked to the district health directorate at the apex.

Study participants across the three districts confirmed that district health institutions are arranged according to the organisational structures found under the GHS organogram. For this reason, study participants recognised and reported that the district health directorates head all health institutions at the district levels. For instance, a participant explained that:

[...] From the organisational structure of the district health system, the district health directorate is the head of all health institutions in the district. [...]
(FGD_DHM_P01_Region C).

In this way, the district directors are the legitimate heads of the district health services. A participant confirmed the legitimate position of the district director as head of the district health services as follows:

[...] The entire health district is headed by the district director [...]
(FGD_DHM_P01_Region B).

The analysis revealed that the position of the district director as head of district health services confers on him/her legitimate power to take healthcare decisions, negotiate and defend these decisions to ensure quality healthcare delivery in the district. Thus, the district directors have power to oversee and supervise healthcare activities of the district hospitals, health centres and CHPS zones/compounds that make-up the district health systems in Ghana. Additionally, working under one leadership (district director) implies that district health institutions are linked to each other in order to coordinate and provide support to each other during healthcare delivery.

As head of the district health services, it was reported that the district director represents the district on healthcare issues in and outside the district. Within the district for instance, the district director attends district assembly meetings – a meeting of assembly members and heads of various institutions within the district to discuss developmental issues of concern to the district. However, the medical superintendent or hospital administrator represents the health sector in such assembly meetings in the absence of the district director. A participant explained this point further:

[...] If I (district director) am not able to attend any district assembly meeting, the medical superintendent or the hospital administrator attends on my behalf and brief me afterwards. [...] (IDI_P03_Region B).

Interview participants indicated that the district director, during assembly meetings, presents and addresses healthcare concerns associated with service delivery at the district hospital, health centres and the CHPS zones/compounds that make-up the district health system. It was further reported that the district director consults with heads of the various district health institutions to address concerns raised in these assembly meetings. Thus, the district director uses his/her legitimate power to resolve service recipients' concerns, and to ensure quality healthcare delivery in the district. For instance, a participant described some issues raised at a district assembly meeting, and how the issues were addressed as follows:

[...] At an assembly meeting, somebody raised an issue of putting children and women on the same bed [...] I explained that the hospital had only one ward for both children and women and defended the issue [...] Another person complained of lack of fans in the wards; after the meeting, I called the doctor and discussed the issue with him, and within a short time, ceiling fans were fixed in the wards [...] (IDI_P02_Region C).

Outside the district, it was widely reported that the district director represents the district during regional health management team meetings. Regional health directorates provide managerial support to district health services, and periodically hold management meetings involving all districts in the region to discuss healthcare delivery issues. Additionally, regional health directorates organise periodic performance review meetings to monitor the performance of the districts. The district director presents a composite report of all health activities carried out at the district hospital, health centres and the CHPS zones/compounds during these regional performance review meetings. At this point, the district director exhibits power as the legitimate head of the district; presents and defends healthcare activities for the year under review, and set targets for the following year. For instance, a participant explained that:

[...] The district is preparing for the annual regional performance review meeting, and the district director will lead the team to present the district annual activities in one composite report [...] (IDI_P01_Region A)

Furthermore, it was reported that programme funds are channeled through the district director, as the legitimate head of the district health services, to the implementing sites. A participant revealed that:

[...] programme funds, say for polio immunisation, are channeled through the district director as head of the district health directorate [...] (IDI_P01_Region B)

Programme funds are moneys earmarked for specific programmes such as national immunisations programmes; and malaria, tuberculosis, and HIV control programmes, and are provided from the GHS headquarters through national programme managers for the implementation of control programmes at the district level. The district director has control over how such programme funds are disbursed to the implementing sites within the district. This

suggests that the district director has control over vertical programmes at the district level, and takes decisions about the programmes (in line with policy directions from the national programme managers), implements, monitors and writes reports (activity and financial) to the national programme managers. A participant explained the process of disbursing programme funds as follows:

[...] When we receive programme funds, we decide on the implementation following national guidelines, and then we come together, plan, train and disburse the funds to those who execute the programme [...] (IDI_P02_Region C)

This sub-section reported findings related to the legitimate position of the district director within the district health system, and how this position serves as source of power for the district director in discharging his/her duties. However, the study revealed that medical superintendents also have legitimate powers, and the study findings are presented in the next sub-section.

6.2.2. Legitimate power of the medical superintendent

The conceptual framework assumes that the Ghana Health Service and Teaching Hospitals Board Act 525 (Republic of Ghana, 1996), gives the context within which medical superintendents derive legitimate powers to oversee and supervise district hospital activities. A review of the Act showed that district hospitals have financial and administrative authority to operate as independent budget management centres (BMCs) in the district health system. With this policy, district hospitals are devolved from the district health directorates and have the power to make decisions for the smooth functioning of the hospital. In addition, study participants reported that district hospitals are autonomous to deal directly with the Regional Director of Health Services

in spite of the fact that district hospitals are integral parts of the district health system. A participant confirmed the autonomous status in the following words:

[...] Theoretically, the district hospital is part of the district health directorate, but practically or in reality it is not [...] In terms of management, the hospital does not report to the district health directorate, but directly to regional director [...]
(FGD_DHFP_P04_Region C).

The analysis revealed that this autonomous status gives the medical superintendent and his/her management team, though integral part of the district health system, powers to make decisions and control district hospital human and material resources without input from the district director. Thus, the district hospital sets its own vision and targets (in line with the national policies), and mobilise resources in order to deliver effective and efficient services.

For this reason, it was reported across the three districts that the district director is the head of the district health directorate, while the medical superintendent is head of the district hospital. For instance, a participant indicated that:

[...] The district director is the head of the district health directorate, and the medical superintendent is the head of the district hospital, which is part of the district health directorate [...] (IDI_P01_Region C)

It is in this light that the study found that annual performance appraisal of the medical superintendent is not done by the district director, but by the regional director of health services. As a participant indicated:

[...] Though the hospital is an integral part of the district, I (district director) do not appraise him (medical superintendent); we are both appraised by the regional director every year [...] (IDI_P01_Region A)

In this section, the analysis revealed that formal sources of power play critical role in modeling the power structure of the district director and the medical superintendent from an initial hierarchical (vertical) power structure into a horizontal power structure, where the two parallel district health managers operate within the same system. In this horizontal structure, even though the district director has overall power over all healthcare issues in the district, he/she has to manage the power relations with the medical superintendent who has equal powers to manage the district hospital as an independent entity, but integrated into the district health services.

The study revealed that while the official policies prescribed the formal power relationships between the district director and the medical superintendent, there are conflicts due to the kind of informal sources of power that exist in practice. Such informal power sources also inform how these district health managers relate to each other within the district health system. The informal sources of power are discussed in the next section.

6.3. Informal sources of district health managers' power

Across the three districts, the underlying assumptions of the conceptual framework that informal sources of power determine how district directors and medical superintendents relate to each other in practice were reported. The analysis revealed that availability of district health resources to, and for use by who, and who has what knowledge and expertise, adds to whether one district health manager has power over the other; thus influencing the way the district director and the medical superintendent relate to each other in the course of discharging their duties. It was

reported that financial dominance (access to cash/ funds) and medical dominance (knowledge and expertise of district health managers) were additional layers of power to the legitimate power structure of the district health managers. These sources of informal power are explored below.

6.3.1. Financial dominance – Access to cash/ funds

The study revealed that financial dominance adds to the power structure of the district health managers. Study participants attributed this situation to government's inability to directly finance district health activities through subventions. Instead, government is funding district health activities through funds generated internally at the point of care. This means that district health institutions must maximise the use of their resources in order to generate enough funds to ensure sustainability. For this reason, district health institutions that generate funds, and are able to generate more, have access to cash to support and sustain their healthcare activities. A participant indicated that:

[...] Budgetary allocations to the BMCs have dwindled or stopped completely [...] Government is now funding our budgets through the services we provide [...] So we just have to generate more money to survive [...] (FGD_DHFP_P04_Region C).

The study revealed that this informal source of power features in two ways. First, the medical superintendent derives some power from the fact that he/she has access to cash/ funds as compared to the district director, and makes independent decisions on the use of those cash/ funds without consulting the district director. Across the three districts, study participants reported that the medical superintendent has access to cash/ funds as compared to the district director. They disclosed that the district hospital provides services that are paid for either at the point-of-care (cash and carry) by the service recipients, or later by the National Health Insurance

Scheme (NHIS) on behalf of the service recipients. In this instance, the medical superintendent has access to cash/ funds, and thus control financial resources generated through the district health services delivered at the hospital. Consequently, the medical superintendent has power to make independent decisions on the appropriate use of the funds. A participant explained this further:

[...] District hospitals generate funds from their services, and as medical superintendents we have authority to make independent decisions on the funds we generate [...] Yes, we have that power [...] (IDI_P03_Region C).

On the contrary, participants reported that the district health directorates do not generate any revenue from their services. The district health directorate provides preventive care services as well as managerial support to the PHC institutions. These activities do not generate income, and hence the district health directorate has no access to cash. This suggests that the district health directorate has difficulties in supporting and sustaining healthcare activities, since financial support from central government has/have decreased, if not completely stopped. A participant disclosed that:

[...] We do not generate any income from the directorate here, we normally depend on central government subventions to carry out our planned activities, but these days we hardly get money from central government [...] (IDI_P03_Region B).

However, it was reported that the district health directorate receives funds on behalf of health centres and CHPS zones/compounds for basic clinical care services delivered in these facilities. The service recipients at the sub-district and community levels either pay directly for health services received, or through the NHIS. Nonetheless, participants revealed that the district

director has no control over funds generated at the health centres and CHPS zones/compounds. They only supervise the use of the funds at the sub-district levels. A participant indicated that:

[...] So when sub-districts need money to undertake health activities, they write a memo for me to approve and the funds are released to them [...] After carrying out their activities, they put in the necessary documentation to account for the funds [...]
(IDI_P02_Region C).

These supervisory activities suggest that the district director has power to approve or disallow expenditure at the sub-district and CHPS zones levels, and therefore derive some level of power.

Secondly, the medical superintendent derives power when the district director relies on the hospital for financial support in order to carryout health and administrative activities at the district health directorate level. Study participants across the three districts confirmed that the district director receives various forms of support (providing for traveling expenses, financing national health programmes, supporting administrative activities) from the medical superintendent. This financial support is mandatory, and can be accessed in different forms contingent on the needs of the district health directorate. A participant indicated that:

[...] There was a letter asking hospitals to be supporting the district health directorate [...]
[...] What we normally do here is, any time we are in need of something and we are tight; we call on them (hospital management) for support [...] (IDI_P01_Region A)

Since the support system is mandatory, it suggests that the medical superintendent has so much power (financially) over the district director.

Even though this support system is backed by policy directives, it was widely reported that the support system is not fully implemented in all districts. Non-compliance with the policy directive

was blamed on poor working relationships between the district director and the medical superintendent. A participant summed-up the non-compliance issue like this:

[...] I do not know what is hindering them (medical superintendents) from that support, especially financial support [...] Some districts are doing it very well, but others no [...] I think it is interpersonal relationship between the director and medical superintendent [...] (IDI_P01_Region C)

A healthy working relationship between the district director and the medical superintendent was reported to promote continuous interactions at the personal and institutional levels, and at the same time, build rapport among the district health institutions.

6.3.2. Medical dominance

Medical dominance was also found to be an added layer of power that determined how the district director and the medical superintendent relate to each other in the discharge of their duties. The study revealed that the knowledge and expertise of medical doctors give them dominion over other health professionals in the health sector. This suggests that medical doctors derive power from their training as well as the profession. Consequently, some study participants suggested that medical doctors should be positioned higher in the hierarchical ladder of any health system in order for the health system to function effectively. Citing the district health system as an example, a participant informed that:

[...] The districts should be manned by medically trained persons, meaning persons who have gone through medicine and passed out [...] The post/position should be a preserve for doctors, so that all the other categories of health professionals can fall in place without any qualms [...] (IDI_P04_Region A)

A review of the GHS job advertisements for medical superintendents and district directors (2010) confirmed that the medical superintendent is a medical doctor (preferably specialists), and the district director is either a medical doctor (with public health background) or any other health professional who has public health background. Two scenarios therefore exist. Firstly, a district director who is not a medical doctor works with a medical doctor as the medical superintendent. Secondly, a district director who is a medical doctor works with another medical doctor as the medical superintendent. However, the study findings revealed that medical dominance also implies that no other health professional can exercise power over the medical doctor.

In the first scenario where the medical superintendent may be a medical doctor and the district director may not, the findings of the study revealed that the medical dominance concept may affect how the district directors exercise power and control over the medical superintendent. Participants reported that in districts where a district director (who is not a medical doctor) attempts to show superiority over the medical superintendent, he/she often faces challenges. A participant had this to say:

[...] If the district director thinks that he/she is a boss to somebody like the doctor or the medical superintendent, definitely he/she will run into problems because when you compare a lot of things, it cannot be so [...] (IDI_P03_Region C)

Another participant confirmed this:

[...] Some doctors do not think that a public health nurse or a disease control officer or any other health professional should be a district director and ask them to do things; they will think the person is lording over them [...] (IDI_P01_Region C)

In the second scenario in which both actors (district director and medical superintendent) are medical doctors, it was reported that medical dominance does not exist. The district director relates to the medical superintendent as a colleague, supporting and coordinating each other's efforts to ensure quality healthcare delivery. A participant indicated that:

*[...] If the district director is a medical doctor, you see each other as colleagues [...]
When you are hot he comes in to help you, if you are travelling, he comes and takes over
from you; the cooperation is better with a colleague medical doctor as a district director
[...] (IDI_P03_Region C)*

Nonetheless, the study found that in the absence of medical dominance, as in the case of colleague medical doctors working together as the district director and the medical superintendent, the issue of who has power, and who has control over who still exist. A participant indicated that:

*[...] even the doctor-doctor they quarrel, they do not accept instructions from each other
[...] (IDI_P04_Region A)*

Additionally, it was evident that the district director and medical superintendent derive powers from their areas of expertise. By their expertise, district health managers have power over some aspects of the district health service delivery, and in that regard have control over their colleague district health managers. District health services include clinical and preventive healthcare services.

The study revealed that the district director is not necessarily a medical doctor and may have limited knowledge and expertise in clinical healthcare issues. In this regard, the district director concentrates his/her efforts on preventive healthcare activities, and is therefore consulted on

preventive healthcare issues in the district. This situation confers some form of informal power on the district director to make and implement preventive healthcare decisions (both activity and financial). A participant explained that:

[...] At the district level, the health directorate is particular about preventive care, and so we concentrate on health promotion and education [...] We (health directorate) have assisted them (hospital) to set-up a public health unit which will take care of the health promotion aspect in the hospital [...] (IDI_P02_Region C)

In the same way, the medical superintendents may be clinical bias and therefore have limited knowledge and expertise in preventive healthcare issues. Medical superintendents and their management teams take charge of clinical healthcare issues within the district. Moreover, since some district directors have little knowledge of, and experience in clinical care, they are unable to supervise the activities of the hospital. A participant illustrated this point:

[...] In terms of strictly clinical healthcare issues, I am in-charge and the district director will then have to consult me [...] (IDI_P01_Region B)

The section presented medical dominance and financial dominance as major sources of informal power that determine the relationships between district directors and medical superintendents. These informal sources of power add to the formal power structure, and define how power manifest among these district health managers as they perform their normal duties.

6.4. Manifestation of power among district health managers

The study found that power-play manifest strongly between district directors and medical superintendents in the course of performing their duties. Participants widely reported that power-play among these district health managers is centred around who is in-charge of what, which of

them has control over whom, and to what extent either of them can exercise his/her powers. For instance, in a FGD with district health managers, a participant summarised the power-play between the district director and the medical superintendent as follows:

[...] *It's about power play, who is in-charge, who has authority over whom?* [...] (FGD_DHM_P01_Region B).

In another instance, an interviewee confirmed and shared his personal experience when asked whether district directors and medical superintendents are engaged in power play. The participant had this to say:

[...] *Power play, yes it is always there (laughing)* [...] *I have experienced it here in this district* [...] (IDI_P01_Region B).

Sharing his experience, the interviewee explained how his district director (a colleague medical doctor) violated laid-down rules in the hospital. He explained further that violating the hospital's laid-down rules implies the district director was intentionally undermining his authority as the head of the hospital, and indicated that this attitude was unacceptable. The participant disclosed that:

[...] *A district director wanted to do some work in the hospital, but he did not resort to laid-down rules within the hospital* [...] *He undermined my authority and I will not accept that, so it brought a lot of conflict between me and my colleague* [...] (IDI_P01_Region B).

Furthermore, the study participants reported that power manifests when district health managers attempt to over exercise their powers by dominating, intimidating and disrespecting the interest of others to meet their own interest. A participant indicated that:

[...] It is post, people want to be bossy, and that's all. [...] For instance, a district director thinks that because he is the overall boss, he does not respect what the other people say [...] (IDI_P04_Region A)

Again, power manifests in the way joint funds between district health directorates and district hospitals are disbursed. Using the additional duty hour allowance as an example, district hospital frontline health service providers discussed how power manifested in the disbursement of these allowances. The allowance was irregularly shared, allocating more money to the district health directorate staff than their colleagues of the same rank at the district hospital. This irregular sharing of the allowance was reported to have created relationship problems between district hospital staff and the district health directorates. A participant emotionally expressed his feelings as follows:

[...] Because the district health directorate saw itself as the manager of the whole district, if the additional duty hour allowance monies come into the district, they (district health directorates) determine how much the hospital should get [...] (FGD_DHFP_P03_Region C).

6.5. Summary of the chapter

This section presents a summary of what the chapter has achieved. The chapter described the legitimate positions that serve as source of power for district directors and medical superintendents in the district health system.

The findings of the study revealed that formal sources of power and for that matter, power relationships between district directors and medical superintendents are inherent in the GHS organisational structure. The district directors derive powers as overall heads of the district

health services, of which the district hospital is an integral part; however the medical superintendents also derive powers as heads of the hospitals. The two institutions and their leaders are expected to work together in a team to produce quality district health services. The formal power enables district health managers to successfully carry out their roles and responsibilities in order to facilitate health service delivery at the district level. However, there are informal power sources that contribute to how district directors and medical superintendents relate to each other in practice. These informal power sources are described broadly as financial and medical dominance among these district health managers. Some of these are used to the benefit of the health system, while others are causing role and authority conflicts, therefore, impeding the progress and effective functioning of the district health system. The next chapter presents analysis of findings relating to the organisation and delivery of health centre clinical care.

CHAPTER SEVEN

RESULTS: ORGANISATION AND DELIVERY OF HEALTH CENTRE

CLINICAL CARE

7.1. Introduction

The chapter presents findings relating to the objective that sought to address the question 2; How are health centre services organised in order to deliver quality clinical care in rural Ghana? A clear underlying assumption of the conceptual framework is that health centres organise and deliver a range of clinical care services in order to meet the clinical care needs of their surrounding communities; and that knowledge sharing among healthcare providers, borrowing of medical supplies as well as multi-task approach to service delivery are integral to the organisation and delivery of clinical services at the health centre levels. The chapter is presented according to sections. Section one presents the range of clinical care services provided at the health centre levels in Ghana, section two presents borrowing and exchange of medical supplies among district health institutions, section three presents knowledge sharing among district health staff, and section four presents multi-task approach to service delivery at the health centre levels. The chapter concludes with a summary.

7.2. Range of clinical care services at the health centre

A review of the management guidelines for sub-districts (MOH, 2011) as well as participant observation demonstrated that health centres are structured to organise and deliver general outpatient care, laboratory services, suturing and minor surgical procedures, pharmaceutical services, and skilled maternal services. In addition, health centres are structured to detain patients

(under observation) for a maximum of 24 hours. The conceptual framework assumes that the sub-district healthcare policy framework provides the context for the structural arrangement of health centres reflects in order to meet the PHC requirement of providing basic healthcare closer to the communities. In all three health centres, it was observed and participants reported that these healthcare services are adequate to meet the immediate healthcare requirements at the sub-district levels. A participant summed-up the implementation of the management guidelines for sub-district:

[...] Here, we provide basic services; with support from our laboratory we provide treatment for our patients [...] We have a dispensary, records unit, we have wards to detain serious cases, we have labour and maternity unit, and we also have a dressing corner [...] (FGD_HCFP_P03_Region C).

The different clinical care services provided at the health centre level are explored in the subsequent sub-sections.

7.2.1. Clinical case management

Review of health centre consulting room registers revealed that the three health centres treat and manage communicable diseases such as malaria and respiratory tract infections, as well as non-communicable diseases such as diabetes and hypertension. The health centres organise and deliver clinical care on medical conditions that are common within their catchment areas. Review of the management guidelines for sub-districts (MOH, 2011) as well as participant observation demonstrated that health centre clinical care management involves history taking, diagnosis, treatment and referral where necessary. This is a normal clinical case management

practice, and thus suggests that healthcare providers at the health centre levels actually adhere to policy guidelines in the organisation and delivery of clinical care.

It was observed that standard operating procedures for the diagnosis and treatment of medical conditions are available and displayed in consulting rooms in order to facilitate quality case management. Standard operating procedures for case management are policy documents that provide step by step directives as to how medical conditions are diagnosed and treated. For instance, the flow charts for the diagnosis and treatment of malaria were displayed in the consulting rooms of all three health centres. It was observed that these flow charts were displayed at vantage positions to ensure that prescribers have access when they need to refer to the chart. The flow charts, if referred to, have the potential to improve quality of clinical case management as well as treatment outcomes.

A review of the flow chart for the diagnosis and treatment of malaria and the review revealed that the flow chart contains step-by-step procedure for managing malaria cases. The flow chart for the diagnosis and treatment of malaria was produced by the GHS/MOH with support from USAID, Centre for Disease Control, and Malaria Care. It has detailed information to ensure a comprehensive malaria case management. The malaria case management process on the chart includes detailed history taking, performing malaria tests using rapid diagnostics testing or microscopy, and choosing the appropriate treatment option, such as treating the case as uncomplicated malaria, or giving no treatment at all for malaria.

It was observed that some health centre prescribers refer to the flow charts and follow the steps in the diagnosis and treatment of malaria. Strict adherence to the treatment policy guidelines

suggests that health centres possibly provide quality malaria case management, and would potentially impact on the service delivery outcomes. A participant confirmed that:

[...] For malaria case management, the sub-districts are doing well, they are following the treatment protocols [...] (IDI_P03_Region C).

However, it was also observed that even though some prescribers were not physically referring to the charts, the prescribed steps in managing malaria cases were adhered to. In one of the health centres, the researcher asked why the physician assistant was not physically referring to the standard operating guidelines in managing malaria cases. The response was that:

[...] As for malaria cases we treat them every day (laughing) [...] I have used the chart over a long period, so I am use to the procedure [...] (IDI_P02_Region B).

This means that they have developed familiarity with the guidelines over time. Additionally, it was found that malaria case management in the health centre was effective where testing facilities and medicines are available. Testing for malaria involves either using the rapid diagnostic testing or the microscopy (where health centres have established laboratory service units). The availability of test kits or reagents and ability to perform malaria tests at the health centres is critical to determine whether a particular patient should be treated for malaria or not. In two of the health centres where laboratory services were available, it was observed that patients were actually tested for malaria before treatment using either the rapid diagnostic test kits or the microscope. Besides, the availability of antimalarial medicines at the health centres is also critical for treating malaria cases after the tests confirmed the presence of malaria parasites. However, drug shortage was observed in all three health centres at the time of the study. For this reason, patients were observed carrying prescription forms to buy the drugs from chemical and pharmacy shops.

Analysis of the interview and FGD data disclosed that accurate diagnosis of malaria conditions at the health centres (including laboratory testing) significantly improves the quality of clinical care. Accurate diagnosis of malaria ensures that antimalarial medicines are used rationally and correctly. For instance, one study participant indicated that where resources are available, healthcare providers at the health centre levels provide effective case management for malaria cases:

[...] When all the resources we need are available, work is effective. When we start with the treatment, patients respond quickly [...] So if the resources are there, our malaria management is okay [...] (FGD_HCFP_P03_Region C).

Health centres organise and deliver a range of clinical care services in order to support the effective and quality management of clinical cases. These range of clinical care services are explored in subsequent sub-sections.

7.2.2. Outpatient Care

Outpatient care is fundamental to the organisation and delivery of health centre clinical care services. In this study, it was observed that outpatient care was organised and delivered at the outpatient section of the health centres, which served as the first point of call for persons seeking healthcare. The outpatient section provides 24-hour care and treatment to patients who do not require an overnight stay in the health centre. These services are provided for both adults and children. In addition to what was observed, a participant disclosed that:

[...] So in our facility, we provide 24-hour basic outpatient services for common illnesses like malaria, diarrhea, fever, and others [...] (IDI_P03_Region A)

It was also observed that health centre outpatient services were well-organised and accessible to patients who visited the health centres for care. To facilitate healthcare delivery at the health centres, outpatient care has a health records unit, a nurses' station and a consulting room. The health records unit is responsible for the storage of patient folders, registers both old and new patients, as well as retrieval and issuance of patient folders. The nurses' station serves as the administrative centre for nursing care as well as the front desk where enquiries are made in the health centre. It also links the patients to the consulting rooms where the prescribers attend to the patients. The study observed that all patients who visit the health centres for healthcare are first seen and triaged (prioritising patients' treatment based on the severity of their conditions) at the nurses' station. Adding to what was observed, a participant indicated that:

[...] Our outpatient care is very accessible [...] The patients pick their folders from the records unit, move straight to the nurses section, and finally come to me for consultation
[...] (IDI_P04_Region C)

The outpatient services receive support from the laboratory services, and this is explored in the next sub-section.

7.2.3. Clinical Laboratory Services

All three health centres were observed to have clinical laboratories with some equipment. However, Bonsu Nkwanta health centre did not have a laboratory technician at the time this study was conducted. As a biomedical laboratory scientist, the researcher offered to provide a voluntary laboratory services, but was constrained by lack of reagents.

Nonetheless, it was observed and participants reported that health centre laboratory services provide support for the diagnosis and prognosis of patient conditions. Clinical laboratories

perform tests on clinical specimens in order to obtain information about the clinical condition of patients so as to diagnose, treat, and prevent disease. This suggests that a functioning clinical laboratory remains critical for quality healthcare delivery to patients who access healthcare at the health centres. A participant indicated the usefulness of the laboratory services in clinical case management:

[...] Now our laboratory is functioning, so our case management has improved [...]
(IDI_P04_Region C).

A review of laboratory records revealed that health centres provide basic laboratory services such as testing for malaria, total white blood count, haemoglobin levels, sickling tests, widal test, blood grouping, stool and urine for routine examinations, and pregnancy. In addition, the researcher participated in providing these laboratory services at the Bongo-Soe and New Longoro health centres. In these two health centres, it was observed that the clinicians referred patients to the laboratory section for testing. The laboratory test results were used to supplement the patient history in order to diagnose the patient's condition. A participant indicated that:

[...] The laboratory tests results are helping a lot [...] Some patients come with long stories, but the laboratory results help us to know what is wrong with them [...]
(FGD_HCFP_P03_Region C).

This suggests that the laboratory information was essential to health services delivery, and thus ensured quality care to the people who access healthcare in these health centres.

7.2.4. Suturing and Minor Surgical Procedures

Suturing and minor surgical procedures are a set of basic surgical techniques applied on superficial tissues to facilitate healing. In this study, it was observed and participants reported

that health centres organise and deliver suturing and minor surgical procedures as part of clinical care services to the rural communities. Health centres provide suturing and surgical procedures as emergency care for accidents and trauma. A participant indicated that:

[...] And so they (health centres) provide services for basic problems that require minor surgical procedures at their levels [...] (IDI_P03_Region C)

Confirming this, health centre healthcare providers in FGDs reported that suturing and minor surgical procedures are provided as part of managing patients with minor cuts who report to the health centre for care. It was observed that patients with such conditions report to the health centres as emergency usually accompanied with bleeding from the cuts. In such cases, suturing and surgical procedures are provided to close the cuts and arrest the bleeding. Suturing and minor surgical procedures facilitate the healing process of the wound and improve the overall health of the patients. A participant had this to say:

[...] In my small theatre, I do suturing for minor cuts and manage the patient for the wound to heal faster [...] (FGD_HCFP_P01_Region C).

However, the researcher observed that the organisation and delivery of surgical services at the health centre level face some challenges. All three health centres were constrained by inadequate facilities to effectively provide these surgical services. For instance, one health centre had a narrow corridor partitioned with a screen as dressing corner where minor surgical services were provided. At the time of the study, health centres had no autoclaves to sterilise basic instruments used in the surgical procedure. A participant described how they sterilise the instruments:

[...] After using the instruments, we wash them and dry in the hot sun for the instruments to sterilise [...] (FGD_HCFP_P01_Region C).

This situation has serious implications for healthcare organisation and delivery since poor sterilisation of instrument may lead to cross infection among the rural population.

7.2.5. Pharmaceutical Services

Pharmaceutical services at the health centre levels ensure the availability, rational use, as well as equitable access to medicines as one of the essential elements of healthcare delivery. The study observed and participants reported that the three health centres organise and deliver pharmaceutical services as part of clinical care to the rural population. Pharmaceutical services at the health centre levels are organised to meet the specific healthcare requirements of the people within the catchment area. A participant indicated that:

[...] At the sub-district levels, they stock drugs mainly to treat the medical conditions they receive in their facilities [...] (IDI_P02_Region C)

This suggests that health centres stock pharmaceutical products that treat and manage cases they receive for care. For instance, it was observed that these health centres stocked more anti-malaria drugs since patients mostly visit the health centres with malaria conditions. The researcher reviewed the health centre dispensary records. This confirmed that anti-malaria drugs are commonly stocked and used over a short period. Interestingly, it was also observed that all three health centres had ran out of drugs used to manage and treat patients who visited the facilities for care at the time of the study. The degree of drugs shortage varied from health centre to health centre. Surprisingly, the study also observed that one health centre had a quantity of expired drugs at the time of the study. These drugs were mostly antibiotics. The shortage of drugs has been discussed in section 6.2.

7.2.6. Detention of patients

Across the three districts, it was observed and participants reported that health centres detain patients for observation as part of clinical care services in the rural settings. The health centres are designed with wards meant to detain patients up to 24 hours in order to give comprehensive healthcare management. For instance, it was observed that patients, who came with critical conditions such as severe/complicated malaria, were detained and managed at the health centre level. In this way, these patients were detained overnight at the health centres for further management. A participant confirmed what was observed in following voice:

[...] We have two wards and some beds to detain patients, one for male and one for female patients [...] The only thing is that patients do not stay here more than 24 hours [...] (FGD_HCFP_P05_Region B).

In all three health centres, it was observed that wards and beds were adequate for detaining patients at the health centres. However, conversational interviews with health centre healthcare providers revealed that these health centres have peak seasons (rainy seasons) when patient attendance is very high and, therefore, more serious medical conditions require detention during these periods. This suggests that the wards and beds are inadequate when health centres record high patient attendance. This situation was confirmed during a FGD with health centre healthcare providers:

[...] We just started celebrating Christmas from last month (everybody laughing) [...] When the rains start, that is when the problem comes, the patients come and sometimes the wards are full [...] (FGD_HCFP_P01_Region C).

Across the three districts, the health centres organised and delivered clinical care services in line with their mandate to provide quality, affordable and accessible healthcare to the rural population. Each of these clinical care services is an essential part of healthcare organisation at the health centre level, in order to facilitate quality clinical care management of medical conditions. However, it was observed and participants reported that health centres organise and deliver these range of clinical care services amid challenges such as inadequate staffing and shortage of medical supplies. Interestingly, these health centres adopted some innovative ways of managing these challenges, and these innovations are explored in subsequent sections.

7.3. Borrowing and Exchange of Medical Supplies

The analysis revealed that a borrowing system among district health institutions is essential to the organisation and delivery of health centre clinical care services. The borrowing initiative means that health centres which lack medical supplies could approach the district hospital or colleague health centres to borrow the needed items, and return same to the borrower at a later date. It was observed and participants reported that the three health centres adopted this borrowing initiative to address the challenges associated with inadequate or lack of medical supplies, in order to facilitate health centre clinical care delivery.

Across the three health centres, the study observed and participants also reported that medical supplies were inadequate, and some completely lacking, at the time the study was conducted. The commonly-used medical supplies at the health centre levels include medicines, cotton, gauze, basic clinical and nursing equipment, laboratory equipment and reagents, patient folders, and detergents. These medical supplies reflect how health centres organise and deliver quality care in order to meet the clinical needs of the rural population. However, health centres often run

out of medicines and other medical supplies used to manage medical conditions at the health centres. A participant indicated that:

[...] Sometimes we (health centre) run short of drugs, we cannot get common paracetamol for our clients [...] (IDI_P02_Region B)

The study revealed that health centres receive their medical supplies from the district medical stores. Where supplies are not available at the district level, health centres purchase their supplies directly from the regional medical stores. Interview and FGDs participants indicated that the periodic shortage of medicines and other medical supplies at the health centres is caused by irregular cash flow to the health centres. Health centres depend on their Internally Generated Funds (IGF) to restock medicines and other resources for effective service delivery. However, participants reported that health centre IGF is affected by irregular payment schedules from the National Health Insurance Scheme (NHIS), and thus affect the availability of health resources at the health centre levels. A participant indicated that:

[...] For drugs we have a problem, because of NHIS [...] For instance, they owe us about eight months, there are a lot of things that are short in the health centre [...]
(IDI_P04_Region C)

Consequently, the study revealed that the borrowing system allows health centres which run out of medical supplies to borrow these medical supplies from other health facilities within the district - they return the items at a later date. This borrowing system does not attract interest on the items borrowed. For instance, district hospitals allow health centres which run out of medical supplies to borrow from the hospital and replace at a later date. A participant indicated that:

[...] With medicines and medical supplies, when they (health centres) need them, they come and we (hospital) give to them; and when they get them, they bring back to us [...]
(FGD_DHM_P01_Region C).

The analysis revealed that borrowing medical supplies from district hospitals could be formal or informal. Formal borrowing of medical supplies means that the borrowing arrangements are channeled through the management of the hospital for approval. In this case, health centre healthcare providers call or go to the district hospital management to formally arrange and lend medical supplies from the hospital. A participant indicated that:

[...] If for any reason sub-districts run short of medicines, folders or some consumables, they come and borrow (laughing) [...] They call me (medical superintendent) and I give the items to them, and when they get, they replace them [...] (IDI_P03_Region C)

However, it was reported that borrowing medical supplies from the hospital could be informal. In this way, borrowing was arranged between colleagues working at the health centres and those working at the district hospitals. In this case, the borrowing arrangements were done on blindsides of the hospital management. For instance, the study participants revealed that healthcare providers at the district hospital encourage their colleagues at the health centre levels to collect items for use whenever they run out, and to replace them later. A participant disclosed that:

[...] Once the whole district ran out of folders, and we (hospital) had some folders in stock, the sub-districts were called to come and pick some, so that they can replace later [...] (FGD_DHFP_P06_Region C).

In another instance, it was reported that as part of the informal arrangements, healthcare providers of health centres walk to their colleagues at the district hospital to collect medical supplies and replace them later. A participant disclosed that:

[...] Some of the sub-districts just come straight to us to borrow, and depending on the item, we give and they return it later [...] (FGD_DHFP_P02_Region A).

The analysis revealed that health centres also have borrowing arrangements with colleague health centres in the district. In this case, health centres contact and borrow from each other to beef-up shortage in medical supplies. A participant disclosed that:

[...] Yes, we borrow from other health centres, when we need something we just call other health centres and if they have, we will borrow and give back to them when we get ours [...] (IDI_04_Region C)

Interview participants reported that health centres also exchange medical supplies that are near expiring with medical supplies that have longer expiring dates at the hospital. The participants indicated that district hospitals have higher consumption rates as compared to health centres. Therefore, medicines and other medical supplies are likely to stay longer at the health centre levels, and may reach their expiry dates before use. The analysis revealed that such medicines and medical supplies are carried to the district hospital for use, while the hospital gives new medicines and medical supplies to the health centres. A participant summed-up:

[...] When sub-district drugs are about to expire, they bring the drugs to the hospital and they exchange for us [...] (IDI_P01_Region A)

It was found that the borrowing arrangement between the district health institutions is sustained by trust. Participants explained that district hospitals willingly give out medical supplies with the

hope that health centres will remain faithful to their promise to return the items at a later date. Consequently, the analysis revealed that healthcare providers at the health centres are men and women of integrity, and readily returned items borrowed from the district hospital. Responding to a question, are there times they do not return borrowed items?, a participant answered that:

[...] *We are honest men and women (laughing)* [...] (IDI_P03_Region C)

This effort has the potential to minimise waste, as well as ensure that quality drugs are available to support service delivery at the health centre levels. The effort can therefore improve health outcomes in the rural settings

7.4. Knowledge Sharing

Across the three districts, it was widely reported that knowledge sharing between health centres and district hospitals is an integral part of the organisation and delivery health centre clinical care services. In this study, knowledge sharing means healthcare providers at the health centre levels seek professional advice from healthcare providers at the district hospital during service delivery. It was also observed that during clinical care management, healthcare providers at the health centres call the medical superintendents or other colleagues who work at the hospital for additional information in order to provide the needed care to the patients. A participant summed-up like this:

[...] *Whenever we (health centre staff) call, what we do not know they (district hospital staff) tell us and we continue with the treatment* [...] (FGD_HCFP_P02_Region C).

It was also reported that knowledge sharing between health centres and district hospitals have been institutionalised in order to provide quality clinical care at the health centre levels. The

study revealed that district hospital management has officially informed health centres to call for professional advices whenever they face service delivery challenges. A participant disclosed that:

[...] Doctor said whenever we have a case, we have to call first; either they give us directives or they ask us to bring the case, so we share ideas [...]
(FGD_HCFP_P01_Region C).

The analysis confirmed that health centre healthcare providers constantly call the district hospital healthcare providers to discuss and seek case management guidance. In this case, health centre healthcare providers call to share clinical care management challenges with colleagues at the hospital. The district hospital healthcare providers then share their knowledge and experiences with the health centre healthcare providers, and propose case management solutions to the problem. A participant indicated that:

[...] Whenever they have any problem they call me (medical superintendent), we discuss the case and I assist them to manage the case; if they need to bring the patient here, I assist them to do that [...] (IDI_P02_Region A)

The analysis again revealed that the health centres recognise the expertise of the district hospital and constantly engage them on how to manage cases at the health centre levels. A participant disclosed that:

[...] The sub-districts see the district hospital as their superior and ask for support whenever they need it [...] (IDI_P03_Region C)

The study found that knowledge sharing practices between health centres and district hospitals have the potential to improve health outcomes in the district. Once knowledge is shared about a particular medical case, chances are that health centre healthcare providers will manage the case

at the health centre level. Nonetheless, if the patient is referred to the hospital, the patient information is already known; and this facilitates continuity of care at the hospital. A participant indicated that:

[...] At times they also call for guidance in managing cases at the health centre level. If the directions given do not work then they refer [...] This is helping a lot to reduce our maternal deaths [...] (FGD_DHFP_P03_Region B).

This initiative suggests that seeking professional advice from the district hospital has the potential to bridge knowledge gap in health centre service delivery.

7.5. Multi-task Approach to Health Centre Clinical Care

The study observed and participants reported that multi-tasking among healthcare providers at the health centres contributes to the organisation and delivery of health centre clinical care services. The study revealed that healthcare providers use a multi-task approach to minimize staff inadequacy challenges in the health centres in order to make clinical care services accessible to the rural communities. In this study, multi-tasking at the health centre levels means healthcare providers performing more than one task during service delivery. The findings revealed that this approach allows healthcare providers to offer support to sections in the health centre that have staffing challenges in order to mitigate the effects of staff inadequacy during service delivery.

Interview and FGD participants as well as participant observation revealed that health centres operate in a flexible environment in which healthcare providers move from their assigned sections in the health centre and voluntarily support over-burdened sections during service delivery. The approach facilitates service delivery and improves access to healthcare in the rural

settings. The approach also reduces waiting time at the various sections of the health centre and thus increases patient satisfaction at the health centre level.

The analysis revealed that the laboratory section of health centres benefits from the multi-task approach. Inadequate laboratory personnel at the health centre levels suggest that the laboratory section of health centres are over-burdened during service delivery. Additionally, the relevance of laboratory practice in healthcare delivery cannot be underestimated since health centre laboratory services facilitate effective diagnosis, treatment and monitoring of treatment progress of patients. Even though laboratory practice is technical, it was observed and participants reported that working colleagues supported the laboratory services with task that do not require technical knowledge. For instance, it was observed in one health centre that nurses moved to support the laboratory and dispensary sections in order to reduce stress on their colleagues. A participant disclosed that:

[...] The laboratory receives a lot of support from colleagues in the health centre [...] When the place is crowded, some colleagues come to help me with the registration and entry of results while I run the tests [...] (FGD_HCFP_P04_Region C).

Additionally, the analysis revealed that the dispensary sections of health centres also benefit from the multi-task approach. In all three health centres, the dispensaries are manned by one dispensing technician who has multiple roles in the health centre. The single dispensing technician manages the pharmaceutical products and other consumables such as gloves, gauze, and detergents; moves to the district and/or regional medical stores to pick medical supplies, as well as dispensing drugs to patients. Hence, the dispensary sections of health centres are over-burdened and require support. In such situations, colleagues from other sections of the health centre move to support in dispensing drugs to patients. A participant indicated that:

[...] *At times some people have to come in and help, because I am alone at the dispensary*
[...] (FGD_HC_FP_P05_Region C).

It was also reported that the records sections of the health centres benefit from the multi-task approach. The inadequacy of qualified personnel at the records sections of health centres translates into a service delivery burden especially when outpatient attendance is high. At one health centre for instance, the study observed and participants reported that at the start of a working day, a number of healthcare providers gather at the records section to help retrieve patient folders before they return to their official duty points. A participant indicated that:

[...] *So people leave their places to support in retrieving folders, this morning I came and saw you and the medical assistant retrieving folders (some laughing)* [...]
(FGD_HC_FP_P06_Region C).

The records section is the starting point of the healthcare delivery process at the health centre. Therefore any delays in this section affect the entire service delivery of the health centre, leading to long waiting times and patient dissatisfaction. It is in this vain that healthcare providers move to support the records sections of the health centres.

In addition, health centre healthcare providers are always willing to support skilled delivery services at the maternity section. A single midwife working in the health centre suggests that the maternity section requires support in order to conduct quality skilled delivery. It was observed that midwives at the health centre level work day and night to meet maternal healthcare needs of the rural communities. The health centre midwives provide antenatal and postnatal care, as well as conduct delivery of labour cases. During delivery, health centre midwives require support and

colleague healthcare providers readily provide some form of support. A participant indicated that:

[...] Anytime I call on anybody to support me at the maternity, they are always willing
[...] (FGD_HCFP_P07_Region C).

The analysis revealed that the multi-task approach is supported by a high team spirit and love for the job. The health centre healthcare providers are very hard working, and remain committed to supporting each other in order to strengthen service delivery. Above all, participants reported that the healthcare providers at the health centre love and respect each other. A participant summed-up:

[...] We love ourselves and we love the work [...] As if they have selected us together, we are just ok with each other [...] We are all hardworking and ready to support one another [...] (FGD_HCFP_P07_Region C).

This suggests that team-spirit among health centre healthcare providers has the potential to facilitate multi-task approach to health service delivery. This effort is likely to improve health outcomes in the sub-districts, districts and the national level as a whole.

7.6. Summary of the Chapter

This section presents a summary of what this chapter achieved. The chapter described the organisation and delivery of health centre clinical care services to the rural community. The chapter reported the findings related to the range of clinical care services including case management and other supporting services such as laboratory, outpatient, pharmaceutical, suturing and surgical, dispensary and in-patient services. This suggests that the organisation and

delivery of health centre clinical care is a package meant to ensure high-quality care at the sub-district level.

The chapter also described strategies used by health centre healthcare providers to manage service delivery challenges. These strategies include knowledge sharing between healthcare providers of health centres and that of district hospitals, borrowing system between district health institutions, and multi-tasking among healthcare providers at the health centre levels. In this way, health centre clinical care organisation and delivery are able to meet the needs of the rural community.

CHAPTER EIGHT

RESULTS: EFFECTS OF POWER RELATIONS ON THE ORGANISATION AND DELIVERY OF HEALTH CENTRE CLINICAL CARE

8.1. Introduction

This chapter presents analysis of data relating to the objective, which was addressed by answering the following research question: How do the power relations between district directors and medical superintendents affect the role of district hospitals in the organisation and delivery of health centre clinical care services in Ghana? One underlying assumption of the conceptual framework is that clinical supervision of health centres and effective patient referral are integral to the organisation and delivery of health centre clinical care services, and that GHS policy frameworks provide the environment for these activities. A review of the GHS organisational structure revealed that clinical supervision of health centres and patient referral system are inherent in the district health systems. The GHS policy on the organisational arrangements of district health institutions outlines how these institutions are linked to each other in order to provide quality healthcare in the district.

Similarly, a review of the GHS policy framework for healthcare organisation at the district levels shows a two-way relationship between district hospitals and health centres. In this relationship, health centres refer patients to the district hospital for further management, and district hospitals supervise the clinical care activities of health centres. Thus, this review revealed that district hospitals contribute significantly to the organisation and delivery of quality clinical care services at the health centre levels. The contributions of clinical supervision of health centres and the

patient referral systems in the organisation and delivery of clinical care at the health centres are explored in subsequent sections. The chapter is divided into four sections. Section one presents the clinical supervision of health centres, section two presents the patient referral system, and section three presents the effects of power relations. The chapter concludes with a summary.

8.2. Clinical Supervision of Health Centres

Interview and FGD participants reported that district hospitals are expected to adhere to the policy and make periodic supervisory visits to the health centres as a means of strengthening the organisation and delivery of clinical care at the sub-district levels. A participant disclosed that:

[...] As part of the structure, we (the hospital) are supposed to monitor and supervise how the sub-districts work, especially the medical aspect [...] (FGD_DHFP_P01_Region B).

Across the three districts, it was widely reported that clinical supervision of health centres contributes significantly to the organisation and delivery of health centre services. Firstly, the analysis revealed that the supervisory role integrates health centre clinical care into the district hospital service delivery. In this study, integrating health centre services into district hospital services means that case management practices of health centres conform to the case management practices at the district hospital. A participant indicated that:

[...] With effective supervision, the work of the Physician Assistant at the sub-districts will always be in line with that of the hospital [...] (IDI_P04_Region A).

Secondly, participants reported that clinical supervision of health centres provides opportunities for healthcare providers of the health centres to build rapport with the medical superintendent

and other hospital staff. This close relationship brings the two institutions to share ideas on clinical care issues and to resolve challenges associated with clinical care at the health centre levels. Thus, the effort ensures quality healthcare delivery to the rural population. A participant indicated that:

[...] District hospitals need to build close relationships with their health centres to facilitate service delivery at the sub-districts [...] (IDI_P01_Region C)

Thirdly, the study participants disclosed that clinical supervisory visits to health centres provide on-the-job training to the health centre prescribers. The participants indicated that on-the-job training refreshes and adds to the knowledge and skills of the health centre prescribers. During supervisory visits, the medical superintendent observes and guides the prescribers in the course of performing their normal work. The training focuses on how similar cases are managed at the district hospital level, thus integrating the prescribers into the service delivery models of the district hospital. A study participant revealed that:

[...] The Medical Superintendent can go there and observe how the Physician Assistants or prescribers are providing treatments, and then offer on-the-job training to these prescribers [...] (IDI_P01_Region C)

Finally, participants reported that clinical supervision of health centres promotes the organisation and delivery of client-centred services. Clinical supervision of health centres provides opportunities for district hospitals to understand the healthcare needs of the various sub-districts within their catchment areas. The analysis revealed that during such supervisory visits, the medical superintendent gets to know the kind of medical conditions that are reported to the various health centres as well as the challenges prescribers face in managing those cases. Hence,

the supervisory visits address specific community needs, thus facilitating client-centred service delivery. A participant had this to say:

[...] We (the health centre staff) are happy when they (the hospital staff) visit us, they get to know our problems, so they help us to meet the needs of our clients and serve them better [...] (IDI_P03_Region A)

As to why health centre healthcare providers are happy when medical superintendents pay supervisory visits to them, it was reported that they are motivated by the assessment of their performance. A participant indicated that:

[...] As they come to see what we do here, they also tell us whether we are doing well or not [...] (IDI_P02_Region B)

The analysis suggests that effective clinical supervision of health centres is beneficial to health service delivery at the sub-district levels.

8.3. Patient Referral in the District

The researcher reviewed the GHS framework for healthcare organisation at the district level and this demonstrated that district hospitals are higher level institutions compared to health centres in a hierarchical arrangement of the health institutions that make-up the district health system. For this reason, hospitals are well-resourced as compared to health centres. For instance, district hospitals have higher drugs prescription scope than health centres, who only manage minor ailments. Interview and FGD participants reported that seriously-ill patients who report to health centres are stabilised and referred to the next level (hospital) for further management. It was further reported that district hospitals have clinical competencies and are resourced to receive

and manage cases that health centres are not capable of managing at their level. A participant had this to say:

[...] We have a referral system in place; cases at the peripheral areas are referred to the hospital for further management [...] (IDI_P02_Region C)

Another participant disclosed that:

[...] They (the hospital staff) told us (the health centre staff) that whenever we have a serious case we should refer to them; we should even always accompany the patient to the hospital [...] So medically, we have a relationship with the hospital [...]
(FGD_HCFP_P02_Region C).

Interviews and FGDs with study participants across the three districts reported that the patient referral system creates close relationship between the hospital and health centres in the delivery of health services. The analysis revealed that the patient referral system promotes formal as well as informal communication between the district hospital and the health centres. Participants reported that formal communication reflects the information contained in the referral form. A participant disclosed that:

[...] The referred patient comes with a formal document indicating the history and initial management at the health centre level [...] (FGD_DHFP_P04_Region C).

Participants also emphasised on pre-referral communications as a form of informal communication. In this study, pre-referral communication means that healthcare providers of the health centres pre-inform the district hospital staff about a referred case before the patient gets to the hospital. It was reported that the pre-referral communication provides district hospitals with

initial information about the medical condition of the referred patient. This form of communication ensures readiness for the referrals, and reduces delay when referred patients get to the hospital. A participant indicated that:

[...] The sub-districts staff call us (the hospital staff) whenever they are bringing patients, so that by the time the patients arrive here, we are already aware they are coming [...]
(IDI_P02_Region A).

Another study participant confirmed that:

[...] Before the referral, the hospital is called so that the hospital gets ready before the client is brought in [...] (IDI_P03_Region C)

Similarly, the analysis revealed that, in the course of treating referred patients, healthcare providers of the district hospital also communicate with the health centre healthcare providers to get deeper understanding of the medical condition of the patients. A participant disclosed this:

[...] Some of them (the health centre staff), in referring cases, write their contact numbers on the form [...] We can take the phone and call them whenever we need further information or clarification about cases referred [...] (FGD_DHFP_P01_Region C).

This suggests that the two-way communication between the district hospital staff and the health centre staff in the patient referral system ensures continuity of care. From the perspective of the care provider, continuity of care implies quality care through integration, coordination and the sharing of information between different providers (Gulliford, Naithani, & Morgan, 2006).

8.4. Effects of Power Relations

Inherent in the conceptual framework is the assumption that the nature of power relations between district directors and medical superintendents has the potential to affect clinical

supervision and patient referrals in the district. The analysis revealed that power relations between district directors and medical superintendents affect district hospitals' supervisory role over health centre clinical care activities as well as affect the quality of patient referrals. These power relations introduce poor interpersonal relationships between district directors and medical superintendents, resulting in little interaction between their management teams, even though policies are in place to ensure harmonious working relationships within the district health system. A participant informed that:

[...] Because of poor interpersonal relationships, some district directors are not able to work with the medical superintendents [...] (IDI_P02_Region C)

One such policy, for instance, is that district directors are members of, and are expected to participate in hospital management team meetings, and likewise medical superintendents are members of, and are expected to participate in district health management team meetings. It was reported that these meetings are platforms for the two management teams to discuss district health issues, including coordination mechanisms in order to beef-up health centre efforts to organise and deliver quality clinical care to the rural population. However, in all three districts, participants reported that these district health leaders do not participate in the various management team meetings. A participant said this:

[...] The medical superintendent is a member of the district health management team and the district director is also a member of the hospital management team; but in practice, medical superintendents do not attend district health management team meetings, and district directors do not attend hospital management meetings; all because of their interpersonal relations [...] (IDI_P01_Region C)

As to why these health managers do not attend the management meetings, a participant explained that:

[...] *They (the hospital management team) forget to invite us (district health directorate)*

[...] *They say it is an oversight [...]* (IDI_P01_Region A)

Consequently, the analysis revealed that the poor interpersonal relationships between district directors and medical superintendents appear to separate district hospital management teams and their services from the management and service organisation of health centres. A participant disclosed that:

[...] *Now everybody seems to be relaxed, I am on my own, you are on your own [...]*

(IDI_P01_Region C)

For this reason, medical superintendents are unable to adequately supervise health centres clinical care services, and the quality of patient referral is also affected. How and why the power relations between district directors and medical superintendents affect clinical supervision of health centres and the patient referral system are illustrated in Figure 8.1.

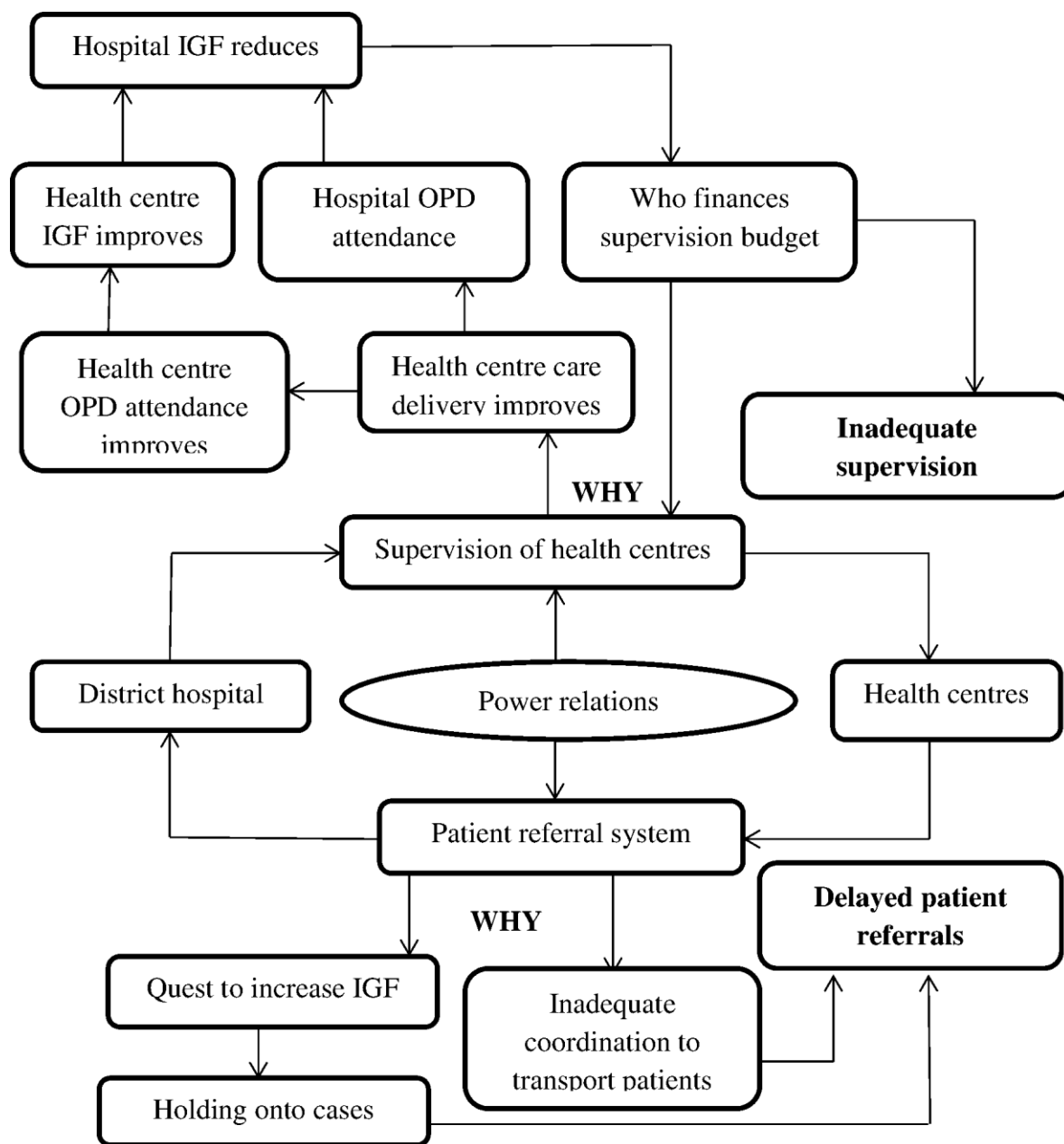


Figure 8.1: How and why power relations affect the organisation and delivery of health centre clinical care services.

Source: Author's construct based on field data, 2016

8.4.1. Inadequate Supervision of Clinical Care Services at the Health Centre

As illustrated in Figure 8.1, the analysis revealed that power relations between district directors and medical superintendents affect district hospitals' role to periodically supervise health centre clinical care services. In spite of the fact that policies on clinical supervision of health centres are meant to strengthen service provision relationships between district hospital and health centres, and potentially improves health outcomes in the districts, the analysis revealed that clinical supervision of health centres was inadequate in some districts.

For instance, it was reported that some medical superintendents often fail to comply with the policy directives on clinical supervision of health centres because of power relations among them and the district directors. In such districts, the medical superintendents do not consider clinical supervision of health centres as a duty. They are, therefore, reluctant to plan and pay periodic supervisory visits to health centres. A participant indicated that:

[...] In the districts where there are power conflicts between their leaders, the doctor will not supervise their sub-district services, and this affects service delivery at the health centres [...] (IDI_P04_Region A)

In another district, a participant said this:

[...] When the district director does not relate well to the medical superintendent, supervision of sub-district will definitely be affected, and this is not good for the health centres in the sub-districts [...] (FGD_DHM_P01_Region B).

For example, a participant was asked whether he was able to supervise health centre clinical activities within the district settings, and he confessed that:

[...] Actually, I find it very difficult to go on supervisory visits to health centres [...]
Ideally, I should be visiting the health centres, but I am not able to [...] (IDI_P02_Region A).

Probing to unearth the reasons why medical superintendents fail to carry out periodic clinical supervision of health centres, it was revealed that conflicts and power relations between district directors and medical superintendents were responsible for the inadequate clinical supervision of health centres in the districts. Participants revealed that both the district director and the medical superintendent are making efforts to increase Internally Generated Funds (IGF) in order to enhance financial sustainability. Thus, district director is making efforts to increase health centre IGF while the medical superintendent makes efforts to increase hospital IGF. The quest to increase IGF is deep-rooted in the inadequate clinical supervision of health centres as shown in Figure 8.1. The reasons for inadequate supervision of health centres are explored as explained below:

First, the analysis revealed that medical superintendents are reluctant to supervise and strengthen health centre clinical care quality with the notion that the effort is likely to increase health centre IGF which is not part of hospital IGF. A participant indicated that:

[...] When they (health centres) generate their money, it goes into their (health centres) accounts and not hospital accounts [...] (FGD_DHM_P01_Region A).

It was widely reported that health centres hold separate accounts for funds generated through their service delivery. These accounts are controlled by the district director. This suggests that the medical superintendent has no hand in the administrative and financial activities of health centres. Therefore, enhancing service delivery at the health centre level means strengthening

health centres to improve patient attendance, and thus increase health centre IGF. A participant indicated that:

[...] Sub-district IGF is controlled by the district director and not the hospital, and so everybody is working hard to get more money since the IGF is our main source of funds
[...] (IDI_P02_Region A)

The participants reported that clinical supervision of health centres has the potential to improve the quality of service delivery at the health centre level. They indicated that clinical supervision of health centres improves the knowledge and skills of health centre prescribers and staff, and also integrates health centre clinical care into the care model of district hospitals. This suggests that health centres are strengthened to meet the clinical care needs of the rural people. In this way, patient attendance at the health centre levels improves, and therefore improves IGF to the health centres. A participant indicated that:

[...] Regular supervision of sub-district activities improves their performance, and the community member patronise their services [...] (IDI_P02_Region C)

The participants further reported that improved quality of service delivery at the health centres suggests that fewer patients will be referred from health centres to the district hospitals for further management. This is because health centres will only refer cases that are beyond their control at the health centre level. Again, when service delivery quality improves, patients are likely to maintain the gate-keeper system, and will not by-pass the health centres to the district hospitals. This effort reduces patient attendance at the district hospitals, and thus affects hospital IGF. A participant summed-up as follows:

[...] Another problem is that we (hospital and health centres) need money to survive (laughing), and we generate that money from the services we provide to our clients. So

anything that affects patient attendance also affects our IGF [...]
(FGD_DHM_P06_Region B).

Secondly, the analysis revealed that district hospitals plan, budget and finance healthcare activities that bring return on their investments. This is part of the reasons why medical superintendents do not comply with the policy on clinical supervision of health centres. The participants reported that undertaking healthcare activities such as clinical supervision of health centres involve costs. These activities are funded mainly through government subventions with support from the IGF and donor funds. However, it was revealed that government subventions to district health institutions have dwindled over the years and institutions solely depend on their IGF to finance healthcare activities. In this way, district health institutions finance what is seemingly beneficial to them. A participant indicated that:

[...] The hospital has no money, we are just managing [...] So whenever NHIS claims are paid we use the money judiciously to benefit the hospital [...] (IDI_P03_Region C)

Additionally, it was revealed that because clinical supervision of health centres improves revenue generation at the health centre levels and reduces hospital IGF, the question of who pays for the expenses associated with clinical supervision of health centres becomes very relevant. This suggests that medical superintendents will not pay supervisory visits to health centres if the hospital has to finance the visit. A participant revealed that:

*[...] Sub-district supervision involves cost, who pays for that; hospital or sub-district?
[...] This is an issue we have to address, because they (hospital and health centres) both generate funds from their activities [...]* (IDI_P04_Region A)

Finally, participants revealed that medical superintendents consider health centres as institutions that are directly controlled by district directors and, therefore should not interfere in what they do. This is part of the reasons why medical superintendents are reluctant to pay periodic supervisory visits to health centres. It was revealed that the GHS policy allows the district directors to manage and supervise the administrative and service provision activities of the sub-districts, which includes the health centres. Consequently, participants reported that medical superintendents concentrate on activities of the hospital and allow the district directors to also concentrate on his/her activities. A participant indicated that:

[...] Some medical superintendents say that the health centres belong to the directorate, so they concentrate on hospital activities only [...] (IDI_P01_Region C)

The analysis suggests that inadequate supervision of clinical activities at the sub-district level is deep-rooted in the personal relationships the two district health leaders have. As a result of the conflict in power relations among these district health leaders, the district hospital fails to play its supervisory role to health centres.

8.4.2. Delayed Referral

As illustrated in Figure 8.1, power relations between district directors and medical superintendents also affect the patient referral system in the district. Despite the enormous benefits of patient referrals to district healthcare outcomes, the quality of patient referral is compromised in delivering district health services.

Across the three districts, interview and FGD participants reported that delay referrals from health centres to the district hospitals threaten the quality of patient referrals. Serious medical conditions (such as severe malaria, anaemia) need prompt referral from health centres to the

district hospitals for immediate attention. However, it was reported that health centres hold onto medical conditions that require immediate referral until the situation is critical before patients are referred. That is, health centres continue to manage such cases with the hope that the patients' condition will get better without referral. The delay referrals have serious implications for healthcare outcomes in the district. A participant indicated that:

[...] Sometimes, they (health centres) delay with the cases till they (patients) are brought in a bad stage [...] (FGD_DHM_P04_Region C).

In relation to why power relations between district directors and medical superintendents result in delayed patient referrals, it was reported that health centres need to generate enough money to sustain their activities. Health centres, therefore, hold onto and provide treatment for patients at their levels in order to generate enough revenues from the service delivery. Additionally, amid the inability of government to adequately resource district health directorates, it was revealed that health centre IGF is one major source of funding for activities of the district health directorate. For this reason, improved revenue generation at the health centre levels is crucial for district directors. This is dependent on the number of patients who successfully receive healthcare at the health centres. A participant indicated that:

[...] If they (health centres) refer all cases, then the sub-districts cannot survive; they also need to generate revenue to finance their activities [...] (FGD_DHM_P04_Region A).

As illustrated in Figure 8.1, if health centres hold onto patients and successfully manage these patients at their levels, it means that patient attendance at the hospital level will reduce. This is because the gatekeeper system encourages community members who are ill to initially report to the nearest health centre. In this way, district hospitals are allowed to manage referred cases from

the surrounding communities. A reduction in patient attendance at the district hospital also suggests a reduction in hospital revenue generation targets.

Additionally, participants also attributed delayed referrals to poor coordination between district health directorates and hospitals in order to transfer referred cases from health centres to district hospitals. Timely and safe transport of referred cases from health centres to district hospitals reflects how district directors and medical superintendents relate to each other. Health centres lack ambulance or any vehicle to transport patients, and thus rely on higher levels (hospitals or district health directorates) to send vehicles down to the health centres to transport patients. For instance, in an effort to reduce maternal deaths, participants reported that district directors are expected to coordinate with hospital management to transport labour cases from health centres to district hospitals for safe delivery. These coordination efforts are affected by the power relations between district directors and medical superintendents. As a result, patients are delayed at the health centre level. A participant indicated that:

[...] You can prepare a bleeding labour case for referral to the hospital, but because of transportation the patient can be here [...] Sometimes, you call the district several times before they come to take the patient to the hospital. In this case, anything can happen to the patient [...] (FGD_HC_FP_P07_Region C).

The participants also reported that power relation issues affect the two way communication between the district hospital and health centres. It was reported that communications improve health centre performance through lessons learnt from referral feedbacks from the hospital, and as well improve quality of referrals through pre-referral communication and effective documentation. It was revealed that referral feedbacks convey essential information to health centres about how a referred case has been managed at the hospital level. In this study however,

it was reported that some district hospitals do not send feedbacks to health centres after treating the referred cases, this was attributed to the poor working relationship between the PHC institutions (and their actors). A participant disclosed that:

[...] It is good to send them feedbacks; they can learn how to manage similar cases from it [...] There is column for feedback on the referral sheet, but there is a challenge there, we mostly do not fill it [...] (FGD_DHFP_P07_Region C).

This sub-section presented analysis of findings on delayed patient referrals from health centres to district hospital for further management. The analysis revealed that delayed patient referrals can be traced to the nature of power relations between district directors and medical superintendents in the district. It was revealed that delayed referrals affect quality of patient care in the rural settings.

8.5. Summary of the Chapter

This chapter described how power relations between district directors and medical superintendents affect the critical role district hospitals play in strengthening health centre clinical care services. Initially, the chapter demonstrated the importance and benefits of the supervisory role of district hospitals in the organisation and delivery of health centre clinical care. The analysis revealed that clinical supervision of health centres enhances and strengthens service delivery in the rural settings. That is, clinical supervision of health centres brings on-the-job training to health centre staff, introduces district hospital care model to the health centres, build close relationship between medical superintendent and staff of health centres and thus integrate health centre clinical care into that of the hospital.

The chapter also presented analysis on the referral system. It was revealed that the patient referral system is equally beneficial to the clinical care delivery at the health centre levels. Thus, patient referral builds a two-way communication between the district hospital and the health centres, enhancing continuity of care for the rural population.

However, it was reported that these very vital contributions to the organisation and delivery of clinical care at the health centres are affected by the power relations between district directors and medical superintendents. These power relations result in inadequate clinical supervision of health centres by the medical superintendent, as well as delayed patient referrals from the health centres to the district hospital for prompt attention and care. This situation has serious implications for the organisation and delivery of health centre clinical care in Ghana. The subsequent chapter presents the discussion where the findings of the study are explained based on the theoretical perspective used as well as related current literature.

CHAPTER NINE

DISCUSSION OF FINDINGS

9.1. Introduction

This chapter presents the discussion of the empirical findings of this study. The chapter connects what is known to what emerged from the study findings. It creates a new understanding of the sources of power and the power relations among district health managers and how the power relations affect the organisation and delivery of clinical care in health centres in Ghana. The chapter also presents explanations of the findings using the adopted theoretical framework as well as the relationship of the findings to contemporary literature. The chapter contains three sections (including sub-sections) in relation to the research questions.

9.2. Sources of Power and the Power Relations among District Health Managers

This section presents discussion of findings that sought to address the question 1: What are the sources of power and the power relations between district directors and medical superintendents? In this study, it is inherent in the conceptual framework that district health managers derive powers from formal as well as informal sources, and that the informal sources of power contribute significantly to how these district health managers relate to each other in course of normal duties. In addition, French and Raven's (1959) concept of power was reviewed to examine the sources of power and the power relations between district directors and medical superintendents. Power plays critical roles in organisational actor relationships and thus remains a valuable resource in the discharge of their day-to-day activities. However, it is fascinating to note that just as who has power is relevant, how organisations and actors derive power is equally critical.

One underlying idea of the resource dependence theory is to understand that power is imperative as organisations react to their internal and external environments (Davis & Cobb, 2009). Thus, district health systems in Ghana are exposed to internal and external factors which serve as a power sources for district health actors such as the district director and the medical superintendent. In the study, external factors are those factors that are outside the district health system but influence the arrangements and activities of the district health institutions and their actors. Thus, actors of the district health system have no control over and cannot manipulate these external factors to their benefits. In the conceptual framework of this study, it is assumed that external factor such as the Republic of Ghana Act 525 and the organisational structure of the Ghana Health Service (GHS) provide the context for formal authority of district health managers, and serve as formal sources of power for these district health managers. In the same way, internal factors are those factors within the district health system that determine the relationships between the district health managers. In this case, actors of the district health system have control over or contribute significantly to the existence of these factors. Also inherent in the conceptual framework is the assumption that internal factors such as access to cash and medical expertise serve as informal power sources for district health managers. The specific study findings related to the formal and informal sources of power for district health managers are discussed subsequently in sub-sections.

9.2.1. Formal Sources of District Health Managers' Power

The theoretical framework of the sources of power shows that legitimacy is what gives appointed officials the right and authority to perform their job roles (French & Raven, 1959). The authors identified legitimacy as power source that stems from the formal arrangements of the internal structures. This was evident in this study since the medical superintendents and district directors

have been formally appointed by the Director General of the GHS after going through the appointment processes. Thus, the study found that these district health managers have formal sources of power as legitimate leaders of the district health services. This finding is a confirmation of the assumption in the conceptual framework that district directors and medical superintendents draw powers from formal sources such as their legitimate positions in the district. This finding is consistent with the argument by other researchers. For instance, Anderson and Brion (2014) argued that formal organisational structure and hierarchical authority form the source of structural power. Finkelstein's (1992) assertion follows the same argument.

The study findings related to the formal sources of power for district health managers are discussed separately for district directors as well as the medical superintendents.

9.2.1.1. Legitimacy of District Directors

French and Raven (1959) identified five main sources of power and legitimacy makes execution of power easier as subordinates appreciate the power source. This was evident in this study since the primary power source for the district director is legitimacy, as other authors acknowledge this as formal and positional power which is vested in the office rather than the person (Etzioni, 1961; Rahim, 2009). It is based on the existing legal and policy framework of the GHS (Republic of Ghana, 1996) as inherent in the assumption underlying the conceptual framework of the study. This source of power is also referred to as rational authority; and generally viewed as a right of those who possess it; in this case, the district directors (French & Raven, 1959).

The theoretical framework of the sources of power indicated that subordinate acceptance is fundamental to legitimacy (French & Raven, 1959). The subordinate acceptance was obvious in this study because subordinates recognised and accepted the power of the district director based

on the hierarchical arrangements of the district health institutions. For instance, all service provision reports are channeled through the district health directorate to the regional and national levels. Thus, this study's findings conform to the position of Hersey (2001) who argues that legitimate power is relevant when subordinates are ready and willing to accept actors in legitimate positions. Contrary to this, another study argues that subordinates are satisfied with actors who exercise referent, expert and rewards power (Junaimah, See, & Bashawir, 2015).

This implies that the district director is in a position to exercise power in order to achieve desired health outcomes at the district level. By this power, the district director potentially has additional powers such as coercive and rewards (French & Raven, 1959). This is evident in this study since the findings implied that the district director appraises and recommends staff for promotion to higher grades. In addition, the district director has the potential to be more powerful (have greater influence) if he/she is able to exert referent power, that is, power conferred by the recognition and acceptance of his/her subordinates with the legitimate position, as well as the personality of the individual district director. This is consistent with the argument by Braynion (2004) who argues that it is about how much followers admire, regard, like and desire to like the leader.

However, from the findings of this study, these additional powers are only exercised over staff of the district health directorate, sub-districts and CHPS zones, but not the staff of the district hospital. In this way, the district hospital staff is not likely to recognise and accept the district director as legitimate head, and district directors are worried about this situation. For instance, a participant reported that:

[...] The region post staff straight to the hospital without passing through the directorate, so they (staff) do not feel they are part of the directorate [...] As we speak, there are staff

in the hospital who do not know me (the district director) [...] This is bad [...]
(IDI_P01_Region A)

Aside the exercise of this power over others, the legitimate position charges district directors to make decisions that border on health and healthcare in the district. For instance, the study found that the district director represents the district at the district assembly meetings, as well as regional health management meetings and other activities at the regional level, a role that comes with the legitimacy of his/her position. This is further evidence to the legitimate power enjoyed by the district director. This suggests that the district director has capacity to be influential on health issues that the district may need to address. For example, the study findings revealed that a district director used her legitimate powers to solicit for funds and material support from the district assembly to strengthen healthcare delivery in the district. This is consistent with a study which argues that in situations where central government funding of decentralised health systems delays, decentralised health managers use their positions to obtain supplies and other materials on credit, as well as borrowing money from other source to ensure programme implementation (Frumence et al., 2014).

Interesting findings of this study include the readiness of district directors to delegate their positions and powers to hospital management team members, instead of members of the district health management team. The study reported that medical superintendents or hospital administrators attend district assembly meetings on behalf of the district directors. This is contrary to a study which sort to assess nurse managers' attitude and their preparedness to effective delegation. The study concludes that nurse managers may not have knowledge and skills to delegate, and thus need learning opportunities that can allow them to develop confidence and competences that can allow them to delegate (Baddar, Salem, & Hakami, 2016).

This delegation has implications for coordination and teamwork between the district health institutions to achieve good health outcomes in the district. In this way, critical healthcare decisions are taken in the absence of the district director. However, it is unclear from this study whether there are other aspects of their authority/role that maybe delegated, and to who.

Management of financial resources has consistently remained a delicate issue in health institutions, and stakeholders are very much concerned about that (Kutzin, 1995). Therefore, the need to be clear with who manages which funds cannot be over emphasised. In this study, it was reported that funds for national (vertical) programmes are channeled through the district director as the legitimate head of the district health system. There is proactivity in this situation because the need to implement programmes such as immunizations, malaria and tuberculosis (TB) control usually requires healthcare professionals' support. Thus, the district director by virtue of his/her power can mobilise the needed health workers to support the programme implementations, compared with the medical superintendent whose capacity to mobilise health workers may be limited to the district hospital. During programme implementation, mobilising community health workers is critical to the implementation success. This is consistent with a study which argues that community health workers have played critical roles in improving health service delivery and outcomes (Baatiema, Sumah, Tang, & Ganle, 2016).

In this way, the programme implementations are likely to be evenly distributed throughout the district, rather than if it goes through the hospital. Thus, if the funds go through the district hospitals, chances may be that the programmes will be biased towards the hospital rather than the general community.

Moreover, the district director as he/she remains popular at the district assembly level is better placed to mobilise support from the district assemblies and colleague departmental heads for the implementation of the health programme. This depends strongly on the positive identities of the district director as this study argues that managers need positive identities in order to improve upon their interactions with colleague managers and people they work with (Harvey, Annandale, Loan-Clarke, Suhomlinova, & Teasdale, 2014). For instance, training, publicity, transport, community mobilisations are intersectoral support packages that can be received from the district assemblies and other departments through the district director. It stands, therefore, to reason that if funds were to pass through other channels other than the district director, the support for successful implementation of the programmes may be negatively affected.

9.2.1.2. Legitimacy of Medical Superintendents

According to French and Raven (1959), legitimate power is viewed as a right of the possessor and hence, positions him/her in a state of influence that the subordinates are mandated to comply with his/her orders. This is evident in this study since the findings revealed that the medical superintendent has some legitimate power within the district health system. Despite the fact that the district hospital is integral to the organisation and delivery of quality district health services, it was reported that the district hospital operates as a separate entity, managing and controlling its own resources in the district. This equally gives the medical superintendent formal and hierarchical power to control the district hospital structures. This implies that the district hospital sets its own targets and these targets may not be in line with the organisation and delivery of clinical care at the health centre levels since the health centres operate directly under the leadership of the district director. This is particularly interesting as the study revealed that district health institutions do not jointly plan for health services in the district. This implies that there is

inadequate planning in order to effectively coordinate PHC activities. This is consistent with a study which found that inadequate planning was a constrain to effective district health services delivery (Bonenberger, Aikins, Akweongo, & Wyss, 2016). This potentially affects teamwork between district hospital and health centres in the organisation and delivery of clinical care services. Thus, the district hospital activities are likely to be hospital-centred, rather than district-centred.

Further implications are that the medical superintendent has the legitimate power to negotiate and strengthen healthcare delivery at the hospital from higher levels of the GHS structure (the regional health directorate and GHS national headquarters). In this instance, the findings of the study revealed that the medical superintendent may or may not inform the district director of any interactions with the higher levels. This presupposes that the legitimate power of the medical superintendent is at par with that of the district director, and potentially distorts the hierarchical power structure of GHS at the district level.

French and Raven (1959) identified that expert power is based on expertise, skills, knowledge, or special abilities concerning a manager's job. It is in this light that the findings of this study revealed that medical superintendents who are specialist consultants potentially exert both informational and expert power over other health professionals who seek advice on clinical issues. Even though in management positions, the professional background of medical superintendents contribute to their ability to get things done. In a study, the authors argue that managers' professional background may be both a resource and constraint, and also determine the influence strategies they use (Spehar, Frich, & Kjekshus, 2014).

In addition, the medical superintendent has the potential to be more powerful (have greater influence) if he/she is able to exert referent power, that is, power conferred by the recognition and acceptance of his/her subordinates with the legitimate position, as well as the personality of the individual medical superintendent.

The theoretical framework on the sources of power also identified coercive and rewards power as inherent in managers (French & Raven, 1959). This is obvious in this study since the analysis of findings revealed that the medical superintendent has some rewards and coercive powers. However, like the district director, the medical superintendent exerts these powers over only staff of the district hospital and may not be able to extend this to the staff of the health centres and CHPS zones. Yet, interesting findings of this study include the fact that health centres recognise the district hospital as superior and constantly discuss medical issues with the medical superintendent and his/her staff. To the health centre staff, the medical superintendent has expertise and potentially draws some referent powers due to admiration from the health centre staff. Thus, as compared to the district director, the medical superintendent potentially has enough powers from the perspective of the health centre staff. This poses a threat to the district director as the one who directly manages the sub-districts. This is likely to introduce power struggle between the district director and the medical superintendent. This situation is likely to affect the organisation and delivery of clinical services in the health centres.

Interestingly, this study's finding conforms with the position of Kimber (1943), dated in the early 40's, as he described the medical superintendent as the legitimate head of the hospital. This author, however, raised concerns about the internal administration of hospitals, since medical superintendents are professional medical doctors who are likely to have limited knowledge of the management and administration of healthcare services. Even though the author raised this issue

over 70 years ago, the issue of medical doctors occupying and performing management and administrative duties in the health sector is still relevant and being discussed today by various stakeholders (Mbindyo, Blaauw, & English, 2013; Ojo & Akinwumi, 2015). These authors are of the view that medical doctors are not fully equipped to work as managers, and recommend that the training curriculum for medical doctors should include health management courses to strengthen their capacities as health managers. However, some commentators on this subject are of the view that health professionals, including medical doctors, should concentrate on their professional duties and leave the administration of the health sector to professionally qualified health administrators (Ruxin, 1994). Nevertheless, this study did not look into the administrative activities of the medical superintendent as administrative head of the district hospital.

Besides, it was reported that the medical superintendent is the consultant clinician of the district health services. This is consistent with the functions of medical superintendents as described by Kimber (1943) in the early 40s. The author described the medical superintendent position as the chief clinician, aside his/her administrative duties. This potentially explains the legitimacy of choosing a medical doctor as medical superintendent, since the medical professional knowledge, skills and experiences are relevant to this position.

Kimber's (1943) study also supports this study finding that the district health system has two giants – the district director and the medical superintendent, working together as peers in a seemingly hierarchical structure. This suggests that the original hierarchical arrangement of authority and power lines in the district health system have been re-designed into a horizontal power structure where the medical superintendent has equal powers as the district directors, but limited to the district hospital.

This study, however, revealed that there was no policy directive to officially inform the horizontal power structure that currently exists in the district health system. This implies that the horizontal power structure is a reflection of self-adjustment of the district health system to the current power relations among the district health managers in the district. Further implications are that power dynamics are likely to feature in their day-to-day activities if these district leaders' knowledge of managing the horizontal arrangements of authority lines is limited. This is potentially another source of power relations between district directors and medical superintendents in Ghana's district health system.

9.2.2. Informal Power Sources of District Health Managers

Adding to the layer of complex horizontal power relations between district directors and medical superintendents are various informal power sources that manifest in the course of discharging their daily activities. These informal power sources, from the study findings, include medical dominance and access to (and control of) cash / funds.

9.2.2.1. Medical Dominance

It would be recalled that French and Raven's (1959) identified knowledge and expertise as power source leading to the concept of expert power. This is evident in the findings of this study since the medical profession is often perceived as the giant of the health sector workforce. Therefore medical professionals, especially medical doctors, are recognised as such in the health sector and in the larger society. Thus, the findings revealed that medical dominance was a more prominent informal source of power, and contributed significantly to the power relations between district directors and medical superintendents in the district health system. It is in this light that this study revealed that medical superintendents exert expert power over district directors who are

not medical doctors. This is consistent with the position of Spehar and colleagues who argue that doctors use their powers as experts to influence peers (Spehar et al., 2014).

This situation may be attributed to the high entry requirement for the training of doctors, the length of their training, and how the training of doctors is structured as compared to other health workforce. Beyond the training issues, the placement and conditions of work for medical doctors as compared to other health professionals are likely to contribute to medical dominance. For instance, in typical healthcare settings like the hospital, the medical doctor, irrespective of his/her experience, assumes the most senior position as the medical superintendent. In a study on medical managers in contemporary healthcare organisations, the author found that the roles of doctors in management positions is beneficial to healthcare organisations (Dwyer, 2010).

In this study, it was widely reported that medical doctors are unable to work under, and/or accept instructions from other health professionals, and potentially have dominion over all other health professionals. This suggests that medical doctors are the ultimate decision-makers, both at the service provision and management levels, in the health sector. This study's finding corroborates with a study conducted by Adamson and colleagues in the mid-90s. In their study, medical dominance was considered a structural barrier to health services delivery, posing workplace dissatisfaction among nurses (Adamson, Kenny, & Wilson-Barnett, 1995). Similarly, this study's findings also fall in line with a study conducted by Velloso and colleagues (2014). They found that even within a work team in a mobile emergency care service, which is provided by the Brazilian health system, there was dominance of the medical profession over the other professions, which made the team invisible (Velloso, Araujo, Nogueira, & Alves, 2014). They concluded that the medical dominance disrupted service provision as some team members felt disregarded by the medical professionals on some occasions.

Furthermore, the concept of medical dominance as described by Luzio (2008) features strongly in this study. Luzio (2008), argues that the supremacy of medicine as the scientific framework gives doctors significant influence over other health professions. In the same way, this study revealed that medical superintendents (who are usually medical doctors) do not respect nurses and other health professionals when appointed as district directors, since they are not colleague medical doctors. This implies that medical dominance puts constraints on effective management of the district health system, as district directors who are not medical doctors are not able to exercise control over medical superintendents. This probably contributes to the self-adjustment of the original hierarchical power structure to the horizontal power structure, which defines the power lines of district directors towards district health directorates and their sub-districts; and that of medical superintendents towards the district hospitals; but working in an integrated district health system. The findings of Saltman and his colleague (2000) are also consistent with the findings of this study. They indicated that medical doctors rather than health managers are dominant and influential in healthcare organisational management (Saltman & Ferroussier-Davis, 2000). This probably explains why managerial positions in the health sector are filled with medical doctors.

However, this trend of having medical doctors in managerial positions is progressively changing in Ghana's health system. Currently, the position of district directors, which used to be the preserve of medical doctors with public health background (Agyepong, 1999), is now opened to all health professionals who have public health background (Republic of Ghana, 1996). The outcome of this policy implementation contributes to the power relations between district directors and medical superintendents. Nonetheless, with time, these district health leaders will

potentially understand their roles and lines of authority, and the power struggle will gradually minimise.

Conversely, the findings also revealed that medical dominance was absent in situations where both district directors and medical superintendents were trained medical doctors. It was indicated that they saw each other as colleagues having the same expertise, therefore, unable to exercise superiority based on that. As a result, such circumstance requires both parties to rely on each other's power source, which could be legitimacy or access to financial resources. The bottom line is that, in most cases where both district directors and medical superintendents are medical doctors, their relationships are more cordial than when district directors have a different background such as nursing or disease control as revealed by the findings of this study. The vested interest of the two parties enhances their cooperation as they understand, especially from the medical superintendents' perspective that, in their absence, the district directors with medicine background could step in for them and also provide clinical care support at the hospital. This does not entirely rule out the fact that sometimes even amongst the two doctor managers, they disagree and quarrel, as the study observed. Such disagreements and quarrels were attributed to the personality of the individual medical doctors. This finding is consistent with a study which found that interpersonal relationship among doctors contribute to workplace interpersonal conflicts (Jerng et al., 2017).

French and Raven (1959) explained that expert power features when people subordinate to actors because they are perceived to possess special skills, knowledge and capabilities that are essential and valuable to achieve organisational goals. This is evident in this study since the findings revealed that the already assumed equal power (legitimate) between the district directors and medical superintendents was further confronted with power battle/conflict that emanates from

knowledge and expertise these actors possessed. The findings revealed that some aspects of healthcare organisation and delivery may come under the control of district directors (preventive care), or medical superintendents (clinical care) based on the individual's area of expertise. On one hand, medical superintendents are clinical experts. Therefore, the power they obtain from their expertise/knowledge is constant. As a result, the medical superintendents (usually consultants) have more power (expert power) when there is a need for them to be consulted on clinical healthcare issues. This is consistent with a study which concludes that consultants have expert power in clinical care delivery (Lipman, 2000).

On the other hand, district directors are not necessarily medical doctors and may lack clinical knowledge. However, their preventive care knowledge/expertise puts them in a better position to control/promote preventive healthcare services in the district. For that matter, district directors and their management teams exercised decision making power over both activities and finances of preventive healthcare programmes as revealed in this study. Consequently, there is a divide on who controls clinical care matters and who controls preventive health services in the district.

9.2.2.2. Financial dominance – Access to cash/funds

Resource dependence theory emphasises that there are contingencies that emanate from the external environment, and so organisations that depend on the environment should be aware and make provisions to minimise such uncertainties (Pfeffer & Salancik, 1978). This is evident in this study since the findings revealed that central government subvention to district health institutions has dwindled leaving district directors and medical superintendents to find alternative means of funding district health services. This is consistent with a study which found that the decisions of district health managers are constrained with resource uncertainty (Kwamie,

Agyepong, & van Dijk, 2015). Thus, access to cash and control of same, has significant influence on the power source of the district health managers. The findings revealed that district health activities are virtually financed through the funds generated from healthcare provision to the public, and a large chunk comes from the NHIS claims repayments. This is consistent with the findings of Akazili and colleagues (2011) who indicated that NHIS contributed significantly to healthcare financing in Ghana (Akazili, Gyapong, & McIntyre, 2011). Financing healthcare through NHIS claims repayments implies that district health institutions that provide services that are paid for are likely to have and control funds.

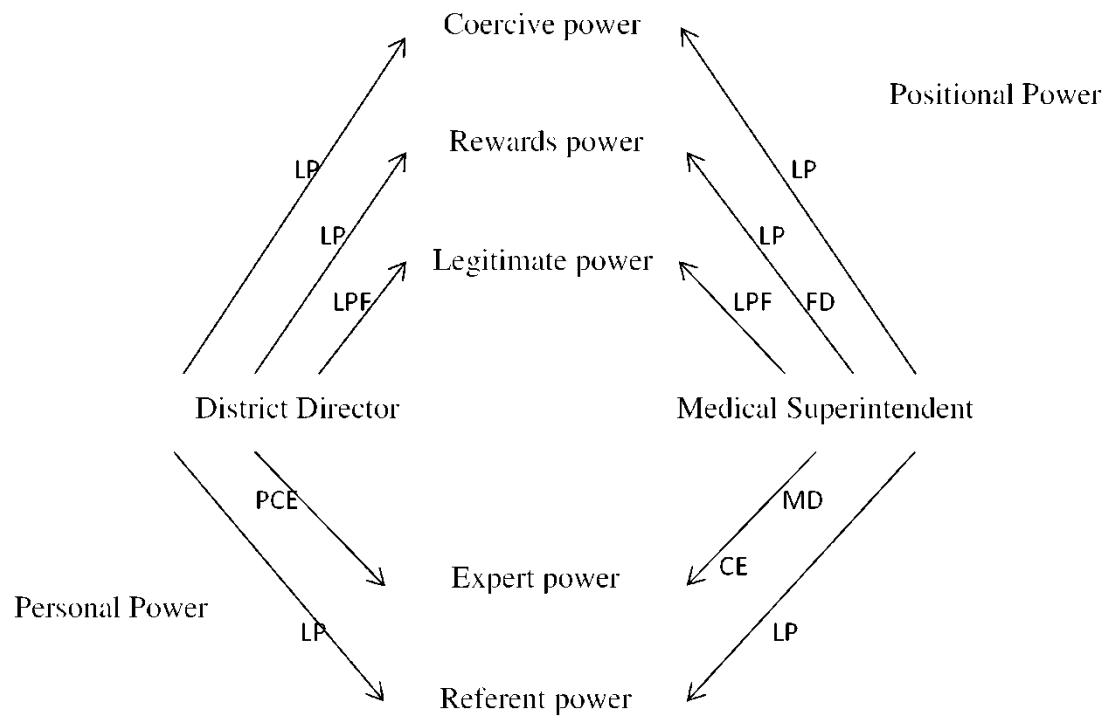
Consequently, the district director often relies on the medical superintendent for financial support to carryout health and administrative activities. This support system introduces dependency relationship which potentially gives significant informal powers to the medical superintendent over the district director. This is in line with rewards power as identified by French and Raven (1959). They identified rewards power as any influence exerted by a person based on tangible or intangible ‘rewards’ that are provided contingent on particular actions.

This financial arrangement has introduced financial frictions between district directors and medical superintendents in the running of the district health system. The study widely reported that the effects of district health institutions financing their own activity budgets through their IGF have left district directors in a vulnerable situation. That is, they have no funds to support their budgets. This implies that district directors have no option but to depend on the district hospital’s IGF for survival, since district health directorates do not generate any money from their activities. The study revealed that, it is in recognition of this, that policy directives request district hospitals to provide financial support for the implementations of district health directorates’ activities. This study’s findings corroborate the findings of Kwamie *et al.*, (2016)

that the district health directorates rely on district hospital's IGF for financial support. The authors concluded that this situation makes the district health directorates exercise more supervisory powers over sub-district health facilities than the district hospital that they depend on for funds.

This also means that district directors have to adopt strategies for financial sustenance such as taking full charge of funds from vertical programmes as a source of strength. The study's finding also confirms what Kwamie *et al.*, (2016) found with regards to the critical role donor funds play in the district health system. As established previously, the study supports the claim that donor funds come in to support earmarked programmes, which are mostly vertical and are administered through the district health directorate. Even though there is an acknowledgement that such a support always helps to mitigate the challenges that come along with inadequate funds, yet it must be noted with caution that the quantum of financial support the country used to receive as support for the health sector has reduced since the country moved from a low-income country to a lower-middle income status (UNDP/NDPC, 2015; WHO, 2016).

The section discussed the various sources of power available to district directors and medical superintendents legitimate to their positions and from their own perspective. These sources of power and the major determinants are summarised in Figure 9.1.



Notes to the Framework

Legitimate - Both district director and medical superintendent have this power – GHS Legal and Policy Framework (**LPF**)

Rewards – Both district director and medical superintendent have this power and exert same over staff under their direct supervision – Legitimacy Positions (**LP**)

- Medical superintendent exerts over district director - Financial Dominance (**FD**)

Expert - Medical superintendent exerts over district director who is not a medical doctor - Medical Dominance (**MD**) and Clinical Expertise (**CE**)

- District director exerts over medical superintendent – Preventive Care Expertise (**PCE**)

Coercive – Both district director and medical superintendent have this power and exert same over staff under their direct supervision – Legitimacy Positions (**LP**)

- District director unable to exert over medical superintendent – Legitimacy Positions (**LP**)

Referent - Both district director and medical superintendent have this power – Legitimacy Positions (**LP**)

Figure 9.1: Concept of French and Raven's (1959) sources of power examined in relation to district directors and medical superintendents in Ghana's district health system

9.3. Organisation and Delivery of Health Centre Clinical Care

The organisation and delivery of healthcare in Ghana has the community level as the base of the hierarchy (a bottom-up system). However, the health centres, which are usually at the sub-district levels, remain the base for facility-based healthcare services for the rural populations. The study findings revealed that health centres provide a range of clinical care services which are supervised by the district hospitals, and supported by an effective patient referral system in order to ensure quality case management in the rural settings. This section of the chapter discusses the range of clinical care services provided at the health centre levels.

9.3.1. Range of Clinical Care Services at the Health Centre

The organisation and delivery of clinical care services is a reflection of the range of services provided to enhance clinical case management at the health centre level. The study revealed that the management guidelines for sub-districts (MOH, 2001) have seen a good level of compliance. Health professionals are keen on limiting their services to what the guidelines stipulate in order to avoid undesirable consequences. In this way, the Ghana's PHC strategy of making healthcare more accessible and closer to communities (GHS, 2005) is fulfilled through the provision of basic clinical services to the rural population. Availability of laboratory, records unit, dispensary, labor and maternity rooms, rooms for detaining patients and dressing corners in some health centres help them to effectively provide basic healthcare at the sub-district levels. With all these facilities, chances are that health centres would deliver quality and satisfactory care that meets the clinical needs in the rural settings. Adherence to policy guidelines and standard operating procedure in the organisation and delivery of clinical care at the health centres implies that quality care is potentially delivered to the rural communities, and thus likely to improve health

outcome in the rural settings. However, the scope of this study did not include exploring the health outcomes in the study areas.

9.3.1.1. Clinical Case Management at the Health Centres

Low and middle income countries have been noted for the prevalence of communicable diseases; however, the trend seems to be changing as there has been a steady rise in the incidence and prevalence of non-communicable diseases (Cook-Huynh, Steckelberg, Seligman, & Kumar, 2012). The ever-increasing prevalence of diabetes and hypertension in Ghana (Bosu, 2010) means that the clinical case management of both communicable and non-communicable diseases at the health centre level is worthwhile.

For instance, malaria remains the leading cause of OPD attendance in the country (GHS, 2015a), and this is reflected at the sub-district and district levels. The study found that measures had been put in place for effective case management in health centres. One such measure is the availability of rapid diagnostic tests to complement microscopy in the diagnosis of malaria ensures quality of care at this primary level. Similarly, in conformance with the standard operating procedures for selected clinical conditions, there is a graphical and visual display of standard operating procedures in the facilities to prompt their use and adherence by health workers (for example, flow chart for the diagnosis and treatment of malaria). The implication then is quality case management and resultant improved health outcomes. This finding conforms with a study which concludes that effective clinical case management promotes an increased quality of care, resulting in improve quality of life.(Fabbri, De Maria, & Bertolaccini, 2017).

It is noteworthy that the ability to give appropriate clinical care/management to especially chronic conditions such as diabetes and hypertension has enormous benefits. Thus, it boosts

patients' confidence in the service and informs their decision to return to the health facility again. This is critical because for chronic conditions, the patients mostly live with the condition for a very long time. Of course, the rural populations' experience with malaria, injuries, and diarrhea may not match diseases such as diabetes and hypertension. Therefore, rural health professionals' ability to manage these non-communicable diseases is crucial for population health reasons. In a study to explore the role of community health workers in the management of non-communicable diseases, the authors argue that community health worker play diverse roles, and these roles are informed by the expectations of the health system and in response to community needs (Tsolekile, Puoane, Schneider, Levitt, & Steyn, 2014).

Outpatient walk-in services were found to be dominant in the healthcare provided in sub-district health centres. Outpatient services were found to be easily accessible, especially regarding the availability of health professionals to take care of patients. This is supported by an effective triage system that enhances the speed of service delivery at the health centres. It is in this light that healthcare providers perceived that clients were satisfied with the outpatient services. These findings corroborate a study on patient satisfaction with outpatient services in Uganda (Nabbuye-Sekandi et al., 2011). The authors concluded that client's perceived technical competence of provider, access to healthcare, convenience and availability of services as are major determinants of satisfaction.

Nonetheless, patients who are in critical conditions and may need to stay at the centre for close monitoring and adequate case management are detained for at most 24 hours before discharge or referral to the district hospital. It was observed in the three health centres that patients were detained and given treatment with infusions to facilitate speedy recovery. This aspect of case management is particularly essential where health centres are far away from the district hospital

(first referral hospital). Coupled with poor road networks as well as poor financial situation of community members, health centres providing detaining patients for observational care have implications for health outcomes in the district. However, the findings revealed that these health centres were constrained with space and beds to meet patient demands, especially during their peak seasons. Implications are that this aspect of the organisation and delivery of clinical care at the health centres need attention in order to enhance health outcomes at the sub-district levels in Ghana. In a study to identify factors that influence healthcare quality, the author indicates (among other factors) that healthcare quality can be improved when health resources are available (Mosadeghrad, 2014).

9.3.1.2. Clinical Laboratory Services

Clinical laboratory services remain one of the critical components of healthcare delivery as it aids clinical decision making (Tadeu & Geelhoed, 2016). The authors argued that the presence and functioning of clinical laboratories in health centres ensures that there is evidence-based and informed decision-making rather than presumptive treatment for patients (Tadeu & Geelhoed, 2016). This is evident in this study since health professionals admitted that their clinical laboratories performed malaria, total blood count, hemoglobin levels, sickling tests, widal test, stool and urine tests for routine examination and pregnancy tests to support diagnosis and prognosis of patients. The study revealed that, these tests potentially improved case management practices. This finding that functioning laboratories existing at health centre levels is positive and boosting patients' confidence in the healthcare system, even though low and middle income countries fail to meet the 60-80% mark of using laboratory data for patient management decisions (Fleming *et al.*, 2017). Nonetheless, the general understanding that laboratory

investigations are often more sensitive and specific than clinical decision criteria alone (Peter *et al.*, 2010) is good.

However, the findings also revealed that some health centres lacked laboratory technicians, equipment and reagents, and thus rendered their laboratory services ineffective. This finding is inconsistent with a recent study which contends on the ability of the PHCs to provide laboratory services as part of sound diagnosis (Devane-Padalkar, Deshpande, Yakkundi, Britt, & Ahmed Jamo, 2016). The study concluded that the status of dysfunctional laboratories at the PHC points to administrative deficiencies of the government in ensuring the availability of basic laboratory services at the PHC level (Devane-Padalkar *et al.*, 2016). This suggests that patients who visited these health centres were treated without laboratory confirmation of their medical conditions. This has serious implications for the management of these disease conditions. For instance, in the case of malaria, this situation has implications for the implementation of the “test, treat and test” policy on case management of malaria (Ministry of Health, 2014). Thus, given that almost 50% of OPD attendance is caused by malaria (GHS, 2010), in such health centres, treatment outcome for malaria is likely to be affected.

9.3.1.3. Suturing and Minor Surgical Procedures at the Health Centre Level

It has been argued that surgical services are an essential component of primary healthcare that should be universally accessible and affordable (Pemberton & Cameron, 2010). This is evident in this study since suturing and minor surgical procedures were found to be an integral part of the organisation and delivery of clinical care services at the health centres. This is an important revelation because, rural communities usually experience cuts as a result of the traditional farming activities they engage in. In addition, road traffic accidents account for about 0.5% of

cases that report to health facilities for treatment (GHS, 2010). In line with this, the study observed that the use of motorbikes have increased in rural communities, and this serves as one source of injuries. This therefore, means that provision of such services affirms that the PHC goal (GHS, 2005) of meeting the unique healthcare needs of communities is achieved. In the end, the provision of suturing and minor surgeries facilitates the healing process of affected patients. Moreover, availability of these services at the sub-district level means the pressure on higher levels of care in the district – district hospital, is minimised. Aside this, the poor ambulance service and system in the country means provision of suturing and minor surgeries at sub-district level is relevant to patients who suffer from serious injuries. In this case, health centres are able to manage and arrest the bleeding before safely transferring the patient to the next level. On the contrary, a study conducted to assess the accessibility of healthcare in rural settings found that rural dwellers are highly disadvantaged in terms of physical accessibility to healthcare facilities (Sulemana & Dinye, 2014).

However, the study findings also revealed that health centre surgical services face challenges such as lack of appropriate theatre, equipment, surgical instruments and basic consumables to effectively manage injury cases. This suggests that injured patients are at risk of nosocomial infections as a result of using poorly sterilised surgical instruments. This is consistent with a study which concluded that public hospitals in developing countries lack vital human and material resources to provide adequate and safe surgeries (Linden *et al.*, 2012). Again, it was observed that some of these injuries are managed in open air (e.g. on a partitioned corridor). These cuts are potentially exposed to communicable disease agents in the air. Thus, these cuts stand the risk of getting infected with bacteria such as *Clostridium tetani*, which is known to contaminate air and infect open wounds.

9.3.1.4. Pharmaceutical Services

The WHO's proposed model for PHC-based pharmaceutical services indicated that case management at the health centre level is supported by pharmaceutical services in order to ensure that patients receive quality medications for their ailments (WHO, 2007). The proposed model defined pharmaceutical services as actions in healthcare system that ensure equitable and rational use of essential medicines and consumables to provide comprehensive, integrated and continuous care to the population (WHO, 2007). In this study, it was observed that the health centres have dispensaries, and stock essential drugs for the services they provide. This effort is worth commending since these rural communities may not have private pharmaceutical services to meet their clinical needs. Thus, patients with drug prescriptions may have to travel a far distance, probably to the district capital, to buy their drugs. This has potential implications for health delivery and health outcomes. It is probably the reason why PHC facilities are described as playing a major role in ensuring that rural communities have access to medicines (Sambala *et al.*, 2010). However, of the three health centres, only one had a trained dispensing technician to manage drugs and other consumables. This has implications for effective drug management to support patient care quality.

9.3.2. Medical Supplies at the Health Centres

Over the years, pharmaceutical products – medicines, drugs and other medical supplies have been considered as an indispensable part of every healthcare organisation and delivery system (Manjit & Sarah, 2002). The availability of medicines, especially at the facility level has been identified as an important determinant of patients' decision to visit healthcare facilities (Jande, Liwa, Kongola, & Justin-Temu, 2013) as well as perception of quality of care (Dagnew,

Tessema, & Hiko, 2015). On the other hand, regular shortage of medicines in hospitals deters patients from utilising hospital services (McLaughlin *et al.*, 2013). Therefore, the availability of pharmaceutical services significantly contributes to the utilisation of healthcare among the population, even though it was not clear whether availability of pharmaceutical services translates into well stocked dispensary where prices of medicines are affordable.

For instance, for effective and comprehensive malaria case management, there should be testing using microscopy as gold standard, or use rapid diagnostic test strips where established laboratories are non-existent (Ministry of Health, 2014). Then if malaria is confirmed, the availability of antimalarial medicine becomes even more critical for treatment. Yet, the condition does not always exist in some of the health centres. The study revealed that health centres often run short of medicines and other medical supplies. The situation was worrying as this could seriously affect both perceived and actual quality of care.

The reported periodic shortage was attributed to chronic delay in reimbursement of funds by the national health insurance scheme. When accredited NHIS healthcare facilities provide healthcare to the scheme members, the national health insurance authority (NHIA) is responsible for reimbursing the facilities for the services they provided on their behalf. However, the period for healthcare providers to receive the claims they submitted had become a big problem country-wide, since it could take too long for healthcare providers to receive their reimbursement from the NHIA (Dalinjong & Laar, 2012; Sakyi, Atinga, & Adzei, 2012). Since its inception, the NHIS has become an important component of health facilities' IGF (Yawson *et al.*, 2013; Akazili *et al.*, 2011). Therefore, any delay as long as eight months as the study found meant that facilities would be cash trapped and securing medical supplies for service delivery would be difficult.

Worse yet, the revelation that shortage of some medical supplies was simply about their unavailability at either, the district or regional medical stores, needed further examination. Purchasing and supply chain management must be acknowledged as an important function for every effective and efficient health system. The ability to link utilisation, stock and delivery times together to ensure medical supplies are available when needed cannot be over emphasised. It is in the light this that the findings of a study on the causes of drug shortage revealed, among other factors, that district challenges contribute to drug shortage in hospitals (Awad, Al-Zu'bi, & Abdallah, 2016). Thus, implementation of appropriate measures to ensure effective coordination among national, regional and district medical stores is necessary to avoid some of these artificial shortages at the lower levels. The shortage of medicines in health centres implies that patients will be forced to resort to alternative means of acquiring these medicines, which cannot be trusted as reliable. A worse scenario could be patients combining prescribed medicines with unapproved herbal products that are easily accessible to them.

The study revealed that shortage of medicines at the health centres created dissatisfaction among patients. Especially, among rural folks whose economic status or income level are generally low, asking patients to go and buy medicines from licensed chemical shops is always difficult and problematic. Many of the patients who seek care are NHIS subscribers. They reasonably expect NHIS to cover all their healthcare cost. Therefore, the findings of this study revealed that patients express deep dissatisfaction and disappointment when directed to buy their medicines from licensed chemical shops out of their own pocket. In fact, this could be a major disincentive for the NHIS membership renewal for existing members as well as enrolment for potential members. It is possibly the reason why the study found that the periodic shortage of medical supplies particularly medicines make health centres lose patients to their private competitors.

Thus, the well-stocked private clinics are more attractive to patients than the health centres which experience periodic shortage of medical supplies. However, studies evaluated in a systematic review do not support this finding, and revealed that these studies do not support the claim that private healthcare is more efficient than the public (Basu, Andrews, Kishore, Panjabi, & Stuckler, 2012).

9.3.2.1. Borrowing and Exchange of Medical Supplies

The inevitability of facing challenges in the healthcare system means leaders and managers should devise means of surviving. The challenges faced at the sub-district levels in terms of shortage of medical supplies means that managers in the district health system must be as proactive as possible to address these inevitable challenges in order to provide quality primary healthcare – providing health services in a manner that is consistent with the health related needs of the population (Bamford, 1997).

In response, the district health system has developed a few coping mechanisms to ameliorate the periodic shortage of medical supplies. The study found “borrowing” to be a significant and reliable strategy to avert the occasional shortage of medical supplies within the district health system. Similarly, in a study to explore the responses of frontline healthcare workers to stock-outs of essentials medicines and equipment, the authors argued that healthcare workers access these medical supplies from other facilities (Hodes, Price, Bungane, Toska, & Cluver, 2017).

Both “vertical borrowing” and “horizontal borrowing” are resorted to in order to ensure continuity of healthcare delivery to rural populations. In this case, vertical borrowing is the situation whereby health centres at sub-district levels borrow from district hospitals at a higher level. On the other hand, horizontal borrowing is when health centres borrow from their

colleague health centres in other sub-districts within the district. As the findings revealed, district hospitals have been a dependable lender to sub-district health centres when they need medical supplies that are either unavailable at the medical stores (district/regional) or when there is lack of funds to acquire them. This finding corroborates a study which emphasised the role of district hospitals in the efficient management of PHC services (Le Roux & Couper, 2015). Likewise, convenience and speed may be among the benefits of the relationship in the horizontal borrowings that happen between sub-district level health facilities.

This interest-free arrangement helps sub-districts acquire the necessary medical supplies to enhance service provision. Moreover, the interest-free component of the borrowing arrangement is worth commending since it serves as a better option to securing a loan from the banks to cater for such needs. Additionally, this interest-free arrangement is innovative since money is the major challenge facing health centres rather than mere shortage of supplies at the medical stores.

As the study revealed, some of the borrowing processes are formalised such that the request or arrangement must be in writing and channeled through the district hospital management. In contrast, the informal borrowing arrangement is based on individual health workers' relationships and does not go through any appropriate documentation compared to the formal. This finding is consistent with the study which argued that stock-outs were only reported when informal methods of stock-sharing did not secure top-up supplies (Hodes et al., 2017). This informal process could be a remedy for the bureaucratic processes associated with the formal process, thus making medical supplies timely available for use at the health centres.

However, there is the need to express genuine concern about the possibility of undesirable issues of near corruption emerging as the process is done at the blind side of management. Thus, this

situation is likely to further weaken the health system and deny it of essential and already scarce resources. Therefore, in as much as borrowing has served a good purpose and bridged the medical supplies gap created by periodic shortages, the district health system will be better-off if such arrangements are often formalised. Similarly, Hodes and colleagues indicated that informal borrowing of medical supplies have implications for understanding the frequency and severity of stock-outs, and for taking action to prevent and manage stock-outs effectively (Hodes et al., 2017).

It is also noteworthy, that the study found trust to be the basis of the borrowing arrangements. The entities involved expected that there would be smooth replacement once the borrower secured the medical supplies they borrowed. This creates the impression that previous transactions and arrangements have been faithfully honored and therefore, sustains future borrowing arrangements between district hospitals and sub-district health centres. This finding is consistent with a study which argued that trust underpins the co-operation within health systems (Gilson, 2003).

In a more fascinating revelation, it was found that in the situation where medical supplies at the health centres are nearing expiration, the health centres make arrangement with the district hospital and exchange for fresher or newer ones which are not near expiry. This arrangement is backed by the good reasoning that medical supplies consumption at the district hospital level is huge and as a result stock moves faster than at the health centres. As the study noted, medicines are the commonest medical supplies that go through this process. This is in every sense another innovation strategy that is worth commending. It helps to prevent waste at the sub-district health centres. It must however, be considered as an important factor when planning or in the purchasing and supply chain management of both the district hospitals and sub-district health

centres. This conforms to a study which concluded that knowledge of medical supplies and equipment for PHC is a useful resource for those at national and district levels responsible for health planning and management, training, and managing medical stores (Manjit & Sarah, 2002).

9.3.3. Clinical Healthcare Providers at the Health Centres

A range of healthcare providers and a combination of their skills are needed for quality healthcare delivery. The study found that healthcare workers in health centres include physician assistants, nurses (both diploma and certificate holders), midwives, laboratory technicians, dispensing technicians and health information officers. These healthcare providers organise and deliver service supported by knowledge sharing and multi-tasking. Thus, these two activities are necessary because of inadequate skills and inadequate staff respectively.

9.3.3.1. Knowledge Sharing

Knowledge sharing is a top-down approach adopted to support service delivery at the sub-district and community levels. In this knowledge sharing approach, health centre healthcare providers call on the medical superintendent or other district hospital healthcare providers to seek professional advice in the course of managing cases at the health centre levels. This helps to bridge the knowledge gap at the health centre level and also improve or facilitate quality care delivery to the rural population. Again, this approach is considered worthwhile because it saves time and resources. For instance, if the service or treatment being offered needs higher professional advice or input, in the absence of this knowledge sharing, the patient would have to be transferred to the district hospital and this comes with costs (e.g. transportation cost). Again, this initiative is laudable in addressing patient referral challenges such as lack of ambulance or vehicle to safely transfer patients to the district hospital, as well as inadequate healthcare

providers at the health centre levels which determines whether qualified staff accompanies referred patients to the district hospital. In a study to explore how healthcare professionals share knowledge in the Ghanaian healthcare sector, the authors found that the healthcare facilities studied do not have any formal knowledge management systems, and therefore healthcare professionals rely on informal conversations and seminars to share knowledge (Assem & Pabbi, 2016).

Another advantage of the knowledge sharing is that, it helps the providers at the health centres gain additional knowledge that will improve future service delivery. The finding revealed that this is a formal arrangement that the district health system have instituted between the district hospital and the health centres. This finding corroborates with a study which concluded that knowledge sharing practices in healthcare delivery were strongly influenced by institutional structures (Kim, Newby-Bennett, & Song, 2012). Of course, this is to ensure positive impact of healthcare delivery on the district population health outcomes. As a participant concluded, the knowledge sharing has '*contributed to a decrease in the maternal death*' they record (IDI_P02_Region C).

9.3.3.2. Multi-task Approach to Health Centre Clinical Care

In addition, multi-tasking emerged as a common practice among the health centre healthcare providers. The inadequacy of staff numbers means that health workers need to add on other responsibilities to support each other outside their assigned units or departments. For instance, the study revealed that, the records, dispensary, maternity and laboratory units have always received support from staff of other units of the health centres. This practice is adopted to enhance the speed of service delivery and reduce waiting time. The records department is usually

crowded in the morning as many patients seek treatment in the early hours of the day. To facilitate patients' records retrieval for previous/returning visitors/patients and also register new patients, other healthcare workers who are available from other units join the records officer to execute his/her duty/duties. Thus, this is not only peculiar to the records department though. As the participants remarked, this is done in the spirit of team work, and the love and passion for their jobs because it is voluntary rather than a formalised role. In effect, the support reduces waiting times, which has been identified as a significant predictor of patients' satisfaction (Atinga, Abekah-Nkrumah, & Domfeh, 2011).

9.4. Effects of Power Relations on the Organisation and Delivery of Health Centre Clinical Care

It would recalled that the framework for the organisation of district health services sets out the inter-institutional (district hospital, health centres and CHPS zones/compound) relationships for effective healthcare coordination in order to ensure quality delivery of district health services (GHS, 2005). The hierarchical arrangement of the district health institutions, designating the capacity of each institution, is a reflection of teamwork to build collaborative efforts towards quality healthcare delivery. In this hierarchical arrangement, the district hospital is the topmost, and has the requisite resources to support the lower level institutions (health centre and CHPS compounds) to provide holistic quality healthcare (GHS, 2005). Thus, the role of the district hospital in the organisation and delivery of quality district healthcare cannot be underscored. In a study of teamwork in healthcare organisations, it was reported that it would be beneficial for a healthcare organisation to embrace the concept of teamwork (Gafà, Fenech, Scerri, & Price, 2005).

Teamwork among the district health institutions is therefore, dependent on the effective use of available interactive platforms or mechanisms, the capacity to fully engage individual institutions, and how effective feedbacks from the interactive processes are harnessed. This implies that individual contributions of these district health institutions in the teamwork are significant to the organisation and delivery of high quality healthcare in the district. Clinical supervision of health centres and patient referral are the topmost relationships between the district health institutions. These are discussed in subsequent sub-sections.

9.4.1. Clinical Supervision of Health centres

The framework for the organisation of district health services indicated that district hospitals supervise the clinical activities of health centres (GHS, 2005). This is evident in this study since it was revealed that clinical supervision is an integral component of district health service delivery. The concept of clinical supervision inbuilt into the health system has enormous benefits to the organisation and delivery of healthcare (GHS, 2005).

One such benefit is the personal development and professional growth of rural healthcare workers. During clinical supervision, experienced and skilled health professionals support less skilled and inexperienced colleagues to develop their knowledge and competencies in order to assume responsibility for their own practice, as well as improve healthcare delivery to their clients. The findings of this study are consistent with Barker's assertion that supervisees grow professionally through the formal supervision process (Barker, 1992). This study revealed that clinical supervision to health centres offers the medical superintendent the opportunity to observe how health centre prescribers perform their duties, and as a result give on-the-job training to

these prescribers. Continuous supervisory visits to these health centre prescribers thus have the potential to ensure their personal and professional development.

Improved personal development and professional growth of health centre workers implies that they will be more productive than before. This study revealed that with effective supervision to health centres, their workers would potentially improve their skills in managing patients with basic ailments who report to the various health centres for care. This corroborates the findings of Frimpong and colleagues in a study conducted in northern Ghana. They recommended that the efforts of limited healthcare workers at the PHC facilities could be maximised through effective clinical supervision (Frimpong *et al.*, 2011).

Still in line with Barker's (1992) argument that clinical supervision improves working relationships between supervisees and supervisors, this study's findings revealed that clinical supervision to health centres potentially integrates health centre clinical care and case management model into that of the district hospital. This suggests that through clinical supervision of health centres, district hospitals establish good working relationships with health centres at the institutional as well as individual healthcare workers' levels. This finding falls in line with the assertion that facilitative supervision potentially benefits the individual healthcare worker and the institution as a whole (Aikins *et al.*, 2013).

Interestingly, Barker (1992) again mentioned that clinical supervision provides emotional support for the supervisees. This conforms to the findings of this study, which revealed that health centre workers are happy and highly motivated when their superiors pay them supervisory visits. According to these health centre workers, supervisory visits provide opportunities for them to reflect on, and receive feedbacks on their practice. As a result, the motivated healthcare

providers are likely to plan their career progression, and potentially cope with worksite stress. The overall effect is that sub-district health centres would provide healthcare that meet the needs of the rural population.

Clinical supervision to health centre by medical superintendents therefore, implies that health centre prescribers follow appropriate guidelines, continuously seek to improve their performance, overcome operational barriers, and maintain their motivation. This is consistent with a study finding which argues that healthcare providers were generally satisfied with their performance when they are satisfied with the quality of supervision and mentorship (Schroffel, 1999). Clinical supervision is thus, considered one of the vital support mechanisms for effective, high-quality organisation and delivery of health centre clinical care services to the rural population.

9.4.1.1. Inadequate Clinical Supervision

With reference to the framework for the organisation of district health service (GHS, 2005), clinical supervision should be viewed as a voluntary and collaborative partnership (Cleary, Horsfall, & Hunt, 2010) between district hospitals (supervisors) and health centres (supervisees). In this way, clinical supervision supports the perceived team spirit between district hospitals and health centres in the delivery of district health services.

The findings of this study draw enormous strength from the finding of a recent study, which indicated that clinical supervision had patient-safety and the quality of patient care as its primary purposes (Tomlinson, 2015). This is likely the reason why productivity increases with effective clinical supervision as indicated by Frimpong *et al.* (2011) . This implies that the reverse is true that inadequate clinical supervision will reduce productivity.

It is in this regard that this study found that medical superintendents failed to schedule time for clinical supervision of health centres. Their perception was that clinical supervisory support to health centres potentially enhances service provision quality at the health centre levels. From the medical superintendents' perspective, failure to provide clinical supervisory support to health centres is likely to weaken the quality of clinical care service delivery, thereby causing patient's dissatisfaction at the health centre levels. Following low patient satisfaction at the health centre level, patient attendance at the district hospital level is likely to increase, since patients who are dissatisfied with health centre services may by-pass the health centres and seek healthcare at the district hospitals. In addition, health centre healthcare providers are more likely to refer more patients to the district hospitals due to knowledge gap in the management of medical conditions. This has the potential to improve patient attendance at the district hospital, and thus improve the district hospital IGF. At the health centre levels, the effects of inadequate clinical supervision of health centres are that health centre patient attendance potentially reduces, and thus reduce health centre IGF. This suggests that inadequate supervision of health centres by medical superintendents could be a deliberate strategy to weaken the sub-district health clinical care services in order to increase patient attendance at the district hospital levels.

Improved hospital IGF implies that medical superintendents have more funds at their disposal, and exercise control over same as against the district directors who will have little funds due to poor attendance at the health centres. This is because district directors draw their financial strength from the health centre IGF since government subventions have dwindled (GHS, 2015a; Kwamie *et al.*, 2016). In this way, medical superintendents continue to exercise financial dominance over the district directors. This also means that district directors will continue to rely on medical superintendents to sustain their administrative and health activities within the district.

Implications for the wider healthcare system include the potential breakdown of the gatekeeper system within the district health system. The gatekeeper system is a mechanism put in place to maximise the efforts of the scarce human resource within the health sector. The district health gatekeeper system allows health centres to treat and manage patients with basic ailments, and refer what is above their capacity to the district hospitals. In this way, district hospitals maintain their core functions of taking care of specialised cases that are within their capacity. A breakdown of the gatekeeper system therefore, suggests patients with basic ailments from the communities will report to the first referral hospital for care and treatment instead of visiting the health centres. Further implications are that treatment of illness in the district hospitals become uneconomical, as treatment costs are much more expensive in the hospitals as compared to the health centres. This has the potential to increase health seeking behaviour of communities towards health centres. This corroborates with a study which found that cost of treatment is one of the most significant determinant of community health seeking behaviour (Musoke, Boynton, Butler, & Musoke, 2014).

In addition, confronting the clinical supervision of health centres is the issue of “who pays for the costs of supervising health centre clinical care activities?” - medical superintendents or district directors. In their seemingly competitive state, this question is very relevant and contributes significantly to the inadequate clinical supervision of health centres as revealed by this study.

In this scenario, paying clinical supervisory visits to health centres means that medical superintendents plan, fund and execute a decision or health actions that potentially have negative impact on the district hospital IGF. Clinical supervision of health centres means that medical superintendents will make schedules and fuel vehicles to move round the various communities.

Given the poor nature of rural road networks; wear and tear, and continuous maintenance of vehicles due to regular breakdown, are additional costs associated with clinical supervision to health centres. This is likely to be substantial costs items on the district hospitals budgets. In a study to explore the resource and management issues in introducing and maintaining a clinical supervision programme, the authors concluded that clinical supervision comes with a substantial cost (White & Winstanley, 2006). Medical superintendents are, therefore, not likely to finance such activities that do not bring return on their investments as revealed by this study.

Now, what is the big issue here? Seemingly, the district hospital and the health centres are competing for patients in order to increase IGF to the individual facilities. With the withdrawal of Government of Ghana funds to district health institutions, the ultimate survival of these health institutions rest on financial sustenance from IGF. This implies that teamwork among these district health institutions has translated into the concept of “survival of the fitters”, in which case; medical superintendents are working hard to sustain the district hospitals, and likewise the district directors also working hard to sustain the health centres and their CHPS zones/compounds. This situation can be traced to the poor working relationships between the district directors and medical superintendents as revealed in this study.

Contrary to these remote reasons why clinical supervision to health centres is inadequate, this study also found scarce human resource as affecting clinical supervision of health centres. Study participants blamed the inadequate supervision of health clinical care activities on the limited number of medical doctors per district hospitals. Most district hospitals have one medical doctor who serves as the medical superintendent as well as the only clinician. The implication is that these medical doctors are not likely to schedule time for routine clinical supervision of health centre activities as a result of workload in the district hospital. This finding is consistent with

another study which described shortage of health staff as major impediment to regular supervisory visits to lower level health institutions (Bradley *et al.*, 2013).

9.4.2. Patient Referral

The patient referral system is a service provision arrangement integrated into every effective healthcare system in order to facilitate quality patient care and continuity (MOH, 2012). Patient referral is more prominent in the district health system as an important aspect of the organisation and delivery of health centre clinical care services to the rural population. These service organisation and delivery arrangements are in place to ensure that the rural population receives expert care for their ailments at the district hospitals. For instance, the PHC concept requires that basic ailments such as uncomplicated malaria cases (history of fever within the preceding 2-3 days or axillary temperature $\geq 37.5^{\circ}\text{C}$ in the absence of any other cause) that report to health centres are managed at that level. However, severe/complicated malaria cases (history of fever or axillary temperature $\geq 38.5^{\circ}\text{C}$ as well as clinical manifestations such as convulsion) that report to the health centres are given initial treatments to stabilise the condition before referring to the district hospitals. This finding corroborates with a study which concluded that in rural areas without access to injectable antimalarials, rectal artesunate provided before transfer to a referral facility probably reduces mortality in severely ill young children compared to referral without treatment (Okebe & Eisenhut, 2014).

The study's findings revealed that patient referral from health centres to district hospitals increased information flow and communication between staff of these two district health institutions. The flow of patient information between health centres and district hospitals implies that an effective patient referral system creates a good working environment for these district

health institutions to improve patient care quality in the rural settings. This study is consistent with the findings of Bjornsson and colleagues (2013). These researchers concluded that a patient referral system increases the flow of information and promote mutual communication between the referral facility and the receiving facility (Bjornsson et al., 2013). It is against this backdrop that other authors revealed that poor information flow between district health institutions affect service delivery (Ahorlu & Bonsu, 2013; Kibua, 2004).

The study findings revealed that referral communication within the district health system was structured into three components: pre-referral calls to notify hospital about referrals, formal documentation of patient information, and feedback on case management to the health centres. These referral communications are enshrined in the referral policy guidelines for Ghana's health sector (MOH, 2012). Referral communications (all three forms) carry patient information across the health facilities and, thus contribute significantly to the quality of patient referrals from health centres to the district hospital. For instance, effectively using the pre-referral communication policy guidelines suggests that healthcare providers of health centres and that of the district hospitals discuss the referral / referred case before the patient is transferred to the hospital. This potentially ensures a smooth referral process. However, another study concluded that inadequate content of inter-physician communication is likely to affect the referral process (Gandhi et al., 2000).

Further implications are that patient care continuity and quality are likely to be improved, since the district hospital healthcare providers have fore-knowledge of the case being referred, and make adequate preparations to receive the patient. The study participants confessed that this arrangement helped to improve referral case management. A fascinating revelation from this study's findings was that health centre healthcare providers wrote their personal contact numbers

on the referral forms, which was to enable hospital healthcare providers to call them for further information where necessary. This potentially improved dialogue between the two facilities in the course of managing referred cases. Health outcomes will certainly improve in such cases. On the contrary, a study conducted in the Sissala east district of Ghana found that lack of communication between sub-districts and district hospitals have negative implications for service delivery (Ahorlu & Bonsu, 2013).

9.4.2.1. Delayed Patient Referral

Similarly, it was reported in this study that delayed referral of patients from health centres to district hospitals was a major outcome of the effects of power relations between district directors and medical superintendents on the patient referral system in the district settings. Delayed referral is seen as a clear manifestation of a breakdown of teamwork between the district health institutions. The poor personal interactions between these district health leaders seem to disconnect the relationship network that ensures that district hospitals play significant roles in the patient referral system at the district level. Thus, the relationship between the district health leaders greatly translates to how their institutions also relate to each other during service delivery. It is in this direction that Suter and colleagues (2006) identified, among others, clinical and administrative leadership as a contributory factor to patient referral decisions in the health sector (Suter, Fraenkel, & Holmboe, 2006), the effect of which is delayed referrals of patients from one level of healthcare to the next level.

The study's findings revealed that delayed referrals from health centres to district hospitals had some remote reasons connected to the concept of "survival of the fitters" as described earlier. In summary, the concept describes how district hospitals and health centres are each making strives

to increase their IGF, and thus seemingly in a competition for patients to achieve their aim. Thus, the study's findings attributed the quest for increased IGF at the health centre levels as well as poor coordination between the district health directorate and the district hospital in transporting referred patient from health centres to district hospital as reasons why delayed patient referral is prominent in delivering district health services. These findings on poor coordination corroborate findings in the Kenyan health system which indicated that lack of coordination between various healthcare providers resulted in a poor referral system (MOH, Kenya, 2014).

With regards to the quest for increased IGF, both institutions (district hospital and health centres) are making efforts to grasp and manage as many patients as possible in order to improve facility IGF. For this reason, health centres hold onto and manage cases over a long period of time. This means that health centres retain and manage a lot more cases and refer less to the district hospital. This potentially explains why patients are referred to the district hospitals in very bad conditions as the study findings revealed. Further implications are that delayed referrals also cause patients to suffer unduly as revealed in this study. This, coupled with an effective gatekeeper system, implies that health centre IGF would increase. A study to examine how public healthcare institutions are financed revealed that IGP is the most reliable source of funding for healthcare institutions (Akosua Akortsu & Aseweh Abor, 2011). This means that district directors would have enough money to run their administrative and health activities without depending on medical superintendents for financial support. In the same scenario, district hospital IGF would reduce due to low attendance at the hospital, and thus reduce the financial strength of the medical superintendents.

In addition, it was reported that the poor interactions between district directors and medical superintendents also translated into poor coordination in transporting referred patients from

health centres to the district hospital for further management. For instance, a policy directive says that district directors should coordinate the transfer of referred maternal cases from health centres to the district hospital. This policy directive is not effective because of the poor working relationships between district directors and medical superintendents. However, a study emphasised that enhancement of relational coordination among healthcare professionals is positively associated with integrated care delivery (Hartgerink et al., 2014).

The effective transfer of referred patients from CHPS zones/compounds to health centres, through to district hospitals is always marred by the absence of ambulance or alternative decent transport system. Even at the district level, there are no ambulances, which leave the district health system to rely on the district hospital to release its vehicle for conveying referred patients. However, an interesting finding is that the district hospital healthcare providers sometimes accompany the referred patients from the health centres. As a participant recounts:

“One maternity case that was referred had the medical superintendent accompanying the vehicle to come and save the situation.” (FGD_HCFP_P03_Region C)

Finally, the findings revealed that the delayed referrals weaken the patient referral system at the district levels as well as the entire health delivery system, posing threat to quality of healthcare in Ghana. Similar findings were reported in Iran as Eskandari, Abbaszadeh and Borhani (2013) found that lack of connection between different levels of the referral system, self-referential and bypassing the referral system as obstacles to not only the referral system, but quality of healthcare. A weak referral system implies that skilled human resource and equipment at the district hospital levels are under-utilised. This conforms to findings of some studies which indicated that in a poor performing patient referral system, high skilled human resource and

advanced equipment are inappropriately used to solve health problems (Akande, 2004; Sanders *et al.*, 1998).

9.5. Summary of the Chapter

The chapter examined and discussed the sources of power that district directors and medical superintendents have, and how these inform their relationships with each other. The chapter discussed the implications of these findings for the organisation and delivery of health centre clinical care in Ghana. In this chapter, the discussions focused on the determinants of the source of power these district health managers have. These determinants included medical dominance, legitimate positions, financial dominance, care delivery expertise, knowledge and experiences of individual managers. The discussions also included how these powers are exerted in the district health system. The next chapter presents the summary, conclusions and recommendations based on the findings of this study.

CHAPTER TEN

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

10.1. Introduction

This chapter presents the summary, conclusion and recommendations from the study findings. It has three sections: summary, conclusion and recommendations.

10.2. Summary of the Study

The study used a cross-sectional study design to explore the sources of power and the power relations between district directors and medical superintendents, describe the organisation and delivery of health centre clinical care, and analyse how and why power relations between district directors and medical superintendents affect the organisation and delivery of clinical care at the health centres in rural Ghana. These were achieved using qualitative research methods. It was conducted in three districts selected from the northern (Bongo), central (Kintampo North) and southern (Juaboso) belts of Ghana. Purposive sampling was employed to select participants from a population of health workers in each district. The participants include district directors, medical superintendents, sub-district health team leaders and frontline healthcare providers at the district hospitals as well as the health centres. The deputy directors – clinical care at the regional level also participated in the study. The study used four methods of data collection: participant observation, documentary review interviews and FGDs. The data was analysed using Nvivo version 11.

Major findings of this study are summarised. Firstly, the study concludes that district directors and medical superintendents have various sources of power. These sources include legitimate,

financial dominance and medical dominance. In addition, district directors and medical superintendents have various degrees of rewards, coercive and referent powers as heads of the district health institutions. Secondly, the study concludes that health centres in Ghana organise and deliver a wide range of clinical care services to the rural population. The clinical care services such as laboratory, outpatient care, minor surgical services, and pharmaceutical services, are adequate to provide quality clinical case management. The findings revealed that the provision of these services is supported by knowledge sharing, a borrowing system and multi-tasking. Finally, the study concludes that power relations between district directors and medical superintendents affect the role of district hospitals in the organisation and delivery of health centre clinical care. The effects are inadequate supervision of health centre clinical care activities and delayed patient referral from health centres to district hospitals. The conclusions of this study, in relation to the objectives, are presented below.

10.3. Conclusions of the Study

This section contains three sub-sections. These sub-sections are arranged according to the specific objectives of the study.

10.3.1. Sources of power and power relations among district health managers

In this study, the following research question was asked: what are the sources of power and the power relations between district directors and medical superintendents in Ghana? This was to help address the first objective of the study, which was: to examine the sources of power and the power relations between district directors and medical superintendents in Ghana. Inherent in the conceptual framework of the study is the basic assumption that district health managers draw powers from diverse sources that are formal as well as informal. Thus, the study concludes that

district directors and medical superintendents have formal as well as informal sources of power, and these power sources inform their working relationship.

The study found that the position of the district directors and medical superintendents are formally institutionalised into the organisational structure of the district health system under the Act of Parliament that established the Ghana Health Service (GHS) and Teaching Hospitals Board. In this case, the legitimate powers of the district directors are directed towards the district health directorates, the sub-districts and the CHPS zones, but do not extend to the district hospital. Similarly, medical superintendents are in-charge of the district hospitals, but have no control over the sub-districts and CHPS zones. This is evident in the French and Raven (1959) framework which indicated that “the notion of legitimacy involves some sort of code or standard, accepted by the individual, by virtue of which the external agent can assert his power.” (p. 159)

Secondly, the study concludes that medical dominance and access to cash/funds are major informal sources of power for district directors and medical superintendents. The findings revealed that medical superintendents are medical doctors, and thus derive powers from the fact that medical doctors have special knowledge, skills and expertise, and thus dominate all healthcare professionals. This finding is consistent with a study which found that patients and other healthcare professionals perceive doctors as being hierarchically superior in the health sector (Cooper et al., 2012). In this way, medical superintendents have powers over district directors who are not medical doctors.

Furthermore, the findings revealed that medical superintendents have access to cash/funds as compared to district directors. The issue is that district hospitals provide services that are paid for either directly by the patient at the point of care or at a later date by the National Health

Insurance Scheme (NHIS). In this way, medical superintendents have financial powers over district directors. Thus, district directors turn to medical superintendents for financial assistance.

The study also concludes that district directors and medical superintendents are unable to work with each other as peers. This is the basis of power-play between these two district health leaders. The study found that the hierarchical structure of the district health system is seemingly a horizontal, in which case, district directors are at par with medical superintendents as district health managers. The district directors and medical superintendents need to understand and embrace this new concept in order to work effectively as a team in the organisation and delivery of district health services in Ghana.

10.3.2. Organisation and delivery of health centre clinical care services

The study asked the following research question: how are health centre services organised in order to deliver quality clinical care in rural Ghana? This was to address the objective: to describe how health centre services are organised in order to deliver quality clinical care in rural Ghana. The study concludes that health centres organise and deliver a wide range of services, and these services are supported by a borrowing system, knowledge sharing and multi-tasking in order to deliver quality clinical case in rural Ghana. This is inherent in the conceptual framework of the study. The findings revealed that out-patient, laboratory, pharmaceutical, minor surgical and suturing, and patient detention (24 hours) were essential services in the organisation and delivery of health centre clinical care. This is consistent with the management guidelines for sub-districts in Ghana (GHS, 2011).

10.3.3. Effects of power relations among district health managers on the organisation and delivery of health centre clinical care

The study also asked the following research question: how do the power relations among district directors and medical superintendents affect the organisation and delivery of health centre clinical care services in Ghana? This was to assist in addressing the objective: to analyse how and why the power relations between district directors and medical superintendents affect the role of district hospitals in the organisation and delivery of clinical care services at the health centres in Ghana. Inherent in the conceptual framework of the study is the basic assumption that power relations among district health managers likely affect the organisation and delivery of health centre clinical care. Thus, the study concludes that power relations between district directors and medical superintendents affect the organisation and delivery of quality health centre clinical care services in the rural settings in Ghana. As to how the power relations affect health centre clinical care, the findings revealed that health centre clinical care services are inadequately supervised by the medical superintendents. In addition, there is poor quality of patient referral marked with delayed patient referrals from health centres to district hospitals for further management. As to why the power relations affect health centre clinical care, the findings revealed that district directors are legitimate heads of health centres who control the material, human and financial resources of the health centres. Similarly, medical superintendents are legitimate heads of district hospitals who control all the resources of the hospital. In this way, each manager works in ways to improve cash flow in his/her facility in order to increase access to cash. Based on these conclusions, the recommendations of the study are presented below.

10.4. Recommendations of the Study / Contribution to Knowledge

The study recommends that GHS takes immediate measures to minimise the power relations between district directors and medical superintendents. It recommends:

1. that newly appointed (and existing) district directors and medical superintendents are oriented to understand the structural arrangement and/or power structure of the district health system. It is evident from the findings of this study that district directors and medical superintendents need to understand and work together in a horizontal power structure instead of the original hierarchical structure. In this way, these district health managers work as peers rather than superior-subordinate.
2. that health sector financing arrangements for district health services should be improved in order to increase access to cash/funds by district health managers. The findings of this study revealed that access to cash/funds contribute significantly to the power relations between district directors and medical superintendents since central government subventions to health institutions have been suspended (MOH, 2011). Thus, district directors and medical superintendents have high ambitions to increase institutional IGFs in order to have access to, and control cash/funds. In this way, power relations based on financial dominance is likely to minimise. In addition, district hospitals and health centres are likely to work together as a team in the organisation and delivery of district health services instead of working in a seemingly competitive environment.

Additionally, the study recommended that the National Health Insurance (NHI) claims from district health institutions should be reimbursed regularly. The study widely reported that shortage of medical supplies significantly affected the delivery of quality clinical care at the

health centre levels. This shortage was attributed to poor reimbursement of the NHI claims. Thus, health centres resort to borrow from other institutions in order to ensure care delivery. The recommendation on regular reimbursement of NHI claims, if implemented, will enhance the financing of health centres in order to procure drugs and other consumables for quality health delivery.

10.4.1. Contribution to Policy

The recommendations meant to minimise the power relations between district directors and medical superintendents potentially contribute to policy. The PHC-based district policy describes the hierarchical arrangement and service provision relationship between the district health institutions (district hospital, health centres and CHPS zones/compounds) in order to deliver quality health services at the district levels in Ghana (GHS, 2005). Between the district hospital and the health centre, the policy describes a two-way service provision relationship – district hospitals supervise the clinical activities of health centres, and health centres refer patients to the district hospital for specialist management. However, in practice, the findings of this study identified inadequate clinical supervision of health centres and delayed patient referral from health centres to district hospitals as challenges faced in the implementation of the policy. These challenges were attributed to the power relations between district directors and district hospital medical superintendents. These power relations need to be minimised in order to facilitate a healthy service provision relationship between the district hospital and the health centres. This effort will ensure smooth implementation of the policy for the delivery of quality healthcare. In the light of this, it is expected that health policy makers will introduce health sector reforms in order to strengthen the financing of PHC institutions in Ghana.

10.4.2. Contribution to Theory

As mentioned earlier, French and Raven (1959) indicated that power is derived from five sources: legitimate, expert, rewards, coercive and referent. This theoretical framework of the bases of power has been examined in the context of power-performance (Podsakoff & Schriesheim, 1985). In these studies, the authors examined how each source of power related to subordinate performance (Podsakoff & Schriesheim, 1985). In this study, the sources of power were examined among district health managers in Ghana's district health system. The study emphasised on how district directors and medical superintendents derive powers, and how these powers inform how they related to each other in the discharge of their duties. Even though power has been examined in the district health system in Ghana (Aberese-Ako *et al.*, 2015; Koduah *et al.*, 2016; Kwamie *et al.*, 2016), these studies did not examine the sources of power for district directors and medical superintendents as managers of the district health services. This study, therefore, contributes to knowledge by adding to existing literature that both the district directors and medical superintendents derive powers from legitimate sources, and each of them has various degrees of expert, rewards, referent and coercive powers. In addition, this study contributes to knowledge by analysing how and why power relations between district directors and medical superintendents affect the role of district hospitals in the organisation and delivery of health centre clinical care in Ghana. As mentioned earlier, the findings revealed that these power relations contribute to inadequate clinical supervision of health centres and delayed referrals of patients from health centres to district hospitals.

10.4.3. Limitations to the Study

The study selected three districts out of 216 districts in order to explore the sources of power and the power relations between district health managers and how these affect the organisation and delivery of clinical care at the health centre levels in Ghana. In this regard, the findings of the study based on these districts cannot be generalised to all the districts in Ghana. In order to overcome this weakness, the study selected a district from each of the ecological zones in Ghana; Bongo District in the Upper East Region (Northern belt), Kintampo North in the Brong Ahafo Region (middle belt) and Juaboso District in the Western Region (southern belt). In this way, constructs / themes generated in this study were confirmed across the three districts, giving a diagonal representation of the study phenomenon.

10.4.4. Future Research

The findings of this study revealed that inadequate clinical supervision of health centres and delayed patient referrals are challenges faced in the organisation and delivery of clinical care at the health centre levels. However, this study did not examine how inadequate clinical supervision of health centres and delayed patient referrals affect health outcomes in the districts in Ghana. Thus, the study recommends that further studies are conducted in this area. In addition, further studies could consider increasing the number of study sites and the study population as well in a quantitative study. This has the potential to increase generalisability of study findings.

REFERENCES

- Aberese-Ako, M., Agyepong, I. A., Gerrits, T., & Van Dijk, H. (2015). I used to fight with them but now I have stopped!: Conflict and doctor-nurse-anaesthetists' motivation in maternal and neonatal care provision in a specialist referral hospital. *PLoS ONE*, *10*(8), 1–21. <http://doi.org/10.1371/journal.pone.0135129>
- Ackroyd, S. (1996). Organization Contra Organizations: Professions and Organizational Change in the United Kingdom. *Organization Studies*, *17*(4), 599–621. <http://doi.org/10.1177/017084069601700403>
- Adamson, B. J., Kenny, D. T., & Wilson-Barnett, J. (1995). The impact of perceived medical dominance on the workplace satisfaction of Australian and British nurses. *Journal of Advanced Nursing*, *21*(1), 172–183. <http://doi.org/10.1046/j.1365-2648.1995.21010172.x>
- Addicott, R., & Ferlie, E. (2007). Understanding power relationships in health care networks. *Journal of Health Organization and Management*, *21*(4–5), 393–405. <http://doi.org/10.1108/14777260710778925>
- Aghion, P., & Tirole, J. (1997). Formal and real authority in organizations. *The Journal of Political Economy*, *105*(1), 1–29. <http://doi.org/10.1086/262063>
- Agyepong, I. A. (1999). Reforming health service delivery at district level in Ghana: The perspective of a district medical officer. *Health Policy and Planning*, *14*(1), 59–69. <http://doi.org/10.1093/heapol/14.1.59>
- Ahorlu, C. K., & Bonsu, F. (2013). Factors affecting TB case detection and treatment in the Sissala East District, Ghana. *Journal of Tuberculosis Research*, *1*(3), 29–36.

<http://doi.org/10.4236/jtr.2013.13006>

Aikins, M., Laar, A., Nonvignon, J., Sackey, S., Ikeda, T., Woode, G., ... Nyonator, F. (2013). Evaluation of facilitative supervision visits in primary health care service delivery in Northern Ghana. *BMC Health Services Research*, 13(1), 358. <http://doi.org/10.1186/1472-6963-13-358>

Akande, T. (2004). Referral system in Nigeria: study of a tertiary health facility. *Annals of African Medicine*, 3(3), 130–3.

Akazili, J., Gyapong, J., & McIntyre, D. (2011). Who pays for health care in Ghana? *International Journal for Equity in Health*, 10(1), 1–13. <http://doi.org/10.1186/1475-9276-10-26>

Akosua Akortsu, M., & Aseweh Abor, P. (2011). Financing public healthcare institutions in Ghana. *Journal of Health Organization and Management*, 25(2), 128–141. <http://doi.org/10.1108/14777261111134383>

Alfred, S. (1975). *History and Structure: An Essay on Hegelian-Marxist and Structuralist Theories of History*. United States of America: The Murray Printing Co.

Anderson, C., & Brion, S. (2014). Perspectives on Power in Organizations. *Annual Review of Organizational Psychology and Organizational Behavior*, 1(26), 67–97. <http://doi.org/10.1146/annurev-orgpsych-031413-091259>

Anderson, C., & Brown, C. E. (2010). The functions and dysfunctions of hierarchy. *Research in Organizational Behavior*. <http://doi.org/10.1016/j.riob.2010.08.002>

Asante, A. D., Zwi, A. B., & Ho, M. T. (2006). Getting by on credit: how district health

- managers in Ghana cope with the untimely release of funds. *BMC Health Services Research*, 6(1), 105. <http://doi.org/10.1186/1472-6963-6-105>
- Assem, P. B., & Pabbi, K. A. (2016). Knowledge sharing among healthcare professionals in Ghana. *VINE Journal of Information and Knowledge Management Systems*, 46(4), 479–491. <http://doi.org/10.1108/VJIKMS-08-2015-0048>
- Astley, W. G., & Sachdeva, P. S. (1984). Structural Sources of Intraorganizational Power: A Theoretical Synthesis. *Academy of Management Review*, 9(1), 104–113. <http://doi.org/10.5465/AMR.1984.4278071>
- Awad, H., Al-Zu'bi, Z. M. F., & Abdallah, A. B. (2016). A Quantitative Analysis of the Causes of Drug Shortages in Jordan: A Supply Chain Perspective. *International Business Research*, 9(6), 53. <http://doi.org/10.5539/ibr.v9n6p53>
- Ayimbillah, A. R., Abekah- Nkrumah, G., & Ameyaw Domfeh, K. (2011). Managing healthcare quality in Ghana: a necessity of patient satisfaction. *International Journal of Health Care Quality Assurance*, 24(7), 548–563. <http://doi.org/10.1108/09526861111160580>
- Baatiema, L., Sumah, A. M., Tang, P. N., & Ganle, J. K. (2016). Community health workers in Ghana: the need for greater policy attention. *BMJ Global Health*, 1(4), e000141. <http://doi.org/10.1136/bmjgh-2016-000141>
- Bacharach, S. B., & Lawler, E. J. (1980). *Power and politics in organizations*. Michigan: Jossey-Bass.
- Bachmann, R. (2001). Trust, Power and Control in Trans-Organizational Relations. *Organization Studies*, 22(2), 337–365. <http://doi.org/10.1177/0170840601222007>

- Baddar, F., Salem, O. A., & Hakami, A. A. (2016). Nurse Manager ' s Attitudes and Preparedness towards Effective Delegation in Saudi Hospitals. *Health Science Journal ISSN 1791-809X* 2016, 10(3), 1–10.
- Baker, S. E., & Edwards, R. (2012). How many qualitative interviews is enough: Expert voices and early career reflections on sampling and cases in qualitative research. *National Centre for Research Methods Review Paper*, 7(12), 1–43. <http://doi.org/10.1177/1525822X05279903>
- Bamford, L. (1997). *What really improves the quality of primary health care? A review of local and international experience*. Durban.
- Barasa, E. W., Cleary, S., English, M., & Molyneux, S. (2016). The influence of power and actor relations on priority setting and resource allocation practices at the hospital level in Kenya: a case study. *BMC Health Services Research*, 16(1), 1–13. <http://doi.org/10.1186/s12913-016-1796-5>
- Barksdale, M. M. (2008). Power and Leader Effectiveness in Organizations: A Literature Review. *Naval Postgraduate School*, 2(24), 35–45.
- Barringer, B. R., & Harrison, J. S. (2000). Walking a Tightrope: Creating Value Through Interorganizational Relationships. *Journal of Management*, 26(3), 367–403. <http://doi.org/10.1177/014920630002600302>
- Barron, P., Monticelli, F., Leon, N., Baez, C., & Kumalo, F. (2003). Lessons learnt in the implementation of primary health care. *Health Systems Trust*, 51(8), 12–28. <http://doi.org/10.1177/014920630002600302>

- Barroni, P., & Asiaii, B. (2002). *The district health system. Health Systems Trust*. Germany: GTZ. Retrieved from <http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:The+District+Health+System#0>
- Basu, S., Andrews, J., Kishore, S., Panjabi, R., & Stuckler, D. (2012). Comparative performance of private and public healthcare systems in low- and middle-income countries: A systematic review. *PLoS Medicine*, 9(6), 19. <http://doi.org/10.1371/journal.pmed.1001244>
- Baxter, P., & Jack, S. (2008). Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers. *The Qualitative Report*, 13(4), 544–559.
- Benavente, J., & Madden, C. (1993). Improving Supervision: A Team Approach. *The Family Planning Manager*, 2(1), 1–20.
- Bjornsson, S., Sigurdsson, J. a, Svavarsdottir, A. E., & Gudmundsson, G. H. (2013). Gatekeeping and referrals to cardiologists: general practitioners' views on interactive communications. *Scandinavian Journal of Primary Health Care*, 31(2), 79–82. <http://doi.org/10.3109/02813432.2013.784543>
- Blackler, F., & McDonald, S. (2000). Power, Mastery And Organizational Learning. *Journal of Management Studies*, 37(6), 833–852. <http://doi.org/10.1111/1467-6486.00206>
- Bonenberger, M., Aikins, M., Akweongo, P., & Wyss, K. (2016). Factors influencing the work efficiency of district health managers in low-resource settings: A qualitative study in Ghana. *BMC Health Services Research*, 16(1). <http://doi.org/10.1186/s12913-016-1271-3>
- Bosch-Capblanch, X., & Garner, P. (2008). Primary health care supervision in developing

- countries. *Tropical Medicine & International Health*, 13(3), 369–83.
<http://doi.org/10.1111/j.1365-3156.2008.02012.x>
- Bosu, W. K. (2010). Epidemic of hypertension in Ghana: a systematic review. *BMC Public Health*, 10(1), 1–13. <http://doi.org/10.1186/1471-2458-10-418>
- Boyce, R. (2006). Emerging from the shadow of medicine: allied health as a “profession community” subculture. *Health Sociology Review*, 15, 520–534.
<http://doi.org/10.5172/hesr.2006.15.5.520>
- Bozaykut, T., & Gurbuz, F. G. (2015). Power and trust in organizational relations: An empirical study in Turkish public hospitals. *International Journal of Health Planning and Management*, 30(1), E1–E15. <http://doi.org/10.1002/hpm.2251>
- Bradley, H., Lehmann, U., & Butler, N. (2015). Emerging roles and competencies of district and sub-district pharmacists: a case study from Cape Town. *Human Resources for Health*, 13(1), 1–8. <http://doi.org/10.1186/s12960-015-0081-8>
- Bradley, S., Kamwendo, F., Masanja, H., de Pinho, H., Waxman, R., Boostrom, C., & McAuliffe, E. (2013). District health managers’ perceptions of supervision in Malawi and Tanzania. *Human Resources for Health*, 11(1), 1–11. <http://doi.org/10.1186/1478-4491-11-43>
- Brass, D. J. (1984). Being in the Right Place : A Structural Analysis of Influence in an Individual Organization. *Administrative Science Quarterly*, 29(4), 518–539.
- Braynion, P. (2004). Power and leadership. *Journal of Health Organization and Management*, 18(6), 447–463. <http://doi.org/10.1108/14777260410570009>

- Butterworth, T., & Faugier, J. (1992). *Clinical Supervision And Mentorship In Nursing*. New York: Springer US. <http://doi.org/10.1007/s13398-014-0173-7.2>
- Byleveld, S., Haynes, R., & Rakshika, B. (2009). *District Management Study: A review of structures, competencies and training interventions to strengthen district management in the national health system of South Africa*. South Africa.
- Câncio Velloso, I. S., Tavares Araujo, M., Dias Nogueira, J., & Alves, M. (2014). Managing the difference: power relationships and professional boundaries in the mobile emergency care service. *Revista de Enfermagem Referência*, 4(2), 71–79. <http://doi.org/10.12707/RIII1374>
- Chee, G., Pielemeier, N., Lion, A., & Connor, C. (2013). Why differentiating between health system support and health system strengthening is needed. *International Journal of Health Planning and Management*, 28(1), 85–94. <http://doi.org/10.1002/hpm.2122>
- Cialdini, R. B., & Goldstein, N. J. (2004). Social Influence: Compliance and Conformity. *Annual Review of Psychology*, 55(1), 591–621. <http://doi.org/10.1146/annurev.psych.55.090902.142015>
- Cleary, M., Horsfall, J., & Hunt, G. (2010). Identifying and addressing bullying in nursing. *Issues in Mental Health Nursing*, 31(5), 331–335. <http://doi.org/10.3109/01612840903308531>
- Cleary, S. M., Molyneux, S., & Gilson, L. (2013). Resources, attitudes and culture: an understanding of the factors that influence the functioning of accountability mechanisms in primary health care settings. *BMC Health Services Research*, 13(1), 1–15. <http://doi.org/10.1186/1472-6963-13-320>

- Clegg, S., Courpasson, D., & Phillips, N. (2006). *Power and organizations*. London: SAGE.
- Clegg, S., & Dunkerley, D. (1980). *Organization, class and control*. London: Routledge and Kegan Paul.
- Coburn, D. (2006). Medical dominance then and now: critical reflections. *Health Sociology Review*, 15(5), 432–443. <http://doi.org/10.5172/hesr.2006.15.5.432>
- Cook-Huynh, M., Steckelberg, R. C., Seligman, K., & Kumar, N. (2012). Prevalence of hypertension and diabetes mellitus in adults from a rural community in Ghana. *Ethnicity & Disease*, 22(3), 347–52. <http://doi.org/10.1016/j.pestbp.2011.02.012>. Investigations
- Cooper, R. J., Bissell, P., Ward, P., Murphy, E., Anderson, C., Avery, T., ... Ratcliffe, J. (2012). Further challenges to medical dominance? the case of nurse and pharmacist supplementary prescribing. *Health*, 16(2), 115–133. <http://doi.org/10.1177/1363459310364159>
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (Second). Thousand Oaks: Sage Publications. <http://doi.org/10.3109/08941939.2012.723954>
- Creswell, J. W. (2014). *Research Design Qualitative, Quantitative and Mixed Methods approaches* (Fourth). London: SAGE Publications.
- Crowe, S., Cresswell, K., Robertson, A., Hubby, G., Avery, A., & Sheikh, A. (2011). The Case Study Approach. *BMC Medical Research Methodology*, 11(100), 1–8. <http://doi.org/10.1177/108056999305600409>
- Dagnew, T., Tessema, F., & Hiko, D. (2015). Health Service Utilization and Reported Satisfaction among Adolescents in Dejen District, Ethiopia: A Cross-Sectional Study.

- Ethiopian Journal of Health Sciences*, 25(1), 17–28. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4337082/>
- Dahl, Ö. (1986). Some comments on “the society of mind.” *Journal of Semantics*, 5(2), 181–183. <http://doi.org/10.1093/jos/5.2.181>
- Dahl, R. A. (1957). The concept of power. *Systems Research and Behavioural Science*, 2(3), 201–215.
- Dahl, R. A. (1958). A critique of the ruling elite model. *American Political Science Review*, 52(2), 463–469. <http://doi.org/10.2307/1952327>
- Dahl, R. A. (1961). The Concept of Power. *Systems Research and Behavioural Science*, 15(8), 189–194.
- Daire, J., & Gilson, L. (2014). Does identity shape leadership and management practice ? Experiences of PHC facility managers in Cape Town , South Africa. *Health Policy*, 29(1), 82–97. <http://doi.org/10.1093/heapol/czu075>
- Dalinjong, P. A., & Laar, A. S. (2012). The national health insurance scheme: perceptions and experiences of health care providers and clients in two districts of Ghana. *Health Economics Review*, 2(1), 1–13. <http://doi.org/10.1186/2191-1991-2-13>
- Davis, G. F., & Cobb, A. J. (2009). Resource Dependence Theory : Past and Future. *Research in the Sociology of Organizations*, 2(7), 1–31. [http://doi.org/10.1108/S0733-558X\(2010\)0000028006](http://doi.org/10.1108/S0733-558X(2010)0000028006)
- Davis, K., & Moore, W. E. (1945). Some Principles of Stratification. *American Sociological Review*, 10(2), 1–21. <http://doi.org/10.2307/2085643>

- De Silva, A. (2000). A Framework for Measuring Responsiveness. *GFE Discussion Paper Series, World Health Organisation*, 8(32), 1–42.
- Dent, M. (2006). Disciplining the medical profession? Implications of patient choice for medical dominance. *Health Sociology Review*, 15(5), 458–468.
<http://doi.org/10.5172/hesr.2006.15.5.458>
- Department of Health. (2002). *A District Hospital Service Package for South Africa: a set of norms and standards*. South Africa.
- Devane-Padalkar, A., Deshpande, S., Yakkundi, D., Britt, T., & Ahmed Jamo, I. (2016). Laboratory Services at Primary Health Centers under the Lens: A Need for Overhaul. *International Journal of TROPICAL DISEASE & Health*, 13(4), 1–6.
<http://doi.org/10.9734/IJTDH/2016/23001>
- Dookie, S., & Singh, S. (2012). Primary health services at district level in South Africa: a critique of the primary health care approach. *BMC Family Practice*, 13(1), 67.
<http://doi.org/10.1186/1471-2296-13-67>
- Dunbar, N. (2004). Theory in Progress: Dyadic Power Theory: Constructing a Communication-Based Theory of Relational Power. *Journal of Family Communication*, 4(3), 235–248.
http://doi.org/10.1207/s15327698jfc0403&4_8
- Dwyer, A. J. (2010). Medical managers in contemporary healthcare organisations: A consideration of the literature. *Australian Health Review*, 34(4), 514–522.
<http://doi.org/10.1071/AH09736>
- Elina, V., Juhani, L., Tiina, T.-J., Kari, M., Irma, V., Mauri, I., ... Jukka, V. (2006). Doctor-

- managers as decision makers in hospitals and health centres. *Journal of Health Organization and Management*, 20(2–3), 85–94.
<http://doi.org/10.1108/14777260610661493>
- Elo, S., & Kyngas, H. (2007). The qualitative content analysis process. *Research Methodology*, 62(1), 107–115. <http://doi.org/10.1111/j.1365-2648.2007.04569.x>
- Emerson, R. M. (1962). Power-Dependence Relations. *American Sociological Review*, 27(1), 1–31. <http://doi.org/10.2307/2089716>
- Engelbrecht, B., Jooste, H., Muller, G., Chababa, T., & Muirhead, D. (2002). *Financial Management: An Overview and Field Guide for District Management Teams*. Geneva: World Health Organization.
- English, M., Lanata, C. F., Ngugi, I., & Smith, P. C. (1999). *The District Hospital*. London: Sage.
- Eskandari, M., Abbaszadeh, A., & Borhani, F. (2013). Barriers of Referral System to Health Care Provision in Rural Societies in Iran. *Tabriz University of Medical Sciences*, 2(3), 229–236. <http://doi.org/10.5681/jcs.2013.028>
- Etzioni, A. (1961). Max Weber as an Intellectual. *American Journal of Economics and Sociology*, 20(3), 331–331. <http://doi.org/10.1111/j.1536-7150.1961.tb00591.x>
- Eze, I. B., & Umar, K. (2014). Authority, Power, and Conflict in Organization: Analysis of the Impact of Their Functional Relationship In Organization Performance. *European Journal of Business and Management*, 6(1), 1–22.
- Fabbri, E., De Maria, M., & Bertolaccini, L. (2017). Case management: an up-to-date review of

- literature and a proposal of a county utilization. *Annals of Translational Medicine*, 5(20), 396–396. <http://doi.org/10.21037/atm.2017.07.26>
- Fedor, D. B., Davis, W. D., Maslyn, J. M., & Mathieson, K. (2001). Performance improvement efforts in response to negative feedback: the roles of source power and recipient self-esteem. *Journal of Management*, 27(1), 79–97.
- Finkelstein, S. (1992). Power in Top Management Teams: Dimensions, Measurement, and Validation. *Academy of Management Journal*, 35(3), 505–538. <http://doi.org/10.2307/256485>
- Fiske, S. T. (2010). *Interpersonal Stratification: Status, Power, and Subordination*. New York: Handbook of Social Psychology.
- Fiske, S. T., & Berdahl, J. (2007). *Social power*. London: SAGE Publications.
- Fitzpatrick, R., & Boulton, M. (1994). Qualitative methods for assessing health care. *Quality in Health Care*, 3, 107–113. <http://doi.org/10.1136/qshc.3.2.107>
- Fleming, K. A., Naidoo, M., Wilson, M., Flanigan, J., Horton, S., Kuti, M., ... Lago, N. (2017). An Essential Pathology Package for Low- and Middle-Income Countries. *American Journal of Clinical Pathology*, 147(1), 15–32. <http://doi.org/10.1093/ajcp/aqw143>
- Flyvbjerg, B. (2006). Five Misunderstandings About Case-Study Research. *Qualitative Inquiry*, 12(2), 219–245. <http://doi.org/10.1177/1077800405284363>
- Font, F., Quinto, L., Masanja, H., Nathan, R., Ascaso, C., Menendez, C., ... Alonso, P. (2002). Paediatric referrals in rural Tanzania: the Kilombero District Study – a case series. *BMC International Health and Human Rights*, 2(4), 1–6. <http://doi.org/10.1186/1472-698X-2-4>

- Foucault, M. (1974). *Power and Knowledge*. Paris: Presses Universitaires de France.
- Foucault, M. (1977). *Discipline and Punish: The Birth of the Prison*. New York: Vintage Books.
- Fox, D. M. (1995). The changing medical profession: an international perspective. *Medical History*, 39(3), 321–383.
- Fragale, A. R., Overbeck, J. R., & Neale, M. A. (2011). Resources versus respect: Social judgments based on targets' power and status positions. *Journal of Experimental Social Psychology*, 47(4), 767–775. <http://doi.org/10.1016/j.jesp.2011.03.006>
- Freidson, E. (1983). The reorganization of the professions by regulation. *Law and Human Behavior*, 7(2–3), 279–290. <http://doi.org/10.1007/BF01044529>
- Freidson, E. (1984). The Changing Nature of Professional Control. *Annual Review of Sociology*, 10(1), 1–20. <http://doi.org/10.1146/annurev.so.10.080184.000245>
- French, J. R., & Raven, B. (1959). The bases of Social Power. *Experimental Brain Research. Experimentelle Hirnforschung. Experimentation Cerebrale*, 110(2), 196–204. <http://doi.org/10.1007/BF00228551>
- Frimpong, J. a., Helleringer, S., Awoonor-Williams, J. K., Yeji, F., & Phillips, J. F. (2011). Does supervision improve health worker productivity? Evidence from the Upper East Region of Ghana. *Tropical Medicine and International Health*, 16(10), 1225–1233. <http://doi.org/10.1111/j.1365-3156.2011.02824.x>
- Frumence, G., Nyamhanga, T., Mwangi, M., & Hurtig, A.-K. (2014). The dependency on central government funding of decentralised health systems: experiences of the challenges and coping strategies in the Kongwa District, Tanzania. *BMC Health Services Research*, 14(1),

1–39. <http://doi.org/10.1186/1472-6963-14-39>

Fuqua, H., Payne, K., & Cangemi, J. (2000). Leadership And The Effective Use Of Power. *National Forum of Educational Administration and Supervision*, 17(1992). Retrieved from <http://www.nationalforum.com/Electronic Journal Volumes/Fuqua, Jr., Harold E. Leadership and the Effectives Use of Power.pdf>

Gafà, M., Fenech, A., Scerri, C., & Price, D. (2005). Teamwork in healthcare organisations. *Pharmacy Education*, 5(2), 113–119. <http://doi.org/10.1080/15602210500174474>

Galinsky, A. D., Gruenfeld, D. H., & Magee, J. C. (2003). From Power to Action. *Journal of Personality and Social Psychology*, 85(3), 453–466. <http://doi.org/10.1037/0022-3514.85.3.453>

Galinsky, A. D., Maddux, W. W., Gilin, D., & White, J. B. (2008). Why it pays to get inside the head of your opponent: The differential effects of perspective taking and empathy in negotiations: Research article. *Psychological Science*, 19(4), 378–384. <http://doi.org/10.1111/j.1467-9280.2008.02096.x>

Gandhi, T. K., Sittig, D. F., Franklin, M., Sussman, A. J., Fairchild, D. G., & Bates, D. W. (2000). Communication breakdown in the outpatient referral process. *Journal of General Internal Medicine*, 15(9), 626–631. <http://doi.org/10.1046/j.1525-1497.2000.91119.x>

Ghana Health Service. (2003). *The Status of Referrals in Three Districts in Ghana: Analysis of Referral Pathways for Children Under Five*. Accra, Ghana. Retrieved from [www.basics.org/documents/pdf/Ghana referral study.pdf](http://www.basics.org/documents/pdf/Ghana_referral_study.pdf)

Ghana Statistical Service. (2014a). *2010 Population and Housing Census: District Analytical*

Report - Kintampo North District. Accra.

Ghana Statistical Service. (2014b). *2010 Population and Housing Census: District Analytic Report: Bongo district. Accra.*

GHS. (2002). *The Community-Based Health Planning and Services (CHPS) Initiative: The Concepts and Plans for Implementation. Accra.*

GHS. (2003). *National Forum on Community Partnerships for Health Development Report. Accra.*

GHS. (2005). *Community-Based Health Planning and Services (CHPS): The Operational Policy. Accra.*

GHS. (2010a). *Occupational Health and Safety Policy and Guidelines. Accra.*

GHS. (2010b). *The Health Sector in Ghana: Facts and Figures. Accra.*

GHS. (2011). *Management Guidelines for Sub-districts.* <http://doi.org/10.1108/eb020723>

GHS. (2015a). *Ghana Health Service 2014 Annual Report. Accra.*

GHS. (2015b). *The Health Sector in Ghana: Facts and Figures. Ministry of Health.* <http://doi.org/10.1596/978-0-8213-9599-8>

Gialdino, I. V. (2009). *Ontological and Epistemological Foundations of Qualitative Research. Forum: Qualitative Social Research, 10(2), 30.*

Gibbons, D. E. (2007). *Interorganizational network structures and diffusion of information through a health system. American Journal of Public Health, 97(9), 1684–1692.*

<http://doi.org/10.2105/AJPH.2005.063669>

Gilson, L. (2003). Trust and the development of health care as a social institution, 56, 1453–1468.

Gioia, D. a., & Sims, H. P. (1983). Perceptions of Managerial Power as a Consequence of Managerial Behavior and Reputation. *Journal of Management*, 9(1), 7–24.
<http://doi.org/10.1177/014920638300900103>

Gonzalez, B. M. a. (1984). Health systems research. *Lancet*, 1(8376), 546–547.

Grant, R. W., & Sugarman, J. (2010). Ethics in Human Subjects Research: Do Incentives Matter? *Journal of Medicine and Philosophy*, 29(6), 717–738. Retrieved from
<http://www.tandfonline.com/doi/abs/10.1080/03605310490883046>

Gray, A., & Harrison, S. (2004). *GOVERNING MEDICINE: Theory and Practice*. England: Open University Press.

Groth, S. W. (2010). Honorarium or coercion: use of incentives for participants in clinical research. *The Journal of the New York State Nurses' Association*, 41(1), 11–13; quiz 22.
<http://doi.org/10.1016/j.biotechadv.2011.08.021> Secreted

Guinote, A. (2008). Power and affordances: When the situation has more power over powerful than powerless individuals. *Journal of Personality and Social Psychology*, 95(2), 237–252.
<http://doi.org/10.1037/a0012518>

Guion, L. A., Diehl, D. C., & Mcdonald, D. (2011). Conducting an In-depth Interview 1
Conducting an In-depth Interview. *University of Florida Journal*, 2(1), 2–4.

- Gulliford, M., Naithani, S., & Morgan, M. (2006). What is “continuity of care”? *Journal of Health Services Research & Policy*, 11(4), 248–250.
<http://doi.org/10.1258/135581906778476490>
- Hall, J. A., Coats, E. J., & LeBeau, L. S. (2005). Nonverbal Behavior and the Vertical Dimension of Social Relations: A Meta-Analysis. *Psychological Bulletin*, 131(6), 898–924.
<http://doi.org/10.1037/0033-2909.131.6.898>
- Handy, C. (1992). Balancing corporate power: a new Federalist paper. *Harvard Business Review*, 70(6), 59–72.
- Hartgerink, J. M., Cramm, J. M., Bakker, T. J. E. M., van Eijnden, R. A. M., Mackenbach, J. P., & Nieboer, A. P. (2014). The importance of relational coordination for integrated care delivery to older patients in the hospital. *Journal of Nursing Management*, 22(2), 248–256.
<http://doi.org/10.1111/j.1365-2834.2012.01481.x>
- Harvey, J., Annandale, E., Loan-Clarke, J., Suhomlinova, O., & Teasdale, N. (2014). Mobilising identities: the shape and reality of middle and junior managers’ working lives – a qualitative study. *Health Services and Delivery Research*, 2(11), 1–154.
<http://doi.org/10.3310/hsdr02110>
- Hernández, A. R., Hurtig, A., Dahlblom, K., & Sebastián, M. S. (2014). More than a checklist : a realist evaluation of supervision of mid-level health workers in rural Guatemala. *BMC Health Service Research*, 14(112), 1–12. <http://doi.org/10.1186/1472-6963-14-112>
- Hernon, P. (2004). The Sage Encyclopedia of Social Science Research Methods. *Library & Information Science Research*, 26(3), 404–406. <http://doi.org/10.1016/j.lisr.2004.02.002>

Hersey, P., Blanchard, K. H., & Johnson, D. . (2001). *Management of Organisational Behaviour*. London: Prentice- Hall.

Hippmann, P., & Windsperger, J. (2012). Formal and Real Authority in Interorganizational Networks: The Case of Joint Ventures. *Managerial and Decision Economics*, 163(December 2012), 149–163. <http://doi.org/10.1002/mde>

Hodes, R., Price, I., Bungane, N., Toska, E., & Cluver, L. (2017). How front-line healthcare workers respond to stock-outs of essential medicines in the Eastern Cape Province of South Africa. *South African Medical Journal*, 107(9), 738. <http://doi.org/10.7196/SAMJ.2017.v107i9.12476>

Hsieh, C. (2006). Strengths and Weaknesses of Qualitative Case Study Research. *University of Leicester Journal*, 1(12), 81–116.

Isosaari, U. (2011). Power in health care organizations: contemplations from the first-line management perspective. *Journal of Health Organization and Management*, 25(4), 385–99. <http://doi.org/10.1108/14777261111155029>

Jacobson, K. B., Moll, A. P., Friedland, G. H., & Shenoi, S. V. (2015). Successful Tuberculosis Treatment Outcomes among HIV/TB Coinfected Patients Down-Referred from a District Hospital to Primary Health Clinics in Rural South Africa. *Plos One*, 10(5), 1–11. <http://doi.org/10.1371/journal.pone.0127024>

Jande, M., Liwa, A., Kongola, G., & Justin-Temu, M. (2013). Assessment of Patient Satisfaction with Pharmaceutical Services in Hospital Pharmacies in Dar es Salaam, Tanzania. *East and Central African Journal of Pharmaceutical Sciences*, 16(1), 24–30.

<http://doi.org/10.1016/j.foodchem.2011.05.115>

Jermier, J. M., Knights, D., & Nord, W. R. (1994). *Resistance and Power in Organizations*. London: Routledge.

Jerng, J. S., Huang, S. F., Liang, H. W., Chen, L. C., Lin, C. K., Huang, H. F., ... Sun, J. S. (2017). Workplace interpersonal conflicts among the healthcare workers: Retrospective exploration from the institutional incident reporting system of a university-affiliated medical center. *PLoS ONE*, 12(2). <http://doi.org/10.1371/journal.pone.0171696>

Johnson, F. A., Frempong-Ainguah, F., Matthews, Z., Harfoot, A. J. P., Nyarko, P., Baschieri, A., ... Atkinson, P. M. (2015). Evaluating the impact of the community-based health planning and services initiative on uptake of skilled birth care in Ghana. *PLoS ONE*, 10(3), 1–15. <http://doi.org/10.1371/journal.pone.0120556>

Junaimah, J., See, L. P., & Bashawir, A. G. (2015). Effect of Manager'S Bases of Power on Employee'S Job Satisfaction: an Empirical Study of Satisfaction With Supervision. *International Journal of Economics, Commerce and Management*, III(2), 1–14.

Keltner, D., Gruenfeld, D. H., & Anderson, C. (2003). Power, approach, and inhibition. *Psychological Review*, 110(2), 265–284. <http://doi.org/10.1037/0033-295X.110.2.265>

Keltner, D., Van Kleef, G. a., Chen, S., & Kraus, M. W. (2008). A Reciprocal Influence Model of Social Power: Emerging Principles and Lines of Inquiry. *Advances in Experimental Social Psychology*, 40(7), 151–192. [http://doi.org/10.1016/S0065-2601\(07\)00003-2](http://doi.org/10.1016/S0065-2601(07)00003-2)

Kemp, S. J. (2012). Constructivist criteria for organizaing and designing educational research. How might an educational research inquiry be judged from a constructivist perspective?

- Constructivist Foundations*, 8(1), 118–125. Retrieved from <http://www.univie.ac.at/constructivism/journal/8/1/118.kemp>
- Kenyan MOH. (2015). *Annual Health Report of Kenya*. Kenya: Ministry of Health. Retrieved from <http://www.kawe-kenya.org/wp-content/uploads/2016/03/Epilepsy-Guidelines-2016.pdf>
- Keugoung, B., Macq, J., Buve, A., Meli, J., & Criel, B. (2013). The interface between the national tuberculosis control programme and district hospitals in Cameroon: missed opportunities for strengthening the local health system -a multiple case study. *BMC Public Health*, 13(1), 1–13. <http://doi.org/10.1186/1471-2458-13-265>
- Kibua, T. M. M. and T. N. (2004). *An Assessment of the Service Delivery Capacity of the District Health Systems in Kenya* (5 No. 2). Kenya.
- Kim, Y., Newby- Bennett, D., & Song, H. (2012). Knowledge sharing and institutionalism in the healthcare industry. *Journal of Knowledge Management*, 16(3), 480–494. <http://doi.org/10.1108/13673271211238788>
- Kimber, W. J. T. (1943). THE MEDICAL SUPERINTENDENT: HIS FUTURE POSITION AND FUNCTIONS, 453–454.
- Kipnis, D. (1972). Does power corrupt? *Journal of Personality and Social Psychology* [0022-3514], 24(1), 33–41. <http://doi.org/10.1037/h0033390>
- Kjekshus, L. E. (2005). Primary health care and hospital interactions: Effects for hospital length of stay. *Scandinavian Journal of Public Health*, 33(2), 114–122. <http://doi.org/10.1080/14034940410019163>

- Koduah, A., Agyepong, I. A., & van Dijk, H. (2016). “The one with the purse makes policy”: Power, problem definition, framing and maternal health policies and programmes evolution in national level institutionalised policy making processes in Ghana. *Social Science & Medicine*, 167, 79–87. <http://doi.org/10.1016/j.socscimed.2016.08.051>
- Krackhardt, D., & Mintzberg, H. (1985). Power In and Around Organizations. *Administrative Science Quarterly*, 30(4), 1–14. <http://doi.org/10.2307/2392702>
- Kumar, K., van Dissel, H. G., & Bielli, P. (1998). The Merchant of Prato-Revisited: Toward a Third Rationality of Information Systems. *MISQ*, 22(2), 1–16. <http://doi.org/10.2307/249395>
- Kutzin, J. (1995). *Experience with organizational and financing reform of the health sector. Current Concerns* (Vol. ARA Paper).
- Kwamie, A., Agyepong, I. A., & van Dijk, H. (2015). What Governs District Manager Decision Making? A Case Study of Complex Leadership in Dangme West District, Ghana. *Health Systems & Reform*, 1(2), 167–177. <http://doi.org/10.1080/23288604.2015.1032475>
- Kwamie, A., Van Dijk, H., Ansah, E. K., & Agyepong, I. A. (2016). The path dependence of district manager decision-space in Ghana. *Health Policy and Planning*, 31(3), 356–366. <http://doi.org/10.1093/heapol/czv069>
- Le Roux, K. W. D. P., & Couper, I. (2015). Rural district hospitals – Essential cogs in the district health system – And primary healthcare re-engineering. *South African Medical Journal*, 105(6), 440–441. <http://doi.org/10.7196/SAMJ.9284>
- Levers, L., Magweva, F., & Mpofu, E. (2007). *A literature review of district health systems in*

- east and southern Africa: Facilitators and barriers to participation in health* (1 No. 40). South Africa. Retrieved from <http://www.equinetafrica.org/bibl/docs/DIS40ehsLOPEZ.pdf>
- Levin, K. A. (2006). Study design III: Cross-sectional studies. *Evidence-Based Dentistry*, 7(1), 24–25. <http://doi.org/10.1038/sj.ebd.6400375>
- Linden, A. F., Sekidde, F. S., Galukande, M., Knowlton, L. M., Chackungal, S., & McQueen, K. A. K. (2012). Challenges of surgery in developing countries: A survey of surgical and anesthesia capacity in uganda's public hospitals. *World Journal of Surgery*, 36(5), 1056–1065. <http://doi.org/10.1007/s00268-012-1482-7>
- Lipman, T. (2000). Power and influence in clinical effectiveness and evidence-based medicine. *Family Practice*, 17(6), 557–563. <http://doi.org/10.1093/fampra/17.6.557>
- Little, A. C., & Craig Roberts, S. (2012). Evolution, appearance, and occupational success. *Evolutionary Psychology*, 10(5), 782–801. <http://doi.org/10.1177/147470491201000503>
- Long, L., Brennan, A., Fox, M. P., Ndibongo, B., Jaffray, I., Sanne, I., & Rosen, S. (2011). Treatment outcomes and cost-effectiveness of shifting management of stable ART patients to nurses in South Africa: An observational cohort. *PLoS Medicine*, 8(7), 1–11. <http://doi.org/10.1371/journal.pmed.1001055>
- Lukes, S. (1974). *Power: A Radical View*. London: Macmillan.
- Luzio, G. Di. (2008). Medical dominance and strategic action: The fields of nursing and psychotherapy in the German health care system. *Sociology of Health and Illness*, 30(7), 1022–1038. <http://doi.org/10.1111/j.1467-9566.2008.01104.x>
- Mack, N., Woodsong, C., Macqueen, K. M., Guest, G., & Namey, E. (2005). *Qualitative*

- Research Methods: A Data Collectors Field Guide*. New York: Family Health International.
- Maeseneer, D., Willems, S., Sutter, A. De, Geuchte, I. Van De, & Billings, M. (2007). *Primary health care as a strategy for achieving equitable care : a literature review commissioned by the Health Systems Knowledge Network*. USA.
- Magee, J. C., & Galinsky, A. D. (2008). Social Hierarchy: The Self Reinforcing Nature of Power and Status. *The Academy of Management Annals*, 2(1), 351–398.
<http://doi.org/10.1080/19416520802211628>
- Magnussen, L., Ehiri, J., & Jolly, P. (2004). Comprehensive Versus Selective Primary Health Care: Lessons For Global Health Policy. *Health Affairs*, 23, 167–176.
<http://doi.org/10.1377/hlthaff.23.3.167>
- Malvey, D., Fottler, M. D., & Sumner, J. (2013). The fear factor in healthcare: employee information sharing. *Journal of Healthcare Management / American College of Healthcare Executives*, 58(3), 225–237.
- Manjit, K., & Sarah, H. (2002). *Medical supplies and equipment for primary health care - A practical resource for procurement and management*. *Transactions of the Royal Society of Tropical Medicine and Hygiene* (Vol. 96). [http://doi.org/10.1016/S0035-9203\(02\)90398-6](http://doi.org/10.1016/S0035-9203(02)90398-6)
- Marshall, M. N. (1996). Sampling for qualitative research Sample size. *Family Practice*, 13(6), 522–525. <http://doi.org/10.1093/fampra/13.6.522>
- Marying, P. (2000). Qualitative Content Analysis. *Forum Qualitative Research*, 1(2), 10.
[http://doi.org/10.1016/S1479-3709\(07\)11003-7](http://doi.org/10.1016/S1479-3709(07)11003-7)
- Mason, M. (2010). Sample Size and Saturation in PhD Studies Using Qualitative Interviews.

Qualitative Research Methodology, 2(5), 1–13. <http://doi.org/0114-fqs100387>

Maxwell, J. a. (2009). *Designing a Qualitative Study*. London: The SAGE. Retrieved from http://www.corwin.com/upm-data/23772_Ch7.pdf

Mbindyo, P., Blaauw, D., & English, M. (2013). The role of Clinical Officers in the Kenyan health system: a question of perspective. *Human Resources for Health*, 11(1), 1–11. <http://doi.org/10.1186/1478-4491-11-32>

McLaughlin, M., Kotis, D., Thomson, K., Harrison, M., Fennessy, G., Postelnick, M., & Scheetz, M. H. (2013). Effects on patient care caused by drug shortages: a survey. *Journal of Managed Care Pharmacy: JMCP*, 19(9), 783–8. <http://doi.org/10.18553/jmcp.2013.19.9.783>

Ministry of Health. (2014). Guidelines for Case Management of Malaria in Ghana. *Journal of Ghana Science*.

Mogalakwe, M. (2006). The Use of Documentary Research Methods in Social Research. *African Sociological Review*, 10(1), 221–230. <http://doi.org/10.1353/eas.0.0006>

MOH. (2011). *Independent Review: Health Sector Programme of Work 2010 Ghana*. Accra: Ghana Health Service.

MOH. (2012). *Ministry of Health Referral Policy and Guidelines*. Accra: Ghana Health Service.

MOH. (2013). *Ministry of Health Ghana Holistic Assessment of the Health Sector Programme of Work 2012*. Accra.

MOH. (2015a). *Ghana Health Financing Strategy*. Accra: Ministry of Health, Ghana. Retrieved

from

[https://s3.amazonaws.com/ndpc-](https://s3.amazonaws.com/ndpc-static/CACHES/PUBLICATIONS/2016/04/16/Health+Finance+Strategy-2015.pdf)

[static/CACHES/PUBLICATIONS/2016/04/16/Health+Finance+Strategy-2015.pdf](https://s3.amazonaws.com/ndpc-static/CACHES/PUBLICATIONS/2016/04/16/Health+Finance+Strategy-2015.pdf)

MOH. (2015b). *Holistic Assessment of the Health Sector Programme of Work 2014*. Accra.

Mooney, G., & Ryan, M. (1993). Agency in health care: Getting beyond first principles. *Journal of Health Economics*, 12(2), 125–135. [http://doi.org/10.1016/0167-6296\(93\)90023-8](http://doi.org/10.1016/0167-6296(93)90023-8)

Morgan, G. (1997). *Images of Organization*. San Francisco: Sage.

Mosadeghrad, A. M. (2014). Factors Influencing Healthcare Service Quality. *International Journal of Health Policy and Management*, 3(2), 77–89. <http://doi.org/10.15171/ijhpm.2014.65>

Mossholder, K. (1998). Relationships between bases of power and work reactions: The mediational role of procedural justice. *Journal of Management*, 24(4), 533–552. [http://doi.org/10.1016/S0149-2063\(99\)80072-5](http://doi.org/10.1016/S0149-2063(99)80072-5)

Muchinsky, P. M. (2006). *Psychology Applied to Work: An Introduction to Industrial and Organizational Psychology*. Belmont, CA: Thomson/Wadsworth.

Musoke, D., Boynton, P., Butler, C., & Musoke, M. B. (2014). Health seeking behaviour and challenges in utilising health facilities in Wakiso district, Uganda. *African Health Sciences*, 14(4), 1046–1055. <http://doi.org/10.4314/ahs.v14i4.36>

Mutale, W., Godfrey-Fausset, P., Mwanamwenge, M. T., & Kasese, N. (2013). Measuring Health System Strengthening : Application of the Balanced Scorecard Approach to Rank the Baseline Performance of Three Rural Districts in Zambia. *PLoS ONE*, 8(3), 1–12. <http://doi.org/10.1371/journal.pone.0058650>

- Nabbuye-Sekandi, J., Makumbi, F. E., Kasangaki, A., Kizza, I. B., Tugumisirize, J., Nshimye, E., ... Peters, D. H. (2011). Patient satisfaction with services in outpatient clinics at Mulago hospital, Uganda. *International Journal for Quality in Health Care*, 23(5), 516–523. <http://doi.org/10.1093/intqhc/mzr040>
- Naudé, P., & Buttle, F. (2000). Assessing Relationship Quality. *Industrial Marketing Management*, 29(2), 351–361. [http://doi.org/10.1016/S0019-8501\(00\)00112-7](http://doi.org/10.1016/S0019-8501(00)00112-7)
- Nyonator, F. K., Awoonor-Williams, J. K., Phillips, J. F., Jones, T. C., & Miller, R. A. (2005). The Ghana Community-based Health Planning and Services Initiative for scaling up service delivery innovation. *Health Policy and Planning*, 20(1), 25–34. <http://doi.org/10.1093/heapol/czi003>
- Ojo, T. O., & Akinwumi, A. F. (2015). Doctors as managers of healthcare resources in Nigeria: Evolving roles and current challenges. *Nigerian Medical Journal : Journal of the Nigeria Medical Association*, 56(6), 375–80. <http://doi.org/10.4103/0300-1652.171614>
- Okebe, J., & Eisenhut, M. (2014). Pre-referral rectal artesunate for severe malaria. *Cochrane Database of Systematic Reviews*. <http://doi.org/10.1002/14651858.CD009964.pub2>
- Olsen, M. E. (1978). *The Process of Social Organization: Power in Social Systems*. Minnesota: Holt, Rinehart, and Winston.
- Onwuegbuzie, A. J., & Leech, N. L. (2005). The role of sampling in qualitative research . *Academic Exchange Quarterly*, 9(3), 280–284.
- Overbeck, J. R., & Park, B. (2001). When power does not corrupt: Superior individuation processes among powerful perceivers. *Journal of Personality and Social Psychology*, 81(4),

549–565. <http://doi.org/10.1037/0022-3514.81.4.549>

Packard, T. (2007). What is a health system? *Healthy Development: The World Bank Strategy for HNP Results*, (2000), 1–4.

Patomäki, H., & Wight, C. (2000). After Postpositivism? The Promises of Critical Realism. *International Studies Quarterly*, 44(2), 213–237. <http://doi.org/10.1111/0020-8833.00156>

Patterson, K. D. (1981). *Health in Colonial Ghana: Disease, Medicine, And Socio-Economic Change, 1900-1955*. (First Edit). London: Crossroads Press, Waltham, Massachusetts.

Patton, M. (1990). *Qualitative evaluation and research methods*. Beverly Hills: Sage.

Patton, M. Q. (2002). *Qualitative research and evaluation methods. Qualitative Inquiry* (Vol. 3rd). <http://doi.org/10.2307/330063>

Pemberton, J., & Cameron, B. (2010). Essential Surgical Services: An Emerging Primary Health Care Priority. *Clinical Review*, 7(1), 5–10.

Peter, T. F., Rotz, P. D., Blair, D. H., Khine, A. A., Freeman, R. R., & Murtagh, M. M. (2010). Impact of laboratory accreditation on patient care and the health system. *American Journal of Clinical Pathology*, 134(4), 550–555. <http://doi.org/10.1309/AJCPH1SKQ1HNWGHF>

Pfeffer, J. (1981). *Power in organizations*. Canada: Pitman Pub.

Pfeffer, J., & Salancik, G. R. (1978a). *The external control of organizations: A resource dependence approach*. New York: Harper and Row Publishers. <http://doi.org/10.2307/2392573>

Pfeffer, J., & Salancik, G. R. (1978b). *The External Control of Organizations: A Resource*

Dependence Perspective. New York: Harper and Row. <http://doi.org/10.2307/2231527>

Podsakoff, P. M., & Schriesheim, C. a. (1985). Field studies of French and Raven's bases of power: Critique, reanalysis, and suggestions for future research. *Psychological Bulletin*, 97(3), 387–411. <http://doi.org/10.1037/0033-2909.97.3.387>

Puts, D. A., Hodges, C. R., Cárdenas, R. A., & Gaulin, S. J. C. (2007). Men's voices as dominance signals: vocal fundamental and formant frequencies influence dominance attributions among men. *Evolution and Human Behavior*, 28(5), 340–344. <http://doi.org/10.1016/j.evolhumbehav.2007.05.002>

Rahim, A. M. (2009). *Bases of leader power and effectiveness. Power and Interdependence in Organizations*. London: SAGE Publications. <http://doi.org/10.1017/CBO9780511807756.003>

Rahim, M. A. (1989). Relationships of Leader Power to Compliance and Satisfaction with Supervision: Evidence from a National Sample of Managers. *Journal of Management*, 15(4), 545–556. <http://doi.org/10.1177/014920638901500404>

Rasanathan, K., Montesinos, E. V., Matheson, D., Etienne, C., & Evans, T. (2010). Primary health care and the social determinants of health : essential and complementary approaches for reducing inequities in health. *Essay*, 2(1), 1–5. <http://doi.org/10.1136/jech.2009.093914>

Republic of Ghana. Ghana Health Service and Teaching Hospitals Act (1996). Accra, Ghana.

Ridde, V., Queuille, L., Atchessi, N., & Samb, O. (2012). The simultaneous introduction of the district health system and performance-based funding: the Burundi experience. *Field Actions Science Reports*, 8(8), 1–8. Retrieved from <http://factsreports.revues.org/2351>

- Ringer, R. C., & Boss, R. W. (2000). Hospital professionals' use of upward influence tactics. *Journal of Managerial Issues*, 12(1), 1–9. [http://doi.org/10.1016/0024-3205\(88\)90461-4](http://doi.org/10.1016/0024-3205(88)90461-4)
- Robbins, S. P. (1996). Organizational Behavior: Concepts Controversies Applications. *Development*, 2(1), 1–12.
- Rohde, J., Cousens, S., Chopra, M., Tangcharoensathien, V., Black, R., Bhutta, Z. A., & Lawn, J. E. (2008). Alma-Ata : Rebirth and Revision 4 30 years after Alma-Ata : has primary health care worked in countries? *Lancet*, 372(2), 950–61.
- RuDASA. (2013). *The District Hospital as an integral part of Primary Health Care Services in rural communities*. South Africa.
- Rule, N. O., & Ambady, N. (2008). The face of success: Inferenfes from chief executive officers' predict company profits. *Psychological Science*, 19(2), 109–112. <http://doi.org/10.1111/j.1467-9280.2008.02054.x>
- Russell, S. (2008). Community-based Health and Planning Services: Decentralizing Ghana's Health System. *GU Journal of Health Sciences*, 5(1), 1–12.
- Ruxin, J. (1994). Doctors Without Orders To improve global health, what we need isn't just Bill Gates' billions, but Microsoft's managers. *Democracy Journal*, 2(1), 32–43.
- Sakyi, E. K., Atinga, R. A., & Adzei, F. A. (2012). Managerial problems of hospitals under Ghana's National Health Insurance Scheme. *Clinical Governance: An International Journal*, 17(3), 178–190. <http://doi.org/10.1108/14777271211251291>
- Salisu, A., & Prinz, V. (2009). *Health care in Ghana. Austrian Centre for Country of Origin & Asylum Research and Documentation (ACCORD)*.

- Saltman, R. B., & Ferroussier-Davis, O. (2000). The concept of stewardship in health policy. *Bulletin of the World Health Organization*, 78(6), 732–739.
- Sambala, E. Z., Sapsed, S., & Mkandawire, M. L. (2010). Role of primary health care in ensuring access to medicines. *Croatian Medical Journal*, 51(3), 181–90. <http://doi.org/10.3325/cmj.2010.51.181>
- Sanders, D., Kravitz, J., Lewin, S., & Mckee, M. (1998). Zimbabwe's hospital referral system : does it work? *Health Policy Plan.*, 13(4), 359–70.
- Schermerhorn, J. R. (1977). Information Sharing as an Interorganizational Activity. *Academy of Management Journal*, 20(1976), 148–153.
- Schroffel, A. (1999). How Does Clinical Supervision Affect Job Satisfaction? *The Clinical Supervisor*, 18(2), 91–106.
- Scotland, J. (2012). Exploring the philosophical underpinnings of research: Relating ontology and epistemology to the methodology and methods of the scientific, interpretive, and critical research paradigms. *English Language Teaching*, 5(9), 9–16. <http://doi.org/10.5539/elt.v5n9p9>
- Senah, K. (2001). In sickness and in health: globalisation and health care delivery in Ghana. *Research Review NS*, 17(1), 83–89.
- Sennun P, Suwannapong N, Howteerakul N, P. O. (2006). Participatory supervision model: building health promotion capacity among health officers and the community. *Rural and Remote Health*, 6(40), 1–12.
- Shackleton, V. (1995). *Business Leadership*. Canada: Routledge.

- Simpson, J. A., Farrell, A. K., Oriña, M. M., & Rothman, A. J. (2015). Power and social influence in relationships. *APA Handbook of Personality and Social Psychology: Interpersonal Relations*, 3, 393–420. <http://doi.org/http://dx.doi.org/10.1037/14344-015>
- Simwaka, L. K. (2008). How power relations affect the implementation of policy on equity in access to anti-retroviral therapy: The case of rural health centres in Malawi. *EQUINET Discussion Paper 69*, (September).
- Slabu, L., & Guinote, A. (2010). Getting what you want: Power increases the accessibility of active goals. *Journal of Experimental Social Psychology*, 46(2), 344–349. <http://doi.org/10.1016/j.jesp.2009.10.013>
- Smith, P. K., Jostmann, N. B., Galinsky, A. D., & Van Dijk, W. W. (2008). Lacking power impairs executive functions: Research article. *Psychological Science*, 19(5), 441–447. <http://doi.org/10.1111/j.1467-9280.2008.02107.x>
- Spehar, I., Frich, J. C., & Kjekshus, L. E. (2014). Clinicians in management: a qualitative study of managers' use of influence strategies in hospitals. *BMC Health Services Research*, 14(1), 251. <http://doi.org/10.1186/1472-6963-14-251>
- Stake, R. (1994). The art of Interviewing. In D. K. Norman & L. S. Yvonna (Eds.), *Handbook of Qualitative Research* (pp. 236–247). London: SAGE Publications.
- Starfield, B. (2012). Primary care: An increasingly important contributor to effectiveness, equity, and efficiency of health services. SESPAS report 2012. *Gaceta Sanitaria*, 26(6), 20–26. <http://doi.org/10.1016/j.gaceta.2011.10.009>
- Starling, G. (2010). *Managing the Public Sector*. USA: Wadsworth Cengage Learning.

- Steensma, H., & Miligen, F. Van. (2003). Bases of power, procedural justice outcomes of mergers: The push and pull factors of influence tactics. *Journal of Collective Negotiations*, 30(2), 113–134.
- Sulemana, A., & Dinye, R. D. (2014). Access to healthcare in rural communities in Ghana: A study of some selected communities in the pruu district. *European Journal of Research in Social Sciences*, 2(4), 122–132. Retrieved from www.idpublications.org
- Suter, L. G., Fraenkel, L., & Holmboe, E. S. (2006). What factors account for referral delays for patients with suspected rheumatoid arthritis? *Arthritis Care and Research*, 55(2), 300–305. <http://doi.org/10.1002/art.21855>
- Tadeu, B. T. M., & Geelhoed, D. (2016). “This thing of testing our blood is really very important”: a qualitative study of primary care laboratory services in Tete Province, Mozambique. *International Journal for Equity in Health*, 15(1), 1–11. <http://doi.org/10.1186/s12939-016-0418-5>
- Thibaut, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. New York: Wiley.
- Thorne, M. L. (2002). Colonizing the new world of NHS management: the shifting power of professionals. *Health Services Management Research*, 15(1), 14–26. <http://doi.org/10.1258/0951484021912798>
- Tomlinson, J. (2015). Using clinical supervision to improve the quality and safety of patient care: a response to Berwick and Francis. *BMC Medical Education*, 15(103), 1–8. <http://doi.org/10.1186/s12909-015-0324-3>
- Tsolekile, L. P., Puoane, T., Schneider, H., Levitt, N. S., & Steyn, K. (2014). The roles of

- community health workers in management of non-communicable diseases in an urban township. *African Journal of Primary Health Care and Family Medicine*, 6(1). <http://doi.org/10.4102/phcfm.v6i1.693>
- Turk, H., & Freidson, E. (1971). Professional Dominance: The Social Structure of Medical Care. *American Sociological Review*, 36(6), 1168–1178. <http://doi.org/10.2307/2093844>
- Tushman, M. L., & Scanlan, T. J. (1981). Boundary Spanning Individuals: Their Role in Information Transfer and Their Antecedents. *Academy of Management Journal*, 24(2), 289–305. <http://doi.org/10.2307/255842>
- Ulrich, D., & Barney, J. B. (1984). Perspectives in Organizations: Resource Dependence, Efficiency, and Population. *Academy of Management Review*, 9(3), 471–481. <http://doi.org/10.5465/AMR.1984.4279680>
- UNDP/NDPC. (2015). *Ghana Millennium Development Goals 2015 Report*. Accra.
- Valadez, J., & Vargas, W. (1990). Supervision of primary health care in Costa Rica : time well spent? *Oxford University Press*, 9(6), 1–13.
- Valley, R., Obioha, E. E., & Molale, M. G. (2011). Functioning and Challenges of Primary Health Care (PHC). *Ethno Med*, 5(2), 73–88.
- Van Doesum, N. J., Van Lange, D. A. W., & Van Lange, P. A. M. (2013). Social mindfulness: Skill and will to navigate the social world. *Journal of Personality and Social Psychology*, 105(1), 86–103. <http://doi.org/10.1037/a0032540>
- Van Vugt, M. (2006). Evolutionary Origins of Leadership and Followership. *Personality and Social Psychology Review*, 10(4), 354–371. http://doi.org/10.1207/s15327957pspr1004_5

- Vecchio, R. P. (1987). Situational Leadership Theory: An examination of a prescriptive theory. *Journal of Applied Psychology*, 72(3), 444–451. <http://doi.org/10.1037/0021-9010.72.3.444>
- VeneKlasen, L., & Miller, V. (2006). Dynamics of Power, Inclusion, and Exclusion. *Nonprofit News Online Journal*.
- Vest, J. R., & Shah, G. H. (2012). The Extent of Interorganizational Resource Sharing Among Local Health Departments: The Association With Organizational Characteristics and Institutional Factors. *Journal of Public Health Management & Practice*., 18(6), 1–12. <http://doi.org/10.1097/PHH.0b013e31825b89e4>
- Walley, J., Lawn, J. E., Tinker, A., de Francisco, A., Chopra, M., Rudan, I., ... Group, the L. A.-A. W. (2008). Alma-Ata : Rebirth and Revision 8 Primary health care : making Alma-Ata a reality. *The Lancet*, 372, 1001–1007. [http://doi.org/10.1016/S0140-6736\(08\)61409-9](http://doi.org/10.1016/S0140-6736(08)61409-9)
- White, E., & Winstanley, J. (2006). Cost and resource implications of clinical supervision in nursing: An Australian perspective. *Journal of Nursing Management*. <http://doi.org/10.1111/j.1365-2934.2006.00721.x>
- Whitehead, M. (2000). *The concepts and principles of equity and health*. Copenhagen.
- WHO. (1978). *Declaration of Alma-Ata International Conference on Primary Health Care, Alma-Ata, USSR, 6-12*. Geneva.
- WHO. (1988). *The Challenge of Implementation: District Health Systems for Primary Health Care*. Geneva.
- WHO. (1994). *Mother-Baby-Package: Implementing safe motherhood in countries, Maternal Health and Safe Motherhood Programme*. WHO, Geneva.

- WHO. (2000). *The World Health Report 2000: Health Systems: Improving Performance*. Geneva.
- WHO. (2007). Primary Health Care-based Pharmaceutical Services : PAHO / WHO position paper. Washington, DC: PAHO/WHO.
- WHO. (2009). *Systems Thinking for Health Systems Strengthening*. Geneva: World Health Organization.
- WHO. (2016). *World Health Organization (WHO) Country Office for Ghana 2016 Annual Report*. Accra.
- Willis, E. (2006). Introduction: taking stock of medical dominance. *Health Sociology Review*, 15(5), 421–431. <http://doi.org/10.5172/hesr.2006.15.5.421>
- Wong, E. M., Ormiston, M. E., & Haselhuhn, M. P. (2011). A Face Only an Investor Could Love: CEOs' Facial Structure Predicts Their Firms' Financial Performance. *Psychological Science*, 22(12), 1478–1483. <http://doi.org/10.1177/0956797611418838>
- World Health Organization. (2010). Key components of a well functioning health system. Geneva: WHO Health System, 2. Retrieved from <http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:Key+components+of+a+well+functioning+health+system#1>
- World Health Organization. (2017). The WHO Health Systems Framework. Retrieved from http://www.wpro.who.int/health_services/health_systems_framework/en/
- Yeboah, Y. (2007). Intersectoral collaboration for Accelerated Health Improvement in Ghana. Accra.

- Yetton, P. W., & Bottger, P. C. (1982). Individual versus group problem solving: An empirical test of a best-member strategy. *Organizational Behavior and Human Performance*, 29(3), 307–321. [http://doi.org/10.1016/0030-5073\(82\)90248-3](http://doi.org/10.1016/0030-5073(82)90248-3)
- Yin, R. K. (2003). *Case Study Research: Design and Methods*. Geneva: World Health Organization.
- Yin, R. K. (2009). *Case Study Research: Design and Methods* (Second Edi). Thousand Oaks: SAGE Publications.
- Yukl, G., & Falbe, C. M. (1991). Importance of different power sources in downward and lateral relations. *Journal of Applied Psychology*, 76(3), 416–423. <http://doi.org/10.1037/0021-9010.76.3.416>
- Zhang, Y., & Wildemuth, B. M. (2009). Qualitative Analysis of Content. *Applications of Social Research Methods to Questions in Information and Library Science*, 421. <http://doi.org/10.1002/hbm.20661>

APPENDICES

School of Public Health

College of Health Sciences

University of Ghana

Appendix A: In-Depth Interview Guide for District Directors of Health Services and Medical Superintendents

Title: Effects of the Relationship between Primary Health Care Institutions on the Operations of Sub-district Health Centres in Ghana.

Date:.....Code:.....

Interviewer:.....Institution:

District: Region:

Start: End:

Socio-Demographic Data

Age, Sex, Marital Status, Religion, Professional Background, Length of Service in current position.

Relationship between DHMT and District Hospital

1. Could you please give me an overview of the District Health System?

- Probe on formal organisational structure, authority and responsibilities, communication lines, financial management, management of health centres etc.
- Probe for any observed changes in the structure, reasons for the change etc.

2. Coordinating service provision at the health centres

- Probe for extent of collaboration between DHMT and district hospital in organizing care at the health centre
- Probe for information sharing, kind of information, channel etc

- Probe for planning, monitoring and evaluation of services at the health centre
 - Probe for any financial arrangements
 - Probe for any collaborating challenges between DHMT and District hospital to coordinate care at the health centre
 - Probe for why they exist, how they are addressed, challenges in addressing them
 - Probe for suggestions to improve collaborative relationship between hospital and DHMT to effectively coordinate care at the health centre.
3. Are there any relationship challenges between DHMTs and District hospital management teams?
- Probe for professional codes of ethics of team members
 - Probe for personality issues
 - Probe for location of offices
 - Probe for power, interpersonal trust
 - Probe for conflict management, challenges of managing etc.
4. In your opinion, what should be the ideal relationship between DHMT and district hospital to ensure quality service delivery at the health centre level?

Relationship between District Hospital and health centre

5. In your opinion, are there relationships between District Hospitals and health centres?
- Probe for information sharing, kind of information, medium of sharing etc
 - Probe for joint planning of health care at the health centres
 - Probe for clinical facilitative support visits to health centres, how often, composition of team etc

- Probe for resource sharing: human resource, equipment, medicines, consumables etc
 - Probe for training to build capacity of health centres workers, how often
 - Probe for relational difficulties between district hospital and health centres,
 - Probe for why they exist and how these relational difficulties are managed to support health centre services
 - Probe for challenges of managing the relational difficulties, how challenges are addressed
6. In your opinion, what should be the ideal relationship (organisational and service provision) between the district hospital and the health centre to enhance quality service delivery at the health centre level?

Health Centre Operations

7. Could you explain to me how the structures of the health centres facilitate service delivery?
- Probe for location (distance) within the community
 - Probe for cleanliness, toilet and urinary facilities
 - Probe for directional signs
 - Probe for size of the health centre with reference to population
 - Probe for seating arrangements at the OPD
 - Probe for how the health centre structure influence service delivery
 - Probe for suggestions to improve the structure of the health centre.
8. Could you explain to me how the managerial processes in the health centres facilitate service delivery?

- Probe for decision making process, communication, leadership
 - Probe for involvement of frontline health professionals and community in managerial process
 - Probe for any observed challenges of the managerial process, why they exist and how they are managed
 - Probe for how the managerial processes of the health centre affect service delivery
 - Probe for suggestions to improve involvement of frontline health professionals in managerial process
9. Could you explain to me how the health activities (service delivery) of the centre are carried out?
- Probe for kind of services.
 - Probe for average length of time for service delivery at the centre
 - Probe for effectiveness of malaria case management in the health centre
 - Probe for effectiveness of skilled delivery services at the health centre
 - Probe for quality of referrals, and why
 - Probe for any challenges with the service delivery, why they exist, how to mitigate those challenges.
 - Probe for how the health centre structure influence service delivery
 - Probe for suggestions to improve health activities at the centre.
10. Could you explain to me how health resources at the health centre are managed?
- Probe for adequacy of health workers, attitude, etc
 - Probe for availability of equipment, adequacy etc

- Probe for availability of drugs
- Probe for any challenges in health resource management, why they exist and how they can be addressed.
- Probe for how health resources management at the health centre affect service delivery
- Probe for suggestions to improve health resource management.

11. Are there any further issues about the relationship between district level PHC institutions? How do they affect health centre operations?

Thank You.

School of Public Health
College of Health Sciences
University of Ghana

Appendix B: In-Depth Interview Guide for Sub-district Health Leaders

Title: Effects of the Relationship between Primary Health Care Institutions on the Operations of Sub-district Health Centres in Ghana.

Date:.....Code:.....

Interviewer:.....Institution:.....

District: Region:

Start:End:

Socio-Demographic Data

Age, Sex, Marital Status, Religion, Professional Background, Length of Service in Current position

Relationship between DHMT and District Hospital

1. Could you please give me an overview of the District Health System?
 - Probe on formal organisational structure, authority and responsibilities, communication lines, financial management, management of health centres etc.
 - Probe for any observed changes in the structure
2. In your opinion, are there any relationships between the DHMT and the district hospital?
 - Probe financial arrangements
 - Probe for formal and informal relationships to support health centre service provision

- Probe for professional codes of ethics, personality issues, power/authority interpersonal trust, conflicts etc
 - Probe for any relational challenges, why they exist, how they are managed
 - Probe for any challenges of managing the relational gaps and how the challenges are addressed
3. In your opinion, what should be the ideal relationship between the DHMT and the district hospital to enhance quality service delivery at the health centre level?

Relationship between district hospital and health centre

4. To what extent is the hospital involved in coordinating service provision at the health centre?
- Probe for information sharing, kind of information, medium of sharing etc
 - Probe on joint planning, monitoring and evaluation
 - Probe for facilitative support visits to health centre, how often, composition of team etc
 - Probe for resource sharing: human resource, equipment, medicines, consumables etc
 - Probe for training to build capacity of health centre workers, how often
 - Probe for quality referral system, quality of referral letters, feedback reports
5. Has the management of the district hospital ever raised concerns about service provision at the health centre?
- Probe for quality of care
 - Probe for quality of referrals
 - Probe for how concerns were resolved

6. In your opinion, what should be the ideal relationship (organisational and service provision) between the district hospital and health centre to enhance quality service delivery at the health centre level?

Health Centre Operations

7. Could you please explain to me how the structure of the health centre facilitates service delivery?
- Probe for location (distance) within the community
 - Probe for cleanliness, toilet and urinary facilities
 - Probe for directional signs
 - Probe for size of the health centre with reference to population
 - Probe for seating arrangements at the OPD
 - Probe for how the health centre structure influence service delivery
 - Probe for suggestions to improve the structure of the health centre.
8. Could you please explain to me how the managerial processes facilitate service delivery?
- Probe for decision making process, communication, leadership
 - Probe for involvement of frontline health professionals and community in managerial process
 - Probe for any observed challenges of the managerial process, why they exist and how they are managed
 - Probe for how the managerial processes of the health centre affect service delivery
 - Probe for suggestions to improve involvement of frontline health professionals in managerial process

9. Could you explain to me how the health activities (service delivery) of the centre are carried out?

- Probe for kind of services they receive from the health centre.
- Probe for average length of time for service delivery at the centre
- Probe for effectiveness of malaria case management in the health centre
- Probe for effectiveness of skilled delivery services in the centre
- Probe for quality of referrals, and why
- Probe for any challenges with the service delivery, why they exist, how to mitigate those challenges.
- Probe for suggestions to improve health activities of the centre.

10. What can you say about health resources at the health centre?

- Probe for adequacy of health workers, attitude, etc
- Probe for availability of equipment, adequacy etc
- Probe for availability of drugs
- Probe for any challenges in health resource management, why they exist and how they can be addressed.
- Probe for how health resources management at the health centre affect service delivery
- Probe for suggestions to improve health resource management.

11. Are there any further issues about the relationship between district level PHC institutions and effects on health centre operations?

Thank You.

School of Public Health
College of Health Sciences
University of Ghana

Appendix C: In-Depth Interview Guide for Regional Directors of Health Services

Title: Effects of the Relationship between Primary Health Care Institutions on the Operations of Sub-district Health Centres in Ghana.

Date:.....Code:.....

Interviewer:.....Institution:.....

District: Region:

Start:End:

Socio-Demographic Data

Age, Sex, Marital Status, Religion, Professional Background, Length of Service in Current position

Relationship between DHMT and District Hospital

1. Could you please give me an overview of the District Health System
 - Probe on formal organisational structure, authority and responsibilities, communication lines, financial management, management of health centres etc.
 - Probe for any observed changes in the structure
2. What can say about the relationship between DHMTs and District hospitals in the region?
 - Probe for information sharing, kind of information, channel etc
 - Probe financial arrangements
 - Probe for formal and informal relationships to support health centre service provision

- Probe for any relational gaps, why they exist, how they are managed
 - Probe for any challenges of managing the relational gaps and how these challenges are addressed
3. Coordinating service provision at the health centres in the region
- Probe for planning, monitoring and evaluation of services at the health centre.
 - Probe for extent of collaboration between DHMT and district hospital in organizing care at the health centre
 - Probe for any collaborating challenges between DHMT and District hospital to coordinate care at the health centre
 - Probe for why they exist, how they are addressed, challenges of addressing them
 - Probe for suggestions to improve collaborative relationship between hospital and DHMT to effectively coordinate care at the health centre
4. Are there any relationship challenges between DHMTs and District hospital management teams in the region?
- Probe for professional codes of ethics of team members
 - Probe for personality issues
 - Probe for location of offices
 - Probe for power, interpersonal trust
 - Probe on conflict management, challenges of managing etc.
5. In your opinion, what should be the ideal relationship between the DHMT and the district hospital to enhance quality service delivery at the health centre level?

Relationship between District Hospital and Health Centre

6. In your opinion, are there relationships between District Hospitals and health centres in the region?

- Probe for information sharing, kind of information, medium of sharing etc
- Probe for joint planning of health care at the health centre
- Probe for clinical facilitative support visits to health centre, how often, composition of team etc
- Probe for resource sharing, human resource, equipment, medicines, consumables etc
- Probe for training to build capacity of health centre workers, how often
- Probe for relational gaps between district hospital and health centres,
- Probe for why they exist and how the relational gaps are managed to support health centre services
- Probe for challenges of managing the relational gaps, how challenges are addressed

7. In your opinion, what should be the ideal relationship (organisational and service provision) between district hospital and health centre to enhance quality service delivery at the health centre level?

Health Centre Operations

8. Could you please explain to me how health centres should operate?

- Probe for how the structure of health centre should facilitate service delivery
- Probe for how managerial processes could facilitate service delivery at the health centre level

- Probe for the health activities at the health centre
 - Probe for availability and use of health resources at the health centre?
 - Probe for how community should be involved in planning and delivery of health services.
9. Are there any further issues about the relationship between district level PHC institutions? How do they affect health centre operations?

Thank You.

School of Public Health
College of Health Sciences
University of Ghana

**Appendix D: Focus Group Discussions Guide for District Hospital Frontline Service
Providers**

Title: Effects of the Relationship between Primary Health Care Institutions on the Operations of Sub-district Health Centres in Ghana.

Date:.....Code:.....

Facilitator:.....Note-Taker:.....

Number of Participants:Institution:

District:Region:.....

Socio-Demographic Data

Age, Sex, Marital Status, Religion, Professional Background, Length of Service in Current position

Icebreaker – Assume you have all the money you want, will you continue to work here?

Relationship between DHMT and District Hospital

1. Could you please explain to me the kind of relationships that exist between the DHMT and the district hospital?
 - Probe financial arrangements
 - Probe for formal and informal relationships to support health centre service provision
 - Probe for any relational gaps
 - Probe for why they exist

- Probe how they are managed
 - Probe for any challenges of managing the relational gaps, and how these challenges are addressed
2. Do you share information with DHMT?
- Probe for kind of information
 - Probe the medium of communicating (written or verbal)
 - Probe whether the information sharing platform promotes collaboration
3. Coordinating service provision at the health centre
- Probe planning, monitoring and evaluation of services at the health centre
 - Probe the involvement of district hospital in organizing care at the health centre (how and why)
4. Are there challenges in relating with the DHMT?
- Probe for professional codes of ethics of team members
 - Probe for personality issues
 - Probe for location of offices
 - Probe for power, interpersonal trust
 - Probe for conflict management, challenges of managing etc.
5. In your opinion, what should be the ideal relationship between the DHMT and the district hospital to enhance quality service delivery at the health centre level?

Relationship between district hospital and HEALTH CENTRE

6. In your opinion, how does the district hospital relate with the health centres?
- Probe for information sharing, kind of information, medium of sharing etc
 - Probe on joint planning, monitoring and evaluation

- Probe for facilitative support visits to health centre, how often, composition of team etc
 - Probe for resource sharing, human resource, equipments, medicines, consumables etc
 - Probe for training to build capacity of health centre workers, how often
 - Probe for quality referral system, quality of referral letters, feedback reports
7. Are there relational gaps between the district hospital and health centre?
- Probe for issues in Question 6
 - Probe for why they exist
 - Probe for how relational gaps are managed to support health centre services
 - Probe for challenges of managing the relational gaps, how challenges are addressed
8. In your opinion, what should be the ideal relationship (organisational and service provision) between the district hospital and health centre to enable quality service delivery at the health centre level?

Health Centre Operations

9. What can you say about the health activities (service delivery) of the centre?
- Probe for kind of services they receive from the health centre.
 - Probe for average length of time for service delivery at the centre
 - Probe for effectiveness of malaria case management in the health centre
 - Probe for effectiveness of skilled delivery services in the centre
 - Probe for any challenges with the service delivery, why they exist, how to mitigate those challenges.

- Probe for suggestions to improve health activities of the centre.

10. Could you please explain to me how health resources of the health centre facilitate service delivery?

- Probe for adequacy of health workers, attitude, etc
- Probe for availability of equipment, adequacy etc
- Probe for availability of drugs
- Probe for any challenges in health resource management, why they exist and how they can be addressed.
- Probe for how health resources management at the health centre affect service delivery
- Probe for suggestions to improve health resource management.

11. What can you say about service provision at the health centre

- Probe for quality of care, and why
- Probe for quality of referrals, and why
- Probe for how concerns were resolved
- Probe for suggestions to improve service provision at the health centre

12. Are there any further issues about the relationship between district level PHC institutions? How do they affect health centre operations?

Thank You.

School of Public Health
College of Health Sciences
University of Ghana

Appendix E: Focus Group Discussions Guide for Health Centre Frontline Service

Providers

Title: Effects of the Relationship between Primary Health Care Institutions on the Operations of Sub-district Health Centres in Ghana.

Date: Code:

Facilitator: Note-Taker:

Number of Participants:

Institution: District: Region:

Start: End:

Socio-Demographic Data

Age, Sex, Marital Status, Religion, Professional Background, Length of Service in Current position

Relationship between DHMT and District Hospital

1. Could you please give an overview of the District Health System?
 - Probe on formal organisational structure, authority and responsibilities, communication lines, financial management, management of health centres etc.
 - Probe for any observed changes in the structure
2. In your opinion, is there any relationship between the DHMT and the district hospital?
 - Probe financial arrangements

- Probe for formal and informal relationships to support health centre service provision
 - Probe for any relational gaps
 - Probe for why they exist
 - Probe how they are managed
 - Probe for any challenges of managing the relational gaps and how the challenges are addressed
3. Do you have any challenges in relating with the district hospital and the DHMT?
- Probe for professional codes of ethics
 - Probe for personality issues
 - Probe for location of offices (distance)
 - Probe for power, interpersonal trust
 - Probe on conflict management, challenges of managing etc.
4. In your opinion, what should be the ideal relationship between DHMT and district hospital to enable quality service delivery at the health centre level?

Relationship between district hospital and health centre

5. To what extent is the hospital involved in coordinating service provision at the health centre?
- Probe for information sharing, kind of information, medium of sharing etc
 - Probe on joint planning, monitoring and evaluation
 - Probe for facilitative support visits to health centre, how often, composition of team etc

- Probe for resource sharing, human resource, equipments, medicines, consumables etc
 - Probe for training to build capacity of health centre workers, how often
 - Probe for quality referral system, quality of referral letters, feedback reports
6. Have district hospital ever raised concerns about service provision at the health centre?
- Probe for quality of care
 - Probe for quality of referrals
 - Probe for how concerns were resolved
7. In your opinion, what should be the ideal relationship (organisational and service provision) between the district hospital and health centre to enhance quality service delivery at the health centre level?

Health Centre Operations

8. Could you please explain to me how the structure of the health centre facilitates service delivery?
- Probe for location (distance) within the community
 - Probe for cleanliness, toilet and urinary facilities
 - Probe for directional signs
 - Probe for size of the health centre with reference to population
 - Probe for seating arrangements at the OPD
 - Probe for how the health centre structure influence service delivery
 - Probe for suggestions to improve the structure of the health centre.
9. Could you please explain to me how managerial processes of the health centre facilitate service delivery?

- Probe for decision making process, communication, leadership
- Probe for involvement of frontline health professionals and community in managerial process
- Probe for any observed challenges of the managerial process, why they exist and how they are managed
- Probe for how the managerial processes of the health centre affect service delivery
- Probe for suggestions to improve involvement of frontline health professionals in managerial process

10. What can you say about the health activities (service delivery) of the centre?

- Probe for kind of services they receive from the health centre.
- Probe for average length of time for service delivery at the centre
- Probe for effectiveness of malaria case management in the health centre
- Probe for effectiveness of skilled delivery services in the centre
- Probe for any challenges with the service delivery, why they exist, how to mitigate those challenges.
- Probe for suggestions to improve health activities of the centre.

11. Could you please explain to me how health resources of the health centre facilitate service delivery?

- Probe for adequacy of health workers, attitude, etc
- Probe for availability of equipment, adequacy etc
- Probe for availability of drugs

- Probe for any challenges in health resource management, why they exist and how they can be addressed.
- Probe for how health resources management at the health centre affect service delivery
- Probe for suggestions to improve health resource management.

12. What can you say about service provision at the health centre

- Probe for quality of care, and why
- Probe for quality of referrals, and why
- Probe for how concerns were resolved
- Probe for suggestions to improve service provision at the health centre

13. Are there any further issues about the relationship between district level PHC institutions? How do they affect health centre operations?

Thank You.

School of Public Health
College of Health Sciences
University of Ghana

Appendix F: Focus Group Discussion Guide for District-Level Health Managers

Title: Effects of the Relationship between Primary Health Care Institutions on the Operations of Sub-district Health Centres in Ghana.

Date:.....Code:.....

Interviewer Institution:

District: Region:

Start: **End:**

Socio-Demographic Data

Age, Sex, Marital Status, Religion, Professional Background, Length of Service in Current position

Relationship between DHMT and District Hospital

1. Could you please give me an overview of the District Health System?
 - Probe on formal organisational structure, authority and responsibilities, communication lines, financial management, management of health centres etc.
 - Probe for any observed changes in the structure, reasons for the change etc.
2. Coordinating service provision at the health centres
 - Probe for information sharing, kind of information, channel etc
 - Probe for planning, monitoring and evaluation of services at the health centre
 - Probe for any financial arrangements

- Probe for extent of collaboration between DHMT and district hospital in organizing care at the health centre
 - Probe for any collaborating challenges between DHMT and District hospital to coordinate care at the health centre
 - Probe for why they exist, how they are addressed, challenges of addressing them
 - Probe for suggestions to improve collaborative relationship between hospital and DHMT to effectively coordinate care at the health centre.
3. Are there any relationship challenges between DHMTs and District hospital management teams?
- Probe for professional codes of ethics of team members
 - Probe for personality issues
 - Probe for location of offices
 - Probe for power, interpersonal trust
 - Probe on conflict management, challenges of managing etc.
4. In your opinion, what should be the ideal relationship between DHMT and district hospital to enhance quality service delivery at the health centre level?

Relationship between District Hospital and Health Centre

5. In your opinion, are there relationships between District Hospitals and health centres?
- Probe for information sharing, kind of information, medium of sharing etc
 - Probe for joint planning of health care at the health centre
 - Probe for clinical facilitative support visits to health centre, how often, composition of team etc

- Probe for resource sharing: human resource, equipment, medicines, consumables etc
 - Probe for training to build capacity of health centre workers, how often
 - Probe for relational difficulties between district hospital and health centres,
 - Probe for why they exist and how these relational difficulties are managed to support health centre services
 - Probe for challenges of managing the relational difficulties, how challenges are addressed
6. In your opinion, what should be the ideal relationship (organisational and service provision) between district hospital and health centre to enable quality service delivery at the health centre level?

Health Centre Operations

7. Could you please explain to me how the structure of the health centre facilitates service delivery?
- Probe for location (distance) within the community
 - Probe for cleanliness, toilet and urinary facilities
 - Probe for directional signs
 - Probe for size of the health centre with reference to population
 - Probe for seating arrangements at the OPD
 - Probe for how the health centre structure influence service delivery
 - Probe for suggestions to improve the structure of the health centre.
8. Could you please explain to me how managerial processes of the health centre facilitate service delivery?

- Probe for decision making process, communication, leadership
- Probe for involvement of frontline health professionals and community in managerial process
- Probe for any observed challenges of the managerial process, why they exist and how they are managed
- Probe for how the managerial processes of the health centre affect service delivery
- Probe for suggestions to improve involvement of frontline health professionals in managerial process

9. What can you say about the health activities (service delivery) of the centre?

- Probe for kind of services.
- Probe for average length of time for service delivery at the centre
- Probe for effectiveness of malaria case management in the health centre
- Probe for effectiveness of skilled delivery services at the health centre
- Probe for quality of referrals, and why
- Probe for any challenges with the service delivery, why they exist, how to mitigate those challenges.
- Probe for how the health centre structure influence service delivery
- Probe for suggestions to improve health activities at the centre.

10. Could you please explain to me how health resources of the health centre facilitate service delivery?

- Probe for adequacy of health workers, attitude, etc
- Probe for availability of equipment, adequacy etc

- Probe for availability of drugs
- Probe for any challenges in health resource management, why they exist and how they can be addressed.
- Probe for how health resources management at the health centre affect service delivery
- Probe for suggestions to improve health resource management.

11. Are there any further issues about the relationship between district level PHC institutions? How do they affect health centre operations?

Thank You.

School of Public Health
College of Health Sciences
University of Ghana

Appendix G: Participant Observation Checklist

Title: Effects of the Relationship between Primary Health Care Institutions on the Operations of Sub-district Health Centres in Ghana.

Date: Code:

Institution:

Time Started: Time Ended:

1. Structure of the health centre

- Location (distance) within the community
- Cleanliness, toilet and urinary facilities
- Directional signs
- Size of the health centre with reference to population
- Seating arrangements at the OPD
- Confidentiality

2. Managerial processes in the health centre

- Decision making process
- Communication
- Leadership
- Involvement of frontline health professionals and community in managerial process

3. Health activities (service delivery) of the centre

- Kind of services
 - Average length of time for service delivery
 - Malaria case management
 - Skilled delivery services
 - Quality of care
 - Quality of referrals
4. Health resources at the health centre
- Health workers
 - Equipment
 - Drugs
 - Consumables
 - Involvement of Hospital in coordinating service provision at the health centre
Information sharing
 - Joint planning
 - Facilitative support visits to health centre
 - Resource sharing (human resource, equipments, medicines, consumables)
.....
 - Training to build capacity of health centre workers

Supervisory Visits to Health Centres

Serial No.	Issues	Yes	No	Observer's Comments
1.	Aims of visit explained			
2.	Use of approved checklist			
3.	Strict adherence to approved checklist			
4.	Normal composition of team			
5.	Relevance of team to task			
6.	Appropriate communication			
7.	Capacity building as part of visit			
8.	Operational issues raised			

Human Resource

Categories of health staff, norm and number at post

No.	Categories	Normal Number	Number at post	
			Permanent	Casual
	Physician Assistants			
	Mid-wives			
	Nurses – Diploma			
	Nurses – Health assistants Clinical			
	Laboratory technician			
	Dispensing technician			
	Health information officers			
	Ward assistants			
	Administrative staff			
	Cleaners/Orderlies			
	Security			
	Accounts staff			

Stores and Supplies Management

Visit stores to ascertain the following:

No.	Item	Good	Satisfactory	Poor	Comments/Remarks
	Appropriateness of storage				
	Cleanliness				
	Arrangement				
	Fire readiness				
	Recording of Ledger book				
	Recording of tally cards				

School of Public Health
College of Health Sciences
University of Ghana

Appendix H: Documentary Review Checklist

Title: Effects of the Relationship between Primary Health Care Institutions on the Operations of Sub-district Health Centres in Ghana.

Date:.....Code:.....

Reviewer:Institution:

District:Region:

Supervisory Visits to Health Centres

Serial No.	Issues	Yes	No	Comments
1.	Aims of visit explained			
2.	Use of approved checklist			
3.	Strict adherence to approved checklist			
4.	Normal composition of team			
5.	Relevance of team to task			
6.	Appropriate communication			
7.	Capacity building as part of visit			
8.	Operational issues raised			

Management and Governance Issues

No.	Items/Statement	Yes	No
	Is there an institutional organogram?		X
	If yes, is the organogram displayed?		
	<i>Examine copy of the organogram and make comments on it's ability to involve all stakeholders in managing the centre.</i>		
	Is there health centre management committee?		
	If yes, does the membership conform to the provision of the Act 525?		
	Is the committee functioning?		
	<i>Verify membership conformity and functionality by examining number of meetings held last year, meeting attendance lists, minutes, issues discussed and actions taken.</i>		
	Has the committee had any management training/orientation as a term?		
	<i>Examine available documentation of the training</i>		
	Does the health centre have a mission statement?		
	If yes, is it displayed		
	Is there an action plan for the facility in the current year		
	<i>Examine action plan and assess if it contains</i>		
	• Clear goals and objectives		
	• Implementation plan		
	• Time schedules		
	• Assigned responsibilities		
	• A budget		
	• Clear systems for coordination between health centre and hospital		
	• Clear systems for coordination between health centre and DHMT		
	• Clear systems for support from the DHMT and hospital		
	• Monitoring activities for CHPS zones		
	Is the patient charter displayed		
	Are there directional signs to all places in the institutions?		

Service Provision

No.	Items/Statement	Yes	No
	Priority services		
	Are there standard treatment guidelines		
	Is there policy guideline on referrals		
	Is there policy guideline on patient care		
	Is there policy guideline on infection prevention and control		
	Is there quality assurance team in the facility		
	If yes, is the team functioning		
	Has the team received any quality assurance training		
	<i>Verify the existence, functioning and training by examining meeting minutes, reports</i>		
	Is there a suggestion box/complain unit in the facility		
	Is there a person /committee responsible for collating and acting on suggestions/complains? (Verify using report)		

Human Resource

Categories of health staff, norm and number at post

No.	Categories	Normal Number	Number at post	
			Permanent	Casual
	Physician Assistants			
	Mid-wives			
	Nurses – Diploma			
	Nurses – Health assistants Clinical			
	Laboratory technician			
	Dispensing technician			
	Health information officers			
	Ward assistants			
	Administrative staff			
	Cleaners/Orderlies			
	Security			
	Accounts staff			

Staff development

Examine documents for evidence of staff development in the following areas

No.	Items/Statement	Yes	No
	Have training needs of staff been assessed for the current year		
	Is there In-service training plan/programme for the current year		
	Are these training programmes related to the training needs?		
	Number of staff trained in the current year		

Stores and Supplies Management

Visit stores to ascertain the following:

No.	Item	Good	Satisfactory	Poor	Comments/Remarks
	Appropriateness of storage				
	Cleanliness				
	Arrangement				
	Fire readiness				
	Recording of Ledger book				
	Recording of tally cards				

Examine documents for availability of the following:

If person in-charge of the store has been trained on stores management? Yes { } No { }

If the facility has procurement plan? Yes { } No { }

If the facility has procurement register? Yes { } No { }

How often are stocks taken? Quarterly { } Twice yearly { } Annually { }

Information management

Is there a system for routinely verifying data? Yes { } No { }

Type of health information system in the facility: Manual { } Electronic { } combination { }

Is the information system capable of generating useful reports on timely basis? Yes { } No { }

Is there a system for reviewing medical records in the facility? Yes { } No { }

Is there a system for ensuring the confidentiality of patient's records? Yes { } No { }

Appendix I: PARTICIPANTS INFORMATION SHEET / CONSENT FORM

Title of the Study: Power Relations among District Health Managers and the Organisation and Delivery of Health Centre Clinical Care in Ghana.

Introduction: I, Bawontuo Vitalis, a PhD student at the School of Public Health, College of Health Sciences, University of Ghana, Legon. My contact numbers are 0208824630 and 0244759245. My email address is bawontuovitalis@yahoo.com

Nature of research: The study seeks to explore organisational and service provision relationship between district hospitals, DHMTs and sub-district health centres, and describe the effects of these relationships on the operations of sub-district health centres in Ghana, which is one of the institutions in the relationship. The study will be conducted in three districts across the country; Bongo district in the Upper East region, Kintampo North municipal in the Brong Ahafo region and Juaboso district in the Western region. The research aims at understanding the interactive processes between the institutions that make-up the district health system, and to provide recommendations that will contribute to effective interactive relationships, in order to improve the operations of sub-district health centres in Ghana.

Duration / what is involved: As a key stakeholder of the district health system (supervisor, manager, service provider and user), you are humbly invited to participate in this research. If you agree to participate in the study, the exercise may take 45 – 60 minutes to complete.

Potential Risks: The anticipated risk to participants may include the provision of sensitive information, especially where voices are recorded.

Possible Benefits: The benefits of participating may not be immediately seen, but the research findings will go a long way to improve working conditions within the district health system. The district health managers, the frontline health professionals and the service users will benefit from an improved inter-institutional relationship framework.

Voice Recording and Storage: With your permission, voices will be recorded during the process. The recordings are only for the purpose of the study, and will aid the thorough understanding of issues. To ensure privacy and security of information collected, good storage practices will be employed.

Costs: The study will guide against participants spending their money and resources for the purpose of the research.

Compensation/Payment: No remuneration will be given for participating in the research, however the study will provide for transport and any related expenses.

Confidentiality: The study will ensure that information gathered from the participants will be treated as private and confidential. The information will not be leaked or shown, either in whole or in part, to any person not connected to the research project.

Voluntary participation/withdrawal: The participants will be made to understand that they reserve the right to withdraw from the interviews or FGDs, either at the start or any point in time during the process. The participants will also be informed that they are not obliged to answer all questions and reserve the right to decline providing any information. Additionally, management reserves the right to deny me access to document or activities deemed to be very confidential. Thus, the extent of the observation and review is at the discretion of management.

Outcome and Feedback: A thesis dissemination plan includes participant review and validation seminars in each case study district. The seminar will provide feedback to participants and allow them to validate the findings as true reflections of the information given.

Anonymity: The study will ensure anonymity of participants and institutions involved in the study using a coding system. The participants and institutions will be assigned codes and referred to as such throughout the project work.

Conflict of Interest: Study participants and institution management will be assured that the whole process is an academic exercise and not for any other purpose.

Pictures: If necessary, consent will be obtained to take pictures as empirical evidence.

Who to Contact for Clarification: For further information, please contact the Department of Health Policy, Planning and Management, School of Public Health, University of Ghana; or my primary supervisor on 020 8133850 or my secondary supervisor on 0265435294; or Hannah Frimpong, Administrator, GHS Ethics review committee on 0507041223

PARTICIPANT STATEMENT AND SIGNATURE

I certify that I voluntarily agree to participate in this interview session. I understand what the study is all about. All my questions concerning risk, benefits, my rights, confidentiality, feedback, anonymity and conflict of interest have been satisfactorily addressed. **I also understand that pictures may be taken, where necessary, as empirical evidence.**

Participant ID Code:

Signature of Participant:

Date:

INVESTIGATOR STATEMENT AND SIGNATURE

I certify that the participant has been given enough time to read and learn about the study. All queries in relation to risk, benefits, participant's rights, confidentiality, feedback and anonymity have been satisfactorily addressed.

Signature of Investigator:

Date: