FACTORS AFFECTING INSTITUTIONAL SUSTAINABILITY: A CASE OF PONSETI TREATMENT IN UGANDA

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DECLARATION

I Henry Musoke, hereby declare that this dissertation is my own work and effort and that it has not been submitted anywhere for any award. Where other sources of information have been used, they have been duly acknowledged.

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APPROVAL

This dissertation was submitted for examination with our approval as supervisors.

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LIST OF ABBREVIATIONS

AusAID	Australian Agency for International Development
CAD	Canadian Dollar
CBO	Community Based Organization
CIDA	Canadian International Development Agency
CTEV	Congenital Talipes Equinovarus
FBO	Faith Based Organization
FSC	Forest Stewardship Council
MOH	Ministry Of Health
NGO	Non Government Organization
OECD	Organization for Economic Co-operation and Development
USCCP	Uganda Sustainable Clubfoot Care Project
SFAB	Steenbeek Foot Abduction Brace
UPDC	University Partnerships in Cooperation and Development
WMO	World Meteorological Organization

ABSTRACT

Sustainability has become an increasingly important notion to funders and implementers of health promoting projects/programs. This study investigated factors affecting institutional sustainability of Ponseti treatment in Uganda by answering questions as to whether stakeholder involvement and supportive leadership affected sustainability. Two clubfoot clinic operated by USCCP at Mulago and Masaka referral hospitals were used as a case study and 148 respondents were interviewed and reviewed project documents. Data was captured and analyzed using both quantitative and qualitative methods. The study concluded that there is no significant statistical relationship between stakeholder involvement and institutional sustainability. However there was evidence that community involvement positively affect institutional sustainability of Ponseti treatment. It was further concluded that supportive leaderships has a significant relationship with institutional sustainability by building partnerships and developing human resource in health services. Lessons learned from this study are that: - there are factors discussed in this book than stakeholder involvement to be considered when planning for sustainability; developing human resource is crucial in ensuring institutional sustainability of the Ponseti treatment. This study therefore recommended that to ensure institutional sustainability of Ponseti treatment, MOH should set up structures to enforce and evaluate the current health policy with regards to clubfoot treatment; donors should facilitate MOH and the project management to proactively engage the community in activities that promote treatment seeking; community to take part in the program implementation. Furthermore MOH should build partnerships with NGOs and CBO interested in disability treatment, train, and employ adequate health workers to able implement the Ponseti treatment. The researcher recommends that studies be done in areas of; political environment, community empowerment and behavior of health-workers on institutional sustainability; and level of community empowerment and participation in sustainability Ponseti treatment.

CHAPTER ONE

1.0 INTRODUCTION.

1.1 Introduction

The study was an investigation into factors affecting institutional sustainability of clubfoot treatment in Uganda focusing on Mulago and Masaka clubfoot clinics. The study examined the effect of stakeholder involvement and leadership support on institutional sustainability of Ponseti treatment of clubfoot. It was a descriptive case study that used triangulated approach to generate recommendation towards the institutional sustainability of this treatment. This chapter presents the background to the study from a contextual perspective of sustainability, clubfoot treatment and statement of the problem. It also presents the purpose, research objectives, questions and hypotheses that guided the study, the conceptual frame-work, significance, justification, scope and operational definitions used during the study.

1.2 Background of the Study

Sustainability is becoming increasingly important to funders and implementers of health-related demonstration programs and innovations in answering the following questions: what happens after the initial funding for new programs expire? Do the programs continue, end their activities, and expand to new sites or new beneficiaries?

Over years, sustainability meant different things to different scholars: it means institutionalization (Goodman & Steckler 1989; Miles, Eckholm & Vandenburge 1987) and routinization (Rogers 1995; Yin & Quick 1979) cited by Harvey and Hurworth (2006). Although all these terms imply the continuation of a program, difference in emphasis of meaning has been noted (Shediac-Rizkallah & Bone, 1998). These include whether the focus is on continuation of the benefits of

the program to the stakeholders/participants; the perseverance of the new initiative itself (e.g. Goodman & Steckler 1989); or the process of developing local capacity to enable a program to be maintained at the stakeholder/community level (Rizkallah & Bone, 1998).

Despite the different perspectives, the concept gained impetus as a response to economic growth models that characterized development approaches over the last half century. It became widely used after the World Commission on Environment and Development published our common future (Brundtland 1987) as cited by (IFAD, 2007j pg 8). According to Jonathan Hodgkin (1994, pg13 cited by Olsen) sustainability is the ability of a project to initiate a process by which benefits are maintained however he argues that Sustainability cannot be objectively quantified.

The interest in studying sustainability of health care development increased with the decline in Third World economies in 1980 (Olsen 1998, pg 287-295). Increasing efforts are being directed towards addressing the sustainability of major community-wide health promotional programs (Rizkallah & Bone, 1998). Since then various studies have been undertaken on the subject, for example the challenges of sustainability of health information systems in developing countries (Kimaro & Nhampossa, 2007), factors influencing sustainability of community-based interventions (VHA, 2005; Argaw, Fanthahun and Berhane, 2007). It's argued that planning for sustainability requires, first a clear understanding of the concept of sustainability and operational indicators that may be used in monitoring it overtime (Rizkallah and Bone, 1998). They categorized the indicators into; maintenance of the health benefits achieved through an initial program, level of institutionalization of a program within an organization, and measures of capacity building in the recipient community. Literature discuses three dimensions of sustainability of this technical and financial sustainability, records showed that they have been addressed however; there was limited evidence to show the **institutional sustainability** of the Ponseti treatment has been researched.

While there was rich literature on sustainability of health care programs, little attempt had been made to consolidate what is known about factors that influence institutional sustainability across different studies. The challenges being the uniqueness of each health project/program such that factors affecting one project could not necessarily applied across the board.

The clubfoot problem in Uganda: Uganda has an estimated clubfoot incidence of 1.3 per thousand live births (Mathias and Konde, 2007). This gives an expected number of 1412 children born with clubfoot in Uganda annually, given that Uganda has a population of 24.2 million (UBOS, 2002) and birth rate of 44.9 births per 1,000 population (UBOS & ORC MACRO, 2006). AT the moment the population is more than 33,000,000 and birth rate 47.5, which makes the number of babies born with a clubfoot 1568 per year (July 2010) (https://www.cia.gov/library/publications/the-world-factbook/geos/ug.html). Prior to the introduction of the Ponseti treatment in Uganda, clubfoot treatment was mainly surgical after failed Kite's conservative treatment. The main treatment centre for many decades was Mulago Hospital receiving clients from various parts of the country who could afford to reach the centre. However, with limited resources (e.g. Uganda has only 20 Orthopaedic surgeons, serving a projected population of 33,000,000) it was not possible to attend to all clubfeet in the country that would require surgery. Hence the large numbers of neglected cases in Uganda.

In 1999, two Canadian pediatric Orthopaedic Surgeons introduced the Ponseti treatment in Uganda as a pilot project. The outcome of this pilot project gave birth to the Uganda Sustainable clubfoot care project (USCCP) funded by Canadian International Development Agency through the collaboration of universities of British Columbia and Makerere University.

USCCP was launched on 22nd Feb 2005 by the then Uganda state Minister of Health who presided over the ceremony on behalf of the Vice President of Uganda. The Project was mandated to address the consequence of disability from the "neglected" clubfoot by a national program

approach. According to USCCP framework, it was aimed at build capacity in health workers, conduct research on clubfoot related subjects; raise public awareness, and quality treatment of clubfoot using the Ponseti treatment throughout the country. To achieve these objectives, a collaborative/ participatory approach was envisioned as prime (UPCD program-Tier 2, 2002).

From the project design it was conceived that in order to have a lasting solution, the problem of neglected clubfoot treatment has to move away from the hands of few Orthopaedic surgeon to the cheap and easy to train clinical Orthopeadic officer using the Ponseti treatment. Thirty-eight clubfoot clinics have been opened at district, regional and National referral hospitals all over Uganda since 2006. Orthopedic officers are the prime clinicians treating clubfoot children, supported by the medical officers for tenotomy, Orthopaedic technicians for brace fabrication, and midwives for case identification and referral.

Similar projects done in Nepal, Brazil and several other developing countries have showed that the technique is appropriate for resource poor countries, particularly when public health and community based rehabilitation methods are being utilized to deliver health care to the people (Staheli, 2005). Although this seems to be so true when compared with surgical intervention, results from field reports indicated little/ no success towards long-term integration of the method into the health system in Uganda. Like many health care projects the issue of un-sustainability cannot be ignored hoping that institutionalization of Ponseti treatment will be automatic after the closure of USCCP. Press reports on irregular and inadequate supply of medicines and medical consumables, absence of health workers at workstations, extortion of money from clients dilapidated hospital facilities, had been highlighted as key to poor health care delivery in Uganda. This caused a concern as to whether the Ponseti treatment would be sustained by the health system after the end of the project that initiated it.

1.3 Statement of the Problem

The Uganda Sustainable Clubfoot Care Project (USCCP) is a One million Canadian Dollar project funded by CIDA in collaboration with other partners to implement the Ponseti treatment in a sustainable manner, using a public health approach to eradicate "neglected" clubfoot in Uganda. The Ponseti treatment has been introduced in 38 hospitals in Uganda since 2005. As reflected in the project name, sustainability was in built in the project design. The project envisioned that through support supervision of clubfoot clinics, public awareness, skills development and research, institutional sustainability of Ponseti treatment would be achieved. Indeed Bratt, Homan, Janowitz & Foreit (2007); Wagner, Kaene, Mcleod & Bishop (2008); Tippett (2009) demonstrate supportive evidence of these strategies towards sustainability.

Despite the fact that the above strategies are used in implementing the Ponseti treatment, performance as an indicator of sustainability for various clinics has been declining. For instance in December 2008, Mulago, Mbale, Soroti and Masaka clubfoot clinics' performance was scored: 90%, 93%, 48%, 77.3% respectively and in June 2009 the scores were: 88.63%, 79.4%, 56.8%, 63.3 % (USCCP quality assurance).

It was later pointed out that institutionalization of the Ponseti treatment would be achieved through active involvement of the project stakeholders; through supportive leadership engage other partners and ensure continuous human resource capacity to treat clubfoot. [UPCD program-Tier-2, 2002: USCCP Post mid-evaluation report, 2007]. Tammer, (2009) also argues that involvement of project stakeholders can offer a constructive dialogue and sense of ownership but warned that if not managed correctly may turn out to be a (costly) burden. Based on Tammer (2009), could it be that support supervision, research, public awareness and skills development lead to institutional sustainability but due stakeholder involvement and support from the leaders it is failing?

While there is literature on stakeholder involvement and supportive leadership towards sustainability of projects, no literature was available on the effect of these variables to institutional sustainability of Ponseti treatment. Therefore this study examined the influence of stakeholder involvement and supportive leadership on institutional sustainability of Ponseti treatment in Uganda.

1.4 Purpose of the Study

The purpose of this study was to analyze factors affecting institutional sustainability of Ponseti clubfoot treatment in Uganda.

1.5 Objective of the Study

1. Examined the affect of stakeholder involvement on institutional sustainability of Ponseti treatment in Uganda.
2. Established a relationship between supportive leadership and institutional sustainability of Ponseti treatment Uganda.

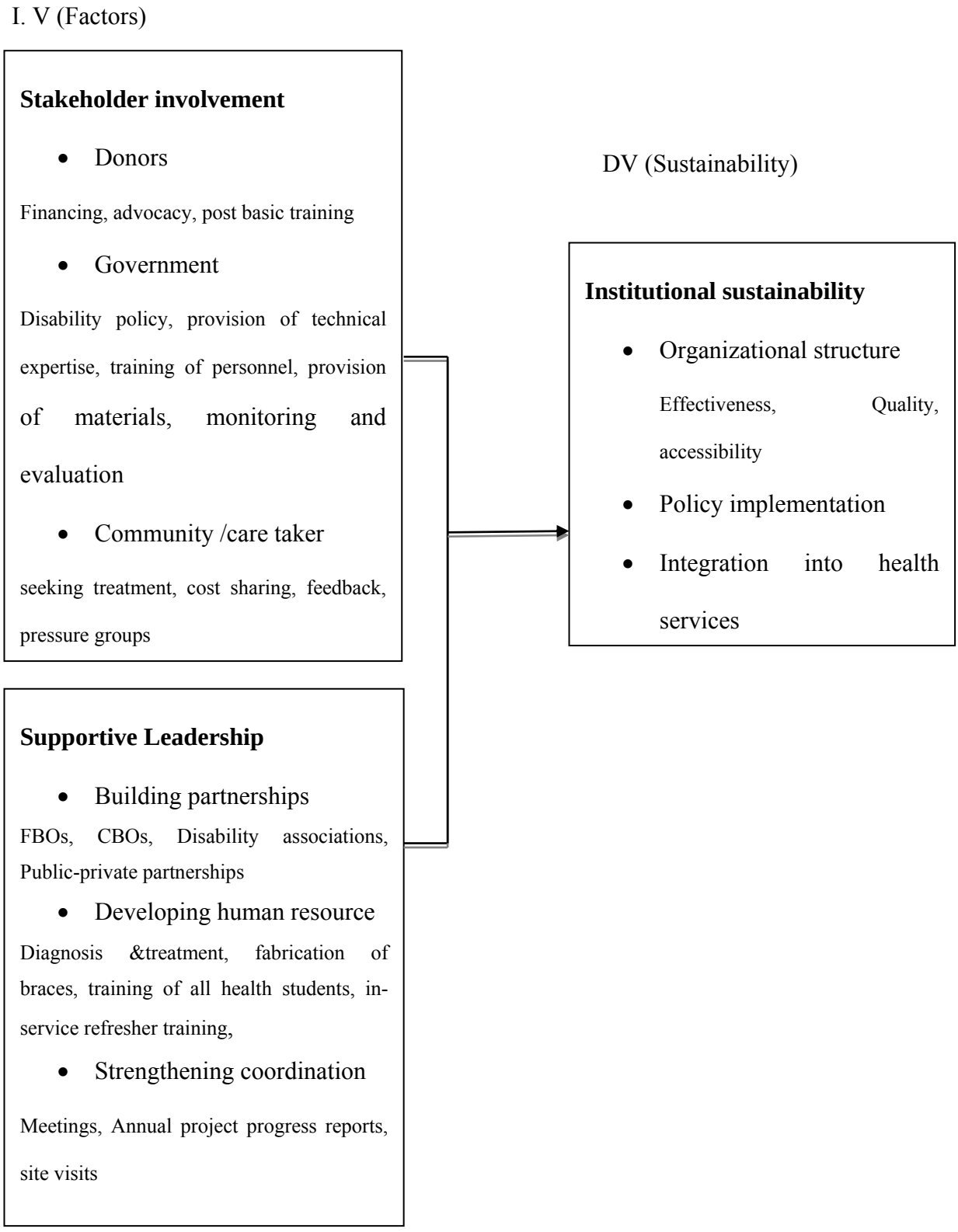
1.6 Research Questions

1. Does stakeholder involvement affect institutional sustainability of Ponseti treatment in Uganda?
2. Is there a relationship between supportive leadership and institutional sustainability of Ponseti treatment in Uganda?

1.7 Hypotheses

1. Stakeholder involvement affects institutional sustainability of Ponseti treatment.
2. There is a relationship between supportive leadership and institutional sustainability of Ponseti treatment.

1.8 Conceptual framework showing factors affecting institutional sustainability



(Derived from the midterm report (2007) and modified based on works of Olsen 1998)

The conceptual framework was derived from USCCP midterm evaluation report (2007) and modified using the work of Olsen (1998) to include other dimensions outside his model to enable the researcher find explanations to institutional sustainability of Ponseti treatment of clubfoot. Olsen (1998) argues that a health service *(Ponseti treatment)* is sustainable when operated by an organizational system *(health institution)* with the long-term ability to mobilize and allocate sufficient and appropriate resources (manpower, technology, information and finances) for activities that meet individual or public health needs/demands.

He further noted it is useful to operationalize sustainability by grouping the determining factors into three major clusters: context, activity profile and organizational capacity. In order to assess whether the recommendations of Kelly and Musoke (2007) influence sustainability the researcher fitted stakeholder involvement into the contextual factors (political or socioeconomic situation while supportive leadership fitted in the activity profile.

While literature discusses various dimensions of sustainability ranging from technical, financial, environmental to institutional, this study focused on institutional sustainability as being the end result of program integration into the organization systems. In this study, institutional sustainability was considered as an end result while Stakeholder involvement and supportive leadership as the means of achieving it. It was assumed that effective stakeholder involvement and supportive leadership results in institutional sustainability of the Ponseti treatment. In order to achieve effective stakeholder involvement the project leadership should put in place a supportive environment such encouraging partnerships, coordination of program activities and having an effective human resource.

Likewise, effective stakeholder involvement was presumed to improve supportive leadership that in the end results in institutional sustainability. Hence the dependent variable institutional sustainability is being determined by organization capacity, policy implementation and integration.

The independent variables are stakeholder involvement and supportive leadership. Although there are number of stakeholder with interest in the Ponseti treatment, this study only examined the primary stakeholder of the project namely government, donors, community/ Caretakers. Other stakeholders of the program include; health care providers and the general public.

In this study, supportive leadership was examined from the Partnership building, developing human resource and strengthening coordination dimensions. And **institutional sustainability in this study** was looked at as organization's structures to deliver effectively, policy, and integration as its indicators. Institutions are beyond the structures, they include laws that govern behavior if individuals in pursuance of given objectives

1.9 Significance of the Study.

The study examined factors that influence institutional sustainability of Ponseti treatment of clubfoot in Uganda. Based on the recommendations of the mid-term evaluation report(2007) that formed the foundation of the problem statement of this study it has been confirmed that supportive leadership enhance institutional sustainability of Ponseti treatment

Various scholars assert that stakeholder involvement influence sustainability the findings of this study demonstrated no significant relationships between the two variables, this then implied that stakeholder involvement does not necessarily result in institutional sustainability of Ponseti

treatment. However, it was noted that through supportive leadership influence institutional sustainability of Ponseti treatment through building partnerships and developing human resources.

The study demonstrates that institutional sustainability of the Ponseti treatment is attainable, if government through MOH shows political commitment towards strengthening institutional structures to enforce the required policies to facilitate the program. It was also noted that in order to ensure community involvement in the Ponseti treatment the services rendered should be effective and of quality to attract the community member, this was noted to flow well with community empowerment through public awareness about the availability of the required services.

Building partnerships CBOs, FBOs and NGOs with interest in treatment of disabilities was found to be useful towards achieving institutional sustainability. Likewise developing human resource by continued training and mandatory posting health workers to all health facilities increases the chances of achieving institutional sustainability.

1.10 Justification of the study

Clubfoot deformity is as old as mankind and its treatment has evolved over the ages trying to find a fix to the problem in a bid to improve the health status of its victims. Despite all the interventions, little was achieved until the advent of the Ponseti method of manipulation and casting. For over half a century Professor Ignacio Ponseti has been treating clubfoot at the University of Iowa with documented achievements of over 49 years of long term follow up of his treated clients (Staheli, 2005; Ponseti Documentary, 2007).

Clinical success had been made with this treatment of clubfoot and adopted by many pediatric Orthopeadic surgeons worldwide. In 2005, the MOH in Uganda embraced the Ponseti method of clubfoot treatment as the choice of treatment and advocated for use of a public health approach

through USCCP for a period of six years before it is institutionalized (inaugural speech by Vice President, 2005). Although this method has been used in many countries, for instance Brazil, Nepal, Gujarat state in India, Malawi, and South Africa, to mention a few, no study has been conducted even by the author of the method on sustainability issues.

1.11 Scope of the Study

The study was conducted from two clubfoot clinics operating from Mulago National referral hospital and Masaka regional referral hospital. Mulago hospital is situated in the Kampala city, while Masaka is situated 126km south of Kampala city and serving six districts in its catchment area. These two clinics have a long standing history of participation in the Ponseti treatment. Furthermore they have participated in various studied that form part of the project outputs. These clinics can be easily accessed in terms of distance and language at the same time it is presumed the required data shall be generated easily with a single translation of the data collection tools from English to Luganda. The purpose of having two clinics was to enable the researcher to generate enough data that can be validated and draw more reliable conclusions and recommendations.

The context of the study focused on stakeholder involvement and supportive leadership as independent variable and institutional sustainability as dependent variable.

The period from 2007 to 2009 is the time scope of the study, it was chosen because it is during this period that clinical activities were at its peak level. This gave the researcher enough time to study the trends of the clinical events that have been documented over the period.

1.12 Definition of terms

Clubfoot a congenital abnormality affecting the either one foot or both feet resulting in a foot shaped like a golf club.

Community refers to the populations of caretakers of children born with clubfoot and seek treatment from Masaka and Mulago clubfoot clinics.

Orthopaedics is the branch of medicine dealing with the correction of deformities of bones or muscles.

Ponseti treatment is a manipulative and casting procedure authored by Professor Ignacio V. Ponseti from Iowa, describing a step-by-step correction of the clubfoot deformity in children with the use of Plaster of Paris casts.

P.O.P also known as Plaster of Paris is a hard white substance made by the addition of water to powdered and partly dehydrated gypsum, used for holding broken bones in place and making sculptures and casts.

Stakeholder implies an individual or group of individuals, or organization with an interest or concern in the project. In this study stakeholder will be considered to be organizations and groups of individuals who have an interest or who can influence the project.

Sustainability is the ability of the health care institution to implement the Ponseti treatment of clubfoot after the closure of USCCP.

Institutional sustainability refers to continued organizations' structures to effectively implement health policy and integrate the Ponseti treatment into the health services.

Tenotomist is a term coined to mean a person with surgical skills who can perform a surgical procedure of sectioning a tendon without causing unwanted harm to the patient.

Steenbeek foot abduction brace, (SFAB) is a pair of special shoes fixed on a metal bar intended to maintain the corrected feet in abduction.

Neglected clubfoot is a deformity resulting from lack of treatment usually seen in adults causing disability.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter presents the review of the literature on the variables of the study that is stakeholder involvement and supportive leadership (independent variables) and the indicators of institutional sustainability (dependent variable) and a summary of the literature from review of previous scholarly materials.

2.2 Theoretic Review

Institutional theory attends to the deeper and more resilient aspects of social structure. It considers the processes by which structures, including schema, rules, norms, and routines, become established as authoritative guidelines for social behavior. It inquires into how these elements are created, diffused, adopted, and adapted over space and time and how they fall into decline and disuse.

Scott (1995:33, 2001:48) asserts that" Institutions are social structures that have attained a high degree of resilience. They are composed of cultural-cognitive, normative, and regulative elements that, together with associated activities and resources, provide stability and meaning to social life. Institutions are transmitted by various types of carriers, including symbolic systems, relational systems, routines, and artifacts. Institutional theorists believe that in order for institutions to survive, organizations must conform to the rules and belief systems prevailing in the environment because institutional isomorphism both structured and procedural will earn the organization legitimacy.

Arguably with well defined structures and systems, one can monitor health organizations' progression towards sustainability. As much as this sounds true with many health care organizations, USCCP has had no formal structural rules/ regulations to guide the implementation of the Ponseti treatment and yet registering success. Keeping within the health institutional framework guided by rules regulations and norms which have become sediment and taken for granted (Scott, 2004), the study set out to look at non institutional factors(stakeholder involvement and supportive leadership) that were presumed to influence the behavior of the health organizations towards achieving institutional sustainability of the Ponseti treatment in Uganda.

2.3 Stakeholder Involvement and Institutional Sustainability

Stakeholder involvement techniques should not be viewed as convenient tools for "public relations", image-building, or winning acceptance for a decision taken behind closed doors (OECD, 2004). It is documented that managers in both the public and private sectors find such involvement useful in improving the quality and sustainability of policy decisions.

The Forest Stewardship Council considers stakeholder involvement as an integral part of a stepwise process of decision-making. At different stages, involvement may take the form of sharing information, consulting, dialoguing, or deliberating on decisions. It should be seen always as a meaningful part of formulating and implementing good policy. Achieving a sense of ownership of local policy decisions and legitimacy for the development plan documents will minimize the need for a lengthy and controversial examination process (Baker Associates, 2008).

It is argued that stakeholder involvement in the decision-making process is perceived differently by different people and depends on the objectives of the process. The role of each stakeholder and the mechanism of their involvement need to be carefully designed so that they can be sustainable in the long term (Swart, Raskin & Robinson 2004 pg 136-147; World Meteorological

Organization, 2006) Kumar and Best (2006) found out that confinement of the project within of governmental administrative setup, with little involvement of the local elected representatives and private partners results in poor acceptability of the initiative and failed to draw enough support from all stakeholder.

In a study done on 76 kiosks out of 119 in Tamil Nandu, stakeholders demonstrated their commitment through participation in and the provision of technical, financial and material support for the implementation of decisions made. Its ultimate outcome is collective responsibility and sustainability of the agreements reached. Sitikarn, 2002 cited Freeney, 1998, postulating that effective participation requires access to information about development and environmental initiatives held by public authorities or donors, or even by private companies. Ghai and Vivian 1992 commented that in order to achieve sustainability, participation requires considerable attention to multiple development dimensions of economic, political and knowledge elements (Sitikam, 2002).

Literature suggests that stakeholder involvement in is a key ingredient to sustainability of projects in general. For example, AusAID, 2000 noted that sustainability cannot be achieved without their involvement and support. It's emphasized that stakeholders, both men and women, should actively participate, which means having the opportunity to influence the direction and detail of design and implementation. Donor-led and top-down projects generally fail to bring sustainable benefits because they do not lead to stakeholder ownership and commitment. Argaw, Fanthahun, & Berhane 2007, assert that communication of the agents with community members, good community sensitization and involvement, and sustained government and health staff support are important factors to consider for the betterment and continuity of the community-based reproductive health Program in Egypt. Although much had been done in relation to stakeholder involvement and sustainability little emphasis had been put toward institutional sustainability of

health care therefore, this study attempted to establish the roles played by donors, government and community in the Ponseti treatment. Findings of this study showed that community involvement has a greater influence on sustainability of the Ponseti treatment as compared to the donors and the government. It was noted that if the community promptly sought and adhered to the treatment protocol (demand sustainability) the Ponseti treatment could sustainable.

Donor involvement and Institutional Sustainability

Both donors and Partner Governments have often shown a preference for new projects instead of making existing projects or programs work more effectively, which could be a more sustainable use of funds. Sustainability objectives may sometimes sit uncomfortably with a reluctance to fund partner agency operating and maintenance costs during the implementation period (and sometimes beyond). These issues need to be treated realistically in the setting of program/project objectives and in undertaking sustainability analysis (AusAID, 2000).

Okuonzi and Macrae (1995 pg 122-132) suggested that developing appropriate and sustainable health reforms rely not simply on identifying technical solutions, but on ensuring national ownership of policy changes. Implying that donors should not simply hand over a blank cheque to government but rather get involved with formal and informal policy actors to identify viable and appropriate strategies that can be implemented by institutions that are accountable to the users of health services.

In many less developed countries systems weaknesses in areas such as health networks and infrastructure are persistent obstacles to expanding health systems and building human resource capacity, donors can help the organization to build capacity to a required level. For example in fiscal year 2006, PEPFAR provided approximately $350 million in support of network development, human resources and local organizational capacity development, and training. It is

argued that the focus on strengthening networks provides a base from which to build institutional and human resources capacity (Rice, 2006). It was noted that donors have so far been involved with USCCP in capacity building through funding Ponseti courses for orthopaedic officer and doctor and in developing training module for health training institutions (USCCP annual report, 2009).

The policy-making process in many less developed countries is often than influenced by various actors having vested interest in the process. Many of these countries are constrained by financial problems making it inevitable to rely on external funders to facilitate the process. Donor involvement in health policy-making therefore derives both from the level of their financial commitment and from a broader ideological and political basis which seeks to gain control over policy environments through conditionality (Okuonzi and Macrae 1995 pg 122-132). Paudel, (2007) maintains that advocacy efforts by international donors also contributed to generating a high level of political and government support for reproductive health and population issues; and the enactment of laws and legislation supportive of reproductive health, gender equality and the empowerment of women.

In Uganda due to health ministry budgetary deficits there is growing pressure from international donors on the government to implement policy according to their agenda. Paudel 2007 conducted an evaluation and analyzed secondary data. Likewise, although Okounzi and Macrea conducted their study in Uganda the country was just recovering from the political and economic war. It was therefore imperative to re-examine the relationship between donor involvement and policy implementation using a case study approach. The study found out that donor involvement has a weak negative relationship with policy implementation however a fair relationship between donor involvement and government exists.

At the beginning of the century clubfoot treatment in Uganda had been centralized with much of the services provided at the National Referral hospital. USCCP in a bid to make the Ponseti treatment accessible, it advocated for a public health approach implying that the treatment of clubfoot has to move from the hands of the specialist to the primary health care providers at the lower centers. The change from a vertical to an integrated program is far from easy and cannot be accomplished overnight (Soutar, 2002).

Experiences with integration processes in several countries reveal that successful integration requires good preparation and planning, to address several hurdles, many of them specific to the local context. If integration of health services is to succeed, donors will have to seriously address integration within their policies as a goal. According to Dickinson et al. (2009) bilateral donors are increasing resources for health systems strengthening and prioritizing stronger linkages between sexual and reproductive health and HIV in the process. For example, the global AIDS strategy of the United Kingdom's Department for International Development commits US$ 6 billion up to 2015 for services that integrate HIV, TB, malaria and sexual and reproductive health including maternal/child health services. The Australian government's overseas aid program, new HIV strategy promotes the integration of HIV services into primary health care and is strengthening linkages between HIV services and TB, maternal/child health and sexual and reproductive services.

To achieve the sustainability of HIV prevention and counseling while striving to reach 500,000 Tanzanians with facts, ADRA Sweden funded the training of trainers' who went back to the communities and shared the message they had learned (http//.www.onlinehome.us/adra2). It was not clear whether donor involvement could facilitate the integration of Ponseti treatment into primary health care system in Uganda owing to the fact that the two conditions (HIV and Clubfoot) have different fatality rates and attract support differently. However this study showed

no statistical relationship between donor involvement and integration of the Ponseti treatment in primary health care services.

Government involvement and Institutional Sustainability

Everyone has the right to health and all governments including those of fragile states have signed at least one international human rights agreement that guarantees this right (Save the Children, 2009). While many government policies have led to unsustainable results, government of Uganda also assists in fostering sustainability by recognizing community rights to make resource-use decision and rules tailored the local context (Ostrom 1990, cited by Koontz 2006 pg 15-24). Lyons, Tripp-Reimer & Sorofman (2001), argues that structures and institutions that increase government transparency and accountability can strengthen citizen empowerment to achieve sustainability results (cited by Koontz, 2006).

The international community is also obliged to support countries in achieving health for all, a commitment reflected in the health MDGs. However, many developing countries are faced with barriers like weak systems, poor infrastructure, lack of resources and trained staff, low staff morale, weak monitoring and evaluation systems, and an unregulated private sector, others include insecurity, poor geographic access, exclusion of certain population groups, inability to pay for health care and lack of information. Governments can deploy an array of policy tools to effect changes, including regulation, fiscal instruments, negotiated agreements, informational tools, and normative injunction. Yet many problems are resistant to solution because the offending (unsustainable) practices are deeply embed to structural constraints and supported by established definitions of values and interests (Meadow croft, 2009).

Government involvement in institutional sustainability should be built around providing those key ingredients necessary for building institutional capacity such as human resource management and

development, setting the right priorities towards the children, women and the disabled (Schemionek, Noori, Salehi & Druce 2009). Proper coordination mechanism to ensure effective implementation of government strategies, budgeting and planning for health services, and building capacity at various levels of government to achieve equitable distribution of resources intended for institutional sustainability.

Sustainability of the Ponseti treatment of clubfoot requires organizational capacity and competence that can provide the necessary requirements for proper treatment. Failure of the health facility to appropriately diagnose, provide necessary materials and effective treatment impacts negatively on the results. It has been noted from the President's national address that government has built capacity of health institutions, but no empirical evidence is available to confirm this. AusAID (2000), pointed out that programs and projects which 'fit' with Partner Government policies have much better prospects for sustainability as they are more likely to have high-level political and institutional support both during implementation and beyond. However literature does not show the relationship between government involvement and institutional sustainability through policy implementation. Although the Ponseti treatment of clubfoot is housed in the premises of MOH (Mulago), it's a brainchild of the donor community. This raised a concern of how committed the government shall be after the end of the project towards enforcing its implementation. Does the government influence the implementation of health policy support the use of Ponseti treatment in Uganda?

In order to improve child health, the Government Rwanda planned to build on two components: the Integrated Management of Childhood Illnesses (IMCI) strategy, the Expanded Program on Immunization (EPI) strategy. Through the IMCI strategy, the quality of care given to children under five years in health facilities and in the community will be improved to reduce morbidity

and mortality caused by malaria, acute respiratory infections, diarrhea, malnutrition and measles in children less than five years of age (Ntawukuriryayo, 2005).

The government has a responsibility through the minister to guide new strategies into the existing health systems. In order to promote sustainability, government is responsible for providing a policy framework that is compatible and supportive of that program objective (AusAID, 2000). The success of the family planning program in Egypt was attributed to a favorable environment exhibited through a high political support from the president (Khalifa, Sharma and Moreland, 2001). Likewise, the government of Uganda through the department of clinical and curative services proposed to adapt a clubfoot tick box on the immunization card as a way of raising case identification at the primary health care level. It was discovered from the study that the government of Uganda through MOH has made several promises towards the implementation of the Ponseti treatment. For example the commitment to include a clubfoot 'check box' on the vaccination card, supply of foot abduction braces to the clubfoot clinics but no documentary evidence of its implementation was found.

Community involvement and Institutional Sustainability

The concept of people's involvement in health care has long been implicit in many health programs and projects. A key component of sustainability and sustainable development is citizen empowerment in decisions shaping social and environmental conditions. Across a wide range of settings, community participation has been found to affect sustainability prospects (Koontz, 2006).

Kahssay &Oakley, 1999 documented the rationales of community involvement according to the WHO are: 1**.**Community involvement in health is a basic right of all people; involvement in decision making and actions that affect their health builds self-esteem and encourages a sense of

responsibility. 2. Community involvement in health can help make the available health resources more responsive to the basic needs of the people. It further enhances the cost effectiveness of health services and ultimately intensifies the impact of health sector investments. 3**.** Community involvement increase the possibility of health programs and projects will be appropriate and successful in meeting the needs defined by the local people as opposed to those defined by the health service. 4. Community involvement in health breaks the bond of dependence that characterizes much health development work and generally creates awareness among local people of their potential involvement in development (Murthy and Klugman, 2004).

Morgan (2001), cited Rifkin 1996 emphasizing the importance of community involvement that it ensures sustainability of new services by being involved in decisions about their development, and enables people to contribute resources of money, labor and materials to support the scarce resources allocated to health care. He further commented that people gain experience and information that help them to gain control of their own lives. Nsutebu, Walley, Mataka & Simon (2001 pg244) argues that community involvement through support groups is potentially useful in increasing community awareness of the program and mobilizing the community however requires continuous support. Community involvement has a bearing on the financial capacity, the magnitude and value attached to the problem being addressed. This poses a challenge on whether community involvement has an impact on institutional sustainability of Ponseti treatment. However, the study noted that community involvement influences institutional sustainability of Ponseti treatment.

In Canadian study of Community Health Centers, researchers found that citizens who were participants in decision making processes of the organizations felt that their participation "led to improved programs and services, and that the range of programs and services met the needs of the community" (Ktpatzer consulting, 2006). The research discovered a link between community

involvement and institutional sustainability of Ponseti treatment by way of organization capacity however, the relationship is weak on at 94% level of significance. The involvement of people potentially affected by a policy is critical to ensuring that the policy reflects and addresses their need, and that the services provided are relevant, improved upon, and acceptable to the population. Such involvement is especially critical given health sector reform in developing countries. In Nigeria, for example, women's political involvement through group affiliation was found to lead to better reproductive health outcomes, independent of education, socioeconomic status and age (http//: www.healthpolicyinitiative/(IQC) /results framework).

Unlike other diseases many people do not know the clubfoot problem, and the families where these children are born tend to keep away from the general public. Although research has it that community participation influences policy implementation was not clear whether these community of the minority group might have had a positive influence towards policy implementation of Ponseti treatment in Uganda. This study discovered that a weak relationship exist between community involvement and policy involvement implying that a strong participation will result in institutional sustainability Ponseti treatment.

Involvement of community members in the health interventions is critical if 'health for all' is to be achieved. The integration of health programs along with other social development activities should be the ultimate objective of all governments, donors, public health experts and program implementers. Katabarwa, Habomugish, Richard Jr & Hopkins (2005), documented that lack of effective health strategy is a problem to integration of health services. Before this study was conducted there was no literature showing how community involvement influences institutional sustainability through integration of health services. This study found out that a weak relationship exists between community involvement and integration of Ponseti treatment.

2.4 Supportive leadership and Institutional Sustainability

Project leadership is a requirement for achieving sustainability in healthcare and it emphasizes the importance of frontline managers in effecting positive changes in healthcare delivery (Block & Manning, 2007). At all levels of health care strategy implementation, management should be consistent with planning, coordination, monitoring and management of the implementation process. This then requires experienced managers and champions to drive the process (Cash et al., cited by Block & Manning, 2007). Shriberg (2002, pp 93) noted that lack of leadership support is a key barrier to progress, and concluded that at least one individual with broad and substantial influence needs to be a vocal advocate for sustainability initiatives in order to be successful.

Literature shows that study participants' experiences strongly suggested that visionary leadership at multiple levels within the health care system permeate a commitment throughout the organization that can sustain community health improvement, even in an environment of high chief executive officer turnover (VHA, 2002). It was further found out that the CEOs build relationships in the community, which in some cases has translated into effective public policy advocacy and improvement in state funding streams, as well as increased support for the health care organization in the community.

The implementation of the Ponseti treatment had gained a wide scale acceptance in nearly all regional and district government hospitals from the clinicians. However it has been noticed that the local hospital management teams view the initiative from a funded project perspective rather than a quality improvement strategy. This is casting doubt to the minds of those who anticipated the leaderships of these institutions to carry on after the project closure as to whether this ideology is still viable. In a study conducted by USAID, (2007) in Tanzania it was noted that only 44 of the 119 districts assessed (37%) indicated that they had adequate distribution sites for the December 2006 round. Thirteen districts (11%) reported difficulties in delivery of VAS and de-worming

services mainly due to late availability of supplies and funds for implementation. Similarly, the district self-assessment scores indicated that only 16% of the districts were considered vulnerable in program management and leadership.

Effective leadership and sustained commitment was found to be a major reason for ultimate failure of programs. Similarly Kumar and Best (2006) noted that the manager (*Tahsildar*), was instrumental in motivating the staff to provide e-government services, was shifted out of the office in January 2003, this was a major blow to the project. The new official, brought in to replace him, failed to show the same level of leadership and commitment, the perceived shift in the existing power relationships in the delivery of services due to the entry of the kiosks. This had deep implications for the sustainability of the kiosks and is also relevant in understanding how the partnerships with other agencies can be affected. Literature demonstrates that leadership is necessary for effective implementation of initiatives likewise this study found out that supportive leadership resulted in institutional sustainability of the Ponseti treatment through developing human resource capacity of health facilities.

Developing Partnerships and Institutional Sustainability

The term "partnership" has become an increasingly popular term in NGO-government relations. It signifies an admission that whatever NGOs and governments believe their responsibilities to be, they need to work together (Grandvaux, Welmond and Wolf 2002 & VHA, 2002). In Guinea, the term partnership is used regularly by Aide et Action and Plan International to signify a realization that their programs must provide technical and other resources to government to bolster its participation in their programs (Grandvaux, Welmond and Wolf 2002). Eradication initiatives have been both applauded for their successes (smallpox, poliomyelitis) and criticized for their failings malaria so is clubfoot. Because eradication programs differ, it is difficult to generalize

about them. Some diseases for eradication are of global importance, while others may be of regional or local importance.

The reality is that the goal of eradicating "neglected clubfoot" in Uganda is a long-term strategy owing to the fact that clubfoot is not preventable by vaccination. This fight will be sustainable only if it is owned by the participants in health service delivery focused on rehabilitation care in persons with disabilities. The workshop on eradication of diseases recommended eradication initiatives should be implemented with the support of a broad coalition of partners. The government and local civil society organizations including non-governmental organizations (NGOs), faith-based organizations (FBOs), community-based organizations (CBOs), associations of health care workers, and the private sector are crucial for this development, and are well placed to identify the needs of their own communities and devise strategies for meeting them. In addition to working with governments, the Emergency Plan focuses on supporting local indigenous organizations, prioritizing funding to develop their capacity (Rice, 2006).

The substantial interest and investment in partnership is based on the assumption that partnership enhances the capacity of people and organizations to achieve health and health system goals. Lasker, Weiss and Miller (2001, p183) described partnership as a process that enables independent individuals and organizations to combine their human and material resources so they can accomplish objectives they are unable to bring about alone. This combination of resources helps partners to gain advantage over a single agent. In the developing world, there is a multitude of demands exceeding the budgetary capacity of the governments to provide the required services.

Clubfoot being a less common disability it attracts less attention in the national budget when compared with the more fatal childhood diseases. Kent and Musoke (2007) suggested that developing partnerships with the private health sector would improve that sustainability of Ponseti

treatment in Uganda. However their findings were based on data obtained from a few respondents and non scientific methods of sampling. Results of this study showed that building partnership had no statistical significance towards institutional sustainability of Ponseti treatment.

Paudel, (2008) asserted that distribution of NGOs is not homogeneous but they are mostly working in the most difficult areas and or with disadvantaged groups. It was further recognized that NGOs are indispensable allies in the delivery of primary health care, not only because they supplement government resources but also because there is much to be learnt from their experiences, expertise and innovative ventures. VHA (2002) noted community partnerships help to build important political relationships that can lead to increased funding. There has been a renewed interest in efforts to improve community health through the formation of partnerships that integrate public health and medical care delivery components of local health systems (Young, 2000 and Weiner and Alexander1998). However, Short ell et al. 2002; Lasker and Weiss 2003, argue that to realize their rather ambitious goal of improving the overall health of the whole community partnerships and their activities must be sustained over a significant period of time (Alexander, Weiner, Metzger, Short ell, Bazzoli, Hosnain-Wynia, Sofaer and Conrad 2003 pp 130s-160s).

Sustainability is a key requirement for partnership success and a major challenge for such organizations. Community health partnerships take a comprehensive approach to improving community health status that focuses on education, prevention, early detection and seamless delivery of health and human services. From the literature, sustainability is treated as the independent variable to partnerships thus providing no evidence of the influence partnership on integration of Ponseti treatment into the existing organization system for sustainable implementation.

Developing Human resource and Institutional Sustainability

Human resource is critical if the Ponseti treatment is to effectively implemented and integrated in the health systems. Like many health care problems the Ponseti treatment requires teamwork, drawing personnel of various cadres to achieve a single object. The provision of appropriate training for identified target groups is often a key strategy for achieving sustainable benefits.

To improve the prospects for sustainability, training should start at the right time and be conducted throughout the program or project, to allow for repetition (AusAID, 2000). Further more appropriate type of training will depend partly on the nature of individual programs and projects. AusAID, (2000) indicates that certain approaches are more likely to achieve sustainable benefits than others. Effective training should not only 'educate' but also motivate; trainees must be selected on merit, include both men and women, and be of direct relevance to their work. Trainees must also be given the opportunity to apply newly acquired skills on completion of training. Lobina and Hall (2006) reported personnel training program aimed at project management and employees proved beneficial to the project implementation unit and resulted in the establishment of long-term capacity in Kaunas and Riga. Kumar and Best (2006), also pointed out lack of adequate personnel training as a critical factor in the sustainability of e-government services in Tamil Nadu.

Their findings indicated that although training was initially done it was virtually stopped at the transfer of the project and this led to a sharp deterioration of service. It is imperative that training of organization personnel is critical to sustainability and that it should be conducted throughout the project life time however little evidence has been found in literature concerning training of other stakeholder outside the organization who can affect the institutional sustainability. Therefore, this study set out to establish the effect of leadership support through training on institutional sustainability of Ponseti treatment in Uganda. There is conformity that in order to

develop the human resource capacity required to institutional attain sustainability of Ponseti treatment, training of health workers and support clubfoot clinics should be conducted regularly. This study noted that training helps in passing on the Ponseti skills to other health workers thus creating a knowledge base for the future.

According to Lado and Wilson (1994 pp. 699-727) the resource-based view suggests that human resource systems can contribute to sustained competitive advantage through facilitating the development of competencies specific to the firm. They argue that the sustained superior performance of the most admired companies, such as Marriott, Borg-Warner, and Merck, has been attributed to unique capabilities for managing human resources to gain competitive advantage (Lado &Wilson 1994, pp 699-727). Conversely, to the extent that HR systems inhibit the mobilization of new competencies and/ or destroy existing competencies, may contribute to organizational vulnerability and competitive disadvantage.

Policy implementation and Institutional sustainability

Policy implementation in any health care system relies upon provider commitment. According to Paudel, (2008) policies that do not address the organizational, professional and social context are unlikely to achieve successful implementation. Political objectives alone, however well intentioned, are inadequate to change practice. Where there are barriers to policy implementation, the policy may fail to meet its objectives (Watt et al, 2005).

Availability of trained health workers is one the major problem of health policy implementation, however training alone without posting to the health facility may not help in policy implementation. According to USCCP it was anticipated that skill development would enhance sustainability of Ponseti treatment in Uganda after the closure, indeed this study has demonstrated that developing human resource influences institutional sustainability.

Visschedijk, (2003) noted that in Tamil Nadu, India the integration of leprosy into the TB program received sufficient acceptance and eventually achieved. Nevertheless several obstacles were encountered:

(i) the general health workers were not adequately trained,

(ii) The patients and the community were not informed concerning integration and

(iii) The roles at the intermediary level particularly in relation to supervision and monitoring were not clear. These experiences indicate that the building of adequate health capacity is one of the most important factors for successful integration. It was assumed that HRD of key health workers who come into contact with children having clubfoot would improve the integration of the Ponseti treatment in Uganda.

Strengthening coordination and Institutional sustainability

Coordination is a term that is frequently called for as a solution to project and program implementation problems, and the USCCP is no exception. Still it is rarely elaborated in an operationally meaningful way beyond a vague notion of some sort of programmatic linkage.

One way to think about coordination is in terms of three types of activities: information sharing, resource sharing, and joint action (Brinkerhoff, 2003). Information sharing essentially involves communication, one agency or subunit letting another or others know what it is doing. This can be done through distributing written reports, holding meetings of various sorts, or setting up information units. Resource sharing means that resources controlled by one organization are allocated to another for particular purposes. Joint activities could include planning, data gathering, service delivery, monitoring, training, and/or supervision within the project framework. Similarly the National Public Health Partnership (2000) adds that long-term sustainability has been identified as an important element in the development of public health programs, whether they are

national, state or local projects. They highlighted three elements of sustainability namely: maintaining health benefits achieved though the initial program, continuation of the program activities within an organizational structure, building the capacity of the recipient community.

Lack of coordination among stakeholders results in lack of trust and antagonistic behavior thus lack of success and un-sustainability. This therefore calls for strengthening coordination by the project leaderships so as to make stakeholders aware of each other's role towards a unified goal. Mizrahi (2003) maintains that efforts to promote coordination often involve changes in agency operations, which in addition to improving service delivery to clients can provide other advantages for staff and administrators. Organizational strategies that facilitate coordination, such as state and local level contracts, co-location of staff, and joint planning affect the daily interactions and job responsibilities of staff. He further adds that coordination may also help to reduce unnecessary duplication. This approach can realize time saving both for the agency and the client. Joint planning can avoid duplication of services by dividing agency tasks and responsibilities and can also assist in identifying additional funding sources.

Calves (2000) during the implementation of Adolescent Reproductive Health programs, Cameroon, Burkina Faso, and Togo, collaboration and coordination of public and private efforts proved difficult, but noted they are essential elements of successful policy and program design. Calves (2002) documented that cooperation and coordination between public and private initiatives also contribute to flexible programming. Jones, Walsh, Jones and Tincati (2008), suggested that stronger coordination could play an important role in improving the overall quality of impact evaluations as well as encouraging a broader range of actors, especially developing country governments, researchers and end users, to become involved. It can be noted that strengthening coordination among various role players impacts on policy implementation.

Coordination and integration issues are not unique to public health organizations, or even to the broader health systems. Concepts such as permeable boundaries, diverse people, and emphasis on networking are relevant to public health to allow for disease identification, treatment and prevention in the communities. The National Public Health Partnerships (2000), noted that lack of coordination leads to overlap, contradictions (in some cases), and to reduced effectiveness and efficiency. Abebe (2005) asserted that coordination and management of aid by the government of the recipient country is an essential means towards national ownership of development cooperation. USCCP through its quality assurance teams has since coordinated the Ponseti activities with peripheral hospitals however the outcome of coordination and integration could not be quantified. The study noted that strengthening coordination had no significance to institutional sustainability of Ponseti treatment.

2.5 Summary of literature review

Attention to the sustainability of Ponseti treatment in Uganda and elsewhere is gaining momentum. Moreover an empirical, knowledge base about the determinants of sustainability is still at an early stage. Planning for sustainability requires the use of strategies that favor long-term program maintenance. This study conceptualized factors to institutional sustainability as stakeholder involvement and supportive leadership. It has been noted from the literature cited that stakeholder involvement by engaging government, donors and community influences sustainability. This study revealed that community involvement influences institutional sustainability of the Ponseti treatment more that government and donor involvement. Involvement improves ownership to the innovations, participation in funding, designing and implementation of policies that favor implementation and integration of the initiatives into the existing services (OECD, 2004; Baker Associates, 2008).

Equally supportive leadership has also been found to facilitate sustainability (Kumar &Best 2004; USAID 2007) certainly with institutional sustainability also as evidenced by this study. This then answered the question raised earlier by the researcher "does supportive leadership affect institutional sustainability" of the Ponseti treatment.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Introduction

This chapter describes the study area, population of the study area, types of data generated and data collection methods. It also explains the sample size, sampling techniques, research instruments, data analysis techniques and management.

3.2 Research Design

A descriptive case study design was used to; first enable the research gain an in-depth understanding of the problem, and be able to validate the findings and make reliable deductions. Descriptive case study designs emphasize detailed contextual analysis of limited number of events or conditions and their relationships thereby enabling the researcher to understand a complex issue and extend experience or ad strength to what is already known through previous researches (Amin, 2005: 195). The study employed both qualitative and quantitative methods of research to gain a deeper understanding of the problem. The researcher used triangulation of data collection tools (questionnaires, document review and interview guide) to be able capture enough in depth data on factors affecting sustainability. Triangulation enables the researcher to have a variety of issues examined (Amin, 2005: 74)

3.3 Study Population

The study population comprised, Hospital managers, orthopaedic officers, surgeons, orthopedic technicians, Caretakers (mothers/ Fathers) of clubfoot children Midwives, policy makers at the MOH. The above categories were selected because they directly participate in the implementation of the Ponseti treatment. The estimated total population from the two study cases is 540 persons.

Mulago clubfoot clinic is situated in Mulago National referral hospital located in the capital of Uganda while Masaka clubfoot clinic is situated Masaka regional referral hospital located 126Km South of Kampala.

3.4 Sample size, and Selection

The sample size was generated from lists of potential categories that included: hospital managers, policy makers at MOH (department of clinical and curative services), Orthopaedic officers working at these clinics, surgeons, Orthopaedic technicians and caretakers of children from these clinics and midwives. These categories were chosen because they are participants of USCCP and easily accessible. The sample size was determined using the formula by Kish and Leslie (1965) and arrived at the sample size based on accessible population. An accessible population is the proportion of the target population that is accessible to the researcher for the purpose of a specific study (Julius and Chris, 2000:111). Although target population had earlier on been estimated to be 540, it was later discovered from the clubfoot clinics that a big fraction of the potential respondents (caretakers) were no longer attending clinics. For this reason from a sample size was calculated from the total **accessible population of 269 persons.** The accessible population was determined from the clinic attendance registers of clubfoot clients at Mulago and Masaka and personnel records at the two hospitals. Therefore the sample was calculated from the accessible population using the Formula by : $n= N/ 1+Ne^2$ where n is the sample size for the study, N- the accessible population, and e- level of significance (Mugenda and Mugenda, 2003 pp44).

N = 269 persons, e= 5%level of significance (margin of error).

Therefore the sample size for the study was estimated to be: n= 269/1+ (269*0.0025)

= 269/ 1+1.35 = 193 sample size.

The various sample sizes in the strata was proportionately determined from list of participants in each category generated from various units that totaled up to sample size.

3.5 Sampling Techniques

Using a formula the researcher calculated the proportionate sample size for the categories of hospital managers, orthopaedic officers, surgeons, orthopaedic technicians, midwives and care-takers as in table1 below: the table displays category of respondents, population size per category, sample size and type of sampling technique used to select respondents during data collection.

Table 1: shows population categories, sample size techniques to be employed.

Category	Population	Sample size	Type of sampling
Policy makers (MOH)	2	2	Census
Hospital managers	6	4	Simple random
Orthopaedic surgeons	11	8	Simple random
Orthopaedic officers	28	20	Simple random
Orthopaedic technicians	20	14	Simple random
Midwives	70	50	Simple random
Caretakers	132	95	Convenience stratified sampling
TOTAL	269	193	

(Source: generated from hospital lists)

Both probabilistic and non-probabilistic sampling techniques were used (see table 1). Census was used on the category at policy level because the researcher was interested in all respondents since they were very few. Simple random sampling was used to choose the respondents from categories which had proper addresses and were easy to access. Convenience stratified sampling was used to select respondents from the care-takers category considering the years of participation in the Ponseti treatment. Although the sample frame was known, the accessibility of these respondents was limited to the clubfoot clinics. Gravetter and Forzano, 2009 argue that using

convenience stratified sampling technique reduces selection bias and can be used where part of the population is not accessible. Therefore in order for the researcher to get a reasonable proportion from this category he had to employ convenience sampling technique to choose the respondents. Simple random sampling was used because there was a sample frame; it was easy to use and give equal chances to all respondents in the strata to participate. It also reduced the risk of bias during selection.

3.6 Data collection methods and instruments

Data was collected using both qualitative and quantitative methods of research. The qualitative methods enabled the researcher to generate non-numerical data from key respondents and project documents, while quantitative methods generated numerical data. Amin (2005) argues that triangulations of methods helps the researcher to make conclusions that are more valid.

The key research tools to collect data were a questionnaire and an interview guide. The questionnaire was both structured and non-structured to capture both qualitative and quantitative data. Quantitatively, the questionnaire was developed using a 5-likert scale containing from strongly agree, agree, not sure, disagree and strongly disagree. This made it easy to code, edit and analyze data (Mugenda & Mugenda, 1999). The questionnaire sought information on socio-demographic and study VARIABLES. It was administered on literate respondents since they knew how to read and write. Being hospital staff included in the sustainability of the program it increased the response rate.

A questionnaire is an efficient data collection mechanism as administered questionnaire have advantages of high responses within a short period (Amin 2005) Interview guide was used to collect data from policy makers and hospital administrators (key informants). This tool helped the

researcher to gain a deeper understanding to the issues and clarify other issues which had been captured by the questionnaires (Amin, 2005)

3.6.1 Validity and Reliability of study instruments

These instruments were pre-tested to ensure reliability and validity. Questionnaires were used, since they are one of the most constructive methods of generating data. Qualitative data was collected with the aid of interview guide administered by the researcher to key informants.

Content validity of the questionnaires was established by experienced researchers who read the tool before it was pre-tested, then tested on the research assistants by role play. Difficult/ unclear questions were found and re-phrased. Ten questionnaires were administered and completed by a sample population selected outside the study population. The questionnaires were collected and checked for completeness, of the ten administered six were complete but three were partially filled with comments for clarity required (Validity factor 6/10 = 0.6) Corrections and expert opinion sought on the clarity of the questions before another batch of ten questionnaires was administered. Of the ten administered all were returned but two were not fully completed and with comments that no applicable answers listed (validity factor estimate 8/10= 0.8). Final correction was done and included not sure and indifferent as alternatives to cater for respondents in that category

The study instrument was done using SPSS soft ware, data collected using questionnaire was coded and a Cronbach's alpha coefficient of reliability calculated on 42 items in the questionnaire. An alpha value of 0.827 was got and the tool considered adequate based on the argument by Garson (2006) that a tool with an alpha coefficient of 0.70 and above is considered reliable.

Table 2 below displays reliability results of the questionnaires generated using SPSS on 42 items that excluded the bio-demographic data of respondents.

Table 2: Reliability statistics

Cronbach's Alpha coefficient	Number of items analyzed
0.827	42

(Source: primary data)

3.7 Procedure of data collection

A letter of introduction from UMI explaining the purpose of the study was presented to the director of USCCP seeking permission to carry out the research. A copy of this letter was handed over to the principal hospital administrator on behalf of the medical superintendent Masaka who also gave permission to conduct the study at the facility through the surgeon. Two research assistants were recruited and trained on how to conduct themselves during the exercise and administering questionnaires. Appointments were made the clinic managers to allow the researchers administer questionnaires to their clients during clinical activities. A separate room was organized outside the clinic area to allow respondent participate freely in the study without external influence from the clinicians. Literate respondents were given self-administered questionnaires to complete while semi-literate and busy respondents were interviewed by the researchers. Qualitative data from key informants was collected by taking notes during and after participant interviews.

3.7.1 Ethical consideration

The selected respondents were given full explanation of the purpose of the study and consent sought before administration of questionnaires /interview. Privacy and anonymity were ensured. During the exercise seven (7) of the participants approached preferred not to participate in the

study but no explanations were given. This therefore implies that respondents freely and willingly participated in the study.

3.8 Data Analysis and Presentation

Completed questionnaires were coded, edited and checked for completeness, accuracy, uniformity and comprehensiveness. The coded questionnaires were entered in SPSS computer package for analysis. The interview notes were transcribed organized under subheadings of the interview guide. Content analysis was performed on qualitative data to examine the intensity with which certain words/ phrases have been used and frequencies generated.

Quantitative data was analyzed using the statistical package for social scientist (SPSS) computer program and results presented in form of tables, pie charts, and histograms as percentages and frequencies. Correlation statistics & regression analysis were performed to see the relationships between the variables. The results of data analysis were discussed in line with the research questions and literature presented on each objective. Finally conclusions and recommendation were made in this book on factors affecting institutional sustainability of Ponseti treatment in Uganda are based on the findings of the data analyzed.

3.9 Measurement of Variables

The researcher used nominal scale measure on bio-demographic data, and ordinal and Likert scales to measure data collected on the dimensions of stakeholder involvement, supportive leadership and institutional sustainability generated from the questionnaires. Amin, (2005: 256) asserted that the Likert scale reduces an examinees tendency to respond with a certain fixed mental.

CHAPTER FOUR

4.0 PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS

4.1 Introduction

The study set out specifically to; examine the effect of stakeholder involvement on institutional sustainability of Ponseti treatment and establish a relationship between supportive leadership and institutional sustainability of Ponseti treatment in Uganda. The data is presented, analyzed and interpreted according to the above specific objectives of the study. This chapter presents results in tables, pie charts and histogram.

4.2 Response Rate

A total of 145 filled questionnaires were returned from respondents out of the 193 that were distributed during the study accounting for 75.6% response rate. From qualitative interviews three of the six potential respondents participated, accounting for 50% response rate. The 50% response rate can be attributed to lack of time on the side of the intended respondents owing to the fact that the study was conducted during the closing phase of the financial year and the majority of the respondents are the accounting officers in the organizations. The overall response rate for the study was 74.4%. Mugenda and Mugenda, (1999) argues that a response rate of 50% is sufficient for analysis.

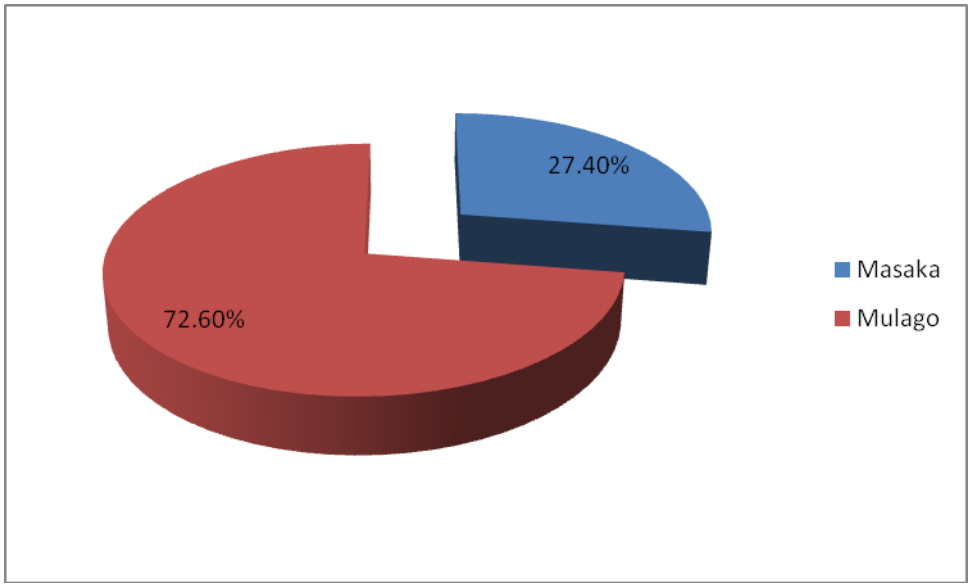
4.3.0 Socio Demographic Characteristics of Respondents

Data was collected on socio demographic variable which include; Centre for Treatment, sex, age, duration of involvement in Ponseti treatment and role played by respondent in the Ponseti treatment. Analysis was done on each variable and results are presented diagrammatically in the section that follows.

4.3.1 Centre for treatment

Quantitative data were collected using questionnaires from two clubfoot treatment centers; Mulago and Masaka hospitals and the responses are displayed in the figure below:

Figure 1: displays results of response rates at the 2 centre



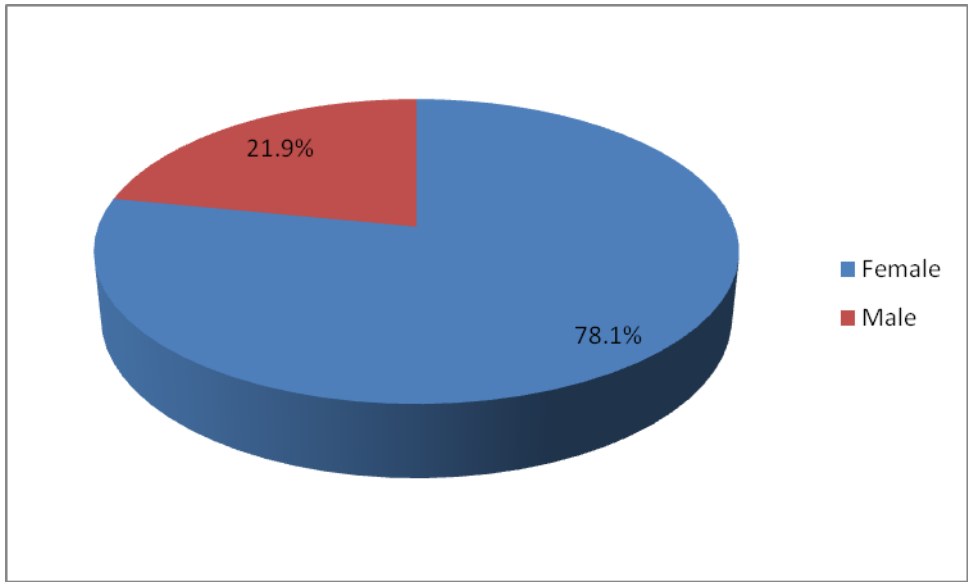
(Source primary data)

The study results show that 72.6% (106 respondents) received treatment at Mulago and 27.4% (40 respondents) received it from Masaka Hospital. The variation is because Mulago clubfoot clinic has the biggest percentage of health workers and caretakers involved in the Ponseti treatment and also a clubfoot clinic conducted twice a week.

4.3.2 Sex of respondents

The questionnaires were administered to both females and males at the two centers. Results are presented in figure 2 below.

Figure 2: Displays responses by sex



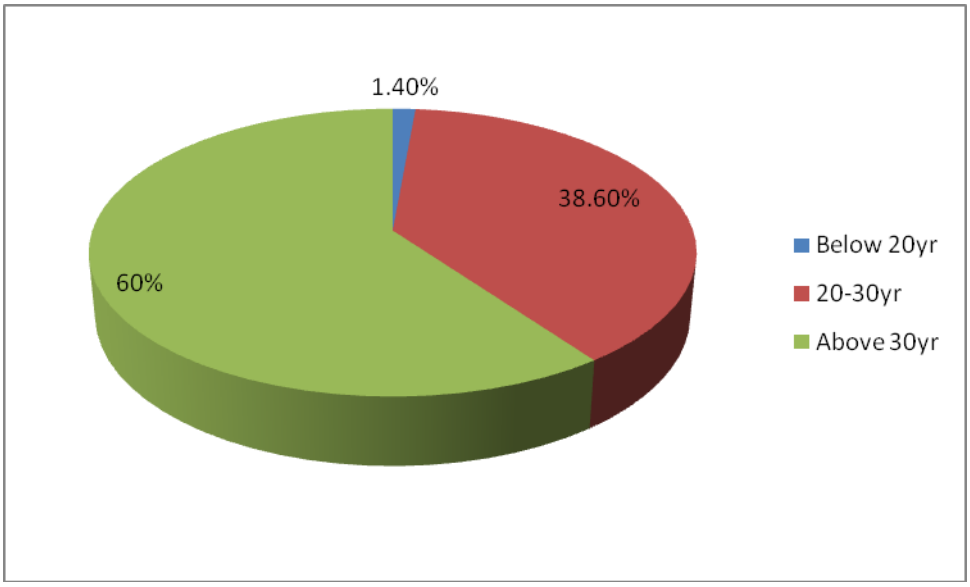
(Source primary Data)

Figure 2 above showed that the majority of respondents who participated in the study were females accounting for 78.1% while males accounted for only 21.9%. This could be because females have a traditional role to play in the Ponseti treatment as caretakers and midwives. While males also play a role of caretaker, few males bring their children to hospital except in cases where the child is not living with the mother and there is no other caretaker other than the father. However this reality may impact on institutional sustainability of Ponseti treatment bearing in mind that men play a big role in policy formulation and implementation yet with limited experience in handling Ponseti cases.

4.2.3 Response by Age

The study examined the responses in relation to age of respondents and the results are displayed by figure 3 below.

Figure 3: Shows Age of respondents



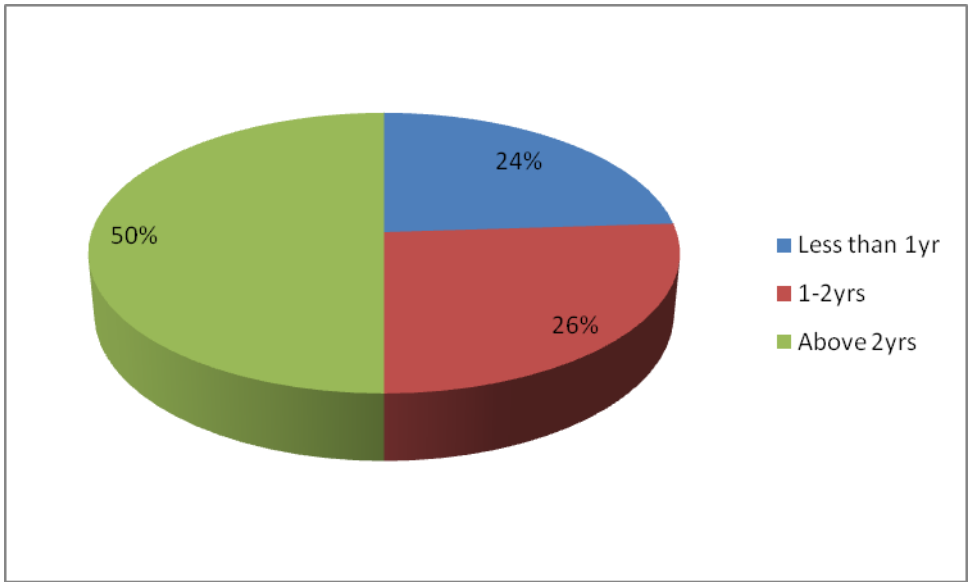
(Source: primary Data)

It was noted from figure 3 above that the majority of the participants in the study were in the age group of 30 years and above accounting for 60%, and the minority group of below 20years accounted for 1.4%, while those in the age group of 20-30years accounted for 38.6%. The bigger margin between the majority and minority response rate could be explained by participation of big numbers of health care providers who spend a long time of training before they start working as compared to the number of young mothers who give birth at an early age that is below 20years.

4.2.4 Duration of involvement in the Ponseti treatment

The diagram below show results in relation to the duration respondents have been involved in the implementation of the Ponseti treatment.

Figure 4: shows duration of involvement in the Ponseti treatment



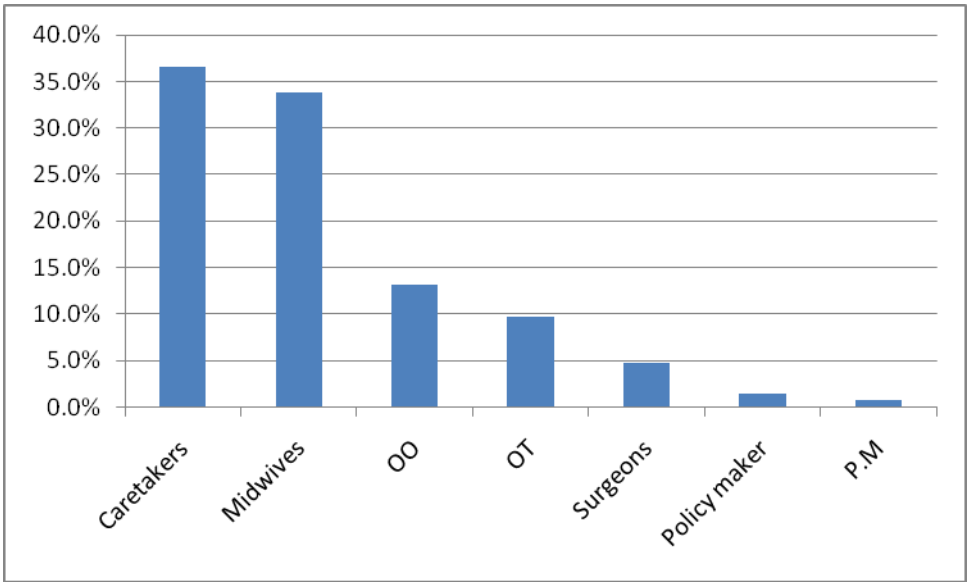
(Source: Primary Data)

The majority of respondents 50% (56 health workers) had been involved in the Ponseti treatment for a period exceeding 2years. It was observed that 24% had participated in the treatment for less than a year (21 caretaker and 15 health workers). Another 26% had been involved for more than a year however there was no significant deference between caretakers and health workers. The difference in the response pattern can be attributed to the big number of health workers who participated in the study and had been involved in the Ponseti treatment since the time the project began its operations. This implied an opportunity for institutional sustainability of Ponseti treatment owing to the availability of human resource capacity in these treatment centers.

4.2.5 Role of respondents in the Ponseti treatment

The study sought to understand the roles played by respondents in the implementation of Ponseti treatment results are displayed in Figure 5 below.

Figure 5: Shows role of respondents in the Ponseti treatment



(Source primary data)

It was noted that all health workers combined (Midwives, orthopaedic officers, technicians and surgeons) accounted for 62% response, Caretakers 36.6% while policy makers and project manager accounted for only 0.7%. The results demonstrated that in order to implement the Ponseti treatment health systems require a wide range of health workers who work in a participatory manner to get a clubfoot corrected. On the other hand a 36.6% caretaker response is an indicator that in order to sustain the Ponseti treatment the caretakers are key stakeholders in the implementation of this program. This implies that the participation of caretakers could have a big influence on the institutional sustainability of the Ponseti treatment.

4.3.0 Factors affecting institutional sustainability of Ponseti treatment

The study examined factors affecting sustainability of the Ponseti treatment in Uganda. The researcher set out to examine the effect of stakeholder involvement on sustainability of Ponseti treatment in Uganda and establish a relationship between supportive leadership and institutional sustainability of Ponseti treatment.

4.3.1 Stakeholder Involvement and Institutional Sustainability

To understand the effect of stakeholder involvement on sustainability of Ponseti treatment in Uganda, the study focused on examining the involvement of each of the three major stakeholders in the program namely Donor, Government and Community/caretakers in Ponseti treatment.

On whether donors have been involved in Ponseti treatment program, the study focused on understanding the advisory, advocacy, funding training and partnership activities of the Donors. In this dimension of stakeholder involvement, 92 respondents; that is Surgeons, orthopaedic officers, technicians, midwives, administrators and policy makers were interviewed.(N=92). The findings are presented in table 3 on next page.

Table 3: Donor involvement in Ponseti treatment

ITEMS	Agree (%)		Disagree (%)		Not sure%
	S.A	A	D	SD	
a) Advising the MOH on formulation of disability policies has improved the implementation of Ponseti treatment	60 (55)	33.8(31)	2.1(2)	1.4 (1)	2.8(3)
b)Donors can improve the skills of health worker in the treatment of clubfoot by funding short course on Ponseti treatment	56.6(52)	38.6(35)	2.8(3)	1.4(1)	0.7(1)
c) Donors improve the quality of life of persons with clubfoot by advocating for the implementation of Ponseti treatment	55.2(51)	37.2(34)	3.4(3)	2.1(2)	2.1(2)
d) Donors can facilitate the implementation of Ponseti treatment by partnering with local NGOs dealing with disability rehabilitation programs	63.4(58)	32.4(30)	2.8(3)	0	1.4(1)

(Source primary data) Key; S.A = strongly agree, A= agree; D= disagree; S.D =strongly disagree

The study showed that, 93.8%(86) agreed that donors affect sustainability of Ponseti treatment by advising MOH on formulation of disability policies; 92.4%(87) agreed that through funding short course for health workers on Ponseti treatment donors can influence institutional sustainability and 96.5%(88) agreed that facilitating the implementation of Ponseti treatment by partnering with local NGOs dealing with disability rehabilitation programs , donors play a role towards institutional sustainability of Ponseti treatment. The above findings imply that when donors actively participate in the Ponseti treatment institutional sustainability can be achieved. However, 4.2 % (4) of respondents disagreed to donor funding of short course leading to institutional sustainability of Ponseti treatment. The findings showed that 2.8%(3) were not sure whether donor participation in advising the MOH on formulation of disability policies would result in institutional sustainability, 2.1%(2) were not sure whether funding short courses for health workers leads to institutional sustainability. The above occurrence may be due to lack of information about the various roles played by the donors in Ponseti treatment. However the researcher was unable to get the donors views on how their participation can affect institutional sustainability of the Ponseti treatment.

During the qualitative interview participants were asked which roles donors play. All participants were of the view that donors play a supplementary role by funding various activities as guided by the Ministry of Health as noted by one of the *participants "if the ministry of health for instance wants to conduct training of health workers in clubfoot treatment or supplement the budget for purchase of requirements like foot abduction braces it can contact donor organizations (rotary clubs) to fund the exercise".* This therefore meant that donors play a rather supplementary role than a core activity in institutional sustainability of Ponseti treatment and the government should lead in the implementation and sustainability of the program.

The study examined government involvement in the Ponseti treatment and how it impacts of the institutional sustainability of this program results are displayed in table 4 below.

Table 4: Government involvement in Ponseti treatment

Items	Agree (%)		Disagree (%)		Not sure %
	SA	A	D	SD	
a) Implementation of Health policy on treatment of disabilities improves the integration of clubfoot treatment in health care services.	63.4(92)	33.1(48)	.7(1)	2.8(4)	0
b) Eradication of neglected clubfoot by providing technical and financial support to hospitals for ensuring effective transition of Ponseti treatment from project into regular routine activity	49.7(72)	43.4(63)	2.8(4)	2.8(4)	1.4(2)
c) Training and recruitment of health personnel will enable hospitals to effectively implement the Ponseti treatment.	66.2(96)	32.4(47)	.7(1)	.7(1)	0
d) Provision of materials needed in the clubfoot clinics will enable clients to access Ponseti treatment thereby improving its acceptability	60.7(88)	38.6(56)	0	0	.7(1)
e) Periodic monitoring and evaluation of Ponseti treatment will enable effective integration into primary health care services	53.1(77)	40.7(59)	4.8(7)	1.4(2)	0

(Source primary data) key: S.A = strongly agree; A= agree; D =disagree; S.D = strongly disagree

The table above shows that 96.5%(140) of respondents agreed that government is involved in institutional sustainability of Ponseti treatment through implementation of policies on treatment of disabilities to improve the integration of clubfoot treatment into primary health care services ; 93.1%(135) agreed that eradication of neglected clubfoot by providing technical and financial support to hospitals for ensuring effective transition of clubfoot treatment from project into routine activity would result into institutional sustainability of the program ; 98.6%(143) agreed that training and recruitment of personnel would enable the hospitals to effectively implement the Ponseti treatment; 99.3%(144) agreed that provision of materials needed in the clubfoot clinics would result in accessibility of the Ponseti treatment to the clients; and 93.8%(136) agreed that through periodic monitoring and evaluation of the Ponseti treatment would be integrated into primary health care service thereby resulting in institutional sustainability of program. Majority of responses indicated that government involvement by facilitating disability policy implementation, provision of technical and financial support to hospitals, training and recruitment of health personnel, provision of materials required by the clubfoot clinics, periodic monitoring and valuation the implementation of the Ponseti program as vital element to institutional sustainability.

However, 5.6% (8) did not agree to and 1.4% (2) was not sure that government is involved in the sustainability of Ponseti treatment through policy implementation. It was also observed that 1.4 %(2) disagreed on the need of providing expertise for the eradication of clubfoot; 0.7% (1) were not sure whether government involvement in the training and recruitment of personnel for the treatment of clubfoot contributed to the sustainability of Ponseti treatment; Finally, 6.8%(9) of the participants disagreed to government involvement through periodic monitoring and evaluation as contributing to institutional sustainability of Ponseti treatment. From the findings it's clear that the government has a role to play in institutional sustainability of Ponseti treatment.

Results from qualitative interview on the role of government in sustainability of Ponseti treatment showed all participants were of the view that government is responsible for giving policy direction to new interventions and lobby for funding from its development partners to put up infrastructure in treatment centers. One participant added that, "*government is responsible for giving policy direction and lobby for funding from its development partners to facilitate the ministry of health build efficient health institutions that can provide effective services to all citizens"*. This implied that government plays a core role in institutional sustainability of Ponseti treatment by providing funding, creating policy environment for disability treatment and provision of structural facilities needed in the Ponseti treatment.

Documentary review showed government involvement was evidenced by a letter from the Minister of Health that was published as a foreword in the manual for training health workers to treat clubfoot. On the health policy to integrate the Ponseti treatment in the primary health care, no evidence of policy manual/ instructions were found. This implies that the government's involvement is more of political morale than structural support that can result in institutional sustainability of the program.

Community involvement and sustainability of Ponseti treatment

The community /caretakers as stakeholders in the program were believed to be involved in the implementation of the Ponseti treatment. The researcher examined the influence of their participation on institutional sustainability of the program table 5 below shows responses generated from questionnaires on the involvement of the community in Ponseti treatment in Uganda.

Table 5: Results on caretakers/community involvement in Ponseti treatment

Item	Agree (%)		Disagree (%)		Not sure (%)
	SA	A	D	SD	
a) Seeking treatment for their clubfoot babies from hospitals indicate acceptability of the treatment and encourages integration.	65.5(95)	29.7(43)	3.4(5)	1.4(2)	0
b) Paying a fee for service to supplement the treating hospital's budget would improve the organization's financial resource capacity to implement Ponseti treatment	24.1(35)	46.2(67)	14.5(21)	15.2(22)	0
c) Providing feedback on the quality of services rendered will result in improvement of the disability policy implementation and effectiveness of the program	39.3(57)	53.1(77)	5.5(8)	2.1(3)	0
d) Forming pressure groups to lobby for supplementary funding will improve the hospitals' capacity to make the Ponseti treatment accessible to the community	34.5(50)	46.9(68)	11(16)	7.6(11)	0

(Source: primary data) key: S.A= strongly agree; A=agree; D= disagree; S.D=strongly disagree

Results showed 95.2%(138) agreed that by the community seeking treatment for their clubfoot babies from hospitals indicated acceptability of the treatment which promote integration; 92.4 %(134) agreed that providing feedback on the quality of services rendered will result in improvement of the disability policy implementation and effectiveness of the program; 89.7%(118) of the respondent agreed that formation of an association to lobby supplementary

funding for treatment of clubfoot results in institutional sustainability; 70.3%(102) agreed if the caretakers pay a fee for service to supplement the treating hospital's budget this would improve the organization's financial resource capacity to implement Ponseti treatment. However, it was noted that 4.8% of the respondents disagreed that seeking treatment from registered hospitals for clubfoot babies leads to institutional sustainability of Ponseti treatment. Results showed that the majority of caretakers disagreed to seeking treatment from hospitals as a way of community involvement accounting for 21.1% of responses. This meant there is lack of information on the disease as well as the treatment that led to mistrust in seeking treatment from hospitals other than traditional healers. 18.6% disagreed to providing feedback on quality of treatment given; nearly 30% disagreed to paying a fee for service as a means of improving institutional sustainability of Ponseti treatment. Generally it was observed that the majority of respondents agreed that community involvement affects institutional sustainability of Ponseti treatment. This implied that with the community fully participating in the Ponseti program sustainability will be achieved.

To verify these findings, interviews were conducted and participants asked what the community can do to ensure sustainability of the Ponseti treatment. Participants said that the community is responsible for ensuring sustainability of Ponseti treatment by seeking and adhering to the treatment being provided. A participant added that, *"parents are charged with seeking early treatment and advice from the health care providers as soon as they have identified a foot deformity and also ask their leaders to make health services accessible"*. On whether community should pay a fee, a participant said that government services are free and the MOH has the capacity to fund the budget for this treatment. This implied that the key informants consider seeking early treatment and ensuring adherence as sole role of the community/caretakers towards sustainability of Ponseti treatment. To further understand the relationship between stakeholder involvement and institutional sustainability of Ponseti treatment, the study used correlation

analysis as presented in table 6. A Pearson correlation coefficient was determined to examine a relationship between the two variables. The results are displayed in the table below.

Table 6: Shows Correlation of stakeholder involvement and institutional sustainability

	Stakeholder involvement	Institutional Sustainability
Stakeholder involvement Pearson correlation	1	.140
Sig (2-tailed)		.093
N	145	145
Institutional Sustainability Pearson Correlation	.140	1
Sig (2-tailed)	.093	
N	145	145

Table 6 shows that, the Pearson correlation (R) between stakeholder involvement and institutional sustainability was is .140 and the level of significance (P) was .093. These results demonstrated that there is no significant relationship between stakeholder involvement and sustainability of Ponseti treatment. Amin, (2005) argued that variable are not related if the level of significance P value is >0.05 (significant below 5% level). This implied no significant relationship between stakeholder involvement and institutional sustainability. Therefore, the hypothesis that stakeholder involvement influences sustainability of Ponseti treatment was not supported by evidence. Results from descriptive statistics contradict with the correlation results one side projecting high percentages while another side projecting very low percentages, this contradiction would mean that the two variables to not exhibit a linear relationship thus there is no cause effect

relationship. In order to establish a cause effect relationship between the variables a regression analysis was performed.

Table 7: Model Summary[b]

Model	R	R Square	Adjusted R Square
1	.140[a]	.020	.013

Table 7 showed a correlation of 0.14 as before and R square (0.20) shows how much of the variation is explained by stakeholder involvement; in this case it is insignificant.

Table 8: Coefficient of regression analysis for stakeholder involvement and sustainability

Model		B	SEb	B
1	(Constant)	37.687		.000
	Stakeholder involvement	.257	.140	.093

The table 8 above shows results of regression analysis. The Unstandardized Coefficient B shows the values in the linear regression equation. The constant term is 37.687 – indicating without stakeholder involvement, institutional sustainability accounts for 37.687. The relationship between stakeholder involvement and institutional sustainability is 0.257. Implying any increase in stakeholder involvement; institutional sustainability increases by 0.257, (p value 0.093) because this figure is greater than 0.05 the relationship is therefore considered not significant.

Although no significant statistical relationship was established, responses from the qualitative interview indicated that USCCP stakeholders have an influence on sustainability; where by

Donors as development partners fund government programs; government gives policy directions, funds MOH budget, and provides health systems infrastructure while the community seeks early treatment from clubfoot clinics and adheres to the Ponseti treatment guidelines. It was observed; in 2007 the Director General of health services in the MOH wrote a letter to National Medical Store (NMS) to include plaster of Paris (P.O.P) on credit line facility to allow hospitals access it easily and support the Ponseti treatment (USCCP correspondence file). It was observed that another commitment to procure foot abduction braces had been made by the Commissioner Clinical and Curative Services (MOH) however, no evidence of implementation was found. This infers that government participation is still at the political level and need to empower its structures that can facilitate integration.

4.3.2 Supportive leadership and Institutional sustainability

The study sought to establish a relationship between supportive leadership and sustainability of Ponseti treatment in Uganda. The study conceptualized supportive leadership as strengthening partnerships, coordination and developing human resource. Through questionnaires and interview guides, data were collected on how respondents believed supportive leadership influenced institutional sustainability of Ponseti treatment.

Building partnerships and institutional sustainability

The study examined the effect of FBOs, CBOs, and disability organization in strengthening partnership towards institutional sustainability of Ponseti treatment. Results are presented in table 9 below.

Table 9: Building Partnership and sustainability of Ponseti treatment

ITEMS	AGREE %		DISAGREE %		NOT SURE %
	SA	A	D	SD	
a)Faith Based Organizations can help to raise awareness of clubfoot treatment on worship days in a way of enabling the implementation of the disability policy	54.5(79)	35.2(51)	4.8(7)	5.5(8)	0
b) Community based Organizations help to build networks with clubfoot clients by supporting outreach clinics thus integration of clubfoot treatment in health system	46.9(68)	37.9(55)	9(13)	6.2(9)	0
c) Public-private partnerships support the capacity of hospitals through making donation of supplies to clubfoot clinics.	33.8(49)	47.6(69)	10.3(15)	8.3(12)	0
d) Disability associations (NUDIPU) improve the bargaining power of the caretakers by advocating for taking clubfoot treatment closer to the communities	38.6(56)	51(74)	5.5(8)	4.8(7)	0
e) Disability associations contribute to institutional sustainability by working as watch dogs to ensure effective implementation of policies on disability care	32.4(47)	60(87)	4.8(7)	2.8(4)	0

(Source primary data) key: S.A= strongly agree; A= agree; D= disagree; S.D= strongly disagree

Table:9 above shows that the majority of respondents 89.7% agreed that FBOs can help to raise awareness of clubfoot treatment on worship days in a way of enabling the implementation disability policy; 84.8% agreed that CBOs help to build networks with clubfoot clients by supporting outreach clinics which aid the integration of clubfoot treatment in health system; 81.4% agreed that Public-private partnerships support the capacity of hospitals through making donation of supplies to clubfoot clinics; 89.6% agreed that Disability associations (NUDIPU) improve the bargaining power of the caretakers by advocating for taking clubfoot treatment closer to the communities and 92.4% agreed that contribute to institutional sustainability by working as "watch Dogs" to ensure effective implementation of policies on disability care. Study findings confirm that strengthening partnerships with other organizations influence institutional sustainability of Ponseti treatment.

These results are buttressed by interview results in which participants noted that partnerships help organizations to share experiences with other service providers and ensure better lobbying ground for funding of the activities. Nowadays development partners prefer to channel project funds through private organizations to implement government programs rather than directly through government ministries, *"it's therefore important to build partnerships and be able to benefit from such funding" a participant added.* Another participant was of the view that *"Private organizations help to fund awareness campaigns by giving free airtime to run sensitization messages on radios."* This therefore implied that partnerships help to build institutional sustainability through sharing resources and complementing each other's efforts.

However, it was noted that 18.6% disagreed to Public-private partnerships as important in making health care services accessible to communities through donation of supplies to clinics; 15.2% (22) disagreed to the idea that CBOs help in building networks with clubfoot clients by supporting outreach clinics, of these 25.6% were caretakers while 18.4% were midwives. This

could be because midwives have had little participation in treatment of physical disabilities. This implies that they have little information on the need for networking with Community Based Organizations. There were no contradictory opinions from the key informants implying that all key informants interviewed uphold the view that strengthening partnerships could abet institutional sustainability of the Ponseti treatment. However, from the documentation review no correspondences/ memoranda of understanding between USCCP's and other partners for the period between 2007 and 2009 were found. This implied that although USCCP management recognizes the need to partner with other health service than the government they have overlooked this strategy as a vehicle to institutional sustainability of the Ponseti treatment.

Strengthening coordination and Institutional sustainability

Questions were asked on strengthening coordination as a means of achieving institutional sustainability the results are displayed in the table 10 below.

Where V.I is very important, I is important, L.I is less important, N.A not important at all and N.S is not sure.

Table 10: Strengthening Coordination and institutional sustainability

ITEMS	Important		Not important		NOT SURE (%)
	V.I (%)	I (%)	L.I (%)	N.A (%)	
a) Hospital capacity to effectively implement the Ponseti treatment is enhanced through stakeholder meetings	48.3(70)	45.5(66)	4.1(6)	2.1(3)	0
b) Annual project progress reports provide feedback to stakeholders on implementation of government policy on the Ponseti treatment in a way to ensure institutional sustainability	60.7(88)	35.2(51)	3.4(5)	0	0.7(1)
c) Technical support to clubfoot clinics encourages the hospital leadership to own clubfoot care as part of the routine activities.	54.5(79)	43.4(63)	1.4(2)	0.7(1)	0

(Source: primary data)

The findings show that 93.8% of the respondents believed hospital capacity to effectively implement the Ponseti treatment is enhanced by stakeholder meetings; 95.9% believed that annual project progress reports provide feedback to stakeholders on implementation of government policy on the Ponseti treatment; 97.9% believed that technical support to clubfoot clinics encourages the hospital leadership to own clubfoot care as part of the routine activities; while less than 1% (caretakers) were not sure of the importance of annual project progress reports towards ensuring institutional sustainability . It is evident that the majority believe that strengthening coordination is an important factor in ensuring sustainability of the Ponseti treatment. It is purported that USCCP can improve the prospects of institutional sustainability by strengthening

coordination of the various activities of its stakeholder through meeting, technical support to clubfoot clinics and annual project progress reports on the implementation of disability policy.

Through qualitative interview, key informants were asked to comment on the importance of strengthening coordination in ensuring institutional sustainability of the Ponseti treatment. Participants said coordination brings about working together as a team which enables the institution to achieve better results. This further improves acceptability of responsibilities and ownership of the outcome. *"through coordination the Ponseti treatment would improve in 'Case' identification and referral to clubfoot clinics by midwives".* This discussion put across three distinctive ideas that are important in achieving institutional sustainability of the Ponseti treatment namely:- acceptability and ownership necessary for building the hospital capacity to provide effective clubfoot care and improves the ability of the health system to implement a new policy; 'Case' identification and referral to the clubfoot clinic implies that Ponseti treatment has been embraced by primary health care providers which is a positive move towards institutional sustainability. Document review on strengthening coordination revealed a decline in the frequency of project management meeting, in 2007 four meeting were held, in 2008 two meetings were held and in 2009 only one meeting took place(minutes of management committee). However there was an increase in the number of support supervision trips done by the project staff to the country side clubfoot clinic. Reports from these clinics indicated an improvement on the implementation process of the Ponseti treatment as the number of support visits increased (quality assurance reports).

Developing human resource and sustainability of Ponseti treatment

The study examined developing human resource in Ponseti treatment as a measure of supportive leadership and analyzed the following responses on: case identification, diagnosis and treatment,

fabrication of braces, refresher training and support supervision of clubfoot clinics. The findings from the questionnaires are displayed in the table below.

Table 11: Developing Human Resource

Items	Satisfied (%)		Dissatisfied (%)		Indifferent (%)
	S.A	A	D	S.D	
a) As a way of integrating Ponseti treatment in primary health care services, Midwives identify newborn babies with clubfoot at birth	53.8(78)	35.2(51)	5.5(8)	5.5(8)	0
b) Orthopaedic officers are able to diagnose and treat clubfoot effectively	62.8(91)	31.7(46)	5.5(8)	0	0
c) Availability of a Tenotomist in the clubfoot clinic indicates the hospital's capacity to effectively implement the Ponseti treatment.	40.7(58)	49(71)	7.6(11)	2.8(4)	0
d) Developing the capacity of Orthopaedic workshops to fabricate appropriate braces required in Ponseti treatment contributes to institutional sustainability of Ponseti treatment	36.6(53)	46.9(68)	13.1(19)	3.4(5)	0
e) In order to strengthen the human resource capacity, training of health workers and support clubfoot clinics should be conducted regularly	40.7(58)	39.3(57)	16.6(24)	3.4(5)	0

(Source: primary data) S.D= strongly agree; A=agree; D=disagree; S.D= strongly disagree

It was noted that 89% of the respondents agreed that as a way of integrating Ponseti treatment in primary health care services, midwives are able to identify newborn babies with clubfoot at birth; 94.5% agreed that orthopaedic officers are able to diagnose and treat clubfoot effectively; 89.7% agreed that availability of a tenotomist in the clubfoot clinic indicates the hospital's capacity to effectively implement the Ponseti treatment; 83.5% agreed that developing the capacity of orthopaedic workshops to fabricate appropriate braces required in Ponseti treatment contributes to institutional sustainability of Ponseti treatment and 80% agreed that in order to strengthen the human resource capacity, training of health workers and support clubfoot clinics should be conducted regularly. However 11% (11 health workers and 5 caretakers) of respondents disagreed to the view that integration of Ponseti treatment can be achieved when midwives are able to identify clubfoot at birth; 5.5% disagreed to ability of orthopaedic officer to effectively treat clubfoot as a sign of institutional sustainability; 16.5% (2 surgeons, 5 Orthopaedic officers, 3 midwives, and 4 caretakers) disagreed with the availability of a Tenotomist in the clubfoot clinic; 20% disagreed with regular training and support of clubfoot clinics as a way of strengthening hospitals capacity to effectively implement Ponseti method. It's notable from the results that when midwives are able to indentify clubfoot at birth; orthopaedic officers able to diagnose and treat; availability of tenotomists at the clubfoot clinics; capacity to fabricate foot abduction braces and regular training of health workers are vital strategies to developing human resource required to ensure institutional sustainability of the Ponseti treatment.

In the interviews key informants commented that developing human resource ensures skills are passed on to other health workers thus creating a knowledge base. All participants suggested that training should be continuous in health training institutions to train many orthopaedic officers who will treat clubfoot, technician, doctor and midwives. To verify these findings a documentary review of the training objective of USCCP was conducted and findings are indicated in the table

below. The qualitative results also confirm the statistical findings above which are suggestive that human resource is crucial in achieving institutional sustainability of the Ponseti treatment.

Table 12: Number of trained health worker by USCCP

	2007	2008	2009	Total
Orthopeadic officers	55	06	25	86
Midwives/ Nurses	296	234	104	634
Doctors	15	6	9	30
Technicians	18	1	6	25

(*Source: project documents; secondary data)*

In order to establish whether there is a relationship between supportive leadership and sustainability of Ponseti treatment, Pearson correlation coefficient was calculated (see table below).

Table 13: Correlation of Supportive leadership and Institutional Sustainability

		Supportive leadership	Institutional sustainability
Supportive leadership	Pearson's correlation	1	0.309**
	Sig (2-tailed)		0.000
	N	145	145

******Correlation is significant at 0.01 Level (2-tailed) (*source: primary data)*

The study discovered that supportive leadership influences institutional sustainability of Ponseti treatment with a positive Pearson correlation coefficient (r = 0.309; p= 0.01). This implied that at 100% significance level supportive leadership explains 31% of institutional sustainability of

Ponseti treatment. To establish the influence of supportive leadership on institutional sustainability a regression analysis was performed, results are displayed below.

Table 14: Model summary

Model	R	R Square	Adjusted R Square
1	.309[a]	.096	.089

Dependent variable institutional sustainability;
Independent variable supportive leadership

The model summary above displays a correlation coefficient R = 0.309 consistent with the results of the correlation analysis in table 14 above, and $R^2 = 0.096$ shows how much of the variation is explained by supportive leadership.

Table 15: Coefficients of supportive leadership and institutional sustainability

Model	B	Beta	B
(Constant)	24.720		.001
Supportive leadership	.437	.309	.000

Dependent variable institutional sustainability

Table 15 shows a Pearson correlation (R) between supportive leadership and institutional sustainability was is .309 and the level of significance (P) was .000. The regression model results ($R=0.309$; $p<0.001$) revealed that a one standard deviation increase in supportive leadership resulted in 0.309 increase in institutional sustainability of Ponseti treatment. The results implied that there is a fair significantly positive influence of supportive leadership on institutional sustainability of Ponseti treatment because the p value is less than 0.05 (Amin, 2005). This means that if there is support from the leadership its most likely that institutional sustainability of the Ponseti treatment will be realized. Therefore, the study supported the hypothesis that supportive leadership influenced institutional sustainability of Ponseti treatment.

CHAPTER FIVE

5.0 SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATION

5.1 Introduction

This study investigated factors affecting institutional sustainability of Ponseti treatment in Uganda. The study was guided by two objectives namely; to examine the effect of stakeholder involvement on institutional sustainability and to establish a relationship between supportive leadership and institutional sustainability of Ponseti treatment in Uganda.

The Ponseti treatment of clubfoot has been adopted by many countries around the world as a non-operative treatment of choice. In Uganda the MOH opted for this treatment on a wider scale using a public health approach and mandated USCCP to implement it in a sustainable manner. However, during the first half of its implementation it was discovered that institutional sustainability was far from being achieved (project midterm evaluation report 2007). The evaluators noted that the project stakeholders did not participate fully as planned; the project required a supportive environment to build partnerships with the private sector, develop human resource and coordinate this activity with other primary health care activities to ensure sustainability at the project closure.

This chapter discusses the findings in relation to the research objectives and review of related literature. The chapter also draws conclusions and makes recommendations which the researcher expected will help the project to achieve institutional sustainability of the Ponseti treatment and finally states issues that were not answered in this study that would form future researches.

5.2 Summary of Key findings

This study sought to examine factors affecting institutional sustainability of Ponseti treatment. The study shows mixed findings in as far as stakeholder involvement affects institutional sustainability of Ponseti treatment. Contrary to the previous studies (AusAID (2000) and Kootz, 2006) Pearson correlation coefficient of the relationship stakeholder involvement affects institutional sustainability of Ponseti treatment showed no significant relationships $r = 0.14$; p value >0.05. There is no statistical relationship between stakeholder involvement and institutional sustainability. At the same time, qualitative findings maintained that, stakeholder involvement affected institutional sustainability through community participation in seeking and adhering to the clubfoot treatment; government giving policy guidelines and lobby development partners to fund activities of MOH.

In regard to supportive leadership, a Pearson correlation showed a significant positive relationship existed between supportive leadership and institutional sustainability ($r = 0.309$; p value < 0.05). Therefore results confirmed the hypothesis that supportive leadership influence institutional sustainability of Ponseti treatment. These findings are also in support of Shriberg (2002, pp 93) earlier finding which suggested that lack of leadership support is a key barrier to progress, and concluded that at least one individual with broad and substantial influence needs to be a vocal advocate for sustainability initiatives in order to be successful.

5.3 Discussion of key findings

5.3.1 Stakeholder involvement affects sustainability of the Ponseti treatment in Uganda

This study hypothesized that stakeholder involvement affect institutional sustainability of Ponseti treatment in Uganda. Previous studies demonstrated that stakeholder involvement is useful in

improving the quality and sustainability of policy decisions (OECD, 2004). Another study conducted in Tamil Nandu- India showed that stakeholder involvement resulted in collective responsibility and sustainability of the agreements reached (Kumar and Best 2006). It is generally believed that involvement of project stakeholders at all stages of the project development facilitate the flow of information, mobilization and utilization of resources and improve ownership of the initiative thereafter sustaining the outcome (http//.www. enforic.org/gb/stake2.htm).

This study however, found out that stakeholder involvement had no significant effect on institutional sustainability of the Ponseti treatment. The correlation and regression coefficients results showed no significant relationship between the two variables therefore the hypothesis that stakeholder involvement affected institutional sustainability of Ponseti treatment was not supported. The results disagreed with LaFond's (1995) view, who argued that sustainability depends in part on the emergence of a critical mass of support for a particular activity among stakeholders.

Involvement is both a means and an end. As a means, it is a process in which people and communities cooperate and collaborate in development projects and programs. As an end, involvement is a process that empowers people and communities to acquire skills, knowledge and experience, leading to greater self-reliance and self-management. Going by the statistical deductions rejecting the hypothesis that stakeholder involvement affects institutional sustainability would otherwise suggest forfeiting attributes such as empowerment, acquiring skills, self-reliance and self-management that are key ingredients towards institutional sustainability of Ponseti treatment. On the other hand, the study has showed the Ponseti treatment being influenced by various stakeholders such as caretakers/community who seek intervention for their children with clubfoot, the government as the service provider/policy maker and donor

communities collaborating with service providers to deliver to the community. With this nature of interaction among various actors in this treatment one would expect a considerable impact to be exerted by stakeholders toward realizing institutional sustainability of this treatment. Nevertheless, the statistical finding did not imply that stakeholders totally have no role to play towards institutional sustainability, key informants pointed out that in order to ensure institutional sustainability community participation by seeking and adhering to the clubfoot treatment, government giving policy guidelines and lobby development partners to fund activities of MOH and donor participation through funding training needs of health-workers were of paramount importance.

Apparently this study has put up two varying views one that stakeholder involvement does not affect institutional sustainability (quantitatively) and the other that stakeholder involvement (key informant responses) demonstrating relationship between these variables (qualitative).It is noted from literature that, institutional sustainability is also influenced by other factors such as the interests of a given stakeholder (Johnson & Wilson , 2000: 301-316) they argued that in they argued that this challenge can be overcome by building and sustaining norms, values and practices of agenda setting and negotiation that are inclusive of all stakeholders. Similarly the socio-political and regulatory environment within which such program operates (USAID 2005) affects the institutional sustainability of a program. This means that stakeholder involvement alone is no guarantee for institutional sustainability therefore should be considered together values, norms practice and rules which supports institutional theorist view. It was further noted that various stakeholders contribute differently to sustainability of Ponseti treatment. Statistical results indicate that community involvement impacts more than donor and government involvement to institutional sustainability of Ponseti treatment.

Donor involvement and Institutional sustainability

AusAID, (2000) asserted that donors may consider providing some limited follow-on assistance such as intermittent technical support or supplementary financial support to enhance the prospects for sustainability and to consolidate achievements. Nabyonga, Ssengooba and Okuonzi (2009) further documented that Donor funding is playing an increasingly significant role in health financing in developing countries. However, they pointed out several issues that have been raised regarding donor aid, including projects being generally unsuccessful, earmarked funding that may not be well aligned to health priorities of recipient countries, and poor accountability.

This study demonstrated a negative and very weak relationship between donor involvement and institutional sustainability. This implied donor involvement decreased with stability in institutional sustainability of the Ponseti treatment. Experience from other project/programs have indicated that as the project accomplishes some of its objectives donor scale down their active involvement towards implementing and focus on empowering the locals to take up responsibilities. Key informants suggested that Donors play a role in funding various activities as guided by the Ministry of Health but have little involvement in building institutional sustainability. The above findings seem to contradict Nabyonga, Sengooba and Okuonzi (2009) who noted that Many Global Health Initiatives are centered on specific interventions and funding-specific inputs. This implied that although donors contribute towards health interventions for example Uganda benefited from the global fund for treatment of Tuberculosis and Malaria in HIV and the GAVI fund for Vaccine. This Aid comes tagged to specific outputs without opportunity left for the recipient government to build structures for sustainability when funding ends. It is therefore imperative that Donors should permit as much autonomy as possible, even if plans do not meet the donor's expectations in every respect (WASH 1994).

On the other hand, Kisubi, (2003) recommended that in order to ensure sustainability of community based rehabilitation donors should increase their funding levels, technical expertise and attract other donors to support government programs. This recommendation supported by key informants suggestion that donors can help improve institutional sustainability of Ponseti treatment by funding training programs aimed at building capacity of health workers to treat clubfoot. The views of the key informants seem to agree with the argument that donors help to develop organizations' human resource capacity to required levels (Rice, 2006). It also implied that training of health workers would create a spirit of ownership and responsibility that is long lasting and easy to maintain thus ensuring institutional sustainability of the treatment. The challenge therefore lies between the MOH and donors of USCCP to facilitate involvement of the local stakeholders take responsibility in the institutional sustainability before the project comes to an end.

Government involvement and Institutional sustainability

The study demonstrated no significant statistical relationship between government involvement and institutional sustainability of Ponseti treatment. However, interview participants suggested that government involvement is crucial towards giving policy direction to USCCP on how to implement the Ponseti treatment and lobby for funding for its development partners to put up infrastructure in treatment centers. The above suggestions are more of the constitutional responsibility of the government that guide the MOH in its mandate of making health services reach the communities other than practical strategies to ensure institutional sustainability of a single intervention. Nevertheless, the key informants' ideas are supported by the argument that government can influence sustainability through partnerships with private sector and lower levels of government (Bell, 2002). Bell argued that it creates an opportunity of extending the commitment to sustainability through strategies other than the use of law and regulation. This

explains why a fair statistical relationship manifested between donor and government involvement (r=.335; p value =0.01).

Study participants further suggested that the government through MOH can facilitate institutional sustainability of Ponseti treatment by improving on human resource available in health facilities, provide adequate health supplies necessary in the implementation of clubfoot treatment, and provide guidelines on treatment of clubfoot. Conversely it's not enough simply to create a policy, it must be implemented, enforced then evaluated to achieve the desired impact (Khalifa, Sharma and Moreland; 2001). Study found no evidence of government structures to enforce and evaluate the effectiveness of primary health care policy on the implementation of the Ponseti treatment in Uganda. The implication is that government involvement in the implementation of the Ponseti treatment is lacking the political will to enforce institutional sustainability. It was apparent therefore from key informants that with the government's capacity to give policy direction, setting up clinic structures, provide staff and adequate health supplies and collaboration with donor communities, institutional sustainability would be feasible if the enabling environment (enforcing policy and evaluation) is created.

Community involvement and Institutional sustainability

Community involvement is expected to increase the responsiveness of an intervention to the needs of a community, which in turn enhances sustainability (Maclean, 2006; Shediac-Rizkallah and Bone, 1998). This study demonstrates a fair and positive relationship (r=0.283; significant, p value =0.01) between community involvement and institutional sustainability of Ponseti treatment. This implied that institutional sustainability of the Ponseti treatment is demand driven; when community involvement increases to 28.3% institutional sustainability increases to 99%. This is supported by the results from the interview of key informants in which the respondents

stressed that the community is responsible for ensuring adherence to the Ponseti treatment; seek treatment and advice from the health care providers as soon as they have identified a foot deformity.

Khalifa, Sharma and Moreland, (2001) coined a term "demand sustainability" and argued this sustainability increases as the propensity to use a service increases. Implying that demand and supply issues are interwoven, that is no service can be provided unless there is a demand. Based on the demand driven sustainability document review results indicated an increase in the number of clubfoot cases enrolled for treatment from 2007 to 2009. This increase could also be due to increase in the information on the quality and effectiveness of services at these treatment centers, (Khalifa, Sharma and Moreland 2001)

On the other hand, interview participants were seemingly focused on the view that the community only seeks and receives from the program other than contributing towards institutional sustainability of Ponseti treatment for instance raising awareness and formation of community networks. This view denies potential community players from fully contributing to program sustainability. However, 30% of the respondents in the quantitative study objected to the idea that parents should seek treatment from only medical facilities other than traditional healers. The criticism of this view is that the community is merely acting as a recipient than actively engaging themselves in planning and implementation of the treatment which contravenes the definition according to the WHO, (1998) that community participation can increase democracy, empower people, mobilize resources and energy, develop holistic and integrated approaches, achieve better decisions and more effective services and ensure the ownership and sustainability of programmes. This breaches Hossain and Uluila, (2006) view that stronger community involvement through clinic management committees consisting of people of the community could facilitate sustainability. Similarly literature suggests that community involvement enhances community

ownership which in-turn increases capacity and promotes program sustainability (Maclean, 2006). Nsutebu, Walley, Mataka & Simon (2001 pg244) also argued that community involvement through support groups is potentially useful in increasing community awareness of the program and that mobilizing the community however requires continuous support. Overall it was clear that the community is not proactively involved in institutional sustainability of Ponseti treatment yet vast literature highlighted the fruits of their engagement towards sustainability. This therefore calls for empowerment of the community to get fully engaged in identifying solutions and planning the implementations of health care interventions sustainably.

5.3.2 Supportive leadership influences institutional sustainability of Ponseti treatment.

The second hypothesis of this study was that supportive leadership influences institutional sustainability of Ponseti treatment in Uganda. The study had conceptualized three dimensions of supportive leadership from which questions were generated to assess on Ponseti treatment. The dimensions that were examined are, strengthening partnerships, strengthening coordination and developing human resource.

The Ponseti treatment of clubfoot demands for a collaborative approach to get integrated into the primary health care service. This therefore requires a leadership that encourages formation of partnerships, coordination of project activities among stakeholders and building human resources that foster institutional sustainability. Various scholars have indicated that supportive leadership plays an important part towards achieving project goals and more so sustainability. In order to confirm the earlier assertion the study set out to examine the effect of supportive leadership on institutional sustainability of the Ponseti treatment. Results from the quantitative analysis demonstrated a positive significant relationship ($r = .309$; significant at P value 0.01) between supportive leadership and institutional sustainability. The study hypothesis that supportive leadership influenced institutional sustainability was therefore supported.

Supportive leadership is necessary in sustainability of health care initiatives as many health care programs/ projects are dependent on the parent institutions (Ministries) for long-term continuity. The project/ program initiators and the recipient government should therefore play a vital role during the inception phase and leadership structures in the health organizations that will promote institutional sustainability of the new initiative.

The organizational leadership structure therefore becomes a key pillar in ensuring that mechanisms are put in place to get a new health initiative integrated in the institutions standards. There is agreement between the findings of this study and studies conducted elsewhere, for instance a study conducted in Tanzanian participants strongly suggested that visionary leadership at multiple levels within the health care system infused commitment throughout the organization which sustained community health improvement (VHA, 2002). In the health care industry, leaders at the implementing organization (hospital) need to be involved at the planning stages of the project to help in the identification of gaps in the institutions structures that may hinder institutional sustainability. Block & Manning, (2007) allege that Project leadership is a requirement for achieving sustainability in healthcare and emphasized the importance of frontline managers in effecting positive changes in healthcare delivery.

Pechman & Fiester's (2002) contend that a lot of our sustainability comes from being proactive and understanding institutions, in other words from seeking institutional collaborators, engaging their interests, finding ways for them to help shape the program, and letting them take credit for good practices. The health workers at the health facilities are the collaborators whose interests and behavior should be dealt with to ensure that new health care initiatives are supported and integrated within their regular routine. This would call for training and mentoring staff into new approaches and structuring the new intervention into the institution's systems and manuals to allow adjustment during implementation.

While institutional sustainability is considered to be an outcome at the end of project life, this study as well as the literature focused on the influence of supportive leadership from the project side putting little emphasis towards the entire health institution that will continue implementing that Ponseti treatment. The study findings and literature cited above is therefore an affirmation of the project mid-term evaluation report to USCCP management calling for partnership; skills development of health workers; and coordination of identification, referral and clubfoot treatment.

Building Partnerships and Institutional sustainability

Health partnerships bring people and organizations together with the common goal of improving the health based on mutually agreed roles and principles (Keleher and Maashall, 2002). According to Freeman et.al (2010) collaboration involving multiple agencies and organizations enable leveraging of resources that increase the likelihood of sustainability. On the basis of this foundation the study examined how building partnerships in clubfoot treatment leads to institutional sustainability. Descriptive results of this study demonstrated that building partnerships with FBO, CBO were ranked high in influencing institutional sustainability of Ponseti treatment. Nonetheless, correlation results demonstrated no significant relationship between building partnerships and institutional sustainability.

There are probable reasons to this finding ranging from the fact that partners more often discover new interests and the original vision is always lost on the way; the original champions need to recruit other champions and partner groups; the effort cannot be sustained if it is seen as the special work of one or two people (http://www.iisd.org/pdf/2004/measure_nat_strategies_sd.pdf).

In spite of this, interview participants were of the view that through building partnerships, partners are able to share experiences which facilitate continuity of efforts toward sustaining the clubfoot treatment. This argument concurred with Keleher and Marshall, (2002) that partnerships

both internal and external are a key aspect of effective and sustainable health promotion and practice that offer mutual benefits for health through sharing expertise, skills and resources.

The key informants view was in agreement with the report that sustainability was increased by the multi-sectoral approach; if one partner in a country became less active, like a government due to elections other partners filled in. Cooperation of different disciplines and professionals, policy makers, academics and the business society added to knowledge sharing and sustainability by creating new networks in the project country (http://www.sida.se/publications). Furthermore this suggestion supported the earlier notion that partnerships maximize scarce resources and ensure that there are champions outside the organization (VHA 2000). In the same vein Druce and Dickison (2006) asserted that NGOs and CBOs played an increasingly important role in community based mobilization, in social marketing and reaching key groups. On the whole strengthening partnerships facilitates institutional sustainability through formation of a buffer for both human and material resources that enables health facilities to operate uninterrupted.

Strengthening coordination and Institutional sustainability

It is asserted that lack of coordination among stakeholders results in lack of trust and antagonistic behavior thus lack of success and un-sustainability (National Public Health Partnership, 2000). This therefore calls for strengthening coordination by the project leaderships so as to make stakeholders aware of each other's role towards a unified goal.

This study examined the effect of strengthening coordination on institutional sustainability of the Ponseti treatment. Participants agreed that stakeholder meeting and annual project progress reports were important aspects of coordination. Documentary review showed, in 2007 and 2008, USCCP conducted regular management committee meeting with reasonable membership from the participating hospitals and results which could be reflected in the respective clinic performance.

Between 2008 and 2009, there was a decrease in the number of management committee meeting implying slow down in the coordination of clinic activities and a subsequent decline in the performance of Masaka clubfoot clinic which might affect the sustainability of Ponseti treatment at this centre. These findings affirmed Brinkerhoff, (1993) who asserted that one way to think about coordination is in terms of three types of activities: information sharing, resource sharing, and joint action. This therefore implied that with the current trend of coordination activity(document review), institutional sustainability of the Ponseti treatment stands at stake due to lack of information among program actors, that might hinder resource sharing and having concerted effort towards sustainability goals.

In order to establish a link between strengthening coordination and institutional sustainability a partial correlation was ran and showed no significant relationship between the variables. This relationship contradicted the argument put across by Calves, 2002 and Mizrahi, 2003 that coordination is a means to programs sustainability. In an interview when key participants were asked comment on the importance of strengthening coordination in USCCP, one participant said coordination helps to bring together all stakeholders and form a team, in this way they work together and achieve better results.

Statistical results showed no significant relationship between strengthening coordination and institutional sustainability. On the other hand qualitative results seem to be in harmony with literature, for instance Key informants showed that coordination resulted in sustainability of sexual and reproductive health programs in Burkina Faso, Equatorial Guinea and Jamaica (SRH EC/ACP/UNFA Bulletin May, 2008). It was noted that although no significant relationship was exhibited between strengthening coordination and institutional sustainability, interview findings and literature pointed out its importance. Study findings pointed out that building partnership with

local organizations providing disabilities treatment was not yet in practice which deprives that program the benefits of sharing expertise, skills and resources that would foster institutional sustainability. Indeed, sustainability calls for harmonization of needs, concerns, and efforts by the various players in the program. This makes it important in creating awareness among stakeholders about their roles towards achieving the final goal.

Developing human resource and Institutional sustainability

Human resource is critical to developing sustainable health programs. Like many health care problems clubfoot treatment requires teamwork, drawing personnel of various cadres to achieve a single objective. In order for such program to be effective training is paramount. AusAID, (2000) maintain that to improve the prospects for sustainability, training should start at the right time and be conducted throughout the program or project, to allow for repetition.

It was observed that if MOH could increase on human resource development capacity chances are high that institutional sustainability of the Ponseti treatment will be achieved ($r = .435$; $P = .000$). Key informants' interviews showed that developing human resource would ensure skills are passed on to other health workers and suggested that training should be continuous in health training institutions even after the closure of USCCP. The argument that stems out of these findings is that in order to realize institutional sustainability health institutions should spend considerable efforts on developing capacity of the staff to own and implement new interventions. These results are in agreement with the resource-based view which suggested that human resource systems can contribute to sustained competitive advantage through facilitating the development of competencies specific to the firm (Lado and Wilson 1994). Likewise policies that do not address the organizational, professional and social context are unlikely to achieve successful

implementation (Paudel, 2008). This researcher claimed that policies towards sustainable programs needed to address human resource needs if they are to succeed.

Similarly results from the interview proposed that developing human resource was critical to institutional sustainability. Participants were of the view that if MOH could improve on the numbers health workers at the health facilities coupled with continuous training in the Ponseti skills institutional sustainability will be realized. Likewise, documentation review confirmed this assertion with a letter from the minister of health emphasizing the importance training health workers in disability management. The literature and study finding provided a harmonized ground on the effect of developing human resource on institutional sustainability.

5.4 CONCLUSION

The primary objective of this study was to assess the effect of stakeholder involvement and supportive leadership on institutional sustainability of the Ponseti treatment in Uganda. This study provided a snapshot on factors affecting institutional sustainability of Ponseti treatment limited to stakeholder involvement and supportive leadership.

Although the institutional theorists put it that rules, regulations and norms determine the behavior of individual and organizations, this study found out that other factors external to the health institution /organization act together with rules and regulations to influence the institutional sustainability of clubfoot.

The study put up divergent ideas on stakeholder involvement; first, there was no significant relationship between stakeholder involvement and institutional sustainability, thus rejecting the hypothesis that stakeholder involvement affected institutional sustainability.

The lesson learned from this finding is that there are factors other than stakeholder involvement that should be considered while planning for institutional sustainability namely the cultural dynamics that affects empowerment of the community members, unfavorable policies that do not align with the project/program objectives or program objective not with the political agenda of the recipient government.

The second view from qualitative study however, demonstrated that stakeholder involvement affected institutional sustainability of Ponseti treatment mainly through community participation by seeking early treatment and adhering to treatment protocol and government involvement by ensuring availability of adequate human resource at all health facilities, providing necessary medical materials and giving policy guidance to the treatment of clubfoot.

Overall, stakeholder involvement remains an important factor towards sustainability of the Ponseti treatment however, should be considered concurrently with other political and structural factors that influence the institution being targeted.

On the other hand supportive leadership significantly influenced institutional sustainability. This study therefore confirmed the hypothesis that supportive leadership influences institutional sustainability of Ponseti treatment. Developing human resource was found to have a greater influence on supportive leadership which led to institutional sustainability. While literature demonstrates strengthening partnerships and coordination as influencing sustainability, this lacked statistical evidence and documentary evidence.

5.5 Recommendations for institutional sustainability

One of the problems that have troubled donor funded health care programs in developing countries is institutional sustainability of the interventions. Many donors have designed and implemented disability rehabilitation and treatment programs but more often these do not last long after the program windup. This is a big challenge to the recipients/ clients if they are to continue receiving treatment at the end of the program since physical disability cannot be prevented. Based on the findings of this study the researcher has made the following recommendations:-

5.5.1 Stakeholder involvement and Institutional sustainability

This research discovered that stakeholder involvement in isolation does not influence institutional sustainability and that there are other factors acting on the institution(s) being targeted by the project to carry on with the treatment.

In order to ensure institutional sustainability of health programmes, this study suggest that it might be achieved by building and sustaining norms, values, practice aligned with the stakeholders' interest and structural systems of the organization intended to continue with the health intervention after donor funding has ended.

Community members should have an opportunity of participating in activities like caretakers' associations aimed at promoting treatment seeking behavior and adherence to the Ponseti treatment through public sensitization and quality control of health services.

Government should set up structures to enforce and evaluate if the current primary health policy is effective to enable the Ponseti treatment implemented in the health institutions of Uganda.

Donors should encourage the government and project management to proactively engage community leaders in activities that promote treatment seeking behavior through public sensitization.

5.5.2 Supportive leadership and Institutional sustainability

The study findings and in the literature supportive leadership was found to have a substantial influence on institutional sustainability mainly through developing human resource and strengthening partnerships.

Recommendations:

Government should identify NGOs and CBOs with interest in disability rehabilitation and form partnerships to enable hospitals share expertise, skills and material and financial resources thereby building the institutions' capacity to render quality and effective clubfoot treatment.

Human resource plays a key role in ensuring that quality health services are delivered to their clients at affordable cost in order to achieve the goal of eradicating neglected clubfoot in Uganda. MOH should: Increase training of health workers through both structured courses on the Ponseti treatment and less structured programs such as mentorship and support supervision during clinic time, and recruit and post adequate numbers of health workers required to identify and treatment of clubfoot at clubfoot treating hospitals.

5.6 Suggestions for further research

Further studies on factors affecting institutional sustainability should embrace other dimensions like the enabling environment for stakeholder involvement (political environment, empowerment of the community and behavior of the health workers).The researcher believes that, in order to gain an in-depth understanding of these variables and their effect institutional sustainability, one would employ qualitative approaches to allow participants to give detailed account of the events.

Community involvement seemed not be well perceived by the key informants of the study, they looked at it from the disadvantaged position of the community seeking treatment and obeying instructions of the care provider.

A study should be done to ascertain the level of community empowerment and participation toward sustainability of Ponseti treatment.

5.7 Limitation of the study

Although the research findings provide useful implications this study had some limitations. The findings are only one side of the story from the recipients of the donor project since there was no opportunity to interview the donors due to inaccessibility.

Secondly due to inaccessibility of some fraction of caretakers the researcher was forced to use non probabilistic sampling techniques thus introducing selection bias.

Lastly owing to difficulty in accessing the entire study population the researcher was left with only the option of using an accessible population in calculating the sample size which could have negatively influenced the results due to selection bias. Therefore the results of this study only apply to the two study centers, which are Mulago and Masaka clubfoot clinics.

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APPENDIX A

Questionnaire

Mr. Henry Musoke is a student with Uganda Management Institute currently conducting a study on factors affecting the sustainability of Ponseti treatment in Uganda. This study will lead to an award of a masters' degree on completion. He is kindly seeking for your participation in this study by filling the questionnaire below. Your cooperation is highly appreciated.

The information generated from this study will be handled with utmost confidentiality and no identity is required while completing this questionnaire.

1. Demographic information

Choose the appropriate answer by ticking in one of the options below.

1a.Treatment centre: [1] Mulago [2] Masaka

1b. Sex [1] F, [2] M 1c. Age: [1] below 20yrs. [2] 21-30, [3]-31-40, [3] above 40yrs

1d. Duration since you got involved: [1] Less than 1yr, [2] 1-2yrs , [3] Above 2yrs

1e.What is your role in the clubfoot project: [1]. Caretaker [2] surgeon [3]. OO, [4]. OT, [5]. MW, [6] Policy- Maker, [7] Hospital Manager/administrator. [8] Project manager

Rate the statement in the table below, by ticking in the column that matches your opinion where 5 is strongly Agree, 4 agree, 3 indifferent, 2 disagree and 1 strongly disagree.

2. Do you agree that Donors can play a role in:	5	4	3	2	1
a) Advising the MOH on formulation of disability policies has improved the implementation of Ponseti treatment					
b)Donors can improve the skills of health worker in the treatment of clubfoot by funding short course on Ponseti treatment					
c) Donors improve the quality of life of persons with clubfoot by advocating for the implementation of					

Ponseti treatment					
d) Donors can facilitate the implementation of Ponseti treatment by partnering with local NGOs dealing with disability rehabilitation programs					

3.a) Implementation of Health policy on treatment of disabilities improves the integration of clubfoot treatment in health care services.	5	4	3	2	1
b) Eradication of neglected clubfoot by providing technical and financial support to hospitals for ensuring effective transition of Ponseti treatment from project into regular routine activity					
c) Training and recruitment of health personnel will enable hospitals to effectively implement the Ponseti treatment.					
d) Provision of materials needed in the clubfoot clinics will enable clients to access Ponseti treatment thereby improving its acceptability					
e) Periodic monitoring and evaluation of Ponseti treatment will enable effective integration into primary health care services					
Community involvement	5	4	3	2	1
a) Implementation of Health policy on treatment of disabilities improves the integration of clubfoot treatment in health care services.					

b) Eradication of neglected clubfoot by providing technical and financial support to hospitals for ensuring effective transition of Ponseti treatment from project into regular routine activity					
c) Training and recruitment of health personnel will enable hospitals to effectively implement the Ponseti treatment.					
d) Provision of materials needed in the clubfoot clinics will enable clients to access Ponseti treatment thereby improving its acceptability					

Section B supportive leadership

Rate the statements in the table below using 5-1 where 5 is strongly agree and 1 is strongly disagree

5. Strengthening Partnership	5	4	3	2	1
a)Faith Based Organizations can help to raise awareness of clubfoot treatment on worship days in a way of enabling the implementation of the disability policy					
b) Community based Organizations help to build networks with clubfoot clients by supporting outreach clinics thus integration of clubfoot treatment in health system					
c) Public-private partnerships support the capacity of hospitals through making donation of supplies to clubfoot clinics.					
d) Disability associations (NUDIPU) improve the bargaining power of the caretakers by advocating for					

taking clubfoot treatment closer to the communities					

Rate statements on **strengthening coordination** using scale of 5-1; whereby 5 is very important, 4 is important, 3 is not sure, 2. Less important, 1. Not important at all

6. Strengthening Coordination	5	4	3	2	1
a) Hospital capacity to effectively implement the Ponseti treatment is enhanced through stakeholder meetings					
b) Annual project progress reports provide feedback to stakeholders on implementation of government policy on the Ponseti treatment in a way to ensure institutional sustainability					
c) Technical support to clubfoot clinics encourages the hospital leadership to own clubfoot care as part of the routine activities.					

Rate your satisfaction regarding **human resource development** by ticking on the right hand side of the statements in the table below. Strongly satisfied is 5, satisfied is 4, not sure is 3, dissatisfied is 2 and strongly dissatisfied is 1

7. Are you satisfied with the:	5	4	3	2	1
a) As a way of integrating Ponseti treatment in primary health care services, Midwives identify newborn babies with clubfoot at birth					
b) Orthopaedic officers are able to diagnose and treat clubfoot effectively					
c) Availability of a Tenotomist in the clubfoot clinic indicates the hospital's capacity to effectively implement the Ponseti treatment.					

d) Developing the capacity of Orthopaedic workshops to fabricate appropriate braces required in Ponseti treatment contributes to institutional sustainability of Ponseti treatment					
e) In order to strengthen the human resource capacity, training of health workers and support clubfoot clinics should be conducted regularly					

SECTION C DEPENDENT VARIABLE

Rate the organization capacity by ticking against the statement in the table below using the 5-1 scale where 5 is strongly believe, 4 is believe, 3- not sure, 2is do not believe, 1 is strongly do not believe

8. Organizational capacity	5	4	3	2	1
a) Do you believe the hospital has facilities in place to treat clubfoot?					
b) Do you believe the clubfoot clinic is receiving regular support from the hospital administration?					
c) Do you believe your hospital has adequate staff to ensure diagnosis and treatment of clubfoot?					
d) Do you believe the hospital regularly provides materials necessary for treatment of clubfoot?					

Rate the statements on policy implementation in the table below by choosing the correct choice 5-1 where 5 is strongly agree, 4 is agree, 3 is not sure, 2 is disagree and 1 is strongly disagree.

9. Policy implementation	5	4	3	2	1
a) There are clear policy guidelines on treatment and rehabilitation of persons with disability					
b) Disabled persons are given priority when they seek treatment from health facilities					

c) All government hospitals have structures and system aimed at identifying and treating clubfoot.					
d) There are regular programs on the radio to sensitize the public about their right to access clubfoot treatment					
e) There is political active support for disability programs from village to district level					

Rate the statements in the table below by ticking in the box where; 5- strongly agree; 4- agree; 3- not sure; 2-disagree; 1-strongly disagree

10. Integration of health services	5	4	3	2	1
a) Community leaders are aware of the availability of clubfoot in all hospitals					
b) Clubfoot is identified immediately at birth by Midwives and TBA					
c) Immunization staffs in Uganda routinely check babies' feet during vaccination.					
d) Parents with clubfoot babies are not stigmatized when they seek advice from primary health care workers.					
e) There is enough clubfoot posters at all health facilities to sensitize the public					

THANK FOR YOUR PARTICIPATION

APPENDIX B

INTERVIEW GUIDE

1. The Ponseti treatment has been in Uganda for the last 5years and yet it has not been institutionalized in the health system. In your opinion what do you think is the problem?

2. What mechanisms have been put in place to ensure institutional sustainability of the Ponseti treatment?

3. Who are the project stakeholders responsible for achieving institutional sustainability of Ponseti treatment?

b) Which ways do you think the following stakeholders should be involved to ensure institutional sustainability of the Ponseti treatment?

Donors

Government

Caretakers/community

4. Supportive leadership is essential for ensuring that all stakeholders positively contribute towards sustainability. In your opinion what contribution do you think can be attained through:-

Building partnerships,

Strengthening coordination

Developing human resource

5. As a medical specialist how can you advise MOH towards achieving institutional sustainability of the Ponseti treatment before the clubfoot project ends?

6. What is your comment on the organizational capacity of public health sector Uganda with regard to treatment of disability diseases?

7. Clubfoot treatment in the developed world if offered at specialized centers and yet in Uganda a public health approach is being advocated, what indicators are in place to ensure that the Ponseti treatment is integrated in the health system?

THANK FOR YOUR PARTICIPATION

APPENDIX C

DOCUMENTARY REVIEW CHECK LIST

STAKEHOLDER INVOLVEMENT	2007	2008	2009
A. DONORS			
Financing training			
Financing materials			
Participation in policy			
B. Government			
Staffing of clubfoot clinics			
Passing policy guidelines on clubfoot treatment			
Financial support for clubfoot clinics			
Creating awareness in public			
Supervising clubfoot activities			
C. Community /caretaker			
Participation in awareness campaigns			
Financial contributions			
Seeking treatment			
SUPPORTIVE LEADERSHIP			
A. COORDINATION			
Stakeholder meetings			
B. Strengthening			

partnerships			
Developing human resource			
Training of in service health workers			
training of health care students			

APPENDIX D

Results of interview

This study employed both quantitative and qualitative methods of data collection and analysis to determine the effect of stakeholder involvement on institutional sustainability of Ponseti treatment; also to establish a relationship between supportive leadership and institutional sustainability of Ponseti treatment in Uganda. This section presents results generated from interviewing key informants of the project. The results were summarized based on responses elicited from the participants.

Response rate: the study had set out to interview 6 key informants who were contacted to participate. However, three of the participants responded and took part in the study while the other 3 did not respond. This resulted in 50% response rate in the qualitative study.

1. The Ponseti treatment has been in Uganda for the last 5years and yet it has not been institutionalized in the health system. In your opinion what do you think is the problem?

The participants attributed it to lack of sensitization of the communities and health policy makers on the Ponseti treatment. A participant said “when the public is not aware of the availability of a service they will not attend the clinics, like wise when the policy makers are not aware of the outcome of an intervention based on statistical evidence they tend to be reluctant on formulating policies that can enable the enforcement/implementation of such intervention in the health system”.

Also there human resource and health supplies are inadequate, they can meet the needs of the population. “One respondent said there is no problem all it needs is the input towards institutionalization process to be addressed.”

2. Clubfoot is a real problem but does not seem to attract serious attention at the policy formulation level owing to the fact that orthopaedic diseases are not well appreciated like the communicable ones. Do you think there is need to ensure sustainability of the Ponseti treatment after the clubfoot project has ended?

All participants agreed to sustainability. There is need to ensure sustainability of the Ponseti treatment because this ensure continuity of service delivery.

One participant argued that since a big number of children born with clubfoot have benefited from this treatment during the project time *"I believe they are already passing on the information to other community members about the availability of treatment in the hospitals, therefore stopping will create a gap and increase the burden of neglected deformity"*.

Secondly this method of treatment is cheap and cost effective for the country. "I mean with the Ponseti treatment all one needs are plaster of Paris, cotton wool, and orthopaedic officer and a nurse to correct the deformity as compared to a specialized surgeon, theatre team of about 6 personnel drugs etc and a long stay in the hospital before the child can walk." With a constrained budget this is very costly the expense to correct clubfoot in a single patient can save another ten babies from malaria. Therefore it's preferable to use less expensive approach like Ponseti treatment and get the clubfoot corrected at an affordable cost to both the government and the family. "However another participant said that since the MOH endorsed the Ponseti treatment it should continue", but did not qualify this.

3. Sustainability of donor based interventions (programs) requires the involvement of key stakeholders (participatory approach), what role do following USCCP stakeholders play in ensuring institutional sustainability of the Ponseti treatment?

Donors can play role in funding various activities as guided by the Ministry of Health. A participant said "if the ministry of health for instance wants to conduct training of health workers in clubfoot

treatment or supplement the budget for purchase of requirements like foot abduction braces can contact donor organizations (rotary clubs) to fund the exercise".

Government: All participants were of that view that government is responsible for giving policy direction to new interventions and lobby for funding for its development partners to put up infrastructure in treatment centers. One participant commented that, *"government is responsible for giving policy direction and lobby for funding from its development partners to facilitate the ministry of health build efficient health institutions that can provide effective services to all citizens"*.

All participants agreed to the fact that Caretakers/community are responsible for ensuring that they adhere to the treatment being provided. A participant added that, *"parents are charged with seeking early treatment and advice from the health care providers as soon as they have identified a foot deformity and also ask of their leaders to make health services accessible"*.

They also added that health workers as stakeholders have a role to sensitize the public, provide Ponseti treatment; do follow up of the patients to see the outcome of the treatment.

4. Supportive leadership is essential for ensuring that all stakeholders positively contribute towards sustainability. In your opinion what contribution do you think can be attained through:-

Building partnerships: Two participants noted that building partnerships helps in sharing experiences with other service provider and ensuring better lobbying ground for funding of the activity. *"Non-government organizations like not for profit hospitals can help taking Ponseti treatment closer to the people in areas where government has no hospital for instance mission hospitals are treating clubfoot."* There was a participant just mentioned that it's very important but never gave an explanation of the extent.

One participant was of the view that *"Private organizations help to fund awareness campaigns by giving free airtime to run sensitization messages on radios."* He added that communication is vital in sensitizing communities, politicians and administrators on the services delivered.

Strengthening coordination helps in “working together as a team enable the institution achieve better results because it improves acceptability of responsibility and ownership of the outcome” said a participant.

Developing human resource helps to get the skills to be passed on to other health workers thus creating a knowledge base. “All participants suggested that training should be continuous in health training institutions to train many orthopaedic officers who will treat clubfoot, technician, doctor and midwives”.

5. As a medical specialist how can you advise MOH towards achieving institutional sustainability of the Ponseti treatment before the clubfoot project ends?

Improve on human resource by employing health workers regularly to fill gaps

Ensure adequate supplies to all health facilities so that no patient is turned away without the clubfoot being treated.

Develop clear policy guidelines on treatment of physical disabilities

6. What is your comment on the organizational capacity of public health sector Uganda with regard to treatment of disability diseases?

A participant said it’s still very weak and there is need to revamp it. Currently very few people are interested in providing rehabilitation services to the disabled persons. However there was a divergent view from one participant who said the organizational capacity was okay.

7. Clubfoot treatment in the developed world if offered at specialized centers and yet in Uganda a public health approach is being advocated, what indicators are in place to ensure that the Ponseti treatment is integrated in the health system?

Responses below have been aggregated together

The number of clubfoot clinics opened to provide Ponseti treatment and are functioning well.

The number of health workers providing Ponseti treatment for the correction of clubfoot

Number of patients attending and treated using the Ponseti and have corrected

Policy on treatment embedded in the treatment guideline

Midwives and immunization staff routinely check babies' feet during vaccination

Parents are able access Ponseti treatment without travelling long distance

Capacity to continue teaching the Ponseti method of treatment