SOCIO-DEMOGRAPHIC AND INSTITUTIONAL PREDICTORS OF INPATIENTS' POST DISCHARGE STAY IN REFERRAL HOSPITALS IN KISUMU COUNTY, KENYA

BY

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DECLARATION

I hereby declare that this research thesis is my original work and has not been presented for a degree in any other university.

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ABSTRACT

Globally, inpatients continue to unnecessarily prolong their stay in referral hospital wards upon their medical discharge. This causes congestion in the wards, hospital reinfection, relapse, death of PDS inpatients and financial burden to the hospital management. Existing literature linked post discharge stay (PDS) to economic reasons. However, even with the introduction of Universal Health Coverage (UHC), waivers of medical bills, and free maternal health care in Kenya, reports still show PDS cases in the country, especially in referral hospitals such as Jaramogi Oginga Odinga Teaching and Referral Hospital (JOOTRH) and Kisumu County Referral Hospital (KCRH) in Kisumu county. However, it was unclear whether inpatients' socio-demographic characteristics and institutional factors influenced PDS. This study aimed to investigate the socio-demographic and institutional predictors of inpatients' PDS in referral hospitals in Kisumu County, Kenya. The specific objectives were to determine the influence of inpatient's demographic characteristics on PDS, to establish the influence of social support on PDS, and to assess the influence of institutional factors on PDS. The study was guided by the social-ecological model proposed by McLeroy, et al., (1988). The study adopted a correlational cross-sectional research design and used mixed methods of data collection. Hospital records estimated that 200 inpatients experienced PDS in the two facilities per month, out of which a sample of 133 was calculated using Yamane's (1967) formula. A stratified sampling technique was used to select inpatients in the 14 wards, after which systematic random sampling was used to reach the individual PDS inpatients for interviews. Key informant interview was used to collect qualitative data from 10 key informants who were purposively selected from the staff returns report (2019) while an in-depth interview was used to collect data from 13 PDS inpatients. To establish the predictors of PDS, a binary logistic regression analysis was used for the three objectives where p-values <0.05 was considered statistically significant Odds ratios and 95% confidence intervals were reported to show the magnitude and influence of PDS. Thematic analysis was used to analyze qualitative data and quantitative results were corroborated with verbatim quotations. The findings established that demographic characteristics of PDS inpatients namely age (P-value 0.01), gender (P-value 0.03), marital status (P-value 0.02), and nature of the illness (P-value <0.0001) were key demographic predictors of PDS. The parental status of children, religion, educational level, and employment status of respondents was not statistically significant to the study. The estimated logistic regression results indicated that social factors including living arrangement (P-value <0.009), who brought the patients to the hospital (P-value 0.034), visitation during hospitalization (P-value 0.029), social support received from relatives and friends (P-value 0.001) were statistically significant in the study implying that the respondents whose social support was strong were less likely to experience PDS. Institutional delays like waiting for discharge clearance (P-value 0.028), timely information (P-value 0.003), UHC status (P-value 0.01), awaiting tracing (P-value <0.001), and awaiting repatriation (P-value 0.001) were significant predictors of PDS while NHIF status and request for prolonged stay were not significant predictors of PDS. The study recommends hospital management mitigate delaying processes such as improper social assessment and long discharge processes that escalate the PDS of inpatients in the hospitals by early identification of PDS predictors. Policymakers should also incorporate strategies for reducing PDS cases in the existing health policies and strategic plans considering key socio-demographic and institutional predictors of PDS.

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ABBREVIATIONS AND ACRONYMS

ALC -Alternate Level of Care

AMREC-Adaptive Management and Research Consultant

APHRDP -Association for the Promotion of Human Rights and Detained Persons

CEO- Chief Executive Officer

CRR- Center for Reproductive Rights

DOA-Date of Admission

DOD-Date of Discharge

DOI-Date of Interview

DRC- Democratic Republic of Congo

FIDA-Kenya –International Federation of Women Lawyers–Kenya

HAO-Health Administration Officer

HEF- Health Equity Funds

HIV/AIDS- Human Immunodeficiency Virus/Acquired Immuno-Deficiency Syndrome

HMT-Hospital Management Team

HTC- Hospital Training Committee

ICESCR-International Covenant on Economic, Social and Cultural Rights

IHK-International Hospital of Kampala

IHWP -Inpatient Hospital Waiting Period

IOM - Institute of Medicine

JOOTRH-Jaramogi Oginga Odinga Teaching and Referral Hospital

JOOUST-Jaramogi Oginga Odinga University of Science and Technology

KCRH-Kisumu County Referral Hospital

KCSE-Kenya Certificate of Secondary Education

KI- Key Informant

KII- Key Informant Interview

KIPPRA-Kenya Institute for Public Policy Research and Analysis

KNBS-Kenya National Bureau of Statistics

KNH-Kenyatta National Hospital

MHRO-Medical Health Records Officer

MSW- Medical Social Worker

MUERC-Maseno University Ethics and Review Committee

NACOSTI- National Commission for Science Technology and Innovation

NGO-Non-Governmental Organisation

NHIF-National Health Insurance Fund

OOP- Out-Of-Pocket

PDS- Post Discharge Stay

PMGH-Port Moresby General Hospital

RTA-Road Traffic Accident

SCRH- Siaya County and Referral Hospital

SEM- Social Ecological Model

SGS- School of Graduate Studies

SHI- Social Health Insurance

SPSS- Statistical Package of Social Sciences

UHC-Universal Health Coverage

UNICEF- United Nations Children's Fund

USA-United States of America

VVF-Vesico Vaginal Fistula

WHO-World Health Organization

OPERATIONAL DEFINITION OF TERMS

Inpatient –A sick person who has been admitted to an inpatient department or hospital ward.

Medical discharge - A declaration by the doctor that an inpatient is medically stable and hence free to leave the hospital ward.

PDS inpatient - An inpatient who has been medically discharged but has prolonged the stay in the hospital ward for more than 7 days.

Post discharge stay - The number of days PDS inpatients take in the hospital ward before they leave. In this study, it was measured as the difference between the date of medical discharge and the date of interview (PDS=DOI-DOD). It is further categorized as long and short post discharge stay (more and less than 7 days respectively).

Predictors - Factors that show the occurrence of prolonged stay of medically discharged inpatients in referral hospital wards.

Prevalence of post discharge - This is the proportion of inpatients discharged but still staying within the health facility out of all inpatients discharged monthly.

Social isolation - Absence of visits from relatives or friends during an inpatient's stay in hospital wards.

Social support - Assistance from people like friends, relatives, co-workers, and neighbors received by inpatients.

Unknown patients - Inpatients admitted to the hospital without definitive identification by self, or the one accompanying them on admission.

Inpatients' demographic characteristics- include age, gender, marital status, the parental status of children, nature of the illness, religion, employment status, and level of education

Institutional predictors- hospital processes that predict post discharge stay of PDS inpatients which includes medical discharge processes, and delays in paper clearance, tracing, and repatriation of destitute PDS inpatients.

Social predictors - entails living arrangement, who accompanied the PDS inpatients to the facility, aid from relatives and friends, visitation during hospitalization and the destination upon medical discharge.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the study

This chapter examines the background information on post discharge stay; the statement of the research problem; research questions and objectives including general and specific ones. It also presents the significance, scope and limitation of the study and the theoretical framework on which the study was grounded.

Post Discharge Stay (PDS) also known as prolonged hospital utilization upon medical discharge of inpatients from hospital wards, is costly and may be a marker of poor quality of care (Rojas-García, et al., 2018; Houghton, et al., 2016). Other scholars refer to this sociological phenomenon as the detention of insolvent patients (Kippenberg, et al., 2007), discharge delay (Silva, Valácio, Botelho, & Amaral, 2014), hospitals as debtor prisons (Otremba, Berland, & Amon, 2015), medical hostage (Devakumar & Yates, 2016) and hospital detention practices (Mostert et al., 2015). Since there is no systematic and official terminology to describe this phenomenon by World Health Organization (WHO) or any other authority (Handayani et al., 2020), this study employed PDS. Globally, PDS is a healthcare systems problem (Rosman, Rachminov, Segal, & Segal, 2015) and the episode has been there as early as the 1990s (Kippenberg et al., 2007; Rice, 2009). Post Discharge Stay (PDS) is widespread in Eastern Europe, Latin America, Asia, and Africa (Mostert et al., 2015). In Latin America, it is common, particularly in Venezuela, Haiti, and middle-income Mexico and Colombia (Castro, 2008).

The consequences of PDS are far-reaching both to the hospital management, the patients, and their families (Arora et al., 2017; Rojas-García et al., 2018). The United States of America-based study by Cai, Lindquist and Bongiovanni (2020) found that PDS results in unnecessary risk for hospital-acquired infections, loss of revenue for the hospital and reduced hospital

capacity to treat other patients due to bed blocking. According to Silva et al. (2014), 60% and 58% of inpatients suffered PDS in Hospital das Clínicas and Hospital Odilon Behrens respectively causing a shortage of beds and long waiting lists for hospital admission in Brazil. In a metropolitan teaching hospital in London, inpatients unnecessarily utilize £97,432 annually due to PDS (Hendy, Patel, Kordbacheh, Laskar & Harbord, 2012). A study in Israel, by Rosman et al. (2015) found 42% of post discharged inpatients in Sheba Medical Center. The result showed that PDS was associated with morbidity, mortality, and in-hospital infection. Two studies in India found 25% (Nath, Tandon, Mahapatra & Gupta, 2015) and 28% (Arora, Bhogal, Kiran, & Gupta, 2017) inpatients whose identities were unknown at the time of discharge, which led to congestion, increased risk of healthcare-associated infection, unnecessary use of hospital resources, and posed ethical challenges since those inpatients could not simply be chased away. According to Toh et al. (2017), 20% of older inpatients suffered PDS at Khoo Teck Puat Hospital in Singapore and the study revealed that PDS disrupts the patient flow and access to care due to bed shortages as discharged inpatients occupy beds that are badly required by newly admitted inpatients. Devakumar and Yates (2016) argue that additional days spent in the hospital due to PDS imply more medical bills which the majority of inpatients often fail to pay resulting in cases of PDS (Grusky, 2002). Despite the above statistics on the occurrence of PDS and its consequences, its magnitude is unknown (Castro, 2008; Devakumar & Yates, 2016).

Many studies have attributed the introduction of user fees in many low and middle-income countries such as India, Pakistan, Cambodia, and Vietnam to the cause of PDS (Jacobs & Price, 2004; Shahrawat & Rao, 2011; Sardan & Ridde, 2015). Owing to the high cost of hospitalization, inpatients in public referral hospital wards often fail to pay hospital bills, which in turn leads to PDS (Bitran & Giedion, 2003; Grusky, 2002; Kippenberg, 2006). For instance, inpatients suffered PDS in a tertiary referral hospital in New South Wales- Australia because

they needed financial help (Ou et al., 2009). Waiver systems were then introduced to cushion the poor from health shocks (Bitrán & Giedion, 2003). However, non-reimbursement of foregone waiver costs weakens hospital operations. The costs that are foregone due to waivers are rarely reimbursed and the waiver process is burdensome, demeaning, and dangerous for the health of the inpatients (Opondo, 2015).

Many developed and developing countries, therefore, promoted social health insurance (SHI) to eliminate unmet health needs (Carrin, Desmet, & Basaza, 2001; Scheil-Adlung, Carrin, Juetting & Xu, 2006). Despite the effort, WHO and the World Bank Group (2015) reported that at least 400 million people globally cannot access health services as 40% of the world population lack medical coverage (International Labor Organization, 2014). For example, according to Kaiser Family Foundation American Community Survey (2017), 27.4 million people were uninsured in the USA as of 2017 due to the high cost involved (Tolbert et al., 2017). According to Pryor et al. (2003), the uninsured are likely to delay or forego treatment. The delay is until the condition is urgent and more complex requiring emergency and or admission to hospitals, which is costly in the long run resulting in PDS (Shijith & Sekher, 2013). Although strategies were put in place by many countries around the world, the emphasis was to curb financial difficulties that bar people from accessing health services with less attention to what transpires after inpatients are medically discharged but cannot leave the referral hospital wards immediately.

Universal health coverage (UHC) is currently championed by many countries (O'Connell, Rasanathan & Chopra 2014; Reich, Harris, Ikegami, Maeda, Cashin, Araujo, & Evans, 2016), with a target of covering at least 80% of the world population without suffering from catastrophic and impoverishment health payment (WHO, 2013; Ghebreyesus, 2017). Poor populations in several countries may receive care, but their inability to pay can lead to unnecessary and avoidable PDS in hospitals for weeks or even months without continued care,

food, or even a bed (National Academies of Sciences, Engineering, and Medicine, 2018). Therefore, achieving effective UHC can help reduce this financial burden of health care. Otremba et al. (2015) assert that the cornerstone of UHC should be to end PDS episodes. Previous research by Yates et al. (2017) focused much attention on failures in governance and health financing systems as the etiology of PDS, thus the introduction of UHC, rather than social, and institutional factors. However, from global experience, in countries like Bangladesh, Brazil, France, Indonesia, Japan, Peru, Thailand, Turkey, and Vietnam (Jurberg & Humphreys, 2010; Reich et al., 2016) where UHC has been adopted, PDS cases are still widespread (Silva et al., 2014; Asghar Ghods et al., 2015). Although Castro (2008) argues that PDS may occur for reasons other than finances**,** he failed to empirically show other predictors of PDS.

Demographic factors have been attributed to PDS episodes. A study by Glasby et al. (2004) reviewed PDS among older people in England and the result showed that lack of rehabilitation services and internal hospital factors contributed to the occurrence of PDS. Other studies postulate that inpatients' demographic characteristics including age, gender, racial/ethnic identity, marital status, and nature of illness are factors that contribute to cases of PDS (Thomas et al., 2005; Jasinarachchi et al., 2009; Hendy et al., 2012; Toh et al., 2017). According to Little, Hirdes, Perlman and Meyer (2019), more males aged over 44 years and indigenous language speakers suffered from PDS than their female counterparts in Canada. An Australian study by Ou et al. (2009) revealed that the elderly aged 65 years and above who were single, widowed, or divorced were mostly affected by PDS than the married. This concurs with the findings by Little et al. (2019). Moreover, two studies conducted in the UK reiterate that PDS mainly affects the elderly with mean ages of 84 years (Rambani & Okafor, 2008) and 75 years whereof 9 PDS inpatients were found, 6 were women (Benson, Drew & Galland, 2006). This was supported by a study by Lim, Doshi, Castasus, Lim and Mamun (2006) which illustrated that

150 elderly inpatients of mean age of 84 years suffered PDS at Changi General Hospital-Singapore for more than 28 days. However, the study was done retrospectively in the Department of geriatric medicine only. A study in India by Nath et al. (2015) had contradicting findings. They argue that young inpatients, mainly males of age groups 16-20 (67%) are more prone to PDS due to their unknown identity as a result of severe head injury from a road traffic accident (RTA). In Ontario, Canada, the mental status of inpatients was negatively correlated to PDS (Little et al., 2019). However, according to Arora et al. (2017) and Toh et al. (2017), unidentified inpatients prolong their stay in the hospital during both pre-and post discharge due to the presence of dementia and the severity of acute illness. Although these pieces of literature demonstrate that inpatients' demographic factors predict PDS, the findings are contradictory, thus the need for the current study.

Different researchers attribute the causes of PDS to social issues such as lack of fare to take PDS inpatients home (Hendy et al., 2012), homelessness (Arora et al., 2017), and lack of social support (Rambani & Okafor, 2008; Lim et al., 2006; Mendoza et al., 2012). Social support is accorded by family members, friends, co-workers, relatives, and neighbors (Hlebec, Mrzel & Kogovšek, 2009). Although social support influences an individual's ability to cope with stress (Cohen, 2004), patients with stigmatizing ailments like Vesico Vaginal Fistula (VVF), TB, cancer, kidney diseases, and mental illness (Sanders, 2009; Nsemo, 2014, Okeyo, 2020) often lack housing and community support hence are abandoned in hospital wards (Gigantesco et al., 2009; Hadid, 2013). According to Lim et al. (2006) and Toh et al.(2017), inpatients in Singapore were not visited due to "stressed caregivers" which led to PDS. Similarly, PDS in patients who had fewer visits from social relations experienced PDS in Canada (Little et al., 2019). Although these researchers focused on the weak social network as the cause of PDS, this study, therefore, involved the inpatients and hospital staff to examine the influence of social support on PDS.

Other scholars argue that PDS results from reasons related to the internal processes of the hospital such as delays in PDS inpatient placement due to a lack of rehabilitation homes (Silva et al., 2014; Asghar Ghods et al., 2015). For instance, the elderly prolonged their stay in Ysbyty Gwynedd Hospital, Bangor, the UK as they awaited placement in nursing homes (Majeed et al., 2012). Other scholars attribute PDS to delays in reviews and decisions concerning placements and referrals of medically discharged inpatients by social workers, geriatricians, or psychiatrists (Bryan, 2010; Salonga-Reyes & Scott, 2017). For example, a study conducted in London at Chelsea and Westminster Hospital reported that 40 inpatients experienced PDS in medical and surgical wards because social workers untimely reviewed the case since few were trained (Hendy et al., 2012) and inadequate hospital social workers' staffing (Galati, Wong, Morra, & Wu, 2011). Although Indian hospitals designated funds and linked PDS inpatients to NGOs for post discharge relocation, unknown inpatients suffered from PDS as the process was underway (Arora et al., 2017). These studies focused on varied institutional factors in different contexts, thus there was the need to assess how institutional factors influence the occurrence of PDS in the African context.

PDS has been reported in numerous parts of Sub-Saharan African countries including Burundi (Devakumar & Yates, 2016), Ghana (Grusky, 2002), Cameroon (Niba, 2012) Zimbabwe (Chibamu, 2016). However, these reports linked user fees to the causes of PDS. For example, Wekesa (2016) in Ugandan Daily Monitor revealed that PDS inpatients prolonged their stay in the hospital for more than a week over bills in the International Hospital of Kampala (IHK). Other than user fees, two findings by (Mumba, 2017) and (Phiri, 2018) postulate that inpatients in Zambia have been suffering from PDS because of being left in the hospital by their relatives due to the nature of the illness. In addition, a study in Nigeria revealed that women with Vesico Vaginal Fistula (VVF) suffered from PDS due to the condition (Nsemo, 2014).

In Kenya, PDS cases in referral hospitals are widespread (Kajilwa, 2017; Young, 2017). For instance, Karongo (2011) reported that inpatients stayed longer in Kenyatta National Hospital (KNH) upon their medical discharge because of their inability to pay medical bills. Literature indicates that, before the free maternal health care policy was decreed, inpatients in Pumwani Hospital, KNH, and other public hospitals experienced PDS due to their inability to pay medical bills (Grusky, 2002; Ogangah, Slattery, &Mehta, 2007; Sanders, 2009) and the bill would keep on increasing (Mostert et al., 2015; Rice, 2009). With the decree of free maternal health care which came into effect on 1st June 2013, it was expected that PDS would reduce (Kenyatta, 2013). However, emerging reports illustrate that cases of PDS persist (Oketch, 2020a; Muchangi & Agutu, 2019). For instance, Oketch (2020b) reveals that 20 women who went to deliver at KNH experienced PDS for more than six months due to failure to clear the medical bill, yet there was free maternal health care. Although it had been assumed that economic factors lead to PDS, reports indicated that 22 of 258 released PDS inpatients from KNH could not exit the health facility immediately (Saya, 2019). Moreover, Meru District Hospital expressed concern over the increasing number of elderly PDS inpatients left and neglected in the hospital by their families (Murithi, 2012). A report in Kenyan Daily Nation further revealed that 32 mental patients suffered from PDS in Gilgil Sub-County Hospital for ten years due to the stigma associated with psychiatric conditions (Mwangi, 2016). Maina (2014) established that some of the determinants of PDS in Kenya include medical insurance status and lack of social support for PDS inpatients. However, the study was restricted to medical, orthopedic, and pediatric wards and was done only in one health facility (KNH) thereby hindering the generalization of the findings.

Kisumu is one of the counties in Kenya with relatively higher levels of unemployment and poverty (KIPPRA, 2020). Due to the high poverty level of 46%, inpatients in Kisumu County referral hospitals are faced with the inability to pay medical bills (JOOTRH, 2016). Poverty

levels are exacerbated by communicable diseases such as malaria, HIV/AIDS, and tuberculosis are among the factors that made Kisumu County chosen as a UHC pilot study site (Ogutu, 2018). Jaramogi Oginga Odinga Teaching and Referral Hospital (JOOTRH) and Kisumu County Referral Hospital (KCRH) are the two major referral hospitals in Kisumu County (Oketch, 2016). Inyanji and Lungai (2016) argue that these key referral hospitals in Kisumu County are in deplorable conditions due to congestion which causes bed shortages. This is partly due to inpatients that have been medically discharged but could not leave the hospital.

Findings and reports show that cases of PDS in Kisumu County referral hospitals have been in existence due to unsettled medical bills (Inyanji & Lungai, 2016; Omollo, 2013) which forced JOOTRH to grant waivers of more than 11% of the user charges thus weakening its financial position (JOOTRH, 2016). Oudia (2018) reported in Kenyan Daily Nation that inpatients suffered PDS due to unpaid medical bills and they were found sleeping on the floor along the corridor of the Male surgical ward of JOOTRH. With the launch of the UHC pilot study in the county with effect from 13th December 2018, it was expected that cases of PDS would decrease. However, unpublished reports from JOORTH and KCRH show that cases of PDS persisted, yet its predictors were unclear. Other reports postulate that PDS cases exist due to social issues like lack of fare and delays or lack of family members to pick up PDS inpatients from the hospital (Muyela, 2018). Another report by Odiwuor (2016) revealed that a baby girl of around 4 years with stunted growth was abandoned by her parents at KCRH. Therefore, it was imperative to investigate predictors of PDS in Kisumu County. PDS inpatient's demographic characteristics like the nature of illness influenced PDS in the county with mental illness being the most reported cases and hence lack of social support (Okeyo 2020; Mbenywe, 2018).

Given that it is unethical to chase away PDS inpatient by healthcare workers (Arora et al., 2017), many interventions have been tried to address PDS cases including waiver systems

(Bitrán & Giedion, 2003), free maternal healthcare (Kenyatta, 2013), expansion of NHIF registration to the informal sector (Mange, Mulupi, Barasa & Chuma, 2018), and piloting the feasibility of UHC where Kisumu residents were beneficiaries (Ogutu, 2018). However, untimely and inefficient practice has been reported due to few trained social workers (Hendy et al., 2012). There is also a lack of tangible information for tracing purposes (Mustafa et al., 2016). Although considerable researches have been devoted to PDS as a continuing problem, more attention has been paid to the financial aspect as a predictor rather than the personal characteristics of PDS inpatients, their social circles, and hospital factors. Analyzing other literature, Mostert et al. (2014) argue that PDS is 'unethical, inhuman and must stop'. Owing to this statement, Mostert et al. (2015) advocate and call on professionals to report on PDS in international scientific journals, media, and public venues. Therefore, this study investigated social-demographic and institutional predictors of inpatient post discharge stay in referral hospitals in Kisumu County-Kenya.

1.2 Statement of the problem

Kisumu County has been ranked as one of the counties in Kenya with relatively high levels of unemployment and poverty whose population is faced with the inability to pay medical bills when they seek medical attention in the two major Kisumu County referral facilities. This has resulted in deplorable conditions in those hospital wards due to congestion which causes bed shortages, partly because inpatients had been medically discharged but could not leave the hospital wards immediately (PDS).

Strategies have been put in place to address PDS cases by introducing waiver systems, free maternal healthcare, expanding NHIF registration to the informal sector, and UHC. Despite these efforts, many PDS inpatients continue to remain in the referral hospitals beyond their normal discharge dates, thus occupying beds needed by newly admitted patients, causing a

financial burden and constraining the limited resources in health facilities and posing a health risk to themselves.

Although considerable reports and literature have been devoted to PDS as a continuing problem, more attention has been paid to the financial aspect as a predictor rather than PDS inpatient's demographic characteristics, insufficient social support accorded to PDS inpatients, and institutional processes of the referral hospitals that bar immediate exit of the hospital wards by inpatients once they are medically discharged. The existing literature and reports are contradicting and the predictors of PDS are unclear. Therefore, the purpose of this study was to investigate the social-demographic and institutional predictors of prolonged stay of inpatients upon medical discharge in referral hospitals in Kisumu County, Kenya.

1.3 Research Questions

1. What is the influence of PDS inpatients' demographic characteristics on PDS in Kisumu County referral hospitals?
2. How does social support influence PDS in Kisumu County referral hospitals?
3. What is the influence of institutional factors on PDS in Kisumu County referral hospitals?

1.4 Objectives of the Study

1.4.1 General objective:

The main objective of this study was to investigate the socio-demographic and institutional predictors of inpatients' post discharge stay in referral hospitals in Kisumu County.

1.4.2 Specific Objectives:

1. To determine the influence of PDS inpatients' demographic characteristics on PDS in Kisumu County referral hospitals.
2. To establish the influence of social support on PDS in Kisumu County referral hospitals.
3. To assess the influence of institutional factors on PDS in Kisumu County referral hospitals.

1.5 Significance of the Study

The study set out to improve the understanding of the social-demographic and institutional predictors of PDS in referral hospitals which was important in finding a solution to the problem. Understanding inpatients' demographic characteristics, social support, and institutional predictors of PDS enable hospital managers, healthcare providers, and other stakeholders to formulate policies aimed at reducing PDS. As much as UHC policy 2020-2030 (MOH, 2020) and free maternal healthcare policies are in place, they aim at ensuring that all Kenyans access and receive essential quality health services without suffering financial hardship rather than reducing PDS cases. The study will therefore inform the policymakers about the creation of policies that enables PDS inpatients to exit health facilities immediately after they are medically discharged without psychological constraints. Lastly, academicians and scholars will find this study valuable in enriching their knowledge of PDS. It will also provide information that may contribute to further research.

1.6 Scope and Limitations of the Study

The study investigated the socio-demographic and institutional predictors of post discharge stay of inpatients admitted at Jaramogi Oginga Odinga Teaching and Referral Hospital (JOOTRH) and Kisumu County Referral Hospital (KCRH). Further, The study focused on the personal characteristics of the PDS inpatients which were limited to age, gender, marital status, nature of the illness, religion, educational level, and employment status. In addition, the study focused on the social support system of the PDS inpatients which described the living arrangement, who brought inpatients to the hospital, visitation, and aids they received during their hospitalization and destination upon exiting the hospital. Finally, the study focused on institutional predictors of PDS which included medical discharge processes, and delays in paper clearance, tracing, and repatriation of destitute PDS inpatients. The target population included inpatients who had been medically discharged but still stayed within pediatrics,

surgical, medical, psychiatric, maternity, and gynecological wards. The study also targeted the key informants who were conversant with PDS and PDS inpatients for in-depth interviews.

1.7 Theoretical Framework of the Study

This study anchored the understanding of themes of PDS on the social-ecological model (SEM) by McLeroy, Bibeau, Steckler, and Glanz (1988). This model emerged from ecological systems theory by Bronfenbrenner (1979) which particularly aimed at examining transactions between people and their social environments. McLaren and Hawe (2005) defined the ecological perspective as a conceptual framework designed to draw attention to individual and environmental determinants of behavior. SEM is a theory-based framework for understanding, exploring, and addressing the social determinants of health at multiple levels (McLeroy et al., 1988). McLeroy et al. (1988) outlined general layers of behavior influences as individual factors, interpersonal processes, institutional factors, community factors, and public policy. According to this model, the principle of reciprocal causation is upheld. This means that behavior affects and is affected by multiple levels of influence (individual behaviors shape, and are shaped by the social environment). These levels are also nested, interrelated, and interactive (UNICEF, 2016), which implies that one layer directly affects the other. Over decades, SEM has evolved and its application has increased in the fields of sociology, psychology, education, and health (Alghzawi & Ghanem, 2021).

Adapted from McLeroy, Bibeau, Steckler and Glanz, (1988)

In this study, PDS was considered to be embedded within complex and intricate factors that emanate from a wide variety of individual, interpersonal and institutional factors. The first level of the model identifies intrapersonal factors or characteristics of the inpatients that increase their likelihood of becoming victims of PDS. Such factors include an individual's age, gender, marital status, nature of the illness, religion, and educational and employment levels. According to the Centers for Disease Control and Prevention (2015) and UNICEF (2016), while applying this theory to health promotion programs at an individual level, biological and personal history factors like gender, age, and religious identity were identified as predictors of health outcome. PDS is considered a marker of poor health outcomes (Rojas-García et al., 2018) as it has resulted in bed blocking, morbidity, mortality, and in-hospital infection (Hendy et al., 2012; Rosman et al., 2015; Arora et al., 2017).

The second layer appreciates the interpersonal processes such as formal and informal social networks and social support systems, including family, workgroup, and friendship networks (McLeroy et al., 1988). According to Hlebec et al. (2009), social support are function performed for a distressed individual (victim of PDS) by family members, friends, co-workers, relatives, and neighbors. Generally, people with weak social networks get little social support (Cohen, 2004). People in distress require either instrumental, informational, emotional, and/or appraisal social support (Nurullah, 2012). According to this study, therefore, social support variables entails living arrangement, who accompanied the PDS inpatients to the facility, aid from relatives and friends and visitation during hospitalization and finally the destination upon medical discharge. Before admission to the hospital, inpatients originate from 'somewhere' which, in this context is a 'living arrangement' which includes 'own residence', 'own home', 'residential home', 'nursing home' and 'sheltered accommodation' (Jasinarachchi et. al., 2009).

The third layer represents the institutional factors including social institutions and organizational characteristics, formal and informal rules, and regulations for operation (McLeroy et al., 1988). PDS is understood in this study to arise from reasons related to the internal processes of the hospitals (Asghar Ghods et al., 2015; Silva et al., 2014). Such processes include the requirement of additional resources like placement into nursing homes (Majeed et al., 2012), waiting for the decision about social service funding (Bryan, 2010), and untimely social work review owing to inadequate numbers of trained social workers (Hendy et al., 2012). In tandem, this study considered the discharge information, waiting for discharge clearance, tracing of relatives of PDS inpatients to come for them, repatriation of PDS inpatients, and request for PDS as the institutional predictors of PDS.

Many health professionals have applied the SEM in many studies globally mainly to design interventions at multifaceted levels (holistic approach). For example, the US Department of Health and Human Services (2017) used it to improve eating and physical activity behaviors. It was also applied to predict physical activity behavior among Nigerian University students (Essiet, Baharom, Shahar, & Uzochukwu, 2017) and to study violence against women with disabilities (Terry, 2014). Despite the many positive aspects of this social-ecological model, there are some weaknesses associated with it. Since the levels overlap, interventions are thus provided at once to all multifaceted stages, which can be costly. In addition, an intervention at one level can also conflict with an intervention at another level.

This theory was applicable in this study as it enhanced the understanding of the predictors of PDS holistically intending to provide interventions directed at changing intrapersonal, interpersonal, and organizational predictors of PDS. The model was also useful as it assumed that appropriate changes in the social environment would produce changes in inpatients, thereby stopping cases of PDS in referral health facilities. This study, therefore, sought to investigate the predictors of PDS at multiple levels from the perspective of the inpatients, their social cycles, and the operational systems of the selected hospitals.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews reports and studies that had been done concerning PDS. The chapter begins by presenting an overview of the PDS globally. The literature was further reviewed in line with the objectives of the study including the demographic characteristics, social support, and institutional predictors of PDS. The review was geared towards exposing the knowledge gaps in the literature thereby forming the basis of this study.

2.2 Overview of Post Discharge Stay (PDS)

Post-Discharge Stay (PDS) is a worldwide healthcare systems' problem since inpatients prolong their stay in health facilities for days, weeks, months and in some cases years upon their medical discharge (Kippenberg, 2006; Maina, 2014; Devakumar & Yates, 2016). A retrospective study in Israel targeting the elderly at Sheba Medical Center in the internal medicine department revealed that 104 inpatients unnecessarily prolonged their stay for a mean of 20.47 days (Rosman et al., 2015). Another study revealed that 621 inpatients prolonged their stay at Prince Régent Charles Hospital in Burundi in the year 2005 due to non-payment of medical bills, and additional days would mean more medical bills (Kippenberg et al., 2007). Moreover, 40 inpatients prolonged their stay at Tema General Hospital in Ghana for four months (Grusky, 2002). In 2019, KNH had 300 PDS inpatients that were released-allowed to go home without paying the hospital bills. However, 22 could not leave the hospital due to social issues ((Muchangi, & Agutu, 2019; Saya, 2019). Maina (2014) investigated the determinants of PDS in KNH and found that inpatients prolonged their stay in the hospital for an average of 33 days. Another report revealed that 32 mental inpatients suffered PDS for ten years at Gilgil Sub-County Hospital-Kenya (Mwangi, 2016). A more recent report revealed that a psychiatric patient had prolonged his stay at KCRH for 23 years due to stigma related to his illness (Mbenywe, 2018) yet according to Castro (2008), its magnitude is unknown.

PDS has escalating consequences for the hospital management, the patients, and their families (Arora et al., 2017). Studies have confirmed that PDS can result in the death of PDS inpatients (Jasinarachchi et al., 2009; Rosman et al. 2015; Rojas-García et al., 2018), it is associated with congestion, increased risk of healthcare-associated infection, unnecessary use of hospital resources, and posed ethical challenges (Arora et al., 2017), PDS disrupts patient flow hence bed blocking (Toh et al., 2017), and extra days spent in hospital wards after patients are discharged resulted in more medical bills (Devakumar & Yates, 2016). Once the chronically ill patients exit the facility, families' fear of PDS prevented or delays conventional medical help-seeking, and encouraged non-adherence to curative treatment and avoidable death often resulted further (Mostert et al., 2014; Mostert et al., 2015). Ogangah et al. (2007) assert that the severity of PDS: ' PDS inpatients are forced to sleep on the floor or share a bed with others, are underfed, and suffer verbal abuse from the staff'. Oudia (2018) reported in the Kenyan Daily Nation that PDS inpatients suffered PDS due to unpaid medical bills and were found sleeping on the floor along the corridor of the male surgical ward of JOOTRH. The practice was detrimental to the health of the PDS inpatients.

Before the introduction of Universal Health Coverage on a pilot basis in four counties (Kisumu, Isiolo, Machakos, and Nyeri) (Kahongeh, 2018), PDS was generally used 'to pressure the inpatients' relatives to pay bills and also to determine whether or not a patient was really poor enough to qualify for waiver' (Ogangah et al., 2007). Analyzing other literature, Mostert et al. (2014) argue that PDS is 'unethical, inhuman and must stop'. Owing to this statement, Mostert et al. (2015) advocate and call on professionals to report on PDS in international scientific journals, media, and public venues. Although WHO has issued numerous health recommendations (WHO, 2013; WHO, 2015; WHO, 2017), the agency has paid little attention to PDS. In addition, studies and media reports on PDS have focused on non-payment of hospital

bills as the main cause of PDS (Bitran & Giedion, 2003; Dupas, 2011; Grusky, 2002; Khun & Manderson, 2008; Shahrawat, & Rao 2011) instead of other factors related to inpatients' characteristics, insufficient social support and institutional predictors which this study sought to investigate.

2.3 PDS inpatients' demographic characteristics and PDS

Demographic characteristics describe the population under any study. Following the framework of the social-ecological model, this study examined unique demographic factors that influence PDS. Researchers have found that inpatients' demographic characteristics including age, gender, marital status, nature of the illness, and racial/ethnic identity, religion, income, education, home ownership, family size, health, disability status, and psychiatric diagnosis are individual factors that contribute to PDS (Jasinarachchi et al., 2009; Salkind, 2010; Hendy et al., 2012; Toh et al., 2017).

There is no standard definition of old age. However, the World Health Organization has adopted 65 years as the commonly accepted age but put a cut-off somewhere between 50 and 55 years old in Africa (World Health Organization, 2012). Globally, the population of the elderly is rapidly growing (Hendy et al., 2012). Victor et al. (2000) argued that the elderly of 65 years and above were the major consumers of health care services, especially acute hospital beds. According to Lim et al. (2006), the elderly suffer from PDS due to sepsis, deconditioning, social issues, and cardiovascular disorders. They would then prolong their stay in the ward upon medical discharge as their relocation to social care is strategized. For example, an Australian prospective study indicates that the elderly and chronically sick inpatients admitted to general wards (surgical and medical) suffered from PDS as they were waiting for alternative social care (Ou et al., 2009). Benson, Drew and Galland (2006) analyzed PDS inpatients who were unable to leave the surgical ward of Royal Berkshire Hospital-England despite being medically discharged. Of 75 PDS inpatients found, 9 (12%) who were elderly of a mean age of

75 years suffered PDS for a median of 41 days. Of the 9 PDS inpatients 6, were women. Although the study was focused on predictors of PDS inpatients' demographic factors, it targeted only inpatients admitted to surgical wards. Another study done in three English hospitals by Victor et al. (2000) revealed that age especially among the elderly was not associated with PDS. Nath et al. (2015) had contrary findings. They postulate that young inpatients, mainly males of age groups 16-20 (67%), experienced PDS due to their unknown identity on discharge. According to Silva et al. (2014), there is no association between patients' age and PDS. A Kenyan study reported that younger inpatients aged 21-40 years (65.1%) were victims of PDS (Maina, 2014). While researchers have considered the age of inpatients as an important factor that contributes to PDS in different settings, it is not clear which age cohorts are predictors of PDS and whether age has any association with PDS or not.

Studies, where information on the gender of PDS inpatients was collected, found that inpatients who suffered from PDS were female (Thomas et al., 2005; Rambani & Okafor, 2008). For example, 150 elderly PDS inpatients overstayed in Singapore at Changi General Hospital for more than 28 days while 55.5% of them were female (Lim et al., 2006). A study conducted in two large public teaching hospitals in Brazil showed that 58.0% of PDS inpatients were female while 42.0% were male (Silva et al., 2014). However, the study targeted PDS inpatients in internal medicine wards, and the reasons for PDS were not directly associated with gender but rather hospital-related processes. Canadian-based research revealed that males in the psychiatric ward were 1.4 times more likely to experience PDS than females (Little et al., 2019). Reports and studies from Sub- Saharan African countries reveal that women and their babies suffer more from PDS due to non-payment of medical bills (Kippenberg 2006; Ogangah et al., 2007; Yates, Brookes, & Whitaker, 2017). In Kenya, for example, 6 women from Bungoma County experienced PDS in Lugulu Hospital due to non-payment of medical fees while in another facility in Nairobi, 12 suffered PDS. Among them was a young boy who was

to sit the Kenya Certificate of Secondary Education Examination (KCSE) (Minayo, & Odallo, 2019).

PDS inpatients often belong to vulnerable groups like orphans, widows, and single mothers (Kippenberg, 2006). According to the study by Little et al. (2019) being married was associated with a 29% decrease in PDS episodes. This is because the married are to gain social support from their spouses. Bai, Dai, Srivastava, Smith, & Gill (2019) contend that female PDS inpatients are more likely to be widowed and consequently experience PDS. A study by Maina (2014) found that the majority of PDS victims 75 (40.3%) were married, followed by the single 54 (29 %) while 29 (15.6%) were separated from their spouses or divorced while 28 (15.1%) were widowed. The previous studies, therefore, had contradictory findings.

Wilder Research conducted a study in 31 hospitals throughout Maryland, within medical, surgical, and psychiatric wards and the finding was that 63% of PDS inpatients were admitted to psychiatric units (Dillon and Thomsen, 2019). According to Little et al. (2019) PDS inpatients from psychiatric units in Ontario, Canada never experienced PDS due to their mental condition, probably because they carried out a retrospective cohort study without collecting data from patients and hospital staff concerning PDS. Researchers have found that patients admitted without an identity 'the unknown' suffer from PDS due to dementia (Nath et al., 2015; Toh et al., 2017). Such patients are admitted to the hospital surgical wards after sustaining head injuries as a result of a road traffic accident (RTA). In India, a total of 3 unknown inpatients at the time of admission prolonged their stay at the Level-I Trauma Center (Nath et al., 2015) while 21unknown or unaccompanied patients stayed for a longer duration both pre-and post discharge in a Tertiary Care Hospital in Chandigarh, India (Arora et al., 2017; Shijith & Sekher, 2013). Children face unnecessary PDS. Different researchers attribute the predictors of PDS in children to maltreatment and abuse as searches for safe and appropriate placement take a

long (Lee et al., 2017) and medical complexity as PDS children await home health care availability (Maynard et al., 2019). However, studies were done prospectively.

Patients with postoperative complications require rehabilitation services as their nature of illness contributes to PDS. For example, an English study of inpatients who underwent total hip/knee replacements revealed that rehabilitation factors contributed to the PDS of 66 of the 110 inpatients while the remaining had postoperative complications (Williams, 2010). According to a report by Kippenberg (2006), many inpatients who experienced PDS in Burundian hospitals went through surgery following an accident, while others suffered chronic diseases, including HIV/AIDS.

Those inpatients who undergo surgery and amputation though declared medically fit suffer from PDS since they require additional support (Houghton et al., 2016). Stigmatizing ailments like Vesico Vaginal Fistula (VVF) resulted in PDS in Nigerian hospitals (Nsemo, 2014) but data was collected during admission. A report in Kenya revealed that the nature of illness results in a prolonged stay in the hospital and the most affected inpatients included HIV-positive patients, and inpatients suffering from TB, cancer, kidney diseases, and mental illness (Sanders, 2009; Okeyo 2020).

Religion is a construct that impacts people daily since it has a specific faith and the rules established by it. Globally, there are diverse religions. The most common ones include Buddhism, Christianity, Islam, Judaism, and Hinduism (Rumun, 2014). In Kenya, the most dominant religion is Christianity, followed by Islam, Hinduism, and indigenous beliefs which vary by ethnic group, and each has its own stories of origin, set of practices, and superstitions (Scroope, 2018). According to Adams and Leverlands (1986), religion is defined in communal terms ‘characterized by institutionalized practices and beliefs, membership and modes of organization’. The ‘communal term’ means that ‘religion has the benefit of empowering the individual through connecting him/her to a community, and a superior force, that might, in

turn, give psychological stability' (Basu-Zharku, 2001). Scholars of religion concerning health contend that one of the prominent pathways in which religion influences health is social support (Strawbridge, Shema, Cohen & Kaplan, 2001; Oman & Thorensen, 2002). This implies that religious people can experience social contact with fellow believers and have a web of social relations that can help and protect them whenever there is a need. Saad and Medeiros, (2016) argue that PDS inpatients are more vulnerable since they are away from their pillars of faith, such as community resources and daily rituals.

The religious belief system of an inpatient can affect their decision-making regarding health behavior like leaving the hospital immediately after they are medically discharged, coping with a terminal illness, and having a strong social support system. For example, an Iranian study by Zand and Rafiei (2011) found that the anxiety caused by the separation of individual religious orders negatively affects inpatients' PDS thus causing adverse psychological effects on them. According to Huang, Hsu, and Chen (2011), religious participation and involvement lower the level of depression, and anxiety and improve general well-being than non-religious ones. Alameda County study by Strawbridge et al. (2001) suggests that regular (weekly) religious attendance is more likely to both improve poor health behaviors and maintain good ones than those whose attendance was less or none. The results of the study further demonstrated that weekly attendance was also associated with improving and maintaining good mental health, increased social relationships, and marital stability. A similar study concluded that 'participation in and affiliation with a religious community is associated with lower use of hospital services, especially by elderly adults' (Boudreaux, O'Hea & Chasuk, 2002). However, the study had not associated religious affiliation, participation, and involvement with PDS.

The level of educational attainment is positively correlated with the ability to secure employment and earn better income thereby enhancing the ability to withstand health shock

(Russell, 2005). According to a Kenya study by Maina (2014) majority of the PDS, inpatients were of primary school level of education 114 (61.3%), while 52 (28%) had attained secondary school level and 11 (5.9%) had gone up to college and above while 4.8% had no education. Many developing countries expanded the uptake of social health insurance to the informal sector (Carrin et al., 2001; Scheil-Adlung et al., 2006). However, the effort faced challenges.

A report by World Health Organization (2005) revealed that people working in the formal sector are well organized and better off than their counterparts as they can afford to pay the medical bill using an insurance scheme as their income is directly taxed towards the scheme. According to the Palestinian Bureau of Statistics reported in 2011, two-thirds of young disabled Gazans are illiterate and some 40 percent were uneducated. Over 90 percent of the disabled were unemployed hence leading to probable cases of post discharge stay in the hospital (Hadid, 2013). A Nigerian cross-sectional descriptive survey carried out among market women revealed that people's educational status influences the awareness level about the availability of SHI. Consequently, people with post-primary education had 10 times the odds of being aware of the SHI than people with no education or only primary education (Adewole, Akanbi, Osungbade & Bello, 2017). One of the specific objectives of this study was therefore to determine how demographic characteristics influence the PDS of inpatients admitted to Kisumu referral hospitals-Kenya.

2.4 Social Support and PDS

According to SEM, the interpersonal level describes the social relations and networks that individuals have. Such social networks include friends, family, and coworkers (McLeroy, et al.,1988). Previous studies have different findings regarding social reasons that predict PDS. Such reasons include the family's inability to offer post discharge care to their PDS patients, the impossibility of combining that care with their working life, and the lack of family or social support networks (Mendoza et al., 2012).

Patients are admitted into the facility from different places. They can either originate from a retirement home (Bai et al., 2019) or a referral from a lower-tier facility (Nath et al., 2011). Patients are accompanied to the health facilities by different people. Arora et al., (2017) contended that some are admitted as unknown and unaccompanied. According to Nath et al. (2011), such patients are brought either by police or good Samaritans or are transferred. For instance, an Indian study shows that unknown patients were admitted by police 83.4% (n = 126), 6% (n = 9) were brought by the public, and 6.6% (n = 10) by ambulance staff and they suffered PDS because they lacked personal, family or any identifications details (Umesh et al., 2017). A retrospective observational study in an English NHS teaching hospital revealed that living alone (OR=1.98, 95% CI: 1.40-2.81) was one of the independent risk factors for PDS (Romero-Ortuno, Moore & Hartley, 2018).

Studies have shown that social factors such as social isolation- lack of visitation by social relations during hospitalization (Little et al., 2019) and caregiver stress (Toh et al., 2017) are positively associated with PDS. According to Victor, Healy, Thomas and Seargeant (2000) and Landeiro, Leal & Gray (2016) social isolation of inpatients was associated with PDS and had a detrimental effect on such inpatients' health and well-being. They contend that families and friends are important for providing post-hospital care and maintaining PDS inpatients in the community. However, family members whose relatives were chronically ill feared that their patients' health would decline and they would face difficulties in attending to them at home thus they would prefer to abandon them in the hospital (Silva et al., 2014; Rosman et al., 2015). For instance, some PDS inpatients in Singapore wanted to go home, but caregivers felt completely overwhelmed by their needs (Toh et al., 2017) hence their abandonment in hospital wards.

Another study in London by Rambani and Okafor (2008) found that 33(66%) inpatients out of 50 PDS cases, suffered PDS due to social issues. Such social issues include but are not limited

to a lack of identified caregivers and waiting for helper/family members to come to pick up their relatives from the hospital (Lim et al., 2006). Dillon and Thomsen (2019) contend that the family's inability to pick up their inpatients, inpatients' refusal of placement, and lack of housing all contribute to PDS. However, the study tracked inpatients for 100 days from the day of admission to discharge. This was a limitation because the reason for PDS would vary from time to time. Therefore, this study was done cross-sectionally thus predictors of PDS were found the way they were at the time of the study.

A study in Italy further reported that lack of housing and community support were the most frequently cited reasons for PDS rather than financial difficulties (Gigantesco et al., 2009). It was reported in a Zambian Daily in 2017 that cases of PDS resulted due to stigmatizing mental illness (Phiri, 2018; Mumba, 2017). Moreover, Nigerian women experienced abandonment, stigmatization, and social isolation by their husbands and relatives because they had VVF (Nsemo, 2014). However, data was collected from 10 women on admission waiting for repair surgery; hence the findings depicted how they were likely to be rejected by their relatives upon medical discharge.

According to the Kenya Human Rights Report of 2011, the mental health sector has greatly been affected since psychiatric patients are neglected and abandoned in health facilities by family, relatives, and the community (KNCHR, 2011). In addition, reports on PDS revealed that Meru District Hospital expressed concern over the increasing numbers of elderly patients left and neglected in the hospital by their families (Murithi, 2012). Cases of inpatients being left in health facilities due to their psychiatric conditions have been reported in the Kenyan Daily Nation (Okeyo, 2020). For instance, 32 mental inpatients suffered from PDS in Gilgil Sub-County Hospital for ten years due to the stigma associated with the condition (Mwangi, 2016) but the report had not shown a correlation between social factors and PDS.

Muyela (2018) postulate that PDS results from social issues such as lack of fare and delay or lack of family members to collect PDS inpatients from the hospital. For instance, Mbenywe (2018) reported that patients who were stuck at JOOTRH were those abandoned by family. Another report in the Kenyan local Daily Nation revealed cases of inpatient neglect in KCRH by relatives and families leading to PDS (Okeyo, 2020). Similarly, a baby girl around 4 years old who had stunted growth was abandoned by her parents at KCRH (Odiwuor, 2016). As much as these reports identified a lack of social support from family members and friends of PDS inpatients, they did not show the influence of social support on PDS of inpatients in hospital wards.

Other researchers have presented contrary findings on reasons for the occurrence of PDS. Ou et al. (2009) and Brasel et al. (2002) postulate that the main reasons for PDS are unrelated attributes to individual characteristics but rather to the factors associated with social support from family members. However, different scholars describe social support differently. According to Williams (2005), social support is a "positive assessment of interaction", or "functions performed for a distressed individual" by family members, friends, co-workers, relatives, and neighbors (Hlebec et al., 2009). They are types of assistance that people receive from and offer to others (Orlowski, 2015) to enable them able to cope with stress (Cohen, 2004). Social ecologists, McLeroy et al. (1988) and Bronfenbrenner (1979) contend that social support emerges from social settings where individuals interact and network with others such as homes, schools, workplaces, and neighborhoods, in which social relationships occur. According to Kippenberg (2006), PDS inpatients lack social support from family or larger networks.

Social support is categorized as instrumental, informational, emotional, and appraisal (Nurullah, 2012). Instrumental support involves the provision of tangible material aid and they

include aid in kind, money, or labour. According to Cohen (2001), informational support is "the provision of relevant information intended to help the individual cope with current difficulties and typically takes the form of advice or guidance in dealing with one's problems". Emotional support "involves the expression of empathy, caring, reassurance, and trust and provides opportunities for emotional expression and venting" (Cohen, 2001).

Appraisal support relates to helping in decision-making, giving appropriate feedback, or helping to decide which course of action to take (Nurullah, 2012). A Spanish study by Mendoza et al. (2012) concluded that the main causes of PDS were related to social-familial problems as family members are 'overloaded' with post discharge caring for the patients combined with the 'family's working life' and 'lack of family or social support network'. As much as these studies identified these types of social support, this study aims to find out if PDS results from lack of social support.

Unclear destination upon medical discharge of inpatients was a social issue that has been associated with PDS (Rosman et al., 2015; Toh et al., 2017). Bai et al. (2019) reiterate that PDS inpatients were designated alternate levels of care (ALC) including 'alternate disposition or living arrangements'. USA and England initiated nursing and community facilities models including a nursing home, residential home, or hospice to discharge PDS inpatients aged 65 and above to reduce cases of PDS (Jarman, Aylin & Bottle, 2004). Holt et al. (2010) subdivided destinations into 'home, to ongoing care, to any other destination'. Previous studies in Western counties revealed that PDS inpatients were designated 'assisted-living, long-term care or nursing homes' (Cressman et al., 2013; McCloskey, 2015; Everall et al., 2019). However, cases of PDS were still common. PDS inpatients are supposed to be accorded the necessary care, support, and accommodation arrangements in the community. However, PDS occurs when the destination is not readily accessible and/or funding is not available, for example, to purchase a care home place. According to USA based retrospective study by Sorensen et al. (2020)

targeting elderly PDS inpatients with traumatic brain injury, discharge destination was positively correlated to PDS and those discharged to nursing or intermediate care facilities were the most likely to have PDS compared to those medically discharged to go home. According to Walthall, Dolan & Jackson (2019), PDS inpatients were 'trapped' in the hospital because they had nowhere to go or no social support to help them, but the study was on the increasingly frailed elderly.

2.5 Institutional Factors and PDS

Institutional factors of PDS entail the organizational level of SEM which is deeply rooted in the hospital system-oriented delays. Following the SEM model, those factors include rules and regulations (McLeroy et al., 1988) that predict the likelihood of the occurrence of PDS. Many national policies for public hospitals dictate that patients be retained in hospital wards until their hospital bills are paid (Mostert et al., 2015). Each additional day for PDS adds to their bills, increasingly hindering families' ability to obtain patients' release (Grusky, 2002; Devakumar and Yates 2016). However, apart from bills, the process of discharging patients could also be too long thereby causing unnecessary delays, yet studies are yet to report on it.

When the health care team has declared that a patient is medically discharged, depending on medical, functional, and social aspects discharged patients go either to their homes or to another care facility (Alper et al., 2017), a decision-making process that must be taken into account (Kane, 2011). For those to be discharged to another care facility, system-related PDS occurs as a result of the lack of vacant beds at those nursing facilities (Ou et al., 2009; Rojas-García et al., 2018; Thomas et al., 2005) and the long processes involved in securing those beds (Bryan, 2010; Dillon & Thomsen, 2019). A Singaporean study found that organizational processes accounted for 30 (17.4%) PDS cases. Such processes included awaiting nursing home placement 20(66.7%), awaiting investigation 8(26.7%) awaiting care equipment, and home modification 2(6.7%) (Tan, Chong, Chua, Heng, & Chan, 2010). For instance, the elderly

prolonged their stay in Ysbyty Gwynedd Hospital, Bangor, UK since they required additional resources (Majeed et al., 2012). Another study in the UK demonstrated that 37 inpatients suffered PSD for 41 days when still waiting for the decision about social service funding (Bryan, 2010) but PDS is particularly associated with older people whose needs are complex. In addition, a notable limitation of PDS literature is the failure to include the PDS inpatients' and healthcare workers' perspectives.

Approximately three-quarters of medically discharged patients can return to their homes with help from family or other caregivers (Alper et al., 2017). However, in many cases, PDS inpatients are deserted inside hospital wards by their families (Benson et al., 2006; Murithi, 2012; Challis et al., 2014) requiring repatriation to ensure safe patient transfer (Monik, 2007). The hospital case manager should therefore be involved as soon as it is clear that the patient will require services at home or transfer to an alternative level of care (Alper et al., 2017). This will hasten the discharge planning process. According to Human Rights Watch PDS violates international human rights, including the right against PDS (Kippenberg, 2006). For example, the International Covenant on Civil and Political Rights state that 'no person shall be detained arbitrarily, every person has the right to liberty and security of person, no person shall be detained for non-payment of a debt, and that no person shall be imprisoned under unworthy inhumane conditions'(Nowak, 1993).

PDS further violates the International Covenant on Economic, Social and Cultural Rights which acknowledges the right of every person to social security, including social insurance, to protect people who cannot pay for required medical treatment (Saul, Kinley, & Mowbray, 2014). Despite its illegality and clear human rights' decrees against it, cases of PDS never miss in health facilities (Yates et al., 2017; Young, 2017). Despite the negative administrative factors, a study in the UK by Hendy et al. (2012) revealed that some inpatients were comfortable in the health facility. They thus preferred staying longer hence PDS. For instance,

a study in Singapore found 76 (44.2%) of inpatients had PDS for their family members who requested additional days after medical discharge (Tan et al., 2010). However, these studies have not focused on safety within the home environment, which may make patients request a prolonged stay in health facilities.

Mostert et al. (2014) assert that PDS occurs as a result of 'mismanagement, corruption, dysfunctional healthcare system structures, inadequate health insurance coverage, and unfair waiver procedures, warranting attention'. Episodes of PDS are often illegal and denied by governments (Handayani, 2020) yet reviewed pieces of the literature demonstrate that the cause of PDS is deeply rooted in inadequate governance systems and hospital system-related delays (Yates et al., 2017; Soh & O'Connor, 2019). PDS can be reduced through interventions at the time of hospital discharge (Greenwald, Denham, & Jack, 2007), the discharge before noon' initiative, discharge facilitation tools, and the development of discharge delay tracking – mechanisms (Micallef et al., 2020). Arora et al. (2017) state that hospitals in India assisted PDS inpatients through designated funds for consumables and connecting them with NGOs for other requirements like post discharge relocation. Despite the effort, the unknown inpatients on discharge suffered PDS while the logistics were underway. Such logistics were associated with untimely social work reviews arising from inadequate numbers of trained social workers (Hendy et al., 2012) and inadequate staffing of hospital social workers (Galati et al., 2011). Mustafa et al. (2016) argue that administrative processes should aim at 'timely discharge of inpatients experiencing delayed discharge urgently and efficiently' but inpatients continue to experience PDS and literature on stringent rules on logistics for repatriation of discharged patients remain scanty, thus the study.

Medical discharge planning is a complex process in many health systems. It aims to reduce hospital PDS and improve the coordination of services following discharge from the hospital (Alper et al., 2017). A study by Shepperd et al. (2013) suggests that a structured discharge plan

tailored to the needs of individual patients brings about reductions in PDS. According to seven electronic databases and grey literature reviewed by Everall et al. (2019), lack of engagement in decision-making regarding medical discharge contributes to avoidable PDS. A clear communication process allows patients and caregivers to continually connect with healthcare workers and allow asking of questions and probes on the next step. Thus PDS results from "failure in reassurance by the attending health workers" of the medical discharge (Rosman et al., 2015) leading to inadequate discharge planning (Micallef, Buttigieg, Tomaselli & Garg, 2020). In addition, Victor et al., (2000) categorized institutional issues that predict PDS and the result indicate that PDS results from institutional processes such as 'lengthy assessment procedures', 'uncertainty over who pays for care, and the 'nature of the team assessing people for discharge'. However, the process could also be delayed by lack of involvement of social workers in time to begin a social assessment of the patient's background in preparation for discharge. The early social assessment facilitates timely and efficient tracing and repatriation of PDS inpatients by hospital social workers (Mustafa et al., 2016). Studies mainly talk about a limited number of trained social workers (Hendy et al., 2012; Salonga-Reyes & Scott, 2017) yet they need to be part of the process from the outset on admission to begin the background check.

Hospital social workers play a key role in decreasing PDS episodes (Galati et al., 2011). However, they are often unable to engage in planned interventions with clients over several sessions. Gibbons and Plath (2009) postulate that the work of medical social workers is intense and time-limited. Case management involves building rapport, empathy, non-judgmentalism, practical assistance, and advocacy. A source of admission is an important concept in PDS inpatients. Patients who were admitted from an institution were less likely to have delayed discharges (OR 0.2) with 5.5 fewer days of delay (Landeiro et al., 2016). Patients are either acutely or electively admitted. According to Majeed et al. (2012), 10 (33%) elective vs. 42

(61%) acute patients experienced PDS, and 23 of a total of 39 elderly patients admitted acutely required specialist care of the elderly opinion and placement in community hospitals resulting in PDS of 188 days.

The expansion of NHIF registration to the informal sector has been embraced by many developing countries (Mange et al., 2018). The strategy is aimed at increasing healthcare access and decreasing PDS cases that result from the inability to pay medical bills (Mambo, 2014). However, according to a study in Burundi by Kippenberg (2007), twenty of the inpatients suffered from PDS due to long procedures involved leading to PDS yet they had insurance cards. Brasel et al. (2002) found that PDS inpatients were more likely to be uninsured. Kisumu County Government, through the health department, and with support from NHIF, planned to introduce payment of subsidy for part of its residents, mainly the indigents, and promote the payment of the same by those in the informal and formal sectors but PDS cases were still reported.

It is within the policy that patients must pay all medical bills, such as medical consultations, tests, medicines, supplies, and their PDS in the hospital. For the indigents and the poorest, the hospitals are supposed to waive treatment costs (Bitrán & Giedion, 2003; JOOTRH, 2016) but the waiver process is 'burdensome, demeaning, and dangerous for the health of the inpatients' (Opondo, 2015). According to Ogangah et al. (2007), PDS is generally used 'to pressure the inpatient's relatives to pay bills and also to determine whether or not a patient was really poor enough to qualify for waiver'. PDS cases warrant waivers under unfair waiver procedures which are detrimental to PDS inpatients (Mostert et al., 2014). For instance, to determine whether there should be a waiver, the social worker carries out a social investigation and visits the chief of the area where the recipients of waivers reside to determine whether they are poor. Such investigations are tedious and can take up to one week, leading to episode cases of PDS.

Upon medical discharge, discharged patients have to present a clearance sheet confirming that the bill has been paid, either through cash, social health insurance or waiver. This would be the only way the discharged patient would be able to exit the hospital. However, PDS in patients with the inability to pay medical bills is to wait for long bureaucratic procedures to be duly followed. In other reports (Ogangah, et al., 2007; Opondo, 2015), it has been noted with concern, that the waiver system largely fails because it takes a long time to be requested and be granted, and even worse, in some instances, many patients are unaware that a waiver system exists, and whom to approach, and so they do not initiate the waiver process. This study, therefore, intended to investigate the influence of institutional predictors on PDS.

Conclusively, PDS has been the focus and researchers have devoted their work to studying its predictors emanating from a wide variety of individual, interpersonal and institutional factors. The reviewed literature on PDS has evidenced that PDS is widespread and a worldwide healthcare systems' problem whose magnitude and predictors remain unclear. Therefore, academicians and professionals are called upon to investigate the socio-demographic and institutional predictors of inpatients' post discharge stay at Referral hospitals in Kenya, particularly in Kisumu County, thus the study.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The chapter presents the following different sections: the research design, the study area, the study population, sampling techniques and sample size, data collection techniques and tools, validity and reliability of data collection instruments, methods of data analysis and presentation and the ethical issues that were considered.

3.2 Research Design

This study adopted a correlational cross-sectional study design with both quantitative and qualitative methods of data collection. In this study, the demographic characteristics of PDS inpatients, social support, and institutional predictors were assessed to ascertain their statistical relationship with PDS. In addition, the correlational research design was used to describe, explain and predict how the variables under study influenced the PDS. The design, therefore, enabled the researcher to establish whether and to what degree a relationship existed between variables.

A cross-sectional dimension was useful in obtaining an overall 'picture' of PDS episodes as it was at the time of the study (Kumar, 2011). It was quick and helped to collect vast information in a brief period. The researcher collected and analyzed data, integrated the findings, and drew inferences using both qualitative and quantitative approaches (Tashakkori & Creswell, 2007). The quantitative approach was used to get the numerical data while the qualitative research method produced descriptive data from respondents' own spoken words to understand their views on PDS (Taylor, Bogdan & DeVault, 2015). The mixed approach was useful in the triangulation of data. This increased the credibility and validity of research findings (Cohen, Manion & Morrison, 2002). Data was collected over two months. The first two weeks were used to train the research assistants, carry out a pilot study at SCRH, and clear with the

JOOTRH and KCRH hospital training committees. Four weeks were used to collect quantitative data while the remaining two weeks were utilized to collect qualitative data. The researcher thus obtained information regarding post discharge stay as it was at the time of the study both from the victims of PDS and key informants who were well conversant with PDS cases in the facility.

3.3 Study Area

The study was conducted in Kisumu County, which lies within longitudes 33° 20' E and 35° 20' E and latitudes 0° 20' south, and 0° 50'south. The County is bordered by Homa Bay County to the South, Nandi County to the North East, Kericho County to the East, Vihiga County to the North West, and Siaya County to the West (Kisumu County Integrated Development Plan, 2013/2014-2017/2018). According to the Kenya Economic Report by KIPPRA (2020), Kisumu was one of the counties with a relatively high poverty level due to among other factors, low access to affordable healthcare, and the burden of communicable diseases like HIV and AIDS, malaria and tuberculosis. This made the county chosen as one of the UHC pilot study sites (Ogutu, 2018).

This study was done at JOOTRH and KCRH, the two major referral hospitals in the county (Oketch, 2016). According to a report by Inyanji and Lungai (2016), these key referral hospitals in Kisumu County were in deplorable conditions due to congestion leading to bed shortages. Cases of inpatients sharing beds or sleeping on the floor were common (Oketch, 2016; Mbenywe, 2018). This was partly due to cases of PDS arising from social issues like lack of fare, delay or lack of family members to pick them up from the hospital (Muyela, 2018), and patient abandonment (Mbenywe, 2018). Moreover, the congestion was fueled by referrals from other neighboring county hospitals like Siaya (Ochieng', 2020) and self-referrals due to poor referral systems as walk-in patients bypassed lower-tier health facilities. Therefore, there was a need for the study to be conducted in Kisumu County.

3.4 Study population

The study population comprised inpatients who had been medically discharged from Kisumu county referral hospitals at JOOTRH and KCRH but were still staying within paediatrics, male and female surgical, male and female medical, psychiatric, maternity, and gynaecological wards (PDS inpatients). On average the total number of PDS inpatients in a month was estimated at 200 in both hospitals (JOOTRH =120) and (KCRH=80) (unpublished report, retrieved from JOOTRH and KCRH, 2019). Ten healthcare workers who were well conversant with PDS episodes were included as key informants.

3.5 Sampling Procedure and Sample Size

The sample size of this study was calculated using Yamane's (1967) formula as follows:

$$n = \frac{N}{1 + N(e)^2}$$

n =is the minimum sample size

N = total study population of PDS in a month was estimated at 200 in both hospitals [JOOTRH 120 and KCRH 80]

e = the level of precision set at 5% which is acceptable in social research (Taherdoost, 2016)

$n=\frac{200}{1+200(0.05)^2}$ **=133 respondents**

Table 3.1: Sample size Distribution Frame by Facility

Referral health facilities	Monthly PDS	Sample size proportion	Sample size
JOOTRH	120	120/200*133	80
KCHR	80	80/200*133	53
Total	**200**		**133**

Source: unpublished estimated report on PDS in JOOTRH and KCRH (13th December 2018 to 31st March 2019)

The respondents were stratified as per the wards (7 wards in KCRH and 7 wards in JOOTRH) to ensure that all PDS inpatients in each hospital ward were adequately represented in the study in terms of gender, age and nature of the illness. This technique was preferred over non-probability because it reduced bias that could arise from subjective judgments in sample selection as shown in Table 3.2 below:

Table 3.2:*Sample Size Distribution By Wards (Probability Proportion To Size)*

Hospital	Wards	No. of PDS inpatients	Sample size
		A	B=A/Total monthly PDS*sample size
JOOTRH			
1	Female Surgical	15	10
2	Male Surgical	40	27
3	Gynecological	15	10
4	Pediatric	11	7
5	Maternity	12	8
6	Medical male	14	9
7	Medical female	13	9
	Total	**120**	**80**
KCRH			
1	Maternity	11	7
2	Gynecological	9	6
3	Female medical	10	7
4	Pediatric	7	5
5	Surgical	10	7
6	Medical male	8	5
7	Psychiatric	25	17
	Total	**80**	**53**

Source: unpublished estimated report on PDS in JOOTRH and KCRH (13th December 2018 to 31st March 2019)

A systematic random sampling technique was used where every 2nd case after a random start was selected (Taherdoost, 2016). This technique was adequate because the researcher was unable to access a list of the study population in advance since the study population was not static. The researcher and data collectors, therefore, visited the facilities once a week, (Wednesday -KCRH, and Thursdays-JOOTRH). The weekly visit was informed by the fact that waivers were awarded weekly to PDS inpatients who were unable to pay medical bills. At KCRH, waivers were awarded on Wednesdays while JOOTRH did the same on Thursdays

(unpublished report, retrieved from JOOTRH and KCRH 2019). PDS was categorized as short(<7 days) and long (> 7 days) stay. The researchers approached every 2nd PDS inpatient for questionnaire administration on the day of data collection. The sampling interval was calculated by dividing the population size by the desired sample size.

The formula used was:

$$k = \frac{N}{n}$$

Where;

k = Systematic sampling interval

N = Population size

n = Sample size

For example, the study population was estimated at 200 and the desired sample size was 133, therefore the interval was calculated as:

$$k = \frac{200}{133}$$

$$k = 2$$

On arrival at the various wards, a list of PDS inpatients was obtained from ward in-charges with the help of medical social workers. The list had names of the PDS inpatients and their dates of discharge (DOD) which was randomized. The sampling interval was 2, therefore every 2nd PDS inpatient was picked from the list to be a participant in the study.

For qualitative data collection, the study adopted a non-probability technique to select Key Informants. The researcher purposively selected 10 key informants as follows: 2 Medical Social Workers, 2 Hospital administrators, 1 Health records officer, 1 psychiatric unit in charge, 1male surgical nurse in charge, 1 billing officer, and 2 Nursing Directors (JOOTRH and KCRC staff return report, 2019). The researcher included those healthcare workers in the sample simply because she believed that they were knowledgeable about the subject under study. These key informants accounted for the 2 above-mentioned referral hospitals.

In addition, the study involved 13 PDS inpatients for an in-depth interview. They were purposely selected based on gender (a male and a female), age (middle-aged and elderly), PDS days prolonged (short stay-less than 7 days and a long stay-more than 7 days), nature of the illness (chronically ill and acute ailment), marital status (a single and a married), living arrangement (stay with a family and stay with a friend) and one accompanied by police officers. The main aim of having an in-depth interview with PDS inpatients was to explore their points of view, feelings, and perspectives on PDS deeply, for the researcher to have an insight and understanding of PDS (McGrath, Palmgren & Liljedahl, 2019).

3.6 Data collection techniques/instruments

This study used both quantitative and qualitative methods and instruments of data collection.

3.6.1 Structured Interviews/questionnaires

The researcher and the research assistants used a structured questionnaire that was computerized and administered via Commcare App installed on the phone. It had both open and closed-ended questions to obtain quantitative data from a randomly selected sample of 133 respondents. With the help of 3 trained research assistants, a consent form was read out to the respondents or their caregivers in Dholuo given most of the respondents were conversant with the language. Where consent was obtained, questionnaires were interviewer-administered and the interviews continued until the desired sample size was achieved per ward in both referral hospitals. The study variables included the socio-demographic profile of respondents and facility characteristics like the nature of the illness, age, and gender. Other variables included social support like those who brought them to the hospital whether they were visited during hospitalization, their living situation, and their social networks.

Hospital-system-related factors such as whether they were informed of their medical discharge in good time whether they were still awaiting social review, whether they were more comfortable being in the hospital than being at home and what may have barred them from leaving the facility immediately they were medically discharged. The semi-structured

questionnaire was interviewer-administered since Russell (2006) contends that they are generally flexible in terms of sampling and special observations, given that inpatients have varied issues including the inability to read and/or write. A private room within the ward was used for interviews and the interview lasted 25-30 minutes per interviewee.

3.6.2 Key Informant Interview/key informant schedule

This study conducted a key informant interview using a key informant interview schedule to gather qualitative data from 10 key informants. The researcher used face-to-face interviews to collect data about institutional, social support, and inpatients' demographic characteristics that predict the occurrence of inpatient PDS. The key informants were booked in advance for the interview because they were busy and because the hospital was not fully operational owing to the doctors' and clinicians' strikes. The consent form was read in English and they were allowed to append their signature as confirmation of consent. Questions from the interview guide were read out and the responses were recorded using an audio recorder and the interview lasted 25-30 minutes per interviewee.

3.6.3 In-depth interviews/in-depth interview schedule

The in-depth interviews were used to probe and elicit detailed answers from 13 PDS inpatients and caregivers on socio-demographics such as marital status, nature of the illness, religiosity, education level, employment status, living arrangements before admission, who brought them to the hospital, visitation, and receiving any aid during hospitalization and destination upon hospital discharge. The questions included social reasons and hospital-system-related factors that barred them from leaving the facility immediately after being medically discharged. The responses were recorded using a phone audio recorder which took a maximum of 25-30 minutes per interviewee.

3.7 Reliability and Validity of the Instruments

To ensure the reliability of the tools, a pilot survey was conducted in Siaya County at Siaya County Referral Hospital (SCRH) using 10% of 133 (13 PDS inpatients) of the sample (Van

Teijlingen and Hundley, 2001). The questionnaire was computerized and administered via Commcare App installed on the phone. Only consent and assent forms were printed out for the respondents to sign. The appropriateness of the consent form, recruitment rates, length of time to administer the questionnaire using the Commcare App, the required number of research assistants and the consistency of the questionnaire were determined.

After the data collection process, research assistants, together with the researcher shared the challenges faced. It was reported that the questions were well understood but required minimal modification. It was learned that the majority of PDS inpatients were illiterate, therefore, administering the questionnaire in English was a great barrier. It was noted that some questions were not related to Siaya County residents. For example: "Where is your county of residence" in the main questionnaire, there were two main options (Within Kisumu [1] Outside Kisumu [2]). The question was changed to suit Siaya County with those responding as residing within Siaya County were to mention the sub-counties within. Another question that was irrelevant to Siaya County residents was 'What is your universal health coverage status?' since Siaya County was not one of the four counties sampled for the UHC pilot study in Kenya. It was also learned that SCRH medically discharged inpatients daily but awarded waivers weekly (on Thursdays) to the destitute and vulnerable inpatients after thorough psychosocial assessment by the hospital social worker because they were to wait till then. It was therefore concluded that in a full-scale study, data was to be collected weekly. This implied that three research assistants and the researcher were enough to participate in the main study. The time taken to administer a questionnaire was 25-30 minutes. The tool was found to be reliable after this pilot study.

This study adopted content validity to check whether the content of the tools was accurate and appropriate. This was done at three stages namely during the development of questions, early review, and modest reformatting of the instrument after the pilot study. In the first stage, the

researcher developed questionnaires and interview schedules that were aimed at addressing the research questions and objectives. The tools were then shared with the researcher's supervisors from Maseno University, School of Arts and Social Sciences, Department of Sociology and Anthropology. Irrelevant questions were discarded. These included 'What is your tribe' and the wording of other questions was improved.

The second stage of the content validity assessment was conducted by two independent reviewers including the Maseno School of Post-graduate Studies and the Maseno University Ethical Review Committee. They gave comments that were geared towards reformatting the instrument after reaching a consensus on wording to gain additional clarity, accuracy, and consistency. The third stage of the content review was completed when the researcher carried out a pilot study at SCRH. The nursing director, medical social worker, health administration officer, and medical health records officer were targeted for qualitative data collection. From the feedback, it was learned that the psychiatric unit in charge, the male surgical ward in charge, and billing officers were to be added to form part of the Key Informants.

Qualitative data was collected through researcher interviews and recorded via phone audio recorder. The recorded data was then transcribed using Expresscribe software into the transcription template of Ms. Word. Thereafter, the researcher, together with research assistants, shared the challenges encountered, assessed the minor word changes, and confirmed that the reformatting was consistent with the original intentions of the instrument. The instrument was again shared with the supervisors and statisticians from the Adaptive Management and Research Consultant (AMREC). Finally, research instruments were judged to possess sufficient content validity for their original intention of measuring the concept of PDS.

3.8 Data Analysis and Presentation

In this study, both quantitative and qualitative methods of data analysis and presentation were utilized.

3.8.1 Qualitative Data Analysis

In this study, qualitative data analysis adopted an exploratory and inductive analysis approach. The study involved 23 respondents whereby 10 were key informants while 13 were PDS inpatients. The responses were recorded on a phone audio recorder, then transcribed verbatim using Expresscribe software into the transcription template of Ms. Word. Themes were first generated from the interview guide and later codes were developed from the responses. A code sheet was developed from the first few source documents and later a master code sheet was developed. The coding of the responses was then done using NVIVO Version 12 software.

3.8.2 Quantitative Data Analysis

Commcare App was used to collect quantitative data. The data was automatically sent to a server. Once the target population was reached, the data from the server was downloaded in Excel format and then imported to Statistical Package for Social Sciences (SPSS) Version 21 for analysis. The dependent variable in this study was post discharge Stay which was defined as the number of days between the date of discharge and the date of interview amongst inpatients who were found still staying in the facility after medical discharge.

Descriptive statistics and frequency distribution was used to analyze objectives 1, 2, and 3 and estimate the mean number of days of post discharge stay and other variables in a univariate analysis. Categorical variables were presented in terms of percentages and frequencies.

To establish the demographic, social support, and institutional factors and the influence they have on post discharge stay, a binary logistic regression analysis was used where p-values <0.05 were considered statistically significant. Odds ratios and 95% confidence intervals were reported to show the magnitude and influence of PDS. Categorical variables as long and short PDS and results were presented in terms of percentages and figures in tables.

3.9 Ethical Issues in Research

The research proposal was approved by the Maseno University School of Graduate Studies (SGS) thereafter ethical clearance certificate was issued by the Maseno University Ethics

Review Committee (MUERC). Further permission was granted by NACOSTI by issuing a research permit. To carry out a pilot study at SCRH, permission was granted by Siaya County, particularly from the Department of Health and Sanitation hence a clearance letter was issued. The Ministry of Health of Kisumu County also approved the request to conduct the study in the two referral hospitals in Kisumu County. Further, the approval was granted by Hospital Training Committees through the Chief Executive Officers of both JOOTRH and KCRH. Appointments were made with respondents to whom interviews and questionnaires were administered. Confidentiality was assured and the consent form was signed by the respondents after they were fully made aware of the purpose of the study. An assent form was also developed for the minors respondents to complete in addition to an informed consent form for parents/guardians to sign. This gave respondents an idea of what to expect from the interview, increased the likelihood of honesty, and was also a fundamental aspect of the informed consent process (Gill, Stewart, Treasure, & Chadwick, 2008). Moreover, the PDS inpatient consent form provided information on confidentiality, voluntary participation, privacy, risk, and benefits of participating in the study and the time to be taken during interviews. One major risk was that the investigator and research assistants were likely to contract the hospital-related infection, especially during data collection. The researcher and the research assistants, therefore acknowledged the challenges and volunteered to collect data from such an environment while taking necessary precautions for protection.

During the study, the researcher expected a challenge regarding ethical dilemmas about the participants' real autonomy to give informed consent voluntarily in clinical settings in which she was employed as a medical social worker. Thus, the researcher acknowledged the expected problem and trained 3 research assistants to help in data collection. To avoid anticipated conflict of interest, the researcher was transparent and upheld the disclosure of conflict(s) of interest.

In conclusion, the methodology section of this thesis has described a correlational cross-sectional research design with both qualitative and quantitative data collection methods and analysis. The sample size was drawn from the study population to represent PDS inpatients who experienced both short and Long PDS in referral hospitals in Kisumu County. Reliable and valid research instruments were used to collect data which were analyzed and presented in terms of percentages and figures in tables. The study's ethical issues were considered addressed to the latter.

CHAPTER FOUR

INFLUENCE OF DEMOGRAPHIC CHARACTERISTICS OF INPATIENTS ON POST DISCHARGE STAY

4.1 Introduction

This chapter presents the findings on the analysis of the first objective of the study which sought to determine the influence of inpatients' demographic characteristics on PDS in Kisumu County referral hospitals, particularly at JOOTRH and KCRH. The study sampled 10 key informants, 13 PDS inpatients for in-depth interviews, and 133 inpatients who were medically discharged but were still in the ward. In this study, such cases were referred to as post discharge stay (PDS).

4.2 Influence of Inpatients' demographic characteristics on PDS

When the key informants were asked how they referred to the PDS in the facility, they said that 'we refer to them as discharge ins'. They called them so because '…once they are discharged they do not leave the facility immediately' (KI 4).

At the individual level, according to SEM, age, gender, marital status, nature of the illness, the parental status of children, religion, educational level, and employment status of respondents was considered individual predictors of PDS. Proponents of the social-ecological model (Stokols, 2000; Sallis, Owen, & Fisher, 2015) contend that these individual factors can influence every aspect of health. These factors are complex, often interact, and, in some instances, can be both a cause and predictor of health outcomes like PDS.

4.2.1 Influence of Age on PDS

Results from Table 4.1 below indicate that majority of the respondents were of the age cohort 20-29 43(32.33%), followed by 30-39 24(18.05%), 0-9 20(15.04%), 40-49 17 (12.78%) over 60 11(8.27%) while the least were in cohort 50-59 7(5.26%).

Table 4.1: ***Influence of Age on PDS***

Variable	Short PDS <7days n (%)	LongPDS >7days n (%)	Total N (%)	OR (95% CI)	P-Value
Age					
0-9	17(12.78)	3(2.26)	20(15.04)	Ref	
10-19	10(7.52)	1(0.75)	11(8.27)	0.57(0.05-6.21)	0.642
20-29	26(19.55)	17(12.78)	43(32.33)	3.71(0.94-14.6)	0.061
30-39	16(12.03)	8(6.02)	24(18.05)	2.83(0.64-12.6)	0.171
40-49	11(8.27)	6(4.51)	17(12.78)	3.09(0.64-15)	0.162
50-59	5(3.76)	2(1.50)	7(5.26)	2.27(0.29-17.58)	0.434
over 60	4(3.01)	7(5.26)	11(8.27)	9.92(1.75-56.3)	**0.01**
Total	**89(66.92)**	**44(33.08)**	**133(100)**		

The study, with regard to PDS, further reveals that the majority of respondents of ages between 20-29 years 26(19.55%) had short PDS while a minority 4(3.01%) from the short PDS were from the age group of over 60. In the long PDS section, the majority 17(12.78%) of respondents were from the age cohort of between 20-29 while the least 1(0.75%) of the respondents were from the age cohort of between 10-19. From the regression analysis, the respondents who were over 60 years were 9.92 times more likely to experience long PDS as compared to those who were between 0-9 years of age (P-value 0.01, odd-ratio 9.92). The following age categories had no statistical significance to the study: 10-19 (P-value 0.642, odd-ratio 0.57), 20-29 (P-value 0.061, odd-ratio 3.71), 30-39 (P-value 0.171, odd-ratio 2.83), 40-49 (P-value 0.162, odd-ratio 3.09) and 50-59 (P-value 0.434, odd-ratio 2.27).

An elderly female, in the medical ward, said that

> I had given birth to five children, but God took them (they died). I have no one to take care of me at home. My neighbors brought me here and left me… (Patient 10)

When opinions of healthcare staff were sought about the age cohorts that were prone to PDS, they responded as follows:

> Inpatients between the ages of 20-40 were likely to be the breadwinners of their families thus upon medical discharge 'their dependents may be unable to get money to pay their medical bills and get them out of the hospital (KI 1).
>
> These are people we expect to be very active in employment and so they may happen to be breadwinners in their families and so if the breadwinner is admitted to the hospital ward, then their dependants may be unable to get him/her out of (Aaah you know) hospital environment … (KI 1).
>
> Inpatients of age cohort 20-29 engage in 'robbery' and most are involved in road traffic accidents resulting in head injuries hence they experience PDS due to their unknown identity (KI 8).

Narratives from healthcare workers demonstrate that PDS inpatients between the ages of 20-40 were active in employment and most of them were breadwinners. The results are supported by the finding of Sobotka et al. (2019) who reiterated that once they are in the hospital, their families feel inadequate to aid them out of the facility due to their inability to clear the medical bills and to offer post-hospital care, especially to those who sustained ailment such as amputation and requiring long-term mechanical ventilation. The presented results are consistent with Nath et al.'s (2015) and Arora et al.'s (2017) who dealt with PDS of unknown/unaccompanied patients and concluded that due to the unknown identity of PDS inpatients, the hospital social worker was faced with a hard time obtaining tangible information for tracing purposes.

Narratives of healthcare workers had contrary findings from regression analysis which reveals that the elderly aged 60 years and above were more likely to experience PDS. According to Hendy et al. (2012), the elderly is increasing in numbers and they are the major consumer of health care services and they are more susceptible to social vulnerability, especially in the modern society (Andrew, Mitnitski, & Rockwood, 2008). Previous studies found that the

elderly prolong their stay in the hospital wards due to frailty, sepsis, deconditioning, cardiovascular disorders, and delays in their relocation to community nursing homes (Lim et al., 2006; Asghar Ghods et al., 2015; Silva et al., 2014). However, Silva et al. (2014) argue that there is no association between patients' age and PDS. In Kenya, reports have shown growing numbers of elderly PDS inpatients being left and neglected in the hospital by their families (Murithi, 2012) as a result of vulnerability factors, high dependency levels, and the need for domiciliary care (Lim et al., 2006; Benson et al., 2006; Challis et al., 2014) which many family members are incapable of offering.

4.2.2 Influence of Gender on PDS

As indicated in Table 4.2 below, the majority of all respondents who participated in the study were females 72 (54.13%) while the rest were male 61(45.87%).

Table 4.2: ***Influence of Gender on PDS***

Variable	Short PDS <7days n (%)	LongPDS >7days n (%)	Total N (%)	OR (95% CI)	P-Value
Gender					
Male	35(26.32)	26(19.55)	61(45.87)	Ref	
Female	54(40.60)	18(13.53)	72(54.13)	0.44(0.21-0.93)	**0.03**
Total	**89(66.92)**	**44(33.08)**	**133(100.00)**		

The study demonstrates that more males 26(19.55%) had long PDS compared to their female counterparts 18(13.53%). From regression analysis results, females were 0.44 times less likely to experience long PDS as compared to males (P-value 0.03, odd-ratio 0.44). Patient 11, a married male in the surgical ward reported that he was ready to go home but feared the public's reaction as he was rescued by the police from a mob beating. This finding was also confirmed through key informant interviews which revealed that more men experienced PDS in hospital wards upon discharge. For example, KI 10 mentioned that 'men leave their homes, come, and

stay here in town without even some of their relatives'. This implies that when men end up in the referral hospitals, their relatives are 'not around' to help them leave the hospital once they are discharged by paying hospital bills and taking them home.

In any social context, gender plays a role as a predictor of PDS. Whereas previous studies in Singapore (Lim et al., 2006) and Brazil (Silva et al., 2014) found that more women experienced PDS than men, the present study has shown that men are susceptible to PDS. The discrepancy can be attributed to the difference in context and nature of the illness. A Kenyan report revealed that 20 women who went to deliver at KNH experienced PDS for more than six months due to failure to clear the medical bill, yet there was free maternal health care (Oketch, 2020b). Despite these anomalies, the results of this study suggested that males were more prone to PDS than their female counterparts. This is in agreement with a Canadian study (Little et al., 2019) which found that males in the psychiatric ward were 1.4 times more likely to experience PDS than females.

4.2.3 Influence of marital status on PDS

Results from Table 4.3 below show that 40(30.08%) of the respondents were married followed closely by the single 35(26.32%), divorced/separated 22(16.54%) and children 20(15.04%) while the least was widowed 16(12.03%).

Table 4.3:*Influence of marital status on PDS*

Variable	Short PDS <7days n (%)	LongPDS >7days n (%)	Total N (%)	OR (95% CI)	P-Value
Marital status					
Married	31(23.31)	9(6.77)	40(30.08)	Ref	
Single	18(13.54)	17(12.78)	35(26.32)	3.25(1.20-8.79)	**0.02**
Divorced/Separated	12(9.02)	10(7.52)	22(16.54)	2.87(0.93-8.79)	0.07
Widowed	11(8.27)	5(3.76)	16(12.03)	1.56(0.43-5.69)	0.5
Child	17(12.78)	3(2.26)	20(15.04)	0.60(0.14-2.55)	0.5
Totals	**89(66.92)**	**44(33.08)**	**133(100.00)**		

From the results, many of the respondents whose marital status was 'married' had a short PDS of 31(23.31%), followed by the single 18(13.54%), children 17(12.78%), divorced/separated 12(9.02%) and widowed 11(8.27%) in that order. Comparatively, more respondents who were single 17(12.78%) experienced long PDS, closely followed by the divorced/separated 10(7.52%), then married 9(6.77%), widowed 5(3.76%) and children 3(2.26%) in that order. Regarding regression analysis, the study demonstrated that the single respondents were 3.25 times more likely to experience PDS as compared to those who were married (P-value 0.02, odd-ratio 3.25), while the rest were divorced/separated (P-value 0.07, odd-ratio 2.87) widowed (P-value 0.5, odd-ratio 1.56), child (P-value 0.5, odd-ratio 0.5) are not statistically significant to the study.

These results agree with responses from 9 key informants which indicated that most PDS inpatients tend to be single followed by divorced while the widowed, separated, and married share the same percentages. KI 9 said that most of the PDS inpatients "… are not married and if they are married…it is not a proper marriage (cohabitation) that somebody will stand with them" to mean that they had insufficient social support hence PDS. Most PDS inpatients "…rarely get married especially the males because mental illness sets in very early in life" (KI 7). Patient 5, a single mother of 3 in the gynecological ward, said that 'the 'baby daddy' has been irresponsible. He left me with 3 children after I was diagnosed with cervical cancer… now am stranded here, waiting for the hospital to help me.'

The results concur with An Australian study by Ou et al. (2009) which found that those who were single, widowed, or divorced were most affected by PDS in comparison with the married since being married is associated with a decrease in PDS episodes. Although Little et al. (2019) found that the marital status of PDS inpatients was not statistically significant to the study, the presence of a spouse and their relatives translate into a resource for supporting medical

discharge. Following the social-ecological framework paradigm, marital status is an individual-level factor that determines social support received from social networks (Cohen, 2004).

4.2.4 Influence of parental status of Children on PDS

Table 4.4 below indicates that the majority of those who participated in the study were partial orphans 9(45.00%). These were closely followed by children with both parents 8(40.00%) while the least was total orphans 3(15.00%).

Table 4.4: ***Influence of parental status of Children on PDS***

Variable	Short PDS <7days n (%)	LongPDS >7days n (%)	Total N (%)	OR (95% CI)	P-Value
Parental Status of Children					
Total orphan	2(10.00)	1(5.00)	3(15.00)	Ref	
Partial orphan	7(35.00)	2(10.00)	9(45.00)	0.22(0.03-1.17)	0.15
Have both parents	8(40.00)	0(0.00)	8(40.00)	3.40(0.07-159.52)	0.53
Total	**17(85.00)**	**3(15.00)**	**20(100)**		

From the results of the study, none of the children with both parents had long PDS while 8(40.00%) of them had short PDS with only 2(10.00%) total orphans reported having short PDS. Concerning long PDS, 2(10.00%) partial orphans had long PDS while only 1(5.00%) total orphan had long PDS. The logistic regression result further indicates that the parental status of children was not statistically significant in this study. However, data from key informants show that most of the children who experienced PDS 'are from single mothers, some are parentless while some are street children'. When asked why they suffered PDS yet under five were exempted from bill payment, one key informant said that '…one way or the other they are abandoned because of the type of illness and stigma associated with it'.

These results are in agreement with the previous findings which argued that children who are abused, abandoned and those with medical complexity experienced PDS as they were awaiting placement to appropriate homes (Lee et al., 2017; Maynard et al., 2019). The results were also

in tandem with the Kenyan previous report by Odiwuor (2016) which revealed that a baby girl of around 4 years old experienced long PDS since she had stunted growth.

4.2.5 Influence of Nature of Illness on PDS

Results from Table 4.5 below show that most of the respondents had chronic diseases 74(55.64%) while 59(44.36%) of them had acute nature of illnesses.

Table 4.5:*Influence of Nature of Illness on PDS*

Variable	Short PDS <7days n (%)	LongPDS >7days n (%)	Total N (%)	OR (95% CI)	P-Value
Nature of illness					
Chronic	39(29.32)	35(26.32)	74(55.64)	Ref	
Acute	50(37.59)	9(6.77)	59(44.36)	0.20(0.08-0.46	**<0.0001**
Totals	**89(66.91)**	**44(33.09)**	**133(100.00)**		

Further, of the respondents with short PDS, 50(37.59%) had acute nature of illness while 39(29.32%) were chronically ill on admission. Comparatively, more respondents with chronic nature of illness had long PDS 35(26.32%) whereas those who had acute nature of illness were 9(6.77%). Results further reveal that the respondents who had an acute illness were 0.20 times less likely to experience long PDS as compared to those who had a chronic illness (P-value <0.0001, odd-ratio 0.20). Therefore, Fisher's exact test ($p<0.001$) shows that there was a significant association between PDS and the hospital wards.

KI 9 supported the contention that Men suffer long PDS because they are more involved in criminal activities like robbery than women thus due to mob beating, they sustain surgical injuries leading them to their admission in the male surgical ward where they get stranded upon being medically discharged because of being social misfits. As a result, they are neither visited nor picked from the hospital by their social networks.

Key informants concurred with the result. The KI 2 said that Chronically ill who will stay in the hospital setting for two or more years, two months … will amount to a higher financial responsibility and so they would take a longer time to look for this money.

This implies that, once the inpatient was medically discharged, due to long hospitalization, the bill would be huge. This was in line with the study done by Mostert et al. (2015) and Rice (2009) which found that relatives of the said PDS inpatient would not afford hospital bills yet the more the prolonged stay, the more the hospital bill.

According to the healthcare workers' narrations, most of the patients are admitted to surgical wards. For instance, (KI 8) reported that "…are involved in a road traffic accident, motor vehicle accidents, some are assaulted and some end up coming with a head injury, so they stay in a coma for so long" This implies that during hospitalization, no tangible information can be extracted by the hospital social worker for contact tracing purposes. KI 4 also responded by saying that '…most patients that get stuck here are suffering from surgical issues because some of them are amputees…' This pattern of results is consistent with the previous literature that concluded that surgical ailments like amputation and mental cases require additional support which families are incompetent to provide at home thereby leading to PDS (Rosman et al., 2015; Houghton et al., 2016; Dillon & Thomsen, 2019).

Others, especially the chronically ill PDS inpatients wanted to go home but they found the hospital ward to be homely as 'they feel in their heart that they have not fully recovered' (KI 2) while others had self-stigma by stating, 'the moment you lose your limb and now you think to an extent you are going to be relying on people then you feel you are understood and accepted within the hospital' (Patient 3, amputee who had been waived but still staying in the male medical ward).

Chronic illnesses like mental cases and the unknown identity of inpatients were also rampant predictors of PDS. According to KI 8, unknown patients usually '… engage in 'robbery' and

most are involved in road traffic accidents resulting in head injuries...' Head injuries result in long hospitalization and getting tangible information from such kinds of PDS inpatients proves difficult. On admission, some patients are brought to the facility by social relations and left in the facility due to the nature of the illness. A key informant had this to say:

when mentally ill patients are brought here by their relatives, they eventually regain consciousness and are discharged, but getting their relatives to come and pick them up is usually hectic. We sometimes have to use the medical social workers to help locate them, and occasionally, we give them a vehicle to take them back to their homes. This, however, still poses security challenges. For instance, there is a day my staff was chased away by the relatives of a mentally ill patient and the chief had to intervene (KI 10).

The findings are in agreement with the Zambian (Mumba, 2017; Phiri, 2018) and Kenyan (Okeyo, 2020; Mbenywe, 2018) reports which state that the nature of illness contributes to PDS in most health facilities. SEM as a theoretical framework has been employed to give an explanation of biological processes at the individual-level underpinning determinants of health outcomes (Berk, 2000) like PDS. Mental illness and surgery are among the stigmatizing ailments which result in PDS (Okay, 2016; Kippenberg, 2006). Inpatients who undergo surgery and amputation require additional support upon discharge hence PDS (Houghton et al., 2016). This is because they feel safe in the hospital upon discharge, incur huge bills, and fear the stigma they would face when taken back home from the hospital wards (Devakumar & Yates, 2016). Patients brought in as 'unknown' whose identities were not established on admission through to medical discharge also experienced PDS.

4.2.6 Influence of Religion on PDS

From Table 4.6 below, the majority of respondents were Christians 128(96.24%) while the least were Muslims 5(3.76%).

Table 4.6: ***Influence of Religion on PDS***

Variable	Short PDS <7days n (%)	LongPDS >7days n (%)	Total N (%)	OR (95% CI)	P-Value
Religion					
Christian	86(64.66)	42(31.58)	128(96.24)	Ref	
Muslim	3(2.26)	2(1.50)	5(3.76)	1.36(0.21-8.48)	0.74
Total	**89(66.92)**	**44(33.08)**	**133(100.00)**		
Participation in religious activities					
Regularly	23(17.29)	10(7.52)	33(24.81)	Ref	
Irregularly	66(49.63)	34(25.56)	100(75.19)	2.09(0.98-4.47)	0.06
Total	**89(66.92)**	**44(33.08)**	**133(100.00)**		
Attendance of religious services					
Regularly	44(33.08)	14(10.53)	58(43.61)	Ref	
Irregularly	45(33.83)	30(22.56)	75(56.39)	1.18(0.50-2.77)	0.7
Total	**89(66.91)**	**44(33.09)**	**133(100.00)**		

The result further reveals that 42(31.58%) Christians had long PDS while Muslims who experienced long PDS were only 2(1.50%). When the respondents were asked how often they participated in religious activities, the majority responded as 'Irregularly' 100(75.19%) while 33(24.81%) of them reported that they regularly participated. 34(25.56%) of those who responded as irregularly participated in religious activities had long PDS while the other 10(7.52%) of those who regularly participated in religious activities had long PDS.

Moreover, majority of the respondents 75(56.39%) did not attend religious services regularly while those who attended regularly were 58(43.61%). The results indicate that 30(22.56%) respondents who did not attend religious services regularly had long PDS whereas those who regularly attended religious services were 14(10.53%). Regression results demonstrate that religion, involvement in religious activities, and attendance of religious services, were not statistically different between categories. Theoretically, McLeroy et al.(1988) contend that religiosity is an individual-level perspective that determines health outcomes. Scholars of religion (Zand & Rafiei, 2011; Saad &Medeiros, 2016) argue that medical discharges may be

faster if the inpatients are well connected to their religious/spiritual community, where they get a social network that can provide social support in as much as the current study, there is no influence of religion on PDS.

4.2.7 Influence of educational level of Respondents on PDS

The results in Table 4.7 below indicate that the majority of respondents 88(66.17%) schooled up to the primary level. High school dropouts were 24(18.04%) while those who had not gone to school were 12(9.02%) including children and the least 9(6.77%) had a tertiary level of education.

Table 4.7:*Influence of educational level of Respondents on PDS*

Variable	Short PDS <7days n (%)	LongPDS >7days n (%)	Total N (%)	OR (95% CI)	P-Value
Education Level					
None	8(6.02)	4(3.00)	12(9.02)	ref	
Primary	58(43.61)	30(22.56)	88(66.17)	1.03(0.28-3.71)	0.96
Secondary	17(12.78)	7(5.26)	24(18.04)	0.82(0.18-3.64)	0.8
Tertiary	6(4.51)	3(2.26)	9(6.77)	1(0.15-6.25)	1
Totals	**89(66.92)**	**44(33.08)**	**133(100.00)**		

Comparatively, of the respondents who had long PDS, 30(22.56%) went up to the primary level of education while only 3(2.26%) reported having a tertiary level of education. The finding of this study is consistent with the previous Kenyan study by Maina (2014) which revealed that the majority of the PDS inpatients had a primary school level of education. For instance, in many sub-Saharan countries, PDS has been associated with the inability to pay medical bills hence law bargaining power (Devakumar & Yates, 2016; Wekesa, 2016; Minayo, & Odallo, 2020). This trend necessitated the expansion of social health insurance to the informal sector (Carrin et al., 2001; Scheil-Adlung et al., 2006). This aim was to cushion the poor from health shocks and subsequent PDS episodes. Regression results, however, indicate that the

educational level of respondents was not statistically significant to the study, therefore, the educational level of respondents had no influence on their PDS in the hospital ward.

4.2.8 Influence of employment status on PDS

Of the respondents, the unemployed 86(64.66%) were the majority in number while those who were employed were 47(35.34%) as indicated in Table 4.8 below. Of the employed, the majority were working in the informal sector 46(97.87%) with only 1(2.13%) reported as working in the formal sector.

Table 4.8: ***Influence of employment status of Respondents on PDS***

Variable	Short PDS <7days n (%)	LongPDS >7days n (%)	Total N (%)	OR (95% CI)	P-Value
Employment					
Unemployed	56(42.11)	30(22.55)	86(64.66)	Ref	
Employed	33(24.81)	14(10.53)	47(35.34)	0.79(0.36-1.70)	0.55
Total	**89(66.92)**	**44(33.08)**	**133(100.00)**		
The sector of employment for the employed					
Informal	32(68.08)	14(29.79)	46(97.87)	Ref	
Formal	1(2.13)	0(0.00)	1(2.13)	N/A	N/A
Total	**33(70.21)**	**14(29.79)**	**47(100.00)**		

Results of this study further indicate that of the respondents who had long PDS, 30(22.55%) of them were unemployed while 14(10.53%) were employed. Of the majority of respondents who were employed in the informal sector 14(29.79%) had long PDS. KI 2 mentioned that "the employed PDS inpatients …don't stay long after medical discharge because, to a great extent, they have strategies of sorting out their bills like enrolling to health insurance cover". For example, Patient 11, a male aged 30, who had dropped out of school responded that "I am a hawker selling things in different vehicles." Due to his nature of employment which was hand to mouth, he could not raise the medical bill hence PDS. However, regression results of this study indicate that employment status and sector of employment were not statistically significant to PDS, therefore, employment status of PDS inpatients does not influence PDS.

According to McLeroy et al. (1988), employment status is one of the individual factors that determine health outcomes like PDS. It influences their ability to pay medical bills in time, thus reducing levels of PDS. Those patients with a lower level of education cannot secure employment and earn better income (Russell 2005). Previous reports demonstrated that Kisumu County, in Kenya, has relatively higher levels of unemployment and poverty (KIPPRA, 2020). Due to the poverty level, inpatients in Kisumu County referral hospitals were faced with the inability to pay medical bills (JOOTRH, 2016) hence PDS.

In conclusion, individual demographic factors of PDS inpatients were associated with the vulnerability of becoming a PDS victim in referral hospitals. The elderly, the male, the unmarried, and the chronically ill were more at risk of experiencing episodes of PDS. Older people with complex health needs are particularly vulnerable to PDS. The male, especially the middle-aged, are associated with deviance rendering them social misfits who face neglect by their social relations in the hospital wards, thus PDS. The chronically ill were perceived as a burden by their family members while the unmarried experienced PDS due to insufficient social support. Whereas the parental status of children, religiosity, education, and employment status of the PDS inpatients was insignificant to the study, they were not dismissed because they determined the general health outcomes of PDS.

CHAPTER FIVE

INFLUENCE OF SOCIAL SUPPORT ON POST DISCHARGE STAY

5.1 Introduction

This chapter discusses the second objective of the study aimed at establishing the influence of social support on PDS in Kisumu County referral hospitals. The study, therefore, sought to find out whether the prolonged stay of PDS inpatients in the hospital wards upon medical discharge was due to the level of social support they received from their social environment. The study used the following variables to establish the influence of social support on PDS: living arrangement, who accompanied them to the facility, visitation from relatives during hospitalization and kind of social support received from relatives and friends; destination upon hospital exit, other social and home-related issues for continued stay.

5.2 Influence of social support on PDS

Patients are admitted into the hospital wards from the community accompanied by different social networks. During hospitalization, the inpatients are expected to be visited and receive different forms of social support. Upon medical discharge, the inpatients are also expected to exit the facility immediately to a specific destination. According to the social-ecological model, the second layer describes the interpersonal processes of social support systems, including family, workgroup, and friendship networks (McLeroy, et al., 1988). The study, therefore, sought to establish the influence of the above social predictors on PDS.

5.2.1 Influence of living arrangement before admission on PDS

The study results as presented in Table 5.1 show that majority of respondents were staying with their families before hospital admission 66(49.63%). This was closely followed by those who stayed with relatives 34(25.56%) while 18(13.54%) stayed alone. Further, some responded as having stayed with ‘others’ 12(9.02%), which implied ‘street’ or ‘homeless’ while the least stayed with friends 3(2.25%). Of those who had long PDS, 16(12.03) stayed with relatives

closely followed by those who responded as staying with family members 14(10.53%), those who stayed alone 9(6.77%), others 4(3.00%) and 1(0.75) reported having stayed friends.

Table 5.1:*Influence of living arrangement before admission and PDS*

Variable	Short PDS <7days n (%)	LongPDS >7days n (%)	Totals N (%)	OR (95% CI)	P-Value
Living arrangements before admission					
Relatives	18(13.53)	16(12.03)	34(25.56)	ref	
My family	52(39.10)	14(10.53)	66(49.63)	0.3(0.12-0.74)	**0.009**
Friends	2(1.50)	1(0.75)	3(2.25)	0.56(0.05-6.81)	0.651
Alone	9(6.77)	9(6.77)	18(13.54)	1.12(0.35-3.52)	0.84
Others	8(6.02)	4(3.00)	12(9.02)	0.56(0.14-2.24)	0.413
Totals	**89(66.92)**	**44(33.08)**	**133(100.00)**		

This study further suggests that those who stayed with their family before coming to the hospital were 0.3 times less likely to experience long PDS as compared to those who stayed with their relatives (P-value <0.009, odd-ratio 0.3). The findings from the PDS inpatients show that most of them were staying with their family members before admission. For example, a jobless mother to a minor said that "He was staying with me- his mother". A psychiatric PDS inpatient 4, female, aged 50 said, "Yes, I was from home and I was staying with my family". A single male, Patient 5, responded that 'I was staying with my friend' and "…being that I stayed with him I have not received any help from him. He does not regard me as a relative". Results indicate that staying with family members before admission influences PDS. This finding can be explained by the fact that families are sources of social support systems that mitigate PDS. Family members, according to the social-ecological model form a robust source of social support system (McLeroy et al., 1988; Bronfenbrenner, 1979). They offer all forms of social support (Cohen, 2001). Where family members fail to offer social support to the PDS inpatient, episodes of PDS are prevalent. These findings contradict the previous studies which

have shown that, although PDS inpatients wanted to go home, their family members declined to take them home (Silva et al., 2014; Rosman et al., 2015; Toh et al., 2017). For instance, a Kenyan report indicated that inpatients experienced PDS because their family members failed to pick PDS inpatients from the hospital (Muyela, 2018). Failure or delay of family members to come for their relative upon medical discharge was worsened by their inability to offer domiciliary care at home owing to the additional burden to care for them at home, especially for the elderly and the chronically ill relatives (Little, 2014; Toh et al., 2017). Therefore, social networks directly influence PDS as PDS inpatients who stayed with their family before coming to the hospital were 0.3 times less likely to experience long PDS as compared to those who stayed with their relatives.

5.2.2 Influence of PDS inpatients' Companions to the Facility on PDS

Different people accompanied the respondents to the facility (Table 5.1). Those who were accompanied by their relatives were the majority at 80(60.14%). Those who were brought in by Good Samaritans were 16(12.03%) and those brought in by friends were 10(7.52%) and 'walk-in' cases were 10(7.52%). Those accompanied by police officers were 13(9.78%) while the least 4(3.01%) of respondents were brought in by neighbors.

Table 5.2: ***Influence of PDS inpatients' companions to the facility on PDS***

Variable	Short PDS <7days n (%)	LongPDS >7days n (%)	Totals N (%)	OR (95% CI)	P-Value
PDS inpatient's companion to the facility					
Relatives	56(42.10)	24(18.04)	80(60.14)	ref	
Friends	5(3.76)	5(3.76)	10(7.52)	2.33(0.61-8.88)	0.211
Neighbors	3(2.26)	1(0.75)	4(3.01)	0.77(0.07-7.86)	0.831
Self	10(7.52)	0(0.00)	10(7.52)	N/A	N/A
Police Officer	5(3.76)	8(6.02)	13(9.78)	3.73(1.10-12.58)	**0.034**
Good Samaritan	10(7.52)	6(4.51)	16(12.03)	1.4(0.45-4.28)	0.556
Total	**89(66.92)**	**44(33.08)**	**133(100.00)**		

According to the study results, of respondents who had long PDS, 24(18.04%) were brought to the facility by relatives followed by those who were accompanied by police officers 8(6.02%),

Good Samaritans 6(4.51%), Friends 5(3.76%), Neighbors 1(0.75%) while none of those who came by themselves had long PDS. This logistic regression result further shows that respondents who were brought to the hospital by police officers were 3.73 times more likely to experience long PDS as compared to those who were brought in by relatives (P-value 0.034, odd-ratio 3.73). From the narrative findings, it was concluded that patients were brought to the facility by friends, mothers, husbands, and other relatives. For example, Patient 11 reported that "My friends helped me by bringing me here." Another PDS inpatient 5 said, "I was brought to the hospital by those who found me along the road after I had been assaulted".

The findings reveal that PDS inpatients who were accompanied to the hospital by their relatives experienced long PDS. The results do not conform to the theory that relatives, including family members, offer strong social support (McLeroy et al., 1988). Previous studies postulate that there were reasons why PDS inpatients were abandoned by their relatives in the hospital wards. Such reasons included the family's inability to offer post-discharge care (Mendoza et al., 2012; Dillon &Thomsen 2019) and the family's inability to pay medical bills (Grusky, 2002; Ogangah et al., 2007; Sanders, 2009) as much as governments had put strategies to curb PDS that resulted from the inability to pay medical bills.

The regression result was supported by the finding that those patients brought in by police officers would be labeled as 'unknown or unidentified' (Arora et al., 2017; Toh et al., 2017). Unidentified patients are often pedestrians or cyclists who are involved in road traffic accidents (RTA), patients in a psychotic state, drug users who have overdosed, and homeless people (Abram, 2019). They prolong their stay in the ward upon their medical discharge since most cases they suffer from severe cognitive impairment and dementia thus the hospital social workers find it hard to trace their relatives due to scanty information (Umesh et al., 2017).

5.2.3 Influence of Visitation during Hospitalization on PDS

From Table 5.3, respondents who responded 'Yes'89 (66.92%), when asked if they had ever been visited during hospitalization were the majority followed by those who reported not to have been visited 44(33.08%)

Table 5.3:*Influence of PDS inpatients' Visitation during Hospitalization on PDS*

Variable	Short PDS <7days n (%)	LongPDS >7days n (%)	Totals N (%)	OR (95% CI)	P-Value
Visitation during hospitalization					
Yes	69(51.88)	20(15.04)	89(66.92)	0.06(0.01-0.31)	**0.001**
No	20(15.04)	24(18.04)	44(33.08)	Ref	
Total	**89(66.92)**	**44(33.08)**	**133(100.00)**		

Consequently, results showed that more of the respondents who were not visited 24(18.04%) had long PDS compared to those who were visited 20(15.04%). Regression analysis revealed that those who were visited were 0.06 times less likely to experience long PDS as compared to those who were not 0.06(0.01-0.31).

When PDS inpatients were asked if they had any visits from relatives and friends since admission, the following were their responses:

Yes, my son came here first, then my husband was to come here yesterday but I told him not to come because my son was already here to discharge me since he is the one with the card (NHIF). (Patient 4, married and psychiatric PDS inpatient)

Patient 7, a guardian of a child, 12 years diagnosed with kidney failure said that "Yes, the people who were coming were her relatives and friends."

My sister came twice and my brother came once and she came to take my belongings. (Patient 9, a shoe shiner, married to two wives)

Patient 10, male, separated and on a long stay said that "No, I haven't seen anyone" coming to visit me since admission.

"Yes, there is a relative who came immediately he was called by the hospital social worker but he left and since then, he hasn't returned. When called, he doesn't pick my calls.." (Patient 5, male, assaulted, brought in by police officers).

Results from KI had the following highlights:

If the inpatients are visited by relatives, there will be a reduced number of PDS cases because at least we will have known the inpatients' social networks for ease of social investigation (KI 3).

These patients that are not being visited, completely by their relatives or friends, tend to prolong their stay, simply because the relatives are not around to be informed about the discharge process…(KI 4).

According to the results, visitation influences PDS positively. The social networks would know the discharge date of the patients and make the bill payment arrangements. They would also offer psychological support which results in quick recovery of the patients. This finding was in agreement with the previous Singaporean (Toh et al., 2017) study which concluded that visitation was positively associated with PDS. Social networks according to SEM play a vital role in offering psychosocial support (Berk, 2000) to inpatients during hospital visitation. Inversely, Little et al. (2019) found that PDS inpatients who had fewer visits from social relations experienced long PDS.

5.2.4 Influence of social support received from social networks on PDS

According to Table 5.4, when respondents were asked whether they had 'received any kind of aid' from their relatives and friends, the majority responded 'Yes' 71(53.38%) confirming that they were accorded social support while the rest said they had received no aid 62(46.62%). The study further sought to find out the categories of social aid the respondents received from their social support system. Of respondents who received social aid, 43(60.56%) had emotional support while 28(39.44%) never received emotional kind of social support. When respondents

were asked whether they received monetary aid from their social networks, almost all of them responded with 'No' 68(95.77%) while only 3(4.23%) responded with Yes. Similarly, the study sought to find out whether the respondents received material aid. The results reveal that 8(11.27%) responded by saying No while the rest 63(88.73%) said 'Yes'. 11(15.49%) respondents reported having received other social support including food items like milk, bread, water, yogurt, cake and non-food items such as tissue paper; while the rest 60(84.51%) received no aid at all.

Table 5.4: ***Influence of social support received from social networks on PDS***

Variable	Short PDS <7days n (%)	Long PDS >7days n (%)	Totals N (%)	OR (95% CI)	P-Value
Have your relatives come to your support					
Yes	57(42.85)	14(10.53)	71(53.38)	Ref	
No	32(24.06)	30(22.56)	62(46.62)	3.81(1.77-8.22)	**0.001**
Total	**89(66.91)**	**44(33.09)**	**133(100.00)**		
Kinds of social support					
Emotional					
No	20(28.17)	8(11.27)	28(39.44)	Ref	
Yes	37(52.11)	6(8.45)	43(60.56)	0.41(0.12-1.33)	0.137
Total	**57(80.28)**	**14(19.72)**	**71(100)**		
Monetary					
No	55(77.46)	13(18.31)	68(95.77)	Ref	
Yes	2(2.82)	1(1.41)	3(4.23)	2.12(0.18-25.14)	0.553
Total	**57(80.28)**	**14(19.72)**	**71(100)**		
Material					
No	6(75)	2(25)	8(11.27)	Ref	
Yes	51(80.95)	12(19.05)	63(88.73)	0.71(0.13-3.94)	0.691
Total	**57(80.28)**	**14(19.72)**	**71(100)**		
Others					
No	50(83.33)	10(16.67)	60(84.51)	Ref	
Yes	7(63.64)	4(36.36)	11(15.49)	2.86(0.7-11.63)	0.143
Total	**57(80.28)**	**14(19.72)**	**71(100)**		

Of those who responded as having received no aid 30(22.56%) had long PDS whereas 14(31.82%) of them received social support. The regression analysis revealed that respondents who never had their social networks come to their aid were 3.81 times more likely to experience long PDS as compared to those who had their social networks come to their aid (P-value 0.001,

odd-ratio 3.81). Those respondents who had social support were asked to mention the kind of social support they received. They reported that they had received either emotional, monetary, material and others.

Patient 5, a male, who stayed with a friend before admission said that "…I have not received any help from him" confirming that no social support was accorded to him during hospitalization. According to Cohen, (2004), social support intends to benefit a person by helping them cope with stress. PDS inpatients experience distress in hospital wards warranting social support (Nurullah, 2012). This result indicates that those who received no aid were more likely to prolong their stay in the hospital wards. The findings concur with previous studies which reiterated that PDS inpatients suffer long PDS due to weak social networks (Rambani & Okafor, 2008; Mendoza et al., 2012).

5.2.5 Influence of Destination upon hospital exit on PDS

Respondents were further asked to mention where they were heading once they exited the facility. From Table 5.5 below, the majority responded that they were going to their house/home 88(66.17%), some reported that they were going to their relatives 21(15.79%) and 18(13.53%) responded as going to 'other'. When the respondents were asked to specify 'others', 10 responded that they would go to the street while the remaining 8 did not know where they would go upon hospital exit. The least 6(4.51%) reported that they were going to their friend's residence. Of those who had long PDS, 26(19.55%) were destined to their house/home followed by those who intended to head to their relatives' residence 10(7.52%). The regression analysis results, however, indicate that destination upon hospital exit had no statistical significance to the study.

Table 5.5: ***Influence of destination upon hospital exit on PDS***

Variable	Short PDS <7days n (%)	LongPDS >7days n (%)	Totals N (%)	OR (95% CI)	P-Value
Destination after the hospital exit					
To a relative	11(8.27)	10(7.52)	21(15.79)	Ref	
To a friend	5(3.76)	1(0.75)	6(4.51)	0.22(0.02-2.22)	0.199
To my house/home	62(46.62)	26(19.55)	88(66.17)	0.46(0.17-1.22)	0.118
Other	11(8.27)	7(5.26)	18(13.53)	0.7(0.2-2.51)	0.584
Total	**89(66.92)**	**44(33.08)**	**133(100.00)**		

The majority of the PDS inpatients and healthcare workers reported that the aspect of a destination influenced the PDS since most of the patients who were brought unconscious could not recall their homes even after they were medically discharged while some lacked transport facilitation to take them home and some to look for alternative destination and this contributed to high incidences of PDS.

> "I'll just go to Dunga (a friend's residence) since our home is far and fare can't be paid …" (Patient 10)

> If the PDS inpatient is not able to articulate issues about where they stay then we cannot discharge this patient to the unknown destination so we will still have this PDS inpatient as the medical social workers try to get very critical information about their destination (KI 2; KI8).

> This one (destination) contributes highly because for these PDS inpatients to be traced there's a challenge in tracing because the social workers will have to go down to the village and try to trace and get the concerned people (KI 9).

According to KI 5, mostly financial implications and the destination resulted in PDS as quoted "… lack of fee to pay the hospital bill or somebody does not have where to go".

These current findings contradict the previous USA-based study which argued that patients' discharge destination was significantly associated with PDS (Sorensen et al., 2020). Rosman et al. (2015) and Bai et al. (2019) reiterated that PDS inpatients were designated alternate living

arrangements in Western countries like in USA and England (Jarman, Aylin & Bottle, 2004). However, cases of PDS were still experienced due to a lack of vacancy in those alternative living arrangements such as nursing homes, a case that is different from the developing countries' setting. In this study, the majority of the respondents came from their homes thus they did not require a nursing home or institutionalization upon medical discharge. SEM model appreciates destination as one of the elements of social support because it determines the level of social relations and networks. (McLeroy et al., 1988; Bronfenbrenner, 1979).

5.2.6 Influence of social issues on PDS

Respondents were asked to give the other social support system-related reasons that made them prolong their stay in the hospital wards yet they were medically fit to leave the medical facilities. The majority reported that they had 'other reasons' 52(39.09%) closely followed by those who said they had no one to take them home 50(37.59%). 24(18.05%) responded as no one was aware that they were discharged while the least had no fare 7(5.27%) (Table 5.6).

Table 5.6: ***Influence of social issues on PDS***

Variable	Short PDS <7days n (%)	LongPDS >7days n (%)	Totals N (%)	OR (95% CI)	P-Value
Social issues on PDS					
No one to take me home	28(21.05)	22(16.54)	50(37.59)	ref	
No fare	4(3.01)	3(2.26)	7(5.27)	0.95(0.19-4.71)	0.954
No one is aware that am discharged	21(15.79)	3(2.26)	24(18.05)	0.18(0.04-0.689)	**0.012**
Others	36(27.07)	16(12.02)	52(39.09)	0.56(0.25-1.27)	0.169
Totals	**89(66.92)**	**44(33.08)**	**133(100.00)**		

Of the respondents who had long PDS, 22(16.54%) had no one to take them home closely followed by those who responded 'Others'16(12.02%). The study further demonstrates that those who reported that no one was aware of their discharge were 0.18 times less likely to experience long PDS as compared to those who said they had no one to take them home (P-value 0.012, odd-ratio 0.18). PDS inpatients whose social networks were not aware of their

medical discharge were more likely to experience long PDS since they could not recall the telephone numbers of their social networks.

Other reasons for PDS include an unsafe environment at home and the inability to clear medical bills. One PDS inpatient 3 reported that "…my relatives surely financially are unstable… that is why I have not left the facility". Patient 10 responded by saying that "… our home is far and fare can't be paid…". Another patient 1 claimed that "…I am the only one who can look for money and those who could have helped me are not around, I don't have anywhere to get the cash and that's why I have overstayed in this hospital…".

One NHIF beneficiary had no issues with non-payment of the medical bill but lamented that:

> …the person who was to clear the bill came late (the son had the NHIF card) after the cashier had closed he didn't manage to clear it (Patient 4).

Some respondents reported they stayed long because the facility was more comfortable than home since they could get free services. KI 3 responded that PDS was'…about issues related to the food that is just free here, there's also free home, houses (wards) to sleep in here, they don't lack anything, we also have even the television".

The findings are in agreement with previous studies (Rambani & Okafor, 2008; Hendy et al., 2012; Mendoza et al., 2012) and a report (Muyela, 2018) which revealed that PDS results from a lack of fare to take PDS inpatients home and lack of social support. This study deduces that PDS inpatients whose social networks have not been picked from the hospital are to experience long PDS.

Conclusively, the second objective of this study aimed at establishing the influence of social support on PDS. The findings reveal that social support systems that people have before they are admitted to the hospital wards have an influence on their post discharge stay in the ward upon their medical discharge. Social relations comprise interpersonal relationships that include family, friends, neighbors, and others that directly influence PDS at the interpersonal level. The

social networks that individuals relate with define their living arrangement, who accompanies them to the hospital, the frequency of visitation and kind of social support received during hospitalization, and finally where to go once they exit the hospital wards. Those PDS inpatients who were staying with relatives other than immediate family members before coming to the hospital, those who were accompanied to the facility by police officers, and those who received fewer or no visits and social support experienced long PDS. Other social reasons for a prolonged stay at the hospital upon medical discharge are issues concerning fare and relatives not coming for their relatives in good time.

CHAPTER SIX

INFLUENCE OF INSTITUTIONAL FACTORS ON PDS

6.1 Introduction

This chapter addresses the third objective of the study which sought to assess the influence of institutional factors on PDS in Kisumu County referral hospitals. The hospital-related processes in this study that influenced PDS included discharge clearances, waiting for the hospital social worker to trace relatives of PDS inpatients, and waiting for repatriation of PDS inpatients. Other hospital-related reasons that were under study included communication about the discharge to the inpatients and their relatives and request for a post discharge stay by either the PDS inpatients themselves or their family members. Getting paperwork completed on time proved difficult. Delays also arise because a PDS inpatient's assessments are not planned and completed before they leave the facility. Completing an early assessment of onward care needs generally requires agreement from a multidisciplinary group of hospital social workers and other healthcare workers. This is a time-consuming and complex process.

6.2 Influence of institutional factors on PDS

Those institutional factors are tailored around rules both government and hospital regulations that govern the release of PDS. Government and hospital-oriented processes have implications for PDS. According to Micallef et al. (2020), such processes are rooted in some faulty organizational management including inadequate discharge planning.

6.2.1 Influence of medical discharge process on PDS

Inpatients are supposed to be informed promptly that they are being medically discharged to allow for psychological and financial preparation for the actual exit from the hospital ward. Episodes of PDS arise in cases where the information regarding medical discharge is not given in good time. Even if the information is given in time, some PDS inpatients would not exit the hospital wards immediately as required.

According to the findings, the majority of the respondents 101(75.94%) agreed that they were informed early of their medical discharge. Others disagreed 30 (22.56%), while very few responded as ‘don’t know 2(1.50%) (Table 6.1).

Table 6.1: ***Influence of timely information about medical discharge on PDS***

Variable	Short PDS <7days n (%)	LongPDS >7days n (%)	Total N (%)	OR(95% CI)	P-Value
Discharge information					
Disagree	28(21.05)	2(1.51)	30(22.56)	Ref	
Don't know	1(0.75)	1(0.75)	2(1.50)	14(0.62-317.38)	0.097
Agree	60(45.11)	41(30.83)	101(75.94)	9.57(2.16-42.38)	**0.003**
Total	**89(66.91)**	**44(33.09)**	**133(100)**		

The results show that the majority of respondents who had agreed that they were informed about their discharge 41(30.83%) had a long stay. Additionally, regression analysis results reveal that respondents who agreed that they were timely informed about their medical discharge by a doctor during ward rounds were 9.57 times more likely to experience long PDS(P-value 9.57, odd-ratio 0.003) compared to those who disagreed. Qualitative results had contrary findings. One of the key informants reported that communicating timely medical discharge allows the inpatients to call relatives to come to their aid:

> A doctor can come and say, tomorrow, you are completing your medication here so you may be discharged so that you prepare psychologically. If you have a relative you can always call back home and inform them that ‘I will be discharged tomorrow’ and if you don’t have a relative you just keep quiet to wait for the mercy of God to happen (KI 10).

According to the study findings, timely communication about medical discharge leads to long PDS meaning that those PDS inpatients who are informed promptly about their medical discharge are more likely to experience long PDS than those who are not. This analogy is underscored by “failure in reassurance by the attending health workers” in the medical discharge process (Rosman et al., 2015). Everall et al. (2019) and Micallef et al. (2020) assert

that the involvement of the inpatients and their family members in decision-making regarding medical discharge leads to the reduction of avoidable PDS. Therefore, a clear communication process where patients and caregivers continually connect with healthcare workers allows the asking of questions and probes on the next step.

Medical discharge clearance is one of the hospital processes that determine how soon the PDS inpatient leaves the hospital. As shown in Table 6.2 below, almost all the respondents agreed 120(90.22%) that they were still waiting for medical discharge clearance and only 9(6.77%) disagreed while 4(3.01%) responded with 'don't know'. Additionally, the majority who had long PDS agreed 34(25.56%) that they were waiting for paperwork clearance.

Table 6.2: ***Influence of Waiting for medical discharge clearance on PDS***

Variable	Short PDS <7days n (%)	LongPDS >7days n (%)	Total N (%)	OR(95% CI)	P-Value
Waiting for clearance					
Disagree	3(2.26)	6(4.51)	9(6.77)	Ref	
Don't know	0(0.00)	4(3.01)	4(3.01)	1	
Agree	86(64.66)	34(25.56)	120(90.22)	0.2(0.05-0.84)	**0.028**
Total	**89(66.92)**	**44(33.08)**	**133(100)**		

Results reveal that majority of the respondents 34(25.56%) who agreed that they were waiting for medical discharge clearance had long PDS, followed by those who disagreed 6(4.51%) while those who responded as 'don't know' were 4(3.01%). The logistic regression result further reveals that those who agreed to be waiting for clearance were 0.2 times less likely to experience long PDS as compared to those who disagreed (P-value 0.028, odd-ratio 0.2).

Paperwork clearance entails presenting a sheet confirming that the inpatient has been duly medically discharged (discharge summary) and a receipt indicating that the bill has been paid, either through cash, social health insurance, or waiver. The medical discharge process is usually started when the consultant doctor formally approves medical discharge and ends with

the patient leaving the clinical unit facility (Kane, 2011; Alper et al., 2017). PDS is mostly experienced because of delays in billing approval.

Different facilities have different protocols for the medical discharge process and some seem longer while others are so brief. KI 6 contended that:

> When a(PDS inpatient's) file is taken to the billing office, relatives can take care of the whole discharge process… but if it is a case whereby the (inpatient) was brought by maybe a good Samaritan then disappeared, a file can be brought here then social workers would come for the file, they do their work(carry out an assessment, trace relatives and award waivers to indigent patients-which is a process)… and then the patient goes (leaves the facility) (KI 6).

KI 4 agreed that PDS inpatients who have weak social support and financial difficulties would prolong their stay as they wait for clearance:

> "…once discharged (written discharge summary), the file will move to the billing section, the billing officers will give the bill and if the patient is financially stable enough they will clear the bill and leave but in an event where the patients are not able to leave, because of financial reason or because they lack social support, they will stay longer so the file will remain in the billing until the social workers go for files it and they do their duty…trace relatives ..."(KI 4).

KI 2 reiterated that the waiver process would play a key role in PDS, by saying that "… at the end of the treatment, through social history, the PDS inpatient is going to be waived, a service that involves a process …hence the discharge process will influence the kind of stay after the discharge …''.

This result concurs with a Kenyan previous report by Ogangah et al. (2007) and (Opondo, 2015) who allude that PDS is generally used to pressurize the inpatient's relatives to pay bills yet the process is burdensome, demeaning, and dangerous for the health of the PDS inpatients.

Mostert et al. (2014) postulate that PDS occurs as a result of mismanagement, corruption, dysfunctional healthcare system structures, and unfair waiver procedures, warranting attention. A waiver is a process that was awarded only once a week in those two referral facilities (Unpublished report, JOORTH, and KCRH, 2016). Therefore, the very vulnerable and in need of a waiver had no choice but to wait for medical discharge clearance, thus long PDS.

6.2.2 Influence of UHC registration status of PDS inpatients on PDS

Concerning UHC registration, the result (Table 6.3) indicates that 46(34.59%) respondents registered while the majority were unregistered 87(65.41%). Of the respondents who had long PDS, 36(27.06%) were not registered with UHC while only 8(6.02%) were registered.

Table 6.3: ***Influence of UHC registration status of PDS inpatients on PDS***

Variable	Short PDS <7days n (%)	LongPDS >7days n (%)	Total N (%)	OR (95% CI)	P-Value
UHC registration status					
Registered	38(28.57)	8(6.02)	46(34.59)	Ref	
Unregistered	51(38.35)	36(27.06)	87(65.41)	3.35(1.39-8.03)	**0.01**
Total	**89(66.92)**	**44(33.08)**	**133(100.00)**		
Reason for UHC Non-registration					
Not aware	25(28.74)	15(17.24)	40(45.98)	Ref	
Lack of required documents	9(10.34)	11(12.64)	20(22.98)	2.03(68-6.05)	0.2
Did not meet the deadline	6(6.90)	3(3.44)	9(10.34)	0.83(0.18-3.83)	0.82
Didn't want	5(5.75)	1(1.15)	6(6.90)	0.33(0.03-3.13)	0.34
Other	6(6.90)	6(6.90)	12(13.80)	1.66(0.45-6.11)	0.44
Total	**51(58.63)**	**36(41.37)**	**87(100.00)**		

According to the results, of those who never registered, when asked the reason, many responded that they were not aware of the introduction of UHC 40(45.98%). This was followed by those who said they lacked the required documents 20(22.98%). Such documents included ID cards and birth certificates. Others still contended that they did not meet the deadline for UHC registration 9(10.34%) while the least did not deliberately want to register 6(6.90%). The

rest had other reasons for not registering for UHC 12(13.80%). Those other reasons were pegged on the fact that those respondents were non-Kisumu County residents while others never trusted the government initiative while one respondent said 'I was misinformed about the UHC initiative'. Logistic regression results show that those who were not registered for UHC were 3.35 times more likely to experience long PDS as compared to those who were registered. The study thus reveals that the majority who had short PDS relied on UHC to cater for their medical bills while those who were not registered and stayed longer were non-Kisumu County residents who were not UHC beneficiaries.

Other respondents who registered with UHC had their names missing from the system as stated by a jobless mother of a 17-year-old child (Patient 2):

> I haven't gone home because when I was here, I knew I was using UHC to clear the medical bill. But going to check on UHC status, it was only my name appearing and not my child's and when I went to ask for the bill, I was told that I am supposed to pay cash and I didn't have the cash that is the reason that has made me stay here (Patient 2).

In scenarios where the PDS inpatients' details were captured in the system, the inpatients were cleared immediately and no PDS was experienced as stated by KI 9, 'if the patients have the UHC, then we will process the bill without delay'. In this study, we found that PDS inpatients experiencing long PDS were more likely to be unregistered for UHC. The findings are consistent with the previous studies which affirm that UHC is the strategy that has been introduced in many countries (Reich et al., 2016) to cushion the poor population from catastrophic and impoverished health payments (WHO, 2013). Due to failures in governance and health financing systems (Yates et al., 2017), UHC was piloted in Kisumu County (Kahongeh, 2018; Ogutu, 2018) and only those who registered benefited from free healthcare services because they leave the hospital immediately they are medically discharged, thereby reducing episodes of PDS. Therefore, the UHC registration status of inpatients influences PDS.

6.2.3 Influence of NHIF registration status of PDS inpatient on PDS

According to Table 6.4, respondents who had not registered for the NHIF 98(73.68%) were more compared to those who had registered 21(15.79%) while the rest 14(10.53%) defaulted on the monthly subscription.

Table 6.4 : ***Influence of NHIF registration status on PDS***

Variable	Short PDS <7 days n (%)	Long PDS >7 days n (%)	Total N (%)	OR (95% CI)	P-Value
NHIF registration status					
Registered	16(12.03)	5(3.76)	21(15.79)	Ref	
Unregistered	61(45.86)	37(27.82)	98(73.68)	1.94(0.65-5.73)	0.23
Defaulter	12(9.03)	2(1.50)	14(10.53)	0.533(0.08-3.23)	0.49
Total	**89(66.92)**	**44(33.08)**	**133(100.00)**		
Reason for NHIF Non-registration					
Not financially stable	12(12.24)	10(10.20)	22(22.44)	Ref	
Not aware of NHIF	28(28.57)	20(20.42)	48(48.99)	0.87(0.31-2.37)	0.766
Other	21(21.43)	7(7.14)	28(28.57)	0.40(0.12-1.33)	0.134
Total	**61(62.24)**	**37(37.76)**	**98(100)**		
Reason for defaulting (NHIF)					
Not financially stable	11(78.57)	2(14.29)	13 (92.86)	Ref	
Other	1(7.14)	0(0.00)	1(7.14)	N/A	N/A
Total	**12(85.71)**	**2(14.29)**	**14(100.00)**		

Results reveal that, of the unregistered NHIF respondents, when asked, the majority gave the reason of not being aware of NHIF services 48(48.99%), closely followed by those who responded as having other reasons 28(28.57%) while the rest said they were not financially stable 22(22.44%). Other reasons include lack of ID cards-one of the required documents for taking this social health insurance while others had been postponing the registration as they took it for granted. Of those who registered but defaulted, the majority gave the reason for defaulting due to financial instability 13(92.86%) with only 1 (7.14%) respondent saying that 'I depended on my retired husband who defaulted paying for NHIF'. Regarding the length of PDS, most of the unregistered NHIF respondents 37(27.82%) had long PDS compared to those registered 5(3.76%) followed by defaulters 2(1.50%).

One of the key informants had this to say:

> '…if the patient has registered with NHIF then all documentation (national ID, birth certificate/notification for children) will be confirmed and cleared and the PDS inpatient is allowed to exit the facility. But if they don't have these documents, sometimes we will need to go to the NHIF to take the preauthorization letters thus delay' (KI 9).

Results of the study confirm that patients who are not enrolled in NHIF experience long PDS. This result is in agreement with the previous researches which found that PDS inpatients are more likely to be uninsured (Brasel et al., 2002; Cai et al., 2020).

Developing countries introduced policies that promote the expansion of NHIF registration to the informal sector (Mange et al., 2018). The strategy was to facilitate a decrease in the number of PDS cases that result from the inability to pay medical bills (Mambo, 2014). A Burundian study had contradicting findings as twenty of the inpatients experienced PDS due to delays yet they were insured (Kippenberg, 2007). The unnecessary delay was due to the long procedures involved in following up and clearing medical bills through insurance. Mostert et al. (2014) consider PDS as episodes that result from inadequate health insurance coverage. However, the current regression result suggests that there is no statistical significance between NHIF registration status and PDS.

6.2.4 Involvements of hospital social workers and their influence on PDS

The hospital management has a role to help the PDS inpatients who have been left by their social networks. Those roles include tracing relatives and any source of social support for the victims of PDS. They also repatriate PDS in patients who have not been picked up by their social networks. From Table 6.5 below, the majority of the respondents 94(70.68%) disagreed, 36(27.07%) agreed and 3(2.25%) did not know that they were waiting for their relatives to be traced by the hospital social worker.

Table 6.5: ***Influence of waiting for relatives of PDS inpatients to be traced on PDS***

Variable	Short PDS <7days n (%)	LongPDS >7days n (%)	Total N (%)	OR(95% CI)	P-Value
Waiting for the hospital to trace my relatives					
Disagree	75(56.39)	19(14.29)	94(70.68)	Ref	
Don't know	2(1.50)	1(0.75)	3(2.25)	1.97(0.17-22.93)	0.587
Agree	12(9.02)	24(18.05)	36(27.07)	7.89(3.35-18.59)	**<0.001**
Total	**89(66.91)**	**44(33.09)**	**133(100)**		

The results also demonstrate that respondents who agreed 24(18.05%) that they were waiting for hospital social workers to trace their relatives had long PDS, closely followed by those who disagreed 19(14.29%). Comparatively, the results indicate that respondents who were not waiting for their relatives to be traced, 75(56.39%) had short PDS. Logistic regression results further show that those who agreed to be waiting for the hospital to trace their relatives were 7.89 times more likely to experience long PDS as compared to those who disagreed (P-value <0.0001, odd-ratio 7.89).

PDS inpatients, especially those who were brought in by police officers while unconscious and were tagged as 'unknown' posed a lot of challenges to hospital social workers as getting tangible information from them proved difficult. It was not easy to trace their relatives as quoted below:

> …the patient is not able to articulate issues about where they stay, then we cannot discharge this patient anywhere so you (the facility management) will still have this patient as the medical social worker tries to get very critical information about the destination of the patient (KI 2).

Other key informants admitted that arranging for logistics for physical tracing contributes to cases of PDS by saying that, '… the social workers will have to go down to the village and try to trace and get the concerned people'(KI 9).

Previous studies concur that the tracing of relatives of PDS inpatients was untimely owing to the limited number of trained social workers (Hendy et al., 2012) and the lack of tangible information for tracing purposes (Mustafa et al., 2016). These current findings have it that tracing relatives of PDS inpatients takes long as logistics including a vehicle and personnel are arranged.

The hospital management through the medical social workers is to take PDS patients who have not been picked up by relatives back to their homes. The majority of respondents disagreed 96(72.18%) that their long stay was caused by the long wait for repatriation by the hospital. However, 32 (24.06%) agreed that they were waiting for the hospital social worker to take them back to their home while 5(3.76%) did not know as indicated in Table 6.6 below.

Table 6.6: ***Influence of PDS inpatients' waiting to be escorted home on PDS***

Variable	**Short PDS <7days n (%)**	**LongPDS >7days n (%)**	**Total N (%)**	**OR(95% CI)**	**P-Value**
Waiting for a social worker to take me home					
Disagree	77(57.89)	19(14.29)	96(72.18)	Ref	
Don't know	2(1.50)	3(2.26)	5(3.76)	6.08(0.95-38.98)	0.057
Agree	10(7.52)	22(16.54)	32(24.06)	8.92(3.62-21.94)	**<0.001**
Total	**89(66.91)**	**44(33.09)**	**133(100)**		

The results reveal that of the respondents who agreed 22(16.54%) had long PDS while 19(14.29%) respondents disagreed. Moreover, the study found that majority of respondents who disagreed to be waiting to be escorted home 77(57.89%) had short PDS. Regression analysis results show that those who agreed to be waiting to be escorted home were 8.92 times more likely to experience long PDS compared to those who disagreed (P-value <0.0001, odd-ratio 8.92).

Due to the long processes involved in organizing for repatriation, logistics issues caused delays. For example, Patient 9 said that "Social workers in this hospital have become liars. They say you will go home tomorrow, you don't see any results." This was confirmed during key

informant interviews where KI 2 said repatriation would delay due to logistics like means of transport and hospital social workers who are few as quoted below:

> Well, logistics, Aaah like once we have identified a patient that would be waived and...Aaah probably the patient is not able to, or you already know where the patient is coming from but you must go and assess the environment, in that case, you need transport, you may need people to go there and that would make it prolonged if those were not taken. So logistics are also hospital aspects that will delay patient exit (KI 2).

This agrees with a previous study by Gibbons and Plath (2009) which found that the medical social workers' role is intense and time-limited thus delays in decisions regarding PDS inpatients' release from the hospital wards. Further, PDS is associated with hospital social workers' untimely review of PDS cases due to the limited number of trained hospital social workers (Hendy et al., 2012).

6.2.5 Influence of Request to Prolong the Stay on PDS

As shown in Table 6.7, majority of the respondents disagreed 107(80.45%) that they requested the hospital management to allow them to extend their stay in the ward. The results also indicate that 22(16.54%) agreed that they requested their PDS while 4(3.01%) responded that they "Don't know".

Table 6.7: ***Influence of request to prolong the stay and PDS***

Variable	**Short PDS < 7 days n (%)**	**Long PDS >7 days n (%)**	**Total N (%)**	**OR(95% CI)**	**P-Value**
Requested an extended stay at the hospital					
Disagree	74(55.64)	33(24.81)	107(80.45)	Ref	
Don't know	1(0.75)	3(2.25)	4(3.01)	6.73(0.67-67.1)	0.104
Agree	14(10.53)	8(6.02)	22(16.54)	1.28(0.49-3.35)	0.613
Total	**89(66.92)**	**44(33.08)**	**133(100)**		

Most surgical and psychiatric PDS inpatients stayed longer in the ward accumulating huge medical bills that they were not in a position to clear, so they requested the management to allow them to look for money. Interestingly, the result revealed that 33(24.81%) respondents who disagreed that they requested for prolonged stay had long PDS. According to the results, comfort in the hospital whereby PDS inpatients and their relatives requested the hospital management to allow them to prolong their stay in the hospital ward caused PDS. These results differ from those of studies conducted in other countries (Tan et al., 2010; Little, 2014; Toh et al., 2017) in which families deliberately delayed coming to pick up their PDS inpatients as they were perceived as a burden. Even when there is a family member who is able and willing to provide for a PDS inpatient, Little (2014) revealed that most family caregivers are employed outside the home and are unable to provide the required support. This difference may be explained by more efficient infrastructure and processes for performing social assessments in the institutions in the studies cited.

Kenya, particularly Kisumu County, has serious social problems. A significant part of the population lives in extreme poverty with limited access to healthcare services (KNBS, 2010; KIPPRA, 2020). The main causes of poverty include unemployment, inaccessibility to affordable healthcare, and the burden of communicable diseases such as HIV and AIDS, malaria and tuberculosis which made the county chosen as one of the UHC pilot study sites (Ogutu, 2018). Difficulties in paying for medical services out of pocket and providing post-hospital discharge care are significant causes of PDS.

The main hospital-related reason for PDS stays was found to be deeply rooted in system delays. According to the national guidelines and policies for public hospitals, patients are retained in hospital wards until their hospital bills are paid (Mostert et al., 2015). The results of the study indicate that PDS inpatients experienced episodes of PDS due to avoidable delays. Such inappropriate delays included a long discharge process. Some of the predictors of PDS in

referral hospitals, such as waiting for appropriate medical discharge information, paperwork clearance, tracing, and repatriation. Therefore, administrative bureaucracy accounts for these delays which predicted episodes of PDS.

In conclusion, this third objective of the study sought to find out the influence of institutional factors on PDS. From the findings, waiting for medical discharge clearance, timely communication about medical discharge, UHC registration status of PDS inpatients, and inadequate involvement of medical social workers in tracing PDS inpatients' relatives and PDS inpatient escort were the hospital-related predictors of PDS. From health care workers' narratives, delays wholly depend on the availability of resources like vehicles, money, and time, since as arranging for logistics is underway, PDS is inevitable.

CHAPTER SEVEN

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction

This chapter entails a summary of the findings, explains the conclusions and recommendations, and finally, gives suggestions for further research based on the limitations and findings of the study.

7.2 Summary of Findings

The findings revealed that demographic characteristics of PDS inpatients including age, gender, marital status, and nature of the illness, were the predictors of PDS. The elderly are prone to experiencing difficulty in taking care of themselves and their dependency level is high, hence PDS. According to the results of the study, males had a higher likelihood of experiencing long PDS. Narratives from healthcare staff attested that men are breadwinners and when they end up in the referral hospitals, their relatives are not around to help them leave the hospital once they are discharged. In addition**,** being married was associated with a decrease in PDS episodes whereas respondents who were single experienced long PDS. Results also showed that most of the PDS inpatients had chronic diseases and that they had long PDS. The experiences of key informants interviewed suggested that the chronic nature of the illness was stigmatizing and patients were mostly rejected from the community hence such PDS inpatients would find solace in the hospital, hence PDS.

To determine the influence of social support on PDS, the estimated logistic regression was used and results indicate that living arrangements, who brought the PDS inpatients to the hospital, visitation during hospitalization, and social support received from relatives and friends were the social reasons for continued PDS. Regarding living arrangements, results suggest that staying with family members before admission leads to short PDS since families are sources of social support systems. Respondents who were brought to the facility by relatives had long

PDS because they were abandoned by their relatives in the hospital wards. Reasons for abandonment included the family's inability to offer post-discharge care and to pay medical bills.

With regard to those who were brought to the hospital by police officers, such PDS inpatients would be labeled as unknown or unidentified. They experience long PDS because they suffer from severe cognitive impairment and dementia thus the hospital social workers find it very difficult to get tangible information for tracing and repatriation purposes. Results show that more of the respondents who were not visited during hospitalization had long PDS. The explanation is that visitation allows social networks to make bill payments and other arrangements in good time. Another reason for PDS was homelessness, an unsafe environment at home and the inability to clear the medical bills. PDS results from a lack of fare to take PDS inpatients home and lack of social support.

To assess the influence of institutional predictors on PDS, the study results indicate that institutional delays such as waiting for timely communication, discharge clearance, awaiting tracing, escort and UHC registration status were hospital-related reasons for PDS. Although the request for PDS was not a predictor of PDS, many PDS inpatients reported having been discharged without specific information and instructions on post-discharge care which made them feel at home in the hospital wards. As a result, PDS inpatients ended up taking long before exiting the facility. Moreover, long hospital discharge processes, waiting for tracing, and repatriation, especially, of PDS inpatients who were brought in as 'unknown' and 'deviants' were found to influence PDS. Also, the study results indicate that hospital-oriented processes that predicted PDS inpatients from exiting the facility were the issues of the inability to pay medical bills and long waiver processes. Many of the care providers recognized the importance of these aspects but were often frustrated by their inability to medically discharge inpatients at the optimal moment, due to the logistics required and bureaucracy of the organizations.

7.3 Conclusions

This study was guided by the social-ecological model (McLeroy et al., 1988) and it fills a gap in the fragmented literature on PDS by providing a research-based perspective on socio-demographic and institutional predictors. Demographic characteristics of PDS inpatients include being elderly, male, unmarried, and those with chronic conditions who are vulnerable and are more likely to experience PDS. Therefore, the study's first objective confirms that the PDS inpatients' demographic characteristics have an influence on PDS. The social network system of people determines how soon they leave the hospital upon medical discharge. Staying with relatives before admission to the referral hospital, being accompanied to the hospital by police officers, receiving fewer or no visits and social support during hospitalization are associated to long PDS. Therefore, the study established that weak social support received by PDS inpatients has an influence on PDS. Long waiting processes of clearing the PDS inpatients, timely communication, UHC registration status, time taken to trace PDS inpatients' relatives and escorting PDS inpatients home deem long thus the study confirmed that these institutional factors influenced PDS. The study therefore concludes that PDS is deeply rooted in the vulnerable demographic characteristics, weak social support and long waiting processes of the hospital.

7.4 Recommendations

The general population, especially the vulnerable like the elderly, the male, the unmarried and those with chronic conditions should invest in social networks when they are still healthy. They should also take up government initiatives like enrollment in UHC and social health insurance seriously. The act will increase their level of independence especially when they become ill and admitted in referral hospitals, thereby reducing cases of PDS.

Secondly, social networks including close social relations of victims of PDS are called upon to offer social support to their PDS inpatients. They should be made aware that PDS is associated

with poor health outcomes. This can be mitigated when they offer this noble social support by paying their loved ones visits when hospitalized.

Thirdly, referral hospital management and policymakers should invest in the early identification of predictors of PDS reported in this study. This will help reduce probable cases of PDS by introducing a PDS tracking mechanism. This is achievable by involving medical social workers in the identification of predictors of PDS and multi-disciplinary decision-making, during admission, hospitalization and on the medical discharge of the inpatients. They are also recommended to sensitize the general population about the harms associated with PDS and psycho-educate them on the importance of enrolling with UHC.

7.5 Suggestions for Further Research

The study used a socio-ecological model and drew attention to predictors of PDS at the individual, interpersonal and institutional levels within the hospital setup. Future researchers are encouraged to use the same model but go beyond the facility level. Involving social relations at the community level may further yield rich results

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APPENDICES

APPENDIX I: INFORMED CONSENT EXPLANATION AND FORM FOR PDS INPATIENTS

I, **Awuor Eunice Gor**, am supposed to write a research thesis in partial fulfillment of the requirements for the award of the degree of Master of Arts in Sociology, School of Arts and Social Science, Department of Sociology and Anthropology, Maseno University. My research topic is:

Socio-demographic and institutional predictors of post discharge stay of inpatients' in referral hospitals in Kisumu County, Kenya

The purpose of this study is to investigate social-demographic and institutional factors that foresee the occurrence of post discharge prolonged stay in the hospital upon medical discharge of inpatients in referral hospitals in Kisumu County. This topic was chosen after it was reported by the media that inpatients prolong their stay in referral health facilities unnecessarily upon their medical discharge.

You have therefore been requested to take part in this study and is requested to voluntarily give accurate information. The responses you provide will be kept confidential. Also, your name will not appear in the questionnaire hence your identity will be anonymous. You will just be assigned a code and the data collected in this study is for academic purposes.

I (**Code only)** _____ have read the foregoing information and have had the opportunity to ask questions, which have been answered to my satisfaction. I hereby voluntarily consent to participate in the study.

Signature _____ Date_____

Signature of researcher_____ Date_____

Thank you

APPENDIX I1: ASSENT FORM FOR PDS MINORS

I, **Awuor Eunice Gor**, am a student pursuing the degree of Master of Arts in Sociology, at the School of Arts and Social Science, Department of Sociology and Anthropology, Maseno University, and carrying out a study to investigate **Socio-demographic and institutional predictors of post discharge stay of inpatients' in referral hospitals in Kisumu County, Kenya**

This topic was chosen after it was reported that inpatients prolong their stay in referral health facilities unnecessarily upon their medical discharge. You are therefore requested to take part in this study and required to give accurate information. It will take only 25-30 minutes. Participation is voluntary and refusal to participate in the study will not attract any penalty. The responses you provide will be kept confidential. Also, your name will not appear in the questionnaire hence your identity will be anonymous. You will just be assigned a code and the data collected in this study is for academic purposes only.

I (**Code only)** _____ have understood the information and have had the opportunity to ask questions, which have been answered to my satisfaction. I hereby voluntarily assent to participate in the study.

Signature _____ Date_____

Signature of researcher_____ Date_____

Thank you

APPENDIX III : PDS INPATIENT'S QUESTIONNAIRE

Instructions

Fill in one questionnaire for each PDS inpatient interviewed. Read the options to the respondents only if instructed to probe using options where necessary but do not influence clients' response.

I. Name of the health facility (tick in the boxes appropriately)

Jaramogi Oginga Odinga Teaching & Referral Hospital (JOOTRH) [1]

Kisumu County Referral Hospital (KCRH) [2]

II. Department/Ward Number (tick in the boxes appropriately)

Maternity [1] Male medical [2] Male Surgical [3] Female medical [4]

Female surgical [5] Gynecological [6] Pediatric [7] Psychiatric [8]

III. Date of Discharge (D.O.D) …… Date of Interview (D.O.I)……

IV. Post Discharge Stay (PDS)= DOI-DOD (number of days)….<7days [1] >7days [2]

A: DEMOGRAPHIC CHARACTERISTICS OF INPATIENTS

NB: (For children and psychiatric PDS inpatients interview the parent/guardian. For children, education status, religiosity and employment status are not considered, but the parents/guardian were considered)

Please, place a ( ) in the boxes provided as appropriate.

1. What is your age?

   [1] 0-9 [2] 10-19 [3] 20-29 [4] 30-39 [5] 40-49 [6] 50- 59 [7] Over 60

2. What is your gender?

   Male [1] Female [2]

3. What is your marital status?

   [1] Married [2] Single [3] Divorced/Separated [4] Widowed [5] Child

4. If the respondent is a child, indicate the parental status.

   [1] Total Orphan [2] Partial Orphan [3] Have both parents

5. What is the nature of the illness? .....

   Chronic [1] Acute [2]

6. What is your religion? (if a child or psychiatric case ask the parent or guardian)

   Christian [1] Muslim [2] Traditionalist [3] Other [4]

   If other, specify_____

7. How often do you attend religious services? (if a child or psychiatric case ask the parent or guardian)

   Regularly [1] Irregularly [2]

8. How often do you participate in religious activities? (if a child or psychiatric case ask the parent or guardian)

   Regularly [1] Irregularly [2]

9. What is your level of education? (if a child or psychiatric case ask the parent or guardian)

   None [1] Primary [2] Secondary [3] Tertiary [4] Other (specify) [3] ……

10. What is your employment status? (if a child or psychiatric case ask the parent or guardian)

    Unemployed [1] Employed [2]

11. If you are employed, indicate the sector.

    Informal [1] Formal [2]

B) INFLUENCE OF SOCIAL SUPPORT ON PDS

The following statements and questions are related to social network support. Kindly answer all items and place only one tick per question unless otherwise stated.

1. Before you came to the hospital, who were you staying with?

   Relatives [1] My family [2] Friends [3] Neighbor [4]

Alone [5] Good Samaritan [6] Other (specify) [7] _____

2. Indicate who brought you to the hospital (Tick, applicable ones)

   Relatives/My family [1] Friends [2] Neighbors [3]

   Self [4] Police officer [5] Good Samaritan [6]

3. Have you been visited by your relatives/friends during hospitalization?

   Yes [1] No [2]

4. Since you were discharged, have your relatives/friends come to your aid?

   Yes [1] No [2]

5. If Yes, kindly specify the kind of aid you received.

   Emotional [1] Monetory [2] Material [3] Others [4] specify_____

6. When you will leave the hospital where is your destination?

   To a relative [ ] To a friend [ ] To a neighbor [ ] To my house/home [ ] Other (specify) [ ]_____

7. Please explain why you did not leave the hospital immediately after you were medically discharged._____

   No one to take me home [1] No fare [2] No one is aware that being discharged [3]

   Others (specify) [4]

D) INFLUENCE OF INSTITUTIONAL FACTORS ON PDS

The following statements and questions are related to health facility factors that influence PDS. Kindly give appropriate answers.

1. You were medically discharged but you are still in the facility; below are some possible hospital-related reasons for you not leaving the hospital immediately after you were discharged. Kindly tick appropriately, (5 – Strongly Agree; 4 – Agree; 3 – Don't know; 2 – Disagree; 1 –Strongly Disagree)

No.	Hospital-related reason for PDS	Strongly agree (5)	Agree (4)	Don't know (3)	Disagree (2)	Strongly disagree (1)
1	I was timely informed about medical discharge by healthcare workers					
2	1 was waiting for clearance (paperwork)					
3	Am waiting for the medical social worker to trace my relatives					
4	Am waiting for the medical social worker to take me home/home for the old (repatriation)					
5	I requested the hospital to allow me to stay longer in the hospital.					

6) What is your National Health Insurance Fund (NHIF) status?

Registered [1] Unregistered [2] Defaulter [3]

i. If NHIF Defaulter give a reason_____

[1] Not Financially stable [2] Other

ii. If unregistered to NHIF give a reason_____

[1] Not Financially stable [2] Not Aware [3] Other

7) What is your universal health coverage (UHC) status?

Registered [1] unregistered [2]

8) If unregistered to UHC give reasons

[1] Not Aware [2] Lack of required documents [3] Did not meet deadline [4] Didn't want [5] Other

Thank you very much for answering these questions.

APPENDIX IV: TRANSLATED CONSENT FORM FOR PDS INPATIENTS

BATH NONRO I: OBOKE MAR AYIE MALERO WECHE MAR JO TUO E OSIPITAL.

An, **Awuor Eunice Gor**, onego andik oboke mar timo nonro mar somo mar yudo rang'iny mamalo e somo mar oganda, kar somo, e migawo mar somo mar oganda gi somo marango kaka ji odak, timbe, kit gi chiemo, e mbalariany mar Maseno. Nonro mara woye ewi:

Nyuolruok mar ji duto gi migao mang'iyo gima biro bang ka jomatuo kose gol gi ajuoga e osipital maduong e Kisumu kaunti, Kenya mondo odhi dala.

Gimomiyo wang'iyo somo en nono nyolruok gi migawo makelo wach ma biro bang golo jatuo gi ajuoga e osipital e osipital maduong e kaunti mar Kisumo. Wach ni no yier bang jo fuamb weche noyudo ni jo tuo mane "ward" (otendini mar jotuo) kao thuolo mangeny e osipital maduong', mar jotuo kaka dwarore bang' kosegolgi gi ajuoga kagitieko thieth te e "ward".

Okwayi kiyie mondo iriwri kodwa kaachiel mondo ikonywa ng'iyo matut e timo nonro ni. Wach mi miyo wa ibiro kano kama opondo ne ng'ato ang'ata mak mana jomatimo nonro kende. Kata nyingi okwabi ndiko e otas mar nonro koro bedo mari eyi nonro ok bing'ere gi ng'ato ang'ata. Iboro miyi namba moro, weche mo oyud ei nonro ni biro konyo wa ei somo mara.

An _____ ase somo wach kendo asebedo gi thuolo mar penjo penjo, mose duoki mayiego adimba. An awoun achiwora ma onge achuna mondi a adonjie e nonro.

Kogno _____ Tarik_____

Kogno mar ja nonro_____ Tarik_____

Erokamano.

APPENDIX V: TRANSLATED QUESTIONNAIRE FOR PDS INPATIENTS

BATH NONRO MAR II: Otas nonro mar jotuo e od thieth "ward"

Chike mag tich.

Pong' karatas nonro mar ngato ka ngato morwark e od thieth mar joma tuo mose gol gi ajuoga mose penj penjo. Som yiero mabathe ne joduok penjo mana kapo Onyisi ni ipenj penjo matut madwarre kata kamano kik ichik pache.

Ne wechegi: Nyithindo gi jo tuo mani gi paro mopogre penj Jarit mar aluora/janyuol/jarit/japidi maduong'

I. Nying od thieth (go tik kaka luore)

Jaramogi Oginga Odinga Teaching & Referral Hospital (JOOTRH) [1]

Kisumu County Referral Hospital (KCRH) [2]

II. Migao/ namba od welo matuo (go tik kaka luore)

Od nyuol [1] Od jotuo machuo [2] Bero mar chuo [3] Od joma mon matuo [4] Bero Mar mine[5] Ajuoga mar mine e osipital [6] Ajuoga mar nyithindo [7] Ajouga mar joma wiyie gi okni kare[8]

III. Tarik mar wuok (T.M.W) …… Chieng nonro (C.N)……

IV. Joma osegol to pod obet e od thieth (PDS)= DOI-DOD (ndalo mose kaw)……..<ndalo7 [1] >ndalo7 [2]

A: NYUOLRUOK GI KITGI TIMBE MAORUAK OD THIETH

Kiye, ket (tik)e sanduku kaka dwarore.

1. In ja hgini adi?

   [1]0-9 [2] 10-19 [3] 20-29 [4] 30-39 [5] 40-49 [6] 50- 59 [7] over 60

2. Dichuo kata Dhako?

   Dichuo [1] Dhako/Nyako [2]

3. Chal ni mar kend en nade?

[1] Osekenda [2] Pok okenda[3] Wawere/wapogore [4] Jaoda osetho [5] Moro…

4. Ka ja jatuo en nyadhi, to penj kit anyuola mare

   [1] an Nyadhi Kich [2] Janyuolna achiel osedho [3]Jonyuolna te ngima

5. Chal mar tuo ochopo okang' mane? ……

   Tuo mar songa/ok rum(Chronic) [1] Tuo mabiro matek to rumo (Acute) [2]

6. Ija lemo mane?

   Christo [1] Ja Islam [2] Onge lemo/ lamo nyichese machon [3] Moko [4]

   Kapo nitire moko, Ler_____

7. Idhi ga e lemo maromo nade?

   Pile [1] Kadichiel [2]

8. Itimo ga tije mag lemo marom nade?

   Pile [1] Kadichiel [2]

9. Sombi ogik kanye?

   Onge [1] Primary [2] Secondary [3] Mbalariany/college [4] Moko (Ler) [3]……

10. Be ondiki?

    Okondika [1] Ondika [2]

11. Kondiki, nyis migawo.

    Moko luro gi chike [1] Moluro gi chike [2]

B) KAWO PARO MAR JI DUTO EWI KONY MAR JOTUO MOSE GOL GI AJUOGA TO PODI GIN E OD THIETH

Weche ma luore gi penjo otudre gi konyi mar oganda duto. Duok penjo kichuo tik achel kuom penjo ka penjo mana kaponi ochuno.

1. Ka pok ni biro e od thieth, ni dak gi ng'a?

   Owete [1] Joga [2] Oseipe [3] Jadir [4]

   Kenda [5] Ng'at majachuny maber [6] Moko (Ler) [7] _____

2. Nyis ng'a nokeli e osipital (Tik achiel kaka dwarore)

   Owete[1] Osiepe[2] Jadir/jirani[3] Kendi[4] Ogulmama/polis[5]

   Nagta majachuny maber[6]

   3. Be isebedo gi limbe ma pile kowuok kuom owete/ osiepe dalo mane ango e od thieth.

      Eeh [1] Ooyo [2]

4. Ka no goli e od thieth, be owete/osiepe osekonyi eyore mora mora?

   Eeh [1] Ooyo [2]

5. Ka eeh, Ne gi konyi eyore mage (owete/osiepe)?

   Lemo [1] Pesa [2] olembe [3] Moko (Ler) [4]_____

6. Ka eeh, ne gimiyi kony mane? _____

7. Chieny' ki wouk osipital idhi Kanye?

   Ir owetena [1] Ir osiepa [2] Ir jadir [3] eoda/edalana [4]

   Moko (Ler) [5]_____

8. Nyis ki lero gima omiyo bang ajuoga no goli e od thieth pod nokiwuok?

   Ni onge gama teri dala [1] Ni ionge pesa mar wouth [2]

   Onge ngama no ngeyo ni ajuoga osegola e od thieth [3] Moko (Ler matut) [4]

D) KAW PARO MAR MIGAO GIMA OMIYO JOTUO BET OD THIETH BANG THIETH.

Weche gi penjo mar otudre gi od thieth gi kaw paro gima omiyo jotuo bet od thieth bang kaose thiethe. Chiw penjo madwarore.

1. Osegoli gi ajuoga e od thieth; magi e miyo moko ni budho e osiptal. Chuo tik kaka dwarore, (5 – Ayie motegno ; 4 – Ayie; 3 – An e Diere; 2 – Adagi; 1 –Adagi motegno)

No.	Miyo moko e ospital kose thieth gi ajuoga koli e od thieth	Ayie motegno (5)	Ayie (4)	An e diere (3)	Adagi (2)	Adagi motegno (1)
1	Onyisa moleo gi jo ajuoga od thieth/ ajuoga gima					
2	Arito thuolo man e kind kacha ogiki (tiji kalatas)					
3	Arito ajuoga mar oganda modo oyudi/manyo owetena.					
4	Arito ajuoga mar oganda otera dala/dala mar joma oti					
5	Na kwanyo od thieth modo a bende kuom thuoro moko.					

6. Chal ni mar National Health Insurance Fund (NHIF) en?

   Joma ondikore [1] Joma okondikore [2] Joma ondikore to ok ochudo [3]

7. Chal mar universal health coverage en?

   Joma ondikore [1] Joma okondikore [2]

Erokamano ahinya kuom doko penjo

APPENDIX VI: CONSENT FORM FOR THE KEY INFORMANTS

Introduction (Orally)

I, **Awuor Eunice Gor**, am a Postgraduate student at Maseno University at the Department of Sociology and Anthropology pursuing a degree program in Sociology. In partial fulfillment of the requirement for the award of the degree of Master of Arts in Sociology; I am required to write a proposal and my research topic is:

Socio-demographic and institutional predictors of post discharge stay of inpatients in referral hospitals in Kisumu County.

The purpose of this study is to investigate socio-demographic and institutional factors that contribute to the post discharge stay of inpatients upon their medical discharge in referral hospitals in Kisumu County. The findings of this study will inform the policymakers on what policies to be formulated to help eradicate the situation. The study will also help inpatients to exit health facilities immediately after they will be medically discharged thus avoiding tremendous consequences associated with prolonged stay.

I, **No mention of name please, use the serial No.** …….. have well understood the purpose and the benefits of this study. I am also prepared for the risks involved.

Therefore, I hereby:

* Consent to participate in this study……..

* Don't consent to participate in this study…….

SIGNATURES

Participant …… Date……

Researcher …… Date……

Health facility: JOOTRH [1] KCRH [2]

APPENDIX VII: INTERVIEW SCHEDULE FOR PDS INPATIENTS

Ask PDS inpatients the following questions:

1. What is your age?
2. What is your gender?
3. What is your marital status?
4. What is your religion? Explore more to gauge how often he/she attends religious services and if the religious-related friends have aided him while he was in the ward.
5. Where is your county of residence? Explore more to get information concerning whether it's within Kisumu County and let him/her specify the sub-county. If outside Kisumu, let him/her mention the county).
6. Before you were admitted who were you staying with? Explore to gather more information about the type of house ownership
7. What is the nature of the illness (chronic/acute)
8. What was your source of admission to this facility? (newly admitted/referred)
9. What type of admission did you have(acutely/electively)
10. Can you remember who brought you to the hospital on admission?
11. Have you ever been visited during hospitalization?
12. What do you do for a living? (formally/informally employed)
13. Are you registered to NHIF? Explore more if not registered
14. Are you registered with UHC? If not explore more.
15. How long have you been in the hospital after medical discharge?
16. Give possible reason(s) that has made you prolong your stay in the hospital.

APPENDIX VIII: CONSENT FORM FOR THE KEY INFORMANTS

Introduction (Orally)

I, **Awuor Eunice Gor**, am a Postgraduate student at Maseno University in the Department of Sociology and Anthropology pursuing a degree program in Sociology. In partial fulfillment of the requirement for the award of the degree of Master of Arts in Sociology; I am required to write a proposal and my research topic is

Socio-demographic and institutional predictors of post discharge stay of inpatients in Referral Hospitals in Kisumu County.

The purpose of this study is to investigate socio-demographic and institutional factors that contribute to the post discharge stay of inpatients upon their medical discharge in referral hospitals in Kisumu County. The findings of this study will inform the policymakers on what policies to be formulated to help eradicate the situation. The study will also help inpatients to exit health facilities immediately after they will be medically discharged thus avoiding tremendous consequences associated with prolonged stay.

I, **No mention of name please, use the serial No.** …….. have well understood the purpose and the benefits of this study. I am also prepared for the risks involved.

Therefore, I hereby:* Consent to participate in this study……..* Don't consent to participate in this study…….

SIGNATURES

Participant …… Date……

Researcher …… Date……

Cadre and health facility:

Nursing director(KCRH) [1] Nursing director(JOOTRH [2]

Medical social worker(KCRH) [3] Medical social worker (JOOTRH) [4]

Health records officer (KCRH) [5] Billing officer (KCRH) [6]

Psychiatric unit in-charge(KCRH) [7] Male Surgical ward in-charge (JOOTRH) [8]

Health Administrator Officer (JOOTRH) [9] Health Administration Officers(KCRH)[10]

APPENDIX IX: KEY INFORMANT INTERVIEW GUIDE

Ask them a question on the situation of PDS according to

1. **Demographic characteristics of inpatients**
    1. Find out how this phenomenon (PDS) is referred to in that facility.
    2. How does the age of inpatients influence PDS?
    3. How does gender influence PDS?
    4. What is the marital status of the adults who suffer most from PDS?
    5. What is the parental status of those children who are affected by PDS?
    6. How does the nature of illness influence PDS?
    7. What is the employment status of those affected with PDS?
2. **Social support PDS inpatients have**
    1. Patients are brought to the facility by different people. Mention some and explain how it influences PDS.
    2. How do visits from relatives/friends during hospitalization influence PDS?
    3. What kind of support do PDS inpatients receive from relatives/friends?
    4. It's said that inpatients' destination upon their medical discharge influences cases of PDS. What is your observation about this say?
    5. Please give social support-related reasons why inpatients don't leave the hospital immediately after they are medically discharged. _____

C. Institutional factors that predict PDS of inpatients

1. How often does this facility experience cases of PDS? _____
2. Patients are either acutely or electively admitted. Which category prolongs their stay in health facilities upon their medical discharge? Give reason(s)_____
3. Kindly explain the medical discharge process of inpatients in this facility_____

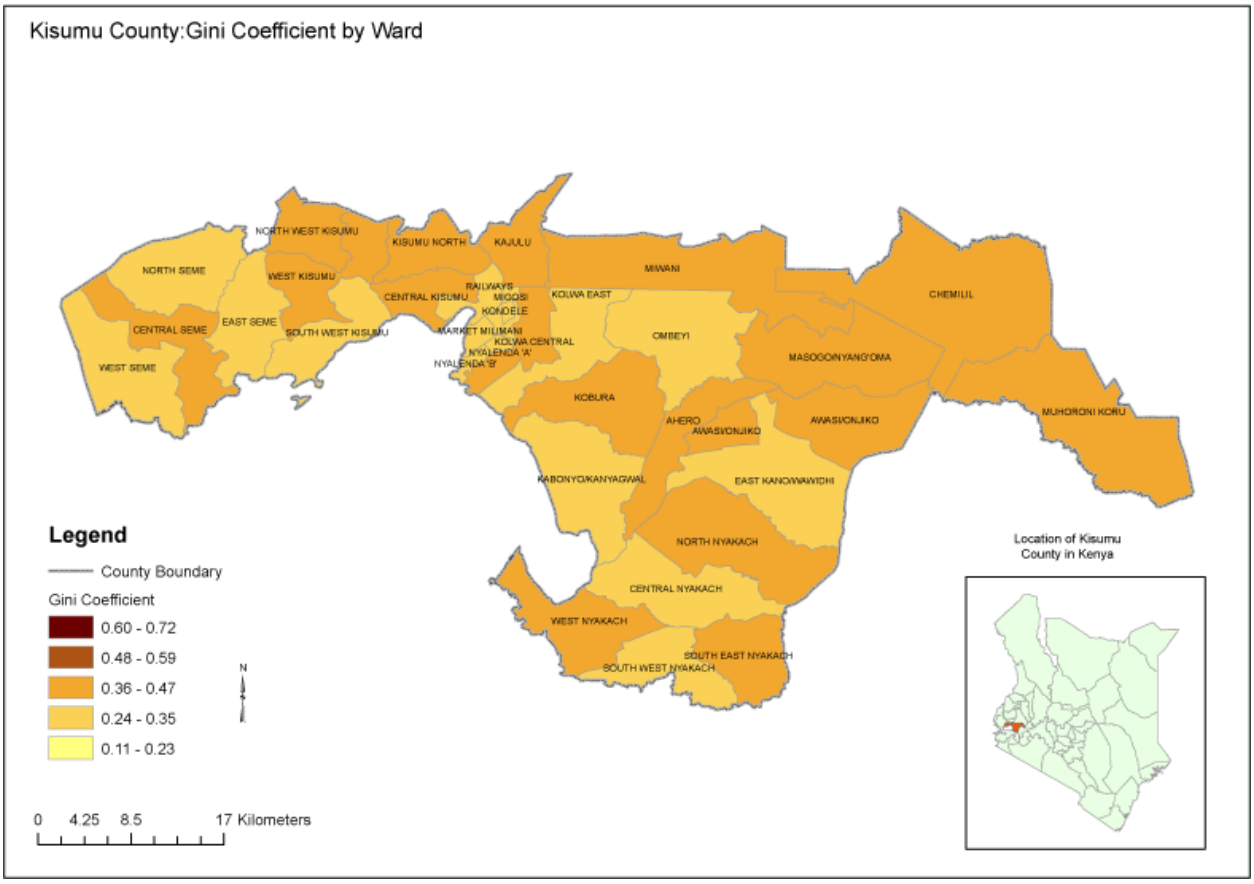
4. At what stage of the discharge process are inpatients informed about their medical discharge by healthcare workers? _____
5. Give possible hospital processes that would predict PDS._____

Conclusion

I want to sincerely appreciate you for sparing your valuable time to participate in this important study.

May God truly bless you

APPENDIX X: KISUMU COUNTY MAP



Source: Kenya National Bureau of Statistics, (2010)

APPENDIX XI: INTRODUCTORY LETTER

MASENO UNIVERSITY
SCHOOL OF GRADUATE STUDIES

Office of the Dean

Our Ref: MA/FA/00171/014

Private Bag, MASENO, KENYA
Tel:(057)351 22/351008/351011
FAX: 254-057-351153/351221
Email: sgs@maseno.ac.ke

Date: 25th June, 2019

TO WHOM IT MAY CONCERN

RE: PROPOSAL APPROVAL FOR AWUOR EUNICE GOR — MA/FA/00171/2014

The above named is registered in the Master of Arts in Sociology Programme in the School of Arts and Social Sciences, Maseno University. This is to confirm that her research proposal titled "Socio-Demographic and Institutional Predictors of Inpatients' Post-Discharge Stay at Referral Hospitals in Kisumu County, Kenya." has been approved for conduct of research subject to obtaining all other permissions/clearances that may be required beforehand.

Prof. J.O. Agure
DEAN, SCHOOL OF GRADUATE STUDIES

Maseno University *ISO 9001:2008 Certified*

APPENDIX XII: ETHICAL CLEARANCE CERTIFICATE

MASENO UNIVERSITY ETHICS REVIEW COMMITTEE

Tel: +254 057 351 622 Ext: 3050
Fax: +254 057 351 221

Private Bag – 40105, Maseno, Kenya
Email: muerc-secretariate@maseno.ac.ke

FROM: Secretary - MUERC

DATE: 30th August, 2019

TO: Awuor Eunice Gor
PG/MA/FA/000171/2014
Department of Sociology and Anthropology
School of Arts and Socials Sciences
Maseno University
P. O. Box, Private Bag, Maseno, Kenya

REF: MSU/DRPI/MUERC/00759/19

RE: Socio-Demographic and Institutional Predictors of In-Patients' Post-Discharge Stay at Referral Hospitals in Kisumu County, Kenya. Proposal Reference Number MSU/DRPI/MUERC/00759/19

This is to inform you that the Maseno University Ethics Review Committee (MUERC) determined that the ethics issues were adequately addressed in the initial proposal. Consequently, the study is granted approval for implementation effective this 30th day of August, 2019 for a period of one (1) year. This is subject to getting approvals from NACOSTI and other relevant authorities.

Please note that authorization to conduct this study will automatically expire on 29th August, 2020. If you plan to continue with the study beyond this date, please submit an application for continuation approval to the MUERC Secretariat by 15th July, 2020.

Approval for continuation of the study will be subject to successful submission of an annual progress report that is to reach the MUERC Secretariat by 15th July, 2020.

Please note that any unanticipated problems resulting from the conduct of this study must be reported to MUERC. You are required to submit any proposed changes to this study to MUERC for review and approval prior to initiation. Please advice MUERC when the study is completed or discontinued.

Thank you.

MASENO UNIVERSITY SECRETARY 30 AUG 2019 ETHICS REVIEW COMMITTEE

Dr. Bernard Guyah
Ag. Secretary,
Maseno University Ethics Review Committee.

Cc: Chairman,
Maseno University Ethics Review Committee.

MASENO UNIVERSITY IS ISO 9001:2008 CERTIFIED

APPENDIX XIII: NACOSTI RESEARCH PERMIT

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: 462284

Date of Issue: 19/September/2019

RESEARCH LICENSE

This is to Certify that Ms.. EUNICE GOR of Maseno University, has been licensed to conduct research in Kisumu on the topic: SOCIO-DEMOGRAPHIC AND INSTITUTIONAL PREDICTORS OF IN-PATIENTS' POST- DISCHARGE STAY AT REFERRAL HOSPITALS IN KISUMU COUNTY, KENYA for the period ending : 19/September/2020.

License No: NACOSTI/P/19/1431

462284

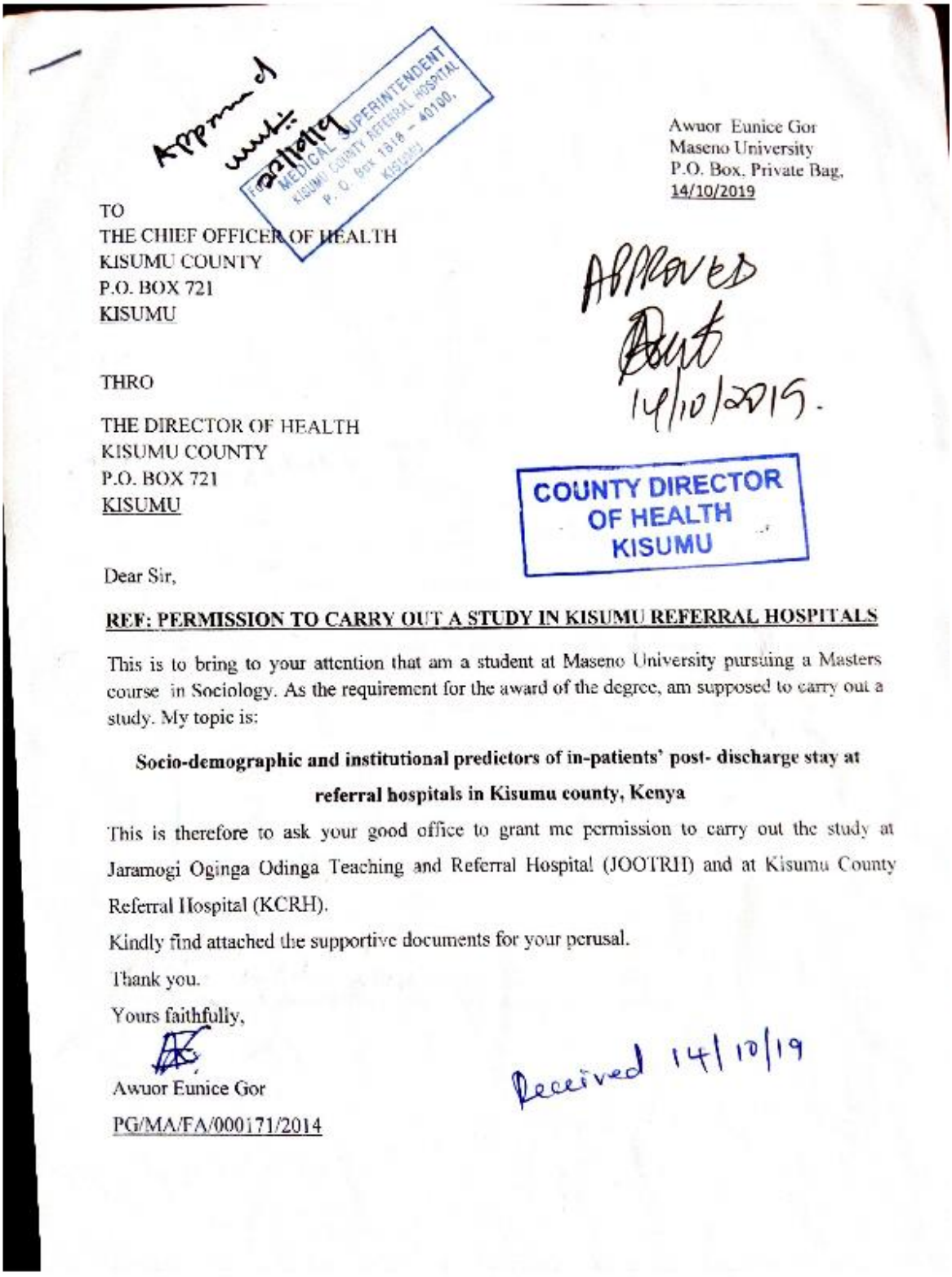
Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

APPENDIX XV: KISUMU COUNTY APPROVAL LETTER



Approved

MEDICAL SUPERINTENDENT
KISUMU COUNTY REFERRAL HOSPITAL
P. O. Box 1818 – 40100,
KISUMU

Awuor Eunice Gor
Maseno University
P.O. Box. Private Bag,
14/10/2019

TO
THE CHIEF OFFICER OF HEALTH
KISUMU COUNTY
P.O. BOX 721
KISUMU

APPROVED
14/10/2019.

THRO

THE DIRECTOR OF HEALTH
KISUMU COUNTY
P.O. BOX 721
KISUMU

COUNTY DIRECTOR
OF HEALTH
KISUMU

Dear Sir,

REF: PERMISSION TO CARRY OUT A STUDY IN KISUMU REFERRAL HOSPITALS

This is to bring to your attention that am a student at Maseno University pursuing a Masters course in Sociology. As the requirement for the award of the degree, am supposed to carry out a study. My topic is:

Socio-demographic and institutional predictors of in-patients' post- discharge stay at referral hospitals in Kisumu county, Kenya

This is therefore to ask your good office to grant me permission to carry out the study at Jaramogi Oginga Odinga Teaching and Referral Hospital (JOOTRH) and at Kisumu County Referral Hospital (KCRH).

Kindly find attached the supportive documents for your perusal.

Thank you.

Yours faithfully,

Awuor Eunice Gor

PG/MA/FA/000171/2014

Received 14/10/19

COUNTY GOVERNMENT OF KISUMU
DEPARTMENT OF HEALTH

Telephone: 057-2020801/2020803/2020321
Fax: 057-2024337
E-mail: medsuptnpgh@yahoo.com
ceo@jaramogireferral.go.ke
Website: www.jaramogireferral.go.ke

JARAMOGI OGINGA ODINGA TEACHING & REFERRAL HOSPITAL
P.O. BOX 849
KISUMU

When replying please quote

Ref: ... IERC/JOOTRH/158/19

Date... 8th June, 2020

To: Eunice Awuor Gor

Dear Eunice,

RE: STUDY TITLE:
SOCIO-DEMOGRAPHIC AND INSTITUTIONAL PREDICTORS OF IN-PATIENT POST- DISCHARGE STAY AT REFERRAL HOSPITALS IN KISUMU COUNTY, KENYA

This is to inform you that ***JOOTRH IERC*** has reviewed and approved your above research proposal. Your application approval number is ***IERC/JOOTR/158/19.*** The approval period is ***8th June, 2020 – 8th June, 2021.***

This approval is subject to compliance with the following requirements;

i. Only approved documents including (informed consents, study instruments, MTA) will be used
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by ***JOOTRH - IERC***.
iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to ***JOOTRH - IERC*** within 72 hours of notification
iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to ***JOOTRH - IERC*** within 72 hours
v. Clearance for export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days upon completion of the study to JOOTRH - ***IERC***.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) https://oris.nacosti.go.ke and also obtain other clearances needed.

In case the case of study site is JOOTRH, kindly report to Chief Executive Officer before commencement of data collection.

Yours sincerely,

SECRETARY, IERC