

**An analysis of factors affecting health-workers' application of the routine HIV testing and counseling (RHT) protocol**

By

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## **Declaration**

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## Abstract

Not all patients who come to the hospital are offered Routine HIV Testing and Counseling (RHT) as is expected by the Ministry of Health of Botswana's Routine HIV Testing and Counseling Protocol. This study sought to unearth in detail, factors that affect health-workers in Thamaga Primary Hospital in their application of RHT.

A qualitative study was used to get lived experiences of health-workers working at Thamaga Primary Hospital. Semi-structured in-depth interviews were conducted with 4 groups of health workers and with 6 individual health-workers. Content analysis was done on the data collected selecting emerging themes deductively. Relational analysis was conducted to gain the meaning of the findings. The findings of the deductive analysis were also compared inductively with The Porter-Lawler Theory of Motivation to see if theory was applicable in HIV work or applicable to health-worker motivation.

Seven main factors that affect RHT either positively or negatively emerged: accountability, health-worker knowledge, human rights, workload, resources, patients' age and patients' knowledge. Accountability (36.8%) was by far, the dominant factor that influenced RHT positively when it was present and negatively when it was absent. The other two factors which had sizable portions were knowledge of RHT (21.2%) and human rights issues (20.2%). When concept mapping was done to find meaning, lack of knowledge of RHT was found to lead to poor understanding of human rights which led to poor accountability that led to the many other factors that were inter-related and ultimately directly or indirectly influenced performance levels of RHT. When tested against the findings, The Porter-Lawler Theory of Motivation was congruently applied to factors that arose with minor discrepancies on intrinsic factors making it largely relevant to HIV work or health-worker motivation.

The findings call for training of health-workers on RHT and human rights issues accompanied by concurrent application of performance monitoring and appraising tools like Performance Based Reward Systems/ Performance Development Plans (PBRs/PDPs) that enhance accountability. Use of The Porter-Lawler Theory in HIV work or health-worker motivation is still applicable and is recommended where underlying factors are less well understood or not yet researched.

## Opsomming

Nie alle pasiënte wat die hospitaal besoek ontvang roetine-MIV-toetsing en voorligting (RHT), soos deur die Ministerie van Gesondheid van Botswana se Roetine-MIV-Toetsing en Voorligtingsprotokol vermag word nie. Hierdie studie het 'n uitvoerige ondersoek onderneem van faktore wat gesondheidswerkers by Thamaga Primary Hospital affekteer in hulle toepassing van RHT.

Daar is gebruik gemaak van 'n kwalitatiewe studie om aktuele ervarings te verkry van gesondheidswerkers wat by die Thamaga Primary Hospital werk. Semi-gestruktureerde diepte-onderhoude is gevoer met vier groepe gesondheidswerkers en ses individue. 'n Inhoudsontleding van die data wat versamel is, is gedoen om 'n deduktiewe seleksie van temas wat ontstaan het te doen. 'n Ontleding van verwante inligting is gedoen om bevindings betekenisvol te orden. Die bevindings van die deduktiewe analise is ook induktief vergelyk met die Porter-Lawler-motiveringsteorie om te bepaal of die teorie op MIV-werk of op gesondheidswerkermotivering toepaslik was.

Die volgende sewe hoof-faktore wat RHT positief of negatief affekteer het hieruit geblyk: toerekenbaarheid, gesondheidswerkerkennis, menseregte, werkklas, hulpbronne, pasiëntouderdom en pasiënte se kennis.

Toerekenbaarheid (36.8%) was verreweg die dominante faktor wat RHT beïnvloed het, positief wanneer dit teenwoordig was en negatief wanneer dit afwesig was. Die ander twee faktore wat aanmerklik verteenwoordig is was kennis van RHT (21.2%) en menseregtekewessies (20.2%). Met die toepassing van begripbeelding om betekenis te bepaal, het dit geblyk dat gebrek aan kennis van RHT lei tot 'n swak begrip van menseregte, wat gelei het tot swak toerekenbaarheid, wat weer gelei het tot baie ander onderling verwante faktore wat uiteindelik regstreeks of onregstreeks die prestasievlakke van RHT beïnvloed het. Met die toetsing teen die bevindings is die Porter-Lawler-motiveringsteorie ooreenstemmend toegepas op faktore wat ontstaan het, met klein teenstrydighede oor intrinsieke faktore wat dit baie relevant vir MIV-werk of gesondheidswerkermotivering gemaak het.

Die bevindings vereis opleiding van gesondheidswerkers in RHT en menseregte-aangeleenthede saam met gelyktydige toepassing van prestasiemonitering en waardebepalingsinstrumente, soos prestasiegebaseerde beloningstelsels (PBRs) en/of prestasieontwikkelingsplanne (PDPs), wat toerekenbaarheid verbeter. Gebruik van die Porter-Lawler-teorie in MIV-werk of gesondheidswerker-motivering is nog toepaslik en word aanbeveel waar onderliggende faktore minder goed verstaan word of nog nie nagevors is nie.

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## **Chapter 1: Introduction**

### **1.1: Background and Rationale of the Study**

"We see before us the most dramatic experiment on the continent. If it succeeds, it will give heart to absolutely every country worldwide." Stephen Lewis, UN Special Envoy for HIV/AIDS in Africa as cited by AVERT (2013) in the acknowledgement of the MASA (Setswana word for dawn) program, a country-wide free HIV/AIDS treatment roll out in Botswana in 2002 that was a pioneer government sponsored program in Africa. The expected benefits of this program as cited by AVERT (2013) were fourfold:

"1. To enable people with HIV to live longer (and) healthier lives. 2. To offer an incentive for HIV testing, and to lower the rate of HIV transmission. 3. To decrease the number of children orphaned each year by AIDS. 3. To maintain skills in the workforce..."

The benefit number 2 is still a challenge. Ignorance of HIV status remains a barrier to treatment in Thamaga Village and Botswana as a whole. Early knowledge of HIV status is the key to entry to a treatment program and its success as well as other support programs. Knowledge of HIV status is also recognized as a central point to HIV prevention. Kiene, et al (2010) found that after routine HIV testing, risky sex behavior decreased by 20.2 % in HIV negative participants and by 21.5% in HIV positive participants and knowledge of partner's status also increased.

In aid of this very important outcome of knowledge of HIV status, Routine HIV Testing and counseling (RHT) was introduced as a policy in Botswana in 2004 according to Kenyon (2005). Like the full blood count that is considered basic and therefore offered to everyone that is consulted in a hospital, the HIV test was to be routine and provider-initiated where clients could opt out according to the Ministry of Health of Botswana (2009). This form of HIV testing consists on-spot brief offering without prolonged pre-test counseling and informed consent signing. Before that, health-workers only offered HIV testing to those they were suspicious of having HIV because of symptoms and/ or signs or to those they wanted to rule out infection with HIV in-order to proceed with their alternative diagnosis and/ or treatment. Outside this set-up, people were tested for HIV on a voluntary basis either in a hospital or in community based Voluntary Counseling Testing (VCT) centers where pre-test counseling is a pre-requisite. Compulsory HIV testing in the military, pre-employment settings and in some other areas still

exists but is generally considered unethical worldwide and is guarded against in the Botswana RHT protocol. The Oxford Dictionary (2013) defines a protocol as a procedure for carrying out a scientific experiment or a course of medical treatment. A policy is defined as a course or principle of action adopted or proposed by an organization or individual.

Despite the introduction of the RHT policy in 2004 in Botswana, there was no protocol for either RHT or VCT and therefore protocols covering each were introduced in 2007. They were meant to provide standards that “must be adhered to by all organizations and individuals for the provision of high quality HIV testing and counseling services in Botswana” according to the Ministry of Health of Botswana (2009).

Contrary to the Botswana Ministry of Health RHT policy and a well detailed protocol on RHT, and except for some successes in PMTCT programs in the reproductive health departments, not all clients who come to the hospital in general are offered RHT. On observation, very few patients that come to the outpatient department for example, in Thamaga Primary Hospital are offered RHT, which is significantly below the implied 100% that the ministry wants to achieve through its RHT policy. Program managers and management continue to plead with staff to offer RHT to all clients indiscriminately but this is met with limited success. Against this background, Weiser et al (2006) showed that RHT was widely supported in Botswana but found that assurance of true informed consent, protection against human rights safeguards and gender based violence were a concern.

Notwithstanding the success in many areas on HIV/AIDS that Thamaga Primary Hospital has achieved within its catchment area, such as ARV treatment roll-out to smaller clinics, and eliminating waiting lists for ARV treatment, internal weaknesses such as staff failing to fully apply RHT may be a significant negative. While success also lies on how clients accept RHT, part of this success, if not most of it lies in the hands of the health-workers in their full implementation or application of the RHT protocol.

As expected, not all clients coming to the hospital and being offered RHT would accept the test but factors for this outcome are beyond the immediate control of the health-worker. However, as demonstrated earlier, studies have shown that the majority of the Botswana population accepts RHT and therefore low testing rates cannot be explained by numbers of clients that opt out of

RHT. These low testing rates are probably because as observed, health-workers are not fully applying the RHT protocol as it should be; to all clients. Application of the RHT protocol is however within the full control of the health-workers not their clients. Even if a client declines to test, he or she is still recorded in the RHT register as having been offered RHT and it is recorded that RHT has been applied. The number of clients who do not test can then be accurately attributed to having declined the test and leaving no window for unexplained low testing rates.

In the current situation, it is unclear whether the large number of patients with unknown HIV status is due to having not been offered the test or due to having declined RHT. The status quo therefore makes it ambiguous and difficult for managers and policy makers to apply appropriate remedial action.

This study was therefore aimed at exploring the factors that may cause the failure by health-workers to fully apply the RHT protocol as desired by the hospital management and the Ministry of Health of Botswana officials. While acceptability of the RHT protocol by clients may have an indirect effect on the motivation of health-workers to perform RHT and may come out as a finding in this study, this study did not intend to examine the client's acceptability of RHT or the client's perceptions about RHT directly. Simply, this study focused on the health-worker.

## **1.2: Research Problem and Question**

With the RHT policy and an RHT protocol in place as compared to the past where only the policy of voluntary counseling and testing (VCT) was in place, more people should be tested for HIV. The RHT protocol makes it very clear to health-workers about what is expected of them concerning RHT and it should also make it easy for them to fulfill the expectation that all clients coming for health service are offered HIV testing. However, the reality is that even with the opportunity of RHT, people who turn up for service are not all offered a test by the health-workers.

In Thamaga Primary Hospital for example, out of the 2602 clients consulted in the Outpatient Department, only 27 (1.03%) were offered RHT by health-workers in February 2013. However, among those who were offered, only 2 (7.4%) opted out of the test with 1 (3.7%) already knowing his or her HIV status according to the Thamaga Primary Hospital RHT Register & Statistics (2013). The latter statistic demonstrates a higher acceptability of RHT on the client's

part, an opportunity that may ease the health-workers' task, and corroborates Weiser et al (2006) that overall, RHT is widely accepted by 81% of the population of Botswana. However, many clients are diagnosed too late for treatment to make an impact on the control of the virus or to their health, if any at all. May et al (2011) found that starting antiretroviral therapy later than guidelines suggest resulted in up to 15 years' loss of life. Out of all the people, health-workers would be expected to be first to know and guard against this loss of life.

What is it that makes health-workers fail to fully apply the RHT protocol despite all the aforementioned facts? Could health workers be directly or indirectly affected by the issues cited by Weiser et al (2006) of human rights, violence against women and informed consent in applying the RHT protocol? Could there be other factors other than these?

### **1.2.1: The Research Question**

What factors affect health-workers in the application of the Routine HIV Testing and Counseling (RHT) protocol?

### **1.3: Significance of the Study**

The Ministry of Health of Botswana has put in place RHT to make sure that as many people as possible know their status as opposed to a situation where people only get tested when they initiate the testing process by themselves. The Ministry of Health of Botswana also aims at using this strategy as a double edged sword that fights the stigma and discrimination that comes with HIV/AIDS by putting its testing in the same light as that of the other chronic diseases such as diabetes and hypertension which have routine tests. Health-workers are the core of this initiative not only because of their strategic position but also because of their superior numbers as a group when compared to their subset of lay counselors used in solitary in the client-initiated VCT.

When people know their HIV status early, they will engage in safe behaviors or enroll into treatment early. These objectives can be better attained with the understanding of the factors that hinder or encourage health-workers in their implementation of the RHT protocol and application of solutions and strategies to address hindrances and to enhance encouraging factors. The direct beneficiaries of this study are therefore the RHT program managers in the hospital, the hospital

management, Thamaga Village community, followed by the Ministry of Health of Botswana and its partners.

#### **1.4: Aim of the study**

The aim of the study was to identify the factors that affect the health-workers' application of the RHT Protocol in-order to provide guidelines for improving the RHT service.

#### **1.5: Objectives**

The objectives of the study were as follows:

1. To establish the health-worker related problems in applying RHT in the hospital.
2. To ascertain the problems related to the clients in offering of RHT from a health-worker perspective.
3. To identify problems related to the hospital environment in offering of RHT.
4. To make recommendations of changes that can be made to the protocol to make implementation of RHT successful.

## Chapter 2: Literature Review

Literature on factors that affect the application of Routine HIV Testing and Counseling (RHT) is rare. Bartlett et al (2008) observes this fact and advances that “over the longer term, the penetration and utility of routine HIV testing can be tracked...” using different forms of research. But one of the few studies was a qualitative one conducted in USA by Bokhour et al (2009) that found two barriers to RHT to be signing informed consent and pretest counseling.

In the Botswana RHT policy and many other policies internationally, these pre-requisites have been removed. Valenti (2009) cites a study by Burke et al which cited informed consent, competing priorities, poor reimbursement, and fear to offend the client as some of the “physician barriers” to RHT in the USA. Analysis of the implementation of the RHT has concentrated on acceptability of the service by clients but not on its application on clients. As cited earlier in the paper, Weiser et al (2006) demonstrated that RHT and counseling was accepted by 81% of the population in Botswana.

In Cambodia, Moazzam, et al (2010) made an observation that the Ministry of Health introduced the RHT policy in 2006 to counter the finding that after the success of condom provision in commercial sex settings in reducing HIV infections, mother to child transmission became a major contributor to new infections. Relatively better than the findings in Thamaga Primary Hospital Out-patient Department but still unsatisfactory, it was found according to Moazzam, et al (2010) that close to 25% of the pregnant women that came for service a year later were not tested for HIV.

However, the conclusion made by Moazzam, et al (2010) that the low rates found in pregnant women testing for HIV was because they declined the test may be misplaced. Moazzam, et al (2010) set out to investigate “prevalence and barriers to HIV testing (and counseling) among mothers at a tertiary care hospital ...” however such barriers may not be unearthed fully by the methodology used in the study. Pregnant women or newly delivered mothers’ perceptions or socio-demographics as used in the methodology of the study, may not adequately provide insight to the technical and non-technical hospital dynamics of providing routine HIV testing and counseling. These findings are based on the assumption that these women were all offered the HIV test, an assumption that precludes health-worker related dynamics.

One of the latest studies that are closely relevant to this study is the quantitative one by Anderson et al (2011). This study looked at factors that influenced obstetricians-gynaecologists in making decisions in their HIV testing practices in the USA. Anderson et al (2011) found that providers' perception about the patients' risk together with practice type and location were major influencers on the decision to provide the test

According to findings by Plost et al (2007), "Practitioners often do not comply with evidence-based protocols." Despite traditional means of reinforcing compliance with protocols such as continued education and stressing the importance of them, Plost, et al (2007) found that health workers did not use the protocols in the Intensive Care Unit consistently at St. John Medical Center USA. Traditional means included acts such as provision of classes or presentations and booklets, provision of competency examinations and placement of order sheets in convenient places. However, Plost et al (2007) found that managers encountered resistance in the form of attitudes contained in statements like: "It's cook book medicine," "I forgot," and "I have my own way."

Early successes of up to 90% testing of pregnant mothers as a result of the routine HIV testing and counseling cited by Centers for Disease Control (2004) and Moazzam et al (2010) refer to pregnant women coming for antenatal services under the Prevention of Mother to Child Transmission (PMTCT) program. However, studies regarding non-programmatic application of routine HIV testing and counseling are largely unavailable.

Walensky et al (2011) tested the cost-effectiveness of RHT in Emergency Department after postulating that RHT in Emergency Department could only succeed if health-workers were particularly dedicated in their duties and found that the cost-effectiveness of RHT in the emergency department compared well with other modes of HIV testing and counseling in terms of cost. In comparing the long-term costs of RHT, Walensky et al (2011) found that RHT had a favorable outcome in terms of quality adjusted life years compared to other modes of testing. This finding is corroborated by Soria et al (2011) who cited 3 cases of late presentation of HIV/AIDS to portray the importance of RHT in reducing morbidity, mortality and economic costs.

Regarding RHT feasibility concerns, Walensky et al (2011) is corroborated by Cook & Berkenblit (2006) who postulated that if implementation of RHT was to be successful, more knowledge on barriers had to be gained and ways to remove those barriers. The observation made by Cook & Berkenblit (2006) that highly motivated clinics which provided service in high risk populations and received free supplies of tests and adequate financial support, only tested 28% of the targeted sample. This is consistent with observations made at Thamaga Primary Hospital (RHT register) in February 2013 where even less clients (1.03%) were offered RHT in the Out-Patient Department, the precursor of this research study. Cook & Berkenblit (2006) wondered how less motivated clinics without systematic efforts would compare in offering RHT.

The Department of Health of Ghana (2013) advanced that employees not only require knowledge and skills to perform expectations of them but also need to know the expectations and be given appraisal of the progress in meeting them. Citing Caiola, Luoma and other researchers, The Department of Health of Ghana (2013) posits that health-workers do not have job descriptions and if they do, they are outdated and that supervisors do not tell them what is expected of them. Lack of supplies and transport are also noted as a hindrance to health-workers performance of their routine duties. Applied to RHT protocols, one could postulate that costly mistakes resulting from not following them would lead to great loss of life of up to 15 years in individuals as cited by May et al (2011).

Protocols aid in removing communication barriers that are costly in health care settings but in addition to this, Vardaman, (2012) also found that protocols help acceleration of socialization of new staff.

Plost (2007) found that two methods could be effectively applied to modify behavior of health-workers towards protocols. They are namely “knowledge oriented strategies” that aim at education and facilitative strategies such as removing work barriers and directive strategies such as rewards and punishments.

Certo & Certo (2012) cite The Porter –Lawler theory of Motivation as “a more complete description of the motivation process” for individuals to carry out a task. Protocols predetermine tasks to be performed. It would be appropriate to examine how the findings by the various



researchers above fit in with the Porter-Lawler theory of motivation. If they did fit in, we would accept the Porter-Lawler theory of motivation to be a working framework for our study:

The Porter-Lawler Theory improves on The Vroom Expectancy Theory and The Needs Goal Theory which provide basic explanation for motivation for individuals to perform a task being the felt need and that the effort to accomplish a task being determined by the perception of the value of the reward weighed against the chance that reward will be reaped. However, Certo & Certo (2012) observe that The Porter –Lawler Theory of Motivation adds to the two theories three more characteristics:

1. The reward's value perception is determined by both intrinsic and extrinsic components of the reward. Intrinsic components result directly from accomplishing a task while extrinsic rewards result from extrinsic sources. When an RHT supervisor accomplishes the goal of reaching 100% in offering clients who come to hospital, she gets the intrinsic reward for accomplishing her task. When the hospital management recommends for her promotion, she gets the extrinsic reward.
2. The extent to which a task will be accomplished is determined by an individual's perception of what is to be done and the individual's own ability to perform the task. If a doctor has a poor perception of the RHT protocol and its public health benefits because he or she qualified before the introduction of the protocol, was never acquainted formally with it and has no little understanding of the public health benefits, or rather perceives it as a human rights breach, he or she may perform the task to a very minimal if any extent.
3. "The perceived fairness of the rewards influences the amount of satisfaction perceived by those rewards" according to Certo & Certo (2012). The greater the perception of the fairness of anticipated rewards, the greater the individual may pursue a task. If a nurse perceives the reward from recording the clients in the register as being unfairly attributed to the doctor, when she or he feels the reward should be equally extended to him or her as a nurse, the less motivated is that nurse to assist recording in the RHT register or pricking the client. The Porter-Lawler Theory of Motivation is represented in Fig 1 below



Counter-acting perceptions may be perceptions that human rights may be infringed when performing RHT as cited by Groves (2011).

The perceived fairness of rewards may come into play when different cadres perform the same task or share parts of the task. The observations made by Cook & Berkenblit (2006) that suggest systematic efforts point to a multi-team approach to RHT. In providing rewards to different cadres it may predispose to health-worker's poor perception of fairness of rewards among cadres. In turn, this may lead to variations in the performance of health-workers in their application of RHT.

Overall, the Porter-Lawler Theory of Motivation supports the current literature on health-worker task accomplishment which are tasks may be in the form of protocols, in particular the RHT protocol. Using this framework or concept therefore, we will try to understand factors that may underlie the application of RHT protocol in Thamaga Primary Hospital.

Other theories to explain workers' motivation to perform exist. Certo & Certo (2012) cite theories that include Maslow's Hierarchy of Needs, Aldefer's ERG Theory, Argyris's Maturity Continuum and McClelland's Acquired Needs Theory. Since application of RHT protocols is only a small fragment of a typical health-worker's job, it would be inappropriate to use these other more general theories to explain a health-worker's application of the RHT protocol. Application of RHT protocols may neither be called a job, nor a duty. According to University of California Los Angeles (1999), a duty is a "major subdivision of work performed by one individual. It includes similar tasks that make up one area of responsibility." "A task is one of the work operations that is a logical, essential step in the performance of a duty. It defines the methods, procedures and techniques by which duties are carried out."

At this minute level of task, the Porter-Lawler Theory remains applicable as seen above and therefore may provide the best framework for understanding health-workers application of the tasks contained in the RHT protocol.

## Chapter 3: Methodology

### 3.1: Introduction

The research question posed in this paper attempts to achieve a better understanding of health-workers' experience on the phenomenon of applying RHT protocol in their work which may be described as their 'life world.' Christensen et al (2011) describes such research as being of a qualitative methodology. Qualitative methodology best suits this study because rather than trying to understand the question how many, or how much health-workers or clients are affected by the RHT application, this study attempted to understand what affects or how affected health-workers are in applying the RHT protocol.

### 3.2: Data Collection

Interviews were conducted at the Ministry of Health facility of Thamaga Primary Hospital in Botswana with 4 groups of 6 people each and further interviews with 6 individuals. A total sample size of 30 health-workers was expected to be recruited for the study. The 6 participants of each group were selected using stratified purposeful sampling described by Brikci & Green (2007) as interviewing different types of service to provide a comparison of their perspectives. In this case each cadre of health-workers that initiates or offers RHT were to be proportionately included into an interview group using a grid that used cadres, grade at work and period of service.

#### 3.2.1: Table 1: Grid for Selection of Participants into 1<sup>st</sup> Three Group Interviews

Yrs. of service in the post	<=5	>5	>=10
Grade <C1	1	1	1
>=C1	1	1	1

The three of the four groups were stratified according to the table above to include the majority groups like the nurses. The 4th group participants were not selected according to the grid because it catered for minority groups like lay counselors, social workers and lab technicians only using proportions per cadre.

Individual interviews were conducted using the same topic guide and prompts in-order to methodically triangulate the findings of the group interviews which may have been affected by dominant speakers or by other group dynamics. These individual interviews involved 6 more people selected according to duty roster of those present on the interview day but not according to the grid above as planned because of time constraints. In this case only the duty roster provided an element of randomness because it was prepared without the involvement of the researcher and well before the recruitment. All participants had the freedom to choose to participate or not to participate after going through the consent form and had to sign the consent form, making the participation voluntary. No names or identifiers were recorded making the participation anonymous. The interviews were conducted in a convenient room within the hospital premises depending on the circumstances of each interview.

A semi-structured interview questionnaire designed after the analysis of the RHT protocol in relation to the study objectives had topic guides and prompts as described by Briki & Green (2007). The questionnaire was also guided by a framework from The Porter-Lawler Theory of Motivation described in the literature review. The first group discussion provided a base for refinement. The investigator collected data verbatim using pen and paper and managed to get consent to additionally record the first three discussions through an audio tape. The remaining group discussion and the individual interviews were only recorded through pen and paper because it was deemed not really necessary to audio tape as the previous transcriptions sufficed. Data collection was done over a period of 2 weeks from the 5<sup>th</sup> of December 2013 to the 19<sup>th</sup> of December 2013. All data was then typed in Microsoft word and printed out for easy handling and analysis. Two copies were available, one for the researcher and the other for the coding partner. After the coding, the coding partner's copy was returned to the researcher.

All instruments and data are and were under the custody of the researcher under lock and key. After a year, the data will be disposed of through burning.

#### Inclusion criteria

1. All health-workers who have a mandate to initiate RHT to a client were eligible to participate in the study.

#### Exclusion criteria

1. All direct subordinates of the researcher and those within the direct line of the researcher's authority were excluded from participating in the study.
2. Health-workers not working in Thamaga Primary Hospital on a full-time basis were excluded.
3. All health-workers who have no official mandate to directly work on RHT were excluded.
4. All health-workers below the legal consenting age of 21 years were excluded.
5. All clients including health-workers coming in to the hospital and seeking service rather than providing it were excluded from the study.

### **3.3: Data Analysis**

The process of data analysis involved use of both concept analysis and relational analysis methods described by Daley (2013) as the two major methods in content analysis. Following standard steps in content analysis described by Daley (2013), data was read over many times to identify themes deductively. Themes emerging were used to create categories. At first, up to 14 themes were identified. These categories were then reduced to 7 main ones after close analysis. Subcategories were also created for a more detailed analysis. Manual coding of the themes in the text was done using highlighting markers of different colors. Frequencies of the presence of those themes were then tallied and compared with those of a coding partner who coded the themes independently after being adequately trained and provided with guidelines.

The guidelines for coding included definitions of the categories, examples and rules of coding. After practice with the first two themes, the coding partner had a good grasp of the coding exercise and provided reliable coding comparison. During the inter-coding exercise, discordant coding decisions were resolved by adding them to the researcher's tally if the researcher agreed with the partnering coder's decision upon discussion but still noting the difference for inter-coder reliability assessments. If the researcher and the partner disagreed with the partner's decision even after discussion, the difference was included in the inter-coder test but not added to the researcher's tally.

Where the researcher and the coding partner agreed that the researcher's decision was the wrong one, the difference was noted for inter-coder reliability test but the count was reduced from the researcher's tally. The researcher's tally made up the final counts that are reported in this paper.

Inter-coder reliability was also calculated on the two coders' findings. Inter-coder reliability is the degree to which two or more independent evaluate a message and reach one conclusion according to Lombard et al (2004). Without inter-coder reliability tests, the data analysis is considered to be invalid by skeptics. Lombard et al (2004) cite dozens of commonly used tests of inter-coder reliability but conclude that researchers have not agreed on one universal formula or test. In this study, the Holsti's formula was used for inter-coder reliability testing.

The final frequencies of each theme were then totaled and proportions calculated in percentages. A pie chart to depict the results was then generated using Microsoft Excel to provide a visual image. To provide for further analysis and meaning, relational analysis was engaged using Concept Mapping that showed linkages of concepts.

Inductive identification of concepts was later used to test The Porter-Lawler Theory of Motivation and its application in health-worker motivation, in particular, RHT. Themes that emerged from the content analysis were examined, if they applied to the framework and if they conformed.

During content analysis major themes that emerged were categorized in the Table 2 below from a framework cited by Mayring (2000) as an effective guideline to use during coding with a coding partner or partners:

**3.3.1: Table 2: Category Definition and Coding Rules**

<b>Category/Sub-category</b>	<b>Definition</b>	<b>Examples</b>	<b>Coding rules</b>
1.Knowledge			
Uncertainty about RHT/subjectivity	High subjectivity to what RHT really is or is about	<ol style="list-style-type: none"> <li>1. It's like there is a written protocol or you just want us to say what we understand.</li> <li>2. Not sure/may be,/probably</li> <li>3. I think or I don't think</li> <li>4. Difficult question</li> <li>5. That is as far as I can explain or understand</li> </ol>	It includes all answers that show uncertainty even if they are correct or wrong.

Objective Health-workers' Knowledge of RHT	Wrong perception of RHT like confusing RHT with VCT. Completely wrong statements about RHT. Or statements that actually concede that there are knowledge or information problems or requirements about RHT	<ol style="list-style-type: none"> <li>1. RHT is done by the lay counsellor at the caravan (that's VCT).</li> <li>2. Lack of awareness by staff or patients</li> <li>3. It should be patient-initiated</li> <li>4. Never seen or read anything about the protocol</li> <li>5. Only one of us has read it</li> <li>6. There are no registers for RHT (Actually there are).</li> <li>7. Everyone who is at risk should be offered RHT(actually everyone not just those at risk should be offered)</li> <li>8. We should have an RHT clinic. (Actually that's selecting out patients and staff who should do HIV testing and therefore not routine)</li> <li>9. I don't know/didn't know</li> </ol>	All statements that show knowledge issues whether stated or inferred
RHT Training	Calls for need for training or training related suggestions or mention of lack of training or inadequacy of training	<ol style="list-style-type: none"> <li>1. Shortage of those who are trained</li> <li>2. We are trained in the same way but others don't do.</li> <li>3. Same theory/trained/courses/workshops/educate health workers</li> </ol>	All statements that mention training or that infer it
2.Workload			



Issues			
Time issues	Time posing an obstacle or restriction to doing RHT	<ol style="list-style-type: none"> <li>1. We don't have time.</li> <li>2. There are many big queues</li> <li>3. There are too many registers to fill, no time to fill them</li> <li>4. We don't test during weekend or night</li> <li>5. Waiting time is reduced</li> <li>6. Offering is only 2 seconds</li> <li>7. Spent a lot of time on queues</li> </ol>	All statements that mention time or imply that there is shortage or abundance of it.
Personnel issues	Multi-tasking or too much work for few numbers of staff	<ol style="list-style-type: none"> <li>1. We have too much work to do</li> <li>2. You cannot do it because it's a long procedure</li> <li>3. Queues</li> <li>4. Nurse to patient ratio</li> <li>5. Shortage of personnel</li> <li>6. Shortage of trained staff</li> <li>7. Poor work relations among staff</li> </ol>	All statements that show that there is too much work for few staff or many tasks for individuals or poor work relations or staff distribution
3.Human Rights			
Stigma and discrimination	Staff have fears about stigma, discrimination or patients have stigma or discrimination	<ol style="list-style-type: none"> <li>1. By looking at me you think I am positive/ what did you see in me</li> <li>2. We offer RHT clinically as doctors</li> <li>3. You get ill-treated if you bring sick leave by your bosses</li> <li>4. It is difficult to bring up the issue of RHT</li> <li>5. We can't talk about it freely</li> </ol>	All statements that show discomfort about discussing or dealing with HIV /AIDS topic or

	n issues HIV is seen as a shameful disease	<ol style="list-style-type: none"> <li>6. This monster</li> <li>7. This HIV thing</li> <li>8. I assume they are positive</li> <li>9. I will know what protection to take when treating them the positive ones</li> <li>10. They will not be given same treatment or be investigated properly</li> <li>11. Shame</li> <li>12. I only test those who are cheating/ It's easier to test with marital problems</li> <li>13. It's an insult to be tested</li> <li>14. It's shock to receive results</li> <li>15. If nicely looking you don't test</li> </ol>	clients or mention, shame, discrimination, stigma, guilty
Confidentiality	Issues of confidentiality impairing RHT	<ol style="list-style-type: none"> <li>1. Registers lying around everywhere</li> <li>2. Patients will think it is us who spread rumors about their status</li> <li>3. I cannot test my supervisor or father or colleague</li> <li>4. My relatives hear that/they don't trust us/disclosure against the law/you can't offer to a relative or staff</li> <li>5. If they are seen in the testing room/everybody coming in and out of the room/ no privacy.</li> <li>6. People will see you in the face when coming out of testing</li> </ol>	All statements that border on lack of confidentiality or presence of it whether stated or implied
Issues of	Patients feel	1. We force patients/no RHT no	All statements

informed consent	coerced into RHT or staffs feel patients are forced or coerced into RHT.	<p>discharge</p> <ol style="list-style-type: none"> <li>2. Patients have no option but to accept</li> <li>3. Patients will not get other services if they do not take HIV test</li> <li>4. Patients don't know their rights</li> <li>5. You don't counsel patient</li> <li>6. Don't tell the patient the benefit of testing and not counseling you just test</li> <li>7. We believe patients have choice/they believe they are being harassed bothered or they will be asked to test.</li> <li>8. It's voluntary</li> </ol>	that mention force or imply coercion for the test to be done
4. Accountability			
Performance measurement tools/strategies	Staff are compelled to do RHT because they are to be appraised and rewarded or punished for performance using evidence	<ol style="list-style-type: none"> <li>1. PBRS (Performance Based Reward Systems) PDPs (Performance Development Plans) helps.</li> <li>2. Lack of accountability</li> <li>3. No one cares.</li> <li>4. It's not there responsibility</li> <li>5. There are no records or documentation</li> <li>6. It's not my responsibility.</li> <li>7. They are not monitoring statistics.</li> <li>8. Objective owners do it. There are no sanctions. I sanction them. I reward them/no reward.</li> <li>9. No one takes the responsibility of explaining results.</li> </ol>	Any statements that contain PBRS,PDP, accountability excluding those that are contained in the lead question or follow it immediately

		10. You will be fired or not promoted by ministry	
Shifting of Responsibility/Job Ownership	Some cadres do not feel that this is their job, it's more for others.	<ol style="list-style-type: none"> <li>1. Nurses do it more</li> <li>2. It's not my job</li> <li>3. As pharmacy we do it less</li> <li>4. It's the lay counsellor who does it</li> <li>5. Maternity does it always</li> <li>6. We refer to lay counsellor.</li> <li>7. Those who are trained don't do it/ those who are trained are few</li> <li>8. I don't do it</li> <li>9. It's up to clinicians</li> <li>10. Those who are hands on</li> <li>11. They don't need RHT statistics</li> <li>12. Depends on department</li> <li>13. If everyone was testing.</li> <li>14. I don't see them offering</li> <li>15. Only those interacting with patient directly are taking it seriously</li> <li>16. It's important to some people</li> <li>17. Patients should be already offered before coming to us</li> </ol>	All statements that indicate one cadre doing it more or carrying the burden or another cadre, not carrying the burden
5.Lack of resources	There are lack of resources that impinge RHT	<ol style="list-style-type: none"> <li>1. Lack of space</li> <li>2. Lack of kits and other logistics</li> <li>3. Shortage of personnel</li> <li>4. No needles to prick</li> <li>5. Look for space or kits</li> </ol>	Mention of any environmental factor not stated in any other category
6.Age	Age differences	<ol style="list-style-type: none"> <li>1. We are afraid to test our fathers</li> <li>2. Age matters</li> </ol>	All statements that imply or

	between staff and patients affect RHT	3. It's easier to test those who are young not the old	state that age is a factor
7. Patients knowledge	Lack of knowledge by patients hinders RHT	<ol style="list-style-type: none"> <li>1. Patients lack information/understanding</li> <li>2. Patients need to be educated/leaflets/pamphlets</li> <li>3. We need screening hall talks</li> <li>4. Patients can't relate the test to their problem</li> <li>5. Health education/sensitization</li> </ol>	

### 3.3. Member Checking and Low-Inference Descriptors

Another measure of validity of the findings and their interpretation used in this study is member checking as cited by Christensen et al (2011). After data analysis and draft report compilation, member checking was done to verify the findings with a group interview of 4 participants and 2 individual participant interviews. This was so because it was difficult to get all the planned 6 participants into a group during the remaining short period. Participants were recruited from the same original pool of participants of the study convenient with the shortest remaining period and their duty roster. The main findings of the study were outlined to participants as a guide to the discussion. Also cited by Christensen et al (2011) as a form of interpretive validity that was used in this study are low-inference descriptors such as quotes. Quotes have been cited through-out the report to present the findings as close as possible to the participants' accounts.

### 3.4: Assumptions and Limitations

This study was conducted within and limited to Thamaga Primary Hospital in the Republic of Botswana. It is a qualitative study therefore its findings may not be generalized to all the health facilities in Botswana or to a wider scope. The other limitation is that this study focused on the health-workers' perspective of the factors affecting RHT application. This might have been biased in that it ignored all other players involved with RHT such as patients, health officials and the community at large.

The methodology used in the study has other limitations: The investigator was also part of the group that was under study and therefore ethnocentrism might have been hard to eliminate. Observations of the client-health-worker interaction by the investigator himself might have influenced the behavior of the health-worker and so this approach was excluded. Introduction of an independent observer as a remedy to this problem was beyond the scope of this student exercise. Observations which could have possibly provided additional information were therefore excluded. The approval from the ethics committees came late in the year limiting the time during which the study could have been done. This limited the recruitment process where interviews had to go on if some participants were held up. The greatest assumption was that health-workers, who are colleagues, would provide objective perspectives.

## Chapter 4: Results

### 4.1: Demographics

Health-worker discussions involved participants from all relevant departments of the hospital ranging from doctors, nurses, social workers, auxiliary nurses, lay counsellors, pharmacists, and lab scientists. Participants from the dental and x-ray departments could not be recruited because of either issues of consent or preoccupation with other duties during the study period respectively. There were a total of 24 participants out of the anticipated 30(80% response rate). Out of the shortfall of 6, 1 could not consent while 2 failed to turn up for the discussions at the last minute because of urgent work issues. The two from the x-ray and dental departments could not be replaced because they were the only officers in those departments at the time. One failed to turn up at the last hour for unexplained reason.

Female participants dominated male participants in a ratio of 2:1. The mean age for participants was 32 years with a standard deviation of 5.5. The age range was 22-44 years. The median age was 31 years. The mean of length of service was 8 years with standard deviation of 5.09 while the median length of service was 7.5 years. The range of length of service was 1- 22 years. The aggregate of participation in form of length of service and grade can be seen in the grid in Table 4 below:

**Table 4: Aggregate of Participation Grid**

Yrs. of service in the post	<=5	>5	>=10
Grade <C1(Lower scale)	2	9	0
>=C1(Higher scale)	1	7	5

Despite attempt to follow the grid proportionately, it was discovered that it was difficult to find staff on higher scales of higher than C1 when they have worked for less than 5 years. Likewise, it was difficult to recruit participants who had lower scales of less than C1 when they had worked more than 10 years. This was probably due to the career progression structure of the system. As a result most participants were aggregated towards the center (>5 years to <10 years).

## 4.2: RHT Application

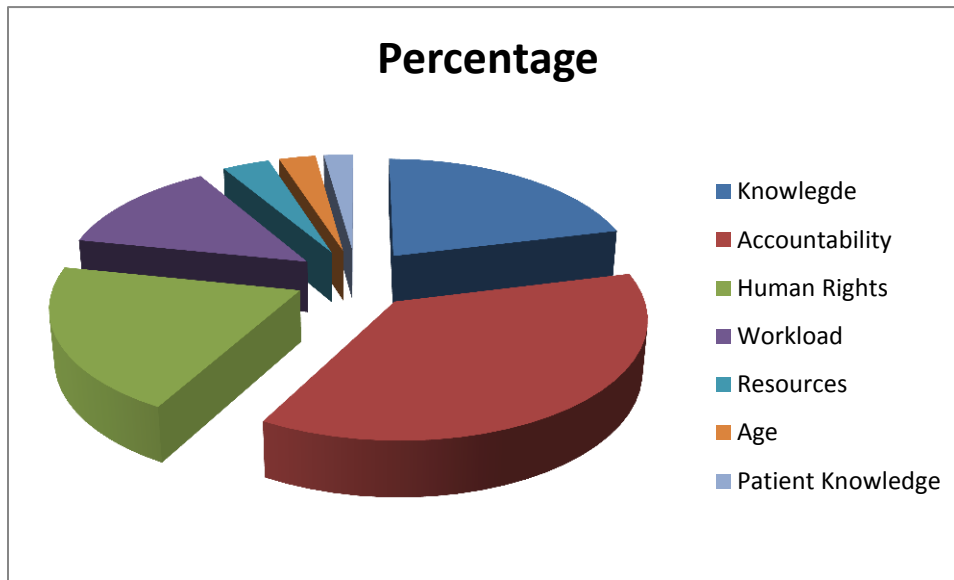
Consistent issues emerged as factors that affect health-workers when they interact with patients and are expected to apply RHT indiscriminately. The frequency of the presence of each theme therein called factor can be seen in the Table 5 below.

**4.2.1: Table 5: Table of Results of Frequencies of Themes**

Category	Subcategory	frequency	Total
1.Knowledge of RHT	Uncertainty about RHT/subjectivity	46 (9.2%)	
	Health-workers' objective Knowledge about RHT	31 (6.2%)	
	RHT Training	29 (5.8%)	106 (21.2%)
2. Workload			
	Time issues	28 (5.6%)	
	Personnel issues	38 (7.6%)	66 (13.2%)
3.Human Rights			
	Confidentiality	24 (4.8%)	
	Issues of informed consent	28 (5.6%)	
	Stigma/discrimination issues	49 (9.8%)	101(20.2%)
4.Accountability			
	Performance monitoring strategies/tools	95 (19.0%)	
	Responsibility shifting/job ownership	89 (17.8%)	184 (36.8%)
5.Resources		18 (3.6%)	18 (3.6%)
6.Age		14 (2.8%)	14 (2.8%)
7.Patients' knowledge		11 (2.2%)	11 (2.2%)
		500 (100%)	500 (100%)



#### 4.2.2: Fig 2: Pie Chart of Factors Affecting RHT



#### 4.2.3: Accountability (36.8%)

Overall, the dominant issues were Performance Monitoring Strategies/Tools (19%) and Job Ownership or Unfairness in the sharing of the burden of the RHT task (17.8%). While, both of these could be grouped under accountability (36.8%), Holsti's test = 0.96, the researcher felt the need to also rate them separately to provide the reader a deeper and more detailed understanding of the types of accountability issues that arise from each sub-category.

##### 4.2.3.1: Performance Monitoring Strategies/Tools (19%)

This sub-category (19%) of the total included such issues of accountability as documentation, recording, statistics, analysis of statistics, goal setting, supervision and performance monitoring and appraisal and rewarding systems. Health-workers frequently discussed these issues emphasizing that they were the most important factor in performance of RHT.

##### Negative Influences of Accountability on RHT

A greater proportion of the issues that dominated the accountability issues at all levels of the health system hierarchy including issues such as lack of identifiable supervisors of the RHT

program at all levels. This negatively affected application of RHT to the patient as this quote from one group suggests:

#### High Level Managers

“I don’t think it’s being monitored how people are doing. If it was being monitored, we could see today there was so and so in OPD; how many people were done RHT?” Another group put it this way:

“Obviously management doesn’t need the statistics otherwise we could have seen some kind of formal document for RHT. Hope we are even aiming at any (a) (targeted) percentage”.

“If there was somebody high up whose objective was RHT there would be sanctions because the person would be failing; but because it is attached to juniors ‘kind of,’ that’s why”.

#### Middle Level Managers

While middle level supervisors vary in the way they emphasize RHT depending on their department and general personal attributes, respondents tended to suggest that they were also handicapped in reinforcing accountability:

“There are no sanctions because supervisors are clueless about what can be done”.

Supervisors are unsure of what to do with non-compliant subordinates and look up to the ‘ministry headquarters’ to come all the way to aid in this regard. There seems to be no guidelines on how to deal with non-compliant health-workers. It seems there was a verbal remark made from a higher level on what was to happen to non-complying health-workers that could be remotely recalled or reflected upon by supervisors and subordinates. Corroborating the subordinates’ perception above about their supervisors’ cluelessness, one supervisor claimed:

“You will be told that those who have been trained in RHT and don’t do it; the ministry will come and deal with them.”

Another group alluding to the same warning then states:

“We were asked to record names of people who were trained and submit to... the Ministry of Health all units for reprimand. But no name was forwarded.”

### Lower level health-workers

Lower level health-workers also featured prominently in accountability issues. Participants rated low-level health-workers' RHT practices as being inadequate and below standard when it came to accountability. Health-workers recognize the importance of accountability of all types. The main concern raised about low-level officers was lack of documentation. Obviously if health-workers do not document, no one could be able to appraise them and give them feedback on progress as well as reward them:

“If you take patient's card(s), you will see nothing in the cards. If you don't document, it means you haven't done anything.”

Others corroborated this statement that there was:

“(There is) too much writing. Too many registers... so you end up choosing where do I fall (belong).”

### Positive Influences

Accountability can be viewed from either the angle of lack of it or presence of it. The presence of accountability seemed to have huge noticeable positive influence on the application of RHT. At all levels participants appreciated the impact of systematic accountability strategies or performance monitoring strategies such as Performance Development Plans (PDPs) and Performance Based Reward Systems (PBRS) have on RHT application. The two terms PDP and PBRS are used inter-changeably by health-workers but they mean slightly different things: PDP is a performance development plan which is an annual plan of selected objectives and activities that are cascaded from the ministry headquarters to the individual facilities and to the personal level of each employee. PBRS is the performance based reward system that aims to not only make the plan but to monitor progress, appraise staff according to how they are performing usually leading to recommendation for promotion or further training.

### High Level Management

Participants wondered if RHT was systematically included in the year's strategic plans also called PDPs feeling this was crucial for the success of RHT and to quote one:

“I don’t know if we have it (RHT) on the hospital PDP, including it in PDP gives it the attention it deserves.” A corroborative check of the annual PDP for the year confirmed the absence of an RHT objective in the year 2013-2014.

#### Middle Level Managers

Participants also overwhelmingly noted how PDPs or PBRs influenced the attitude and performance of their supervisors when RHT was among their supervisors’ objectives. Participants had remarkable recognition of how accountability from their managers increased; improving their supervision and involvement in RHT. One participant remarked:

“Like our bosses don’t visit the caravan where RHT (HIV testing) is done...To them it’s not a concern. Other supervisors take it more seriously if their PDP asks them to do so.”

#### Lower Level Health-workers

PBRs and PDPs again featured highly as a positive influence in the performance of RHT within the hospital setting and even for the low level health-workers. When health-workers take RHT as one of their objective in their PBRs, their performance of RHT significantly improves. This observation came from participants when asked to name facilitators of RHT within the hospital and such responses from one group as:

“(It’s) PBRs!” (This was followed by unanimous laughter in agreement).”

Another group suggested;

“I think we are doing it for PDP.”

The other group recommended that “taking RHT as (one of the objectives in one’s) PBRs helps.”

While yet another observed that:

“It’s mostly done by objective owner who have done PBRs. Those who will tell you it’s my objective.”

These experiences all seemed to suggest that PBRs/PDP strategies are a potent positive influence on health-workers' performance of RHT in Thamaga Primary Hospital.

#### **4.2.3.2: Job Ownership/Responsibility Shifting (17.8%)**

This subcategory accounted for (17.8%) of the total frequencies of the themes. Participants seemed to unwittingly cite a lot of responsibility shifting to other groups or cadres within the hospital though when directly asked whether cadres had different views about RHT they mostly disagreed. There seemed to be lack of commitment by almost all cadres and a responsibility shift to the other cadre if not a shift to others within the same cadre.

##### Inter-Cadre Shifting

Social workers, lab personnel and pharmacy personnel did not see themselves as being responsible to offer RHT to clients even if clients presented to them for service. These cadres shifted this responsibility away from themselves and mainly shifted the task of it to people they called "clinicians" because they claimed:

"Nurses are the ones most in time in contact with the patients." Another group corroborated this remark when they stated:

"We think it is restricted to nurses and doctors...Patients listen to nurses and doctors more."

While other cadres of health-workers shifted this responsibility mainly to them, nurses and doctors also shifted the responsibility to others. This statement from one of the participants who is a nurse demonstrates this:

"In maternity they (nurses) are refusing (to do) it, they will say call the lay counselor. Even at the other wards we (nurses) don't order the kits then we call the lay counselor".

##### Intra-Cadre Shifting

Even within the same cadre, health-workers will at times shift the responsibility of RHT towards others of the same cadre. In some cases offering RHT depended on a department to which one belonged rather than the cadre. It was generally noted that maternity nurses did better than the rest of the nurses in the other departments. For those who pushed this responsibility to others within their own group, reasons given were as follows:

“(These) RHT initiatives sometimes you feel like you are doing somebody’s target then you are doing somebody’s job. Somebody will benefit.”

Others frequently put it more succinctly when talking about their own colleagues of the same cadre like this:

“We are not all offering, it’s the burden of those who have been trained or who went for workshops. It means patient has to queue for the trained one. Patients (are) being tossed around.”

One suggested pushing the performance of RHT to the screening area so that as patients come to the consultation area it shortens time:

“They (patients) should be told as they are screening (by staff at the screening hall)...also by making them read pamphlets.”

### Summary of Accountability

All these issues of responsibility shifting are categorized under accountability as one participant also put it:

“One of the barriers is inconsistency. Others do, others don’t. It’s a matter of accountability.” Coupled with the other issues of performance monitoring strategies/tools cited above, this makes accountability by far the greatest (36.8%) contributing factor that influences application of RHT in Thamaga Primary Hospital.

#### **4.2.4: Knowledge of RHT (21.2%)**

Knowledge was the second most important factor in the implementation of RHT. Health-workers do not have knowledge of the RHT protocol. This manifested as either uncertainty about RHT, actual confession of lack of knowledge, objectively assessed lack knowledge or calls for training. Overall, knowledge issues accounted for (21.2%) of the frequencies observed (Holsti’s test= 0.88). Knowledge (21.2%) and human rights (20.2%) issues faired almost equally among the themes that were prominent.

##### **4.2.4.1: Uncertainty about RHT /Subjectivity (9.2%)**

Among the major themes, uncertainty, in this study defined as high subjectivity as to what RHT is or is about, dominated the knowledge category accounting for 43.4% (9.2% out of all factors )

of the frequencies compared to 29.2% (6.2% out of all factors) for objective knowledge issues and calls for training by 27.4% (5.4% out of all factors). There is a cloud of doubt hanging above the application of RHT within the hospital. Participants could not either confidently define RHT or discuss issues related to operations and procedures that are taking place in the hospital related to RHT. Issues of not knowing who is doing what, who is responsible for supervision, whether records are present and who does the analysis were prominent.

In trying to explain or define what RHT was all about, one participant of a group responded:

“It’s like there is a protocol or you just want us to know how we understand it ourselves? Myself I just think: Never seen anything. We just offer because at times somebody doesn’t have an idea so if you offer then they realize that they have the virus. If we just keep quiet they won’t realize they have the condition.”

Other participants expressed doubt if it was among the hospital PDPs or if it was one of the major significant programs and if there was any measurements or progress about it. Participants doubted commitment of the ones at the top. Some were not clear about what happens after patients have been offered the test; where do they go, what comes next? What achievements have been made in the hospital or in the country regarding RHT? Participants were uncertain. Statements like the following dominated the uncertainty subcategory:

“(I) May not be able to answer anything related to the policy, difficult to assess because of my line of work, I don’t offer the test at the lab.” “If records are there then no one is monitoring.” “May be they offer and clients go somewhere to test.” “The ones at the top, do they take it seriously really?”

Regarding the progress made on RHT, one participant expressed uncertainty in the following manner:

“I have not read, I don’t know the figures but I think we are improving but I suppose we are.”

#### **4.2.4.2: Objective Knowledge Issues (6.2%)**

Participants confessed that they did not know issues related to RHT or at times made statements that were not in line with RHT. Voluntary Counseling and testing (VCT) was one of the major issues confused with RHT. Some participants made statements that called for VCT in instances

where RHT was the current policy within the health facilities. Participants also admitted to having neither seen the RHT protocol or policy nor having been trained. Some participants did not even know of any rewards or sanctions for doing or not doing RHT. Some examples of how participants demonstrated their lack of knowledge are as follows:

When asked what recommendations could be made to make RHT successful? One participant responded by suggesting something that is actually VCT, saying:

“It has to be self-driven they (patients) have to ask for it.”

Another one understood RHT in a way that selects patients out for RHT rather than offering it to everyone:

“Everyone who is sexually active should do at least every 6 months do HIV testing and those at high risk, every three months”.

The other statements showed lack of knowledge of policies regarding human rights issues mentioned in earlier sections:

“We only know that if you disclose (someone’s test result to others) it’s against the law. If (only) you are lucky enough to see the policy.” “Other cadres (like mine) do not know the protocol. (For)Me it’s first time.”

#### **4.2.4.3: Training (5.8%)**

Lack of knowledge also manifested in the number of calls that were made for training or the number of times the mention of the “trained ones” featured. Participants felt strongly about training and seemed to emphasize the point that training was crucial for one to be involved in RHT. At times lack of formal training was almost used as a shield for not conducting RHT. It also seemed that there is lack of a clear guide on how much those who are not trained could do as regards to RHT. There are conflicting signals that reach participants in this area.

Prominent statements included the following excerpts:

On the barriers to RHT one lamented about;



“Staff deployment especially those who are trained (in RHT)—they end up leaving a department without those who are trained.”

Another put it more straight-forwardly:

“Less (people) are trained, few are trained.”

Conclusively one put in a recommendation on improving RHT like in the following way that sums it all up:

“(My recommendation is) to keep on educating people on RHT: the health-workers.”

#### **4.2.5: Human Rights (20.2%)**

When grouped, human rights issues of informed consent, confidentiality and stigma and discrimination rather than in isolation, it becomes clear that they are a third major factor (20.2%) (Holsti's test=0.91) just below knowledge of RHT (21.2%) in influencing decisions to perform RHT in the hospital. WHO (2004) policy on HIV testing advocates for three Cs: counseling, confidentiality and consent. It also calls for “reducing HIV/AIDS related stigma and discrimination at all levels, notably within health care settings.” While uncertain or ignorant about many issues surrounding RHT as seen earlier, participants raised issues related to these human rights repeatedly.

##### **4.2.5.1: Discrimination and Stigma (9.8%)**

By far, the predominant human rights issue that came out of the three in the human rights category was stigma and discrimination (48.5%), (9.8% out of the overall). Health-workers tended to go right against the principle of RHT when it came to initiating the discussion with the patient usually choosing to do it when there were HIV clinical stigmata or only remembering about the test when clinical stigmata appeared in a patient. A doctor regretted his application of RHT to patients and was corroborated by other participants from other interviews as follows:

“I usually propose when there is something related to STI (Sexually Transmitted Infections), TB (Tuberculosis) or other disease. This is my weakness.”

A nurse in another interview observed that:

“Doctors only offer when they suspect the condition, clinically, nurses just offer.”

Issues of discrimination not only prevented patients from getting the test if they did not have the stigmata of HIV. Even when patients had the clinical stigmata of HIV, patients still missed out on being offered the tests because health-workers thought that they already knew their status and might already be on treatment. One participant who works in the ward as a nurse regrettably recalled not offering patients the RHT:

“I don’t know why? May be (it’s) because most of my patients in the ward are positive, so I just assume they are (all) positive.”

However clinical suspicion or the use of stigmatizing features was not limited or exclusive to the doctors and nurses only. This approach was across the board. Other cadres such as social workers and pharmacy workers also used some criteria to bring up the issue of RHT to the patient. Social workers and pharmacists conceded to only bringing it up if there was some reason that could make it appropriate to bring up RHT to the patient in their respective statements below:

“It is difficult for me to introduce the issue but for couples with marital problems, it’s easier...”

“We think it is for those people in OPD (the Out-patient Department) those people who are coughing or (have) TB.”

Health-workers also feel they are insulting patients when they introduce the test to patients especially when the patients are elderly. One felt that only the nurse uniform at-least protected him when he has to introduce the topic to elderly patients lamenting:

“We are young. Young nurses to offer to (an) adult...Kegore ngwana (I mean a kid)...Is this kid implying that I am HIV positive.” Another participant corroborated this:

“The younger generation do (does) understand but the older (generation) see it as an insult when asked to test.”

#### General Stigma/Discriminative Attributes

Health-workers still have a general mentality that is guided by fear, stigma and discrimination when dealing with issues of HIV/AIDS. How this may affect RHT application may not have been directly observed in this study however some of issues are worth citing: Participants used

such terminologies as this ‘HIV thing’, ‘the monster’, ‘guilt and shame’. Some even confessed treating HIV patients differently from those who are HIV negative. The researcher wondered what different treatment would be if it was not for discrimination since everyone should be treated in the same way. For example when asked the benefit of offering RHT to the patient, one said:

“As care-givers we treat with caution those who are positive” and another participant who responded, “You know what protection to take when you are dealing with a client.”

Is there any other protection a health-worker needs when he or she knows patient is HIV positive that is different from the one he or she needs when handling those whose HIV status is not known? Are the precautions not universal? If there was a difference, would this not be discrimination and seen as stigma?

Others lamented that when patients’ HIV status becomes positive, their conditions may not be treated or investigated fully because everything will be assumed to be due to HIV infection.

#### **4.2.5.2: Informed Consent (5.6%)**

Uncertainty arose when issues of informed consent came up. Knowledge about issues of informed consent seems to be unconvincing. Participants wondered whether HIV testing had already become mandatory citing examples of why they thought so.

##### Outright Force

“Nowadays we are forcing patients in maternity. The law is coming but not yet. We have been doing it.”

One gave the example of a common statement he observed in the Sexual and Reproductive Health department which goes:

“If you are not tested, you will not be registered.”

He also corroborated this with his own instinctive question earlier during the year when he asked a female road traffic accident victim he attended to. Upon observing that she was pregnant and registered for antenatal services:

“So I asked 'how come you say you don't know your status but you are registered (for antenatal services)?' ...just to confirm that it (the HIV test) is being forced.”

Discussion around this theme seemed somewhat confusing. While some seemed to lament about this kind of coercion, one concluded it with a rhetorical statement:

“It's nice to be forced.”

### Harassment

Introducing the issue of RHT to the clients is also hindered by the perception that patients feel they are being harassed or bothered. Participants felt that some patients feel insulted. This feeling of harassing patients meant that their rights are somehow impaired by the health-worker introducing the subject:

“They say ‘if I go to hospital, I am going to be asked whether I have tested (before).’”

### Options are a Hindrance

Participants felt that asking the patient to do the HIV test was not the same as they would offer other services to clients. They felt that when offering RHT the client has the upper hand when compared to other services like offering immunization.

“We don't put the same weight (as other protocols) because (the) patient has (a) choice and we don't have to convince the patient. We close the chapter if the patient says no”.

### Failure to Sanction Subordinates Because of Human Rights

Human rights seem to be at play when consideration to sanction those that do not undertake or apply RHT to patients is made. Rather than human rights being applied appropriately, they seem to be subconsciously mixed up with issues of disciplinary action that paralyze managers or encourage health-workers not to apply HIV testing fully. The reasoning loosely applied or in the subconscious of managers and subordinates is that since patients have the option to accept the HIV test or decline it, a health-worker cannot be held accountable for not testing a patient. While part of this statement is true; the RHT protocol does not ask health-workers to test even those that decline the test, however documentation is required that RHT was offered and declined.

When asked why there were no sanctions for those who did not apply RHT as is required, an interesting answer was:

“No! akere hah (isn't it) you can't punish a person if they don't do RHT. It's upon each and every individual to do it. You chose yourself you can't punish (a health-worker) if he or she (patient) is not willing.”

### Counseling

#### Lack of Time to Counsel

One of the impediments to counseling was time. While the RHT protocol precludes extended pretest counseling participants cited the time required to conduct counseling as another consideration when a decision had to be made to perform RHT among many other competing tasks:

“You don't have time to ask ‘when did you last test?’ They just say, ‘I tested and the status was negative.’”

Another put it more clearly:

“To get to (making the patient) understand; her to go through boring counseling. We don't have time to make him or her understand the importance of the test.”

#### Lack of Skills to Counsel

While not prominent enough, lack of skills or uncertainty on how to go about counseling especially when a patient might have a positive result may also be the other factor making health-workers fail to embark on RHT. One participant put it:

“Experience matters, pretest and posttest counseling is a challenge. Newly qualified (health-workers) may face challenge with positive results before referral to a social worker (for further counseling).”

Another group also alluded to this saying:

“Even you the health-worker, you need counseling because sometimes you don’t counsel because you think about yourself, your family.”

#### **4.2.5.3: Confidentiality (4.8%)**

Confidentiality also featured prominently in application of RHT among health-workers although it accounted for the least among human rights issues (23.8%) (4.8% out of all factors) compared to issues of informed consent (27.7%) (5.6% of all factors) and stigma and discrimination (48.5%) representing 9.8% of all factors.

#### Patients’ Records

Issues of confidentiality bordered mainly on the RHT registers just lying around the wards or out-patient areas. This almost prevented health-workers themselves from considering to be tested within the facility. They also feared for the confidentiality of patient information:

“Registers are just lying around; they should be in a lockable cabinet.”

#### Familiarity between the Health-worker and the Patient

Others cited knowledge of the patients outside the workplace as an obstacle to introducing RHT to them. This knowledge seemed to be worse when the patient was a relative or an older person. It was also difficult to offer the test to colleagues at the workplace and even worse, when the colleague was in a more senior position than them. The following are excerpts of the kind of statements that came out during the discussions:

“Patients don’t trust us. ‘Why are they offering RHT to me?’ We go to clubs with them, we drink with them. They feel exposed.”

Another participant looked at it from another perspective:

“If I am from Thamaga (from this village), my relatives hear that (their status is known by people out there) they will know that it was me who offered RHT.”

Paradoxically, while they are expected to counsel patients and inform them that HIV is just like any other disease and that routine HIV test is in line with how other conditions like diabetes are being handled, participants show that they have the same if not more fears than the unconvinced

public. About colleagues, participants had the following sentiments that further explain their views about disclosure of HIV status and stigma about HIV as health-workers:

“If it’s my supervisor, how are we going to look at each other? At the back of your mind you know she is going to tell someone.”

#### Lack of Space for Privacy

Another prominent issue of confidentiality that surfaced was space that led to limited privacy. The unavailability of space seemed to complicate the procedure of RHT whereby patients had to be moved from one place to the other or people had to come in and out of the consultation rooms, thereby compromising privacy and therefore confidentiality. Participants felt that such limitations in space hindered health-workers from offering and conducting HIV tests which need confidentiality.

#### **4.2.6: Workload Related Issues (13.2%)**

When there are too many tasks or too few people to perform a demanding task, a perception of unavailability of time arises. When there are long queues waiting, complaints from clients increase. Long queues and lack of time are both related to workload. When there is too much workload, personnel may have poor relations with others they deem to be unfairly favored by managers. All these themes came out from the interviews and were seen to compromise application of RHT in the hospital. Two subcategories arose to depict these issues clearly under the main category of workload. This category accounted for 13.2% of the major themes that affect RHT in the hospital (Holsti’s test=0.90). The two subcategories were: 1. Time (57.6%), (5.6% of all factors). 2. Personnel Issues which accounted for 42.4%, (7.6% of all the factors).

##### **4.2.6.1: Time (5.6%)**

Participants noted that health-workers simply had no time for RHT because they were busy. Perhaps if this task of RHT was a straight forward task that did not require counseling, documentation, performing the test, waiting for the result, explaining the result, and counseling, they might have had the time. Participants prioritized what to do in their daily tasks and since there were many programs to run, participants at times found that doing what one “belonged” to was more practical. One participant explained how she decides on what to do when faced with such dilemmas:

“Too much writing: Too many registers. Too many statistics so you end choosing where do I fall? There are many tests like breast cancer you skip it just like PAP (Papanicolaou test) smear. Too much work.”

Another participant when asked if there were problems when trying to apply RHT had this for an answer:

“Time, we have lots of patients. We take a lot of time to offer, convince patients, clients (waiting outside) complain.”

Another one put it rhetorically like this which demonstrates some deeper personnel issues as well as time attributes:

“The new ones are eager to do the right things until they are absorbed into the system and they follow others (doing the wrong way). And they realize that they waste time doing RHT.”

#### **4.2.6.2: Personnel Issues (7.6%)**

Personnel issues included poor inter-departmental relations between departmental staff and calls to employ more staff. Participants called for reduction of workload by their managers or those at the top. There are just too few health-workers to handle all the work. The very few staff cannot be asked to do the cumbersome procedure that RHT is seen to be:

“The nurse to patient ratio ...the time it takes to counsel, to look for kits makes us reluctant to do it.”

Poor inter-departmental relations were blamed for lack of continuity of care of patients that hampered RHT application. Some departments were completely unwilling to do RHT while others seemed to do it well. Participants suggested that if patients were missed in one department, they could easily be picked up for RHT in another department if there was teamwork. If the patient was missed in the Out-patient Department, he or she could be picked up at the Pharmacy or at the General Ward. One statement from a participant sums up the frustration:

“In our hospital we are divided, (there is) Maternity Ward, General Ward, it's a barrier.”



#### **4.2.7: Resources (3.6%)**

Resources contributed relatively less (3.6%) (Holsti's test= 0.94) and comprised of issues surrounding unavailability of materials and lack of space. Materials involved unavailability of test kits at times or skin pricking instruments. One participant recalled her experience with lack of materials like this:

“Last time I went there to test, I found that I was going to be pricked by a 23 gauge needle (big needle) unlike if I found those things, automatic ones (less scary and small). I could run away.”

#### **4.2.8: Patients' Age (2.8%)**

Worth noting again is the age of the patient (2.8%) (Holsti's test=0.76) which seemed to intimidate participants in initiating the conversation when patients were elderly and encouraged it when the target patient was the expected baby in pregnant mothers. The very same RHT that is cumbersome to do in other departments seemed so easy to do if the patient was young or if a young individual was the target. One group had an interesting discussion about this. When prompted to explain why things were like that one participant explicitly shared:

“(It's a matter of) Urgency! And (the) child has to be protected. We love kids!” (This was followed by laughter in agreement).

“If it's in maternity, patients are offered: To protect the child ...not in other departments where everybody, (even) “old monnamogolo” (old man) (is there). Mother doesn't have choice, you talk about child. She wakes up. The old man says “ke sharp” (slang word for “am fine thanks”).

#### **4.2.9: Patients' Knowledge (2.2%)**

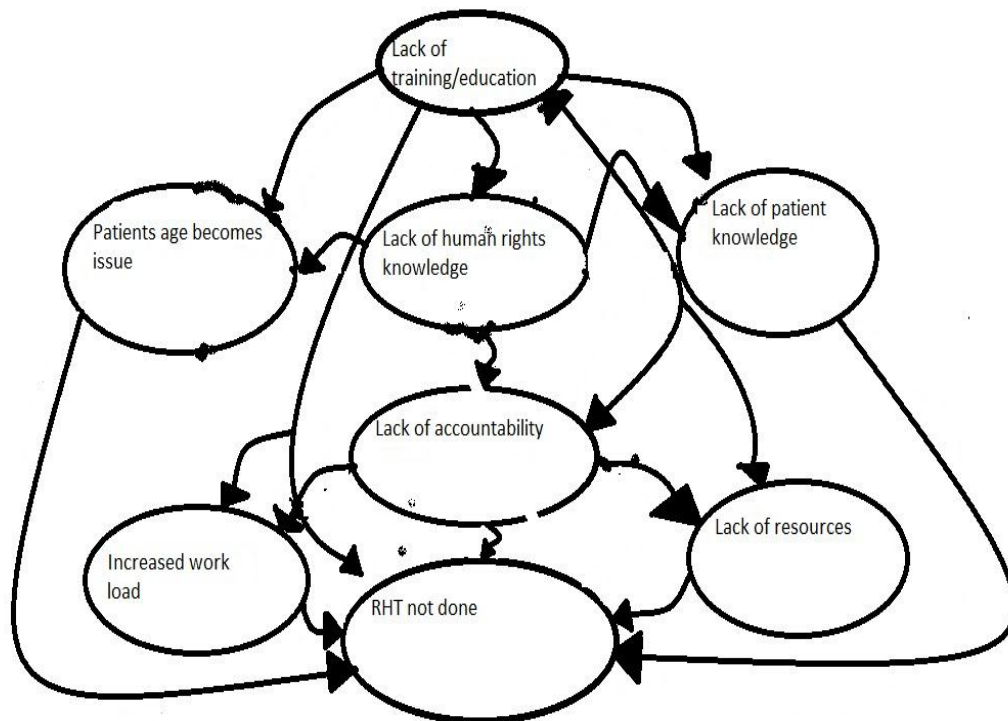
Patients' knowledge also contributed but a very small portion (2.2%) of participants' discussion of problems that they face when applying RHT (Holsti's test=0.80). Statements which gave information about this handicap included:

“Patients still lack information”. “Patients' understanding can also be a barrier”. “They don't seem to tie it to (understand the relationship with) what they brought (to the hospital) e.g. headache”.

### **4.3: Relationship of the Factors**

Using the above findings, the researcher went a step further to try to understand the relationship between the concepts so that a meaning could be attached to these findings. Busch et al (2013) observed that unlinked concepts as presented above are seen to be without meaning and that when the relationship between those concepts is established meaning results. Choosing from the different types of relational analysis, concept mapping was preferred in this instance. A Concept Map is defined by Daley (2004) citing Novak and Gowin as “a schematic device for representing a set of concept meanings embedded in a framework of propositions.”

In trying to come up with a meaning of the findings, a concept map was consequently drawn in line with observations from Daley (2004) that “concept maps are created with the broader, more inclusive concepts at the top of the hierarchy, connecting through linking words with other concepts than can be subsumed.” The following Map in Fig 3 is the Concept Map of factors affecting RHT in Thamaga Primary Hospital showing relationship of the concepts. The arrows point to what a particular factor leads to in a self-explanatory manner:

**4.3.1: Fig 3: Concept Map of Factors Affecting RHT in Thamaga Primary Hospital**

Lack of training/education on RHT leads to lack of knowledge of human rights which leads to health-workers not being sure of what they are doing and therefore not accounting for it properly. Lack of accountability leads to failure to do RHT as no one wants to be held accountable for issues of confidentiality and other human rights issues. Lack of accountability also leads to poor resource allocation because there are no records for proper planning and no one is responsible for resources related to RHT. The lack of resources will lead to RHT not being done. Lack of accountability will also lead to increased workload on those few who do RHT as others shift responsibility to them and do not share burden. This will lead to RHT not being done. Lack of training/education on RHT has a direct effect on performance of RHT as it leads to poor performance or complete non-performance. Lack of training/education on RHT also makes the health-worker unable to educate the patients on RHT which in turn leads to poor patients' knowledge of RHT and therefore RHT not being done. Lack of training/education on RHT also

leads to the failure of health-workers to deal with issues of age which later lead to poor performance of RHT. Lack of training on RHT also causes poor allocation of resources and this in-turn leads to RHT not being done. Lack of human rights knowledge by health-workers makes them fail to deal with issues of age which leads to RHT not being done. Lack of accountability also leads to lack of training because no one becomes accountable to organize training if there are issues related to training that need to be attended to. This is the meaning gained from the Concept Map above and hence the findings of the study.

#### **4.4: Member Checking**

Participants agreed with the findings of the study in their entirety and tended to give further examples that supported the issues reported in the findings. However, one participant suggested that it may not be true that there is no supervision as there were supervisors or focal persons of the RHT program. The participant gave at-least a number of names identified with the program that included one who was transferred to another facility. However, the other participants countered this suggestion by stating that those supervisors could not put their full focus on the program that they usually cited involvement with other duties as a reason not to be fully functional on the RHT program:

“They do it as part-time”, was how one participant put it.

The participant then related this to the finding of ‘workload’ cited in the results and used the argument as further support of the findings. The participant who raised the issue of the presence of supervisors also mentioned that it might not be true that RHT registers are insecurely kept because the participant knew that registers were kept in a cabinet after use at the end of the day. Again the other participants contradicted this saying that was the ideal but the reality was not like that. Another participant even wondered how registers might be under lock at night since during the night patients still came to the hospital and were still supposed to be offered the RHT.

#### **4.5: Inductive analysis of The Porter-Lawler Theory of Motivation**

According to Certo & Certo (2012), The Porter-Lawler Theory improves on The Vroom Expectancy Theory and The Needs Goal Theory which states that the motivation to perform a task is the felt need and the need to accomplish a task is determined by the perception of the value of the reward weighted against the chance that reward will be reaped.

According to the above findings, we will examine this basic assumption first: Health-workers did see the need to do the task of RHT when there was a reward system that is called PBRs. As noted RHT performance increased when there was PBRs. PBRs is performance based reward system that is used in Thamaga Primary Hospital to recommend health-workers for promotion and further training depending on their achievement of goals set by themselves together with their managers. There was an undoubted increase in performance of RHT when this reward system was present. This was cited by participants as stated in their own words:

“I think we are doing it for PDP (PBRs)”

The prospect of a promotion is obviously seen as a very valuable motivator. When weighed against the chance that the promotion will be reaped, the prospect of such a promotion may be small and but if your name is not submitted to the Ministry Headquarters, chances of promotion are almost non-existent. From participant discussions, no one wants to be in such a precarious situation. Against this background, health-workers would rather perform the RHT than completely miss out on the promotion. They do find the need to do it, if it's in their PBRs.

The Porter- Lawler Theory of Motivation adds to this basic theory three more characteristics which we also examine with the findings:

1. The Porter –Lawler Theory breaks this reward into two components, the extrinsic one which is satisfied by the rewards such as described above: promotion and further training. The other component is the intrinsic satisfaction. While most participants did not see a direct benefit to them when RHT was offered to the patient evidenced by statements: “I think the patient is the one that is benefitting. I don't see anything I can benefit by offering someone RHT.” Others seemed to get professional satisfaction evidenced by statements like: “Of-course you will (have) self-satisfaction that you did your job properly at the end of the day. That's it.” “To you there will be no benefits except you will be happy to know that somebody didn't go to the late stage. You have fulfilled your task. In conclusion, while the intrinsic satisfaction was evident, it was not considered very important.
2. The extent to which a task will be accomplished is determined by an individual's perception of what is to be done and the individual's own ability to perform the task as

cited by Certo & Certo (2012): This characteristic is easy to relate with the findings of this study because human rights and workload issues seem to cloud the perceptions of health-workers on their ability to accomplish RHT. Examples of human rights applicable here are fear that they will insult patient by offering RHT, fear of lack of confidentiality (registers lying around) and privacy (space) in the hospital. Workload issues are perception of having no time for RHT and perceptions of having too much work and too much documentation that deters them from doing RHT. These issues give health-workers the perception that a task might be difficult to accomplish and indeed, they end up giving up as noted in the findings above.

3. Certo & Certo (2012) citing the Porter-Lawler Theory advances that: “The perceived fairness of the rewards influences the amount of satisfaction perceived by those rewards”. This is evident in the accountability and workload issues cited in the findings. Elicited in the accountability factors are such issues as inter-cadre and intra-cadre shifting of responsibility and blame of each other for doing less. Statements such as “inconsistency about RHT. Others do others don’t. It’s matter of accountability. Other cadres don’t know protocol” support this characteristic.

In summary, while the characteristic number one is weakly supported by the findings, the rest of the findings support and conform to The Porter-Lawler Theory of Motivation.

## **Chapter 5: Discussion**

Health-workers in Thamaga Primary Hospital do not follow the RHT protocol fully as the Ministry of Health expects them to. The results in this study corroborate findings by Plost et al (2007) that practitioners do not comply with evidence based protocols despite stressing the importance of them and despite education. While not all health-workers are trained in RHT in the hospital, even those that are trained do not follow the RHT protocol.

Weiser et al (2006) cited human rights, informed consent and violence against women as the concerns that might hamper RHT in Botswana. This study corroborates these findings on the first two aspects but fails to elicit and validate the aspect of violence against women. Perhaps the methodology of the study which approaches the inquiry from the health-worker perspective contributes to the failure to elicit this factor. These findings are in contradiction with the findings by Moazzam et al (2010) which showed that low uptake to routine HIV testing was because patients declined the test. As shown in this study, health-workers are bound not to offer RHT in the first place; well before a patient can decline the test.

The findings by Bokhour et al (2009) in the USA that signing informed consent and pretest counseling were a barrier to RHT may now need revisiting because even after the removal of the signing of the informed consent and getting rid of the pretest counseling in Botswana, informed consent issues are still at play.

Findings by Burke et al as cited by Valenti (2009) that informed consent, competing priorities, and fear to offend the client are factors that affect RHT application are largely corroborated by this study differing only in their emphasis. Informed consent alone constitutes a small portion of the human rights issues that affect application of RHT protocol in Thamaga Primary Hospital and an even smaller portion (5.6%) when all factors that affect RHT are examined. The same could be said about the fear to offend the client. The findings also corroborate competing priorities (presented in this study as “time issues”) as an influence of performance of RHT although its importance is also down-played at 5.6%. However, this study did not find poor reimbursement cited by Burke et al as one of the factors that affects application of RHT. Perhaps this was because this study was conducted in a public rather than in a private setting.

The finding that patient factors such as patients' age and patients' knowledge only accounted for 2.8% and 2.2% respectively indirectly validates the findings by Weiser et al (2006) that acceptability of RHT in Botswana is high at more than 81%.

The finding that resources accounted for 3.6% of factors that influence application of RHT in Thamaga Primary Hospital vindicate Walensky et al (2011) that RHT had a favorable cost-effectiveness though this conclusion can only be inferred loosely.

These results while in agreement with some areas of findings by Anderson et al (2011) that providers' perceptions about patients' risk and location and practice types are influential in providers' decision to perform routine HIV testing, they differ by importance that are attached to these factors. This study found that each of the factors cited above are only branches of major root causes of health-workers' under-fulfillment of RHT protocols.

This study unlike the findings by Anderson et al (2011) has found that perceptions are probably related to lack of knowledge of health-workers understanding of human rights issues of informed consent, stigma and discrimination and confidentiality or their inability to deal with either of these. Issues of practice type were related to workload issues that arise when personnel in one department perform tasks that are not deemed not be their responsibility. This study did not assess different locations regarding state laws and applicability of RHT, so the results cannot be compared in that perspective with those of Anderson et al (2011). However what is in contrast to the findings of Anderson et al (2011) is the finding that accountability issues are the major factor that influence of RHT in Thamaga Primary Hospital but are noticeably absent from the findings of Anderson et al (2011). This gross discrepancy in finding may be due to two possible reasons:

1. The differences in methodology.
2. The difference in the settings of the study.

It would be good to resolve this discrepancy by using studies that use the different methodologies in the two settings or both methodologies in both settings. It should also be noted that because of the limitations of qualitative studies, the findings of this study may indeed not be replicated in other settings other than those of Thamaga Primary Hospital. Therefore the exercise suggested here is not to prove or disapprove these results of any of the two studies but rather to see how the results would differ or by chance how they would be similar.



The Department of Health of Ghana (2013) is vindicated by this study when it states that training and availing skills to health-workers alone is not adequate but simultaneously appraising health-workers of progress made at the same time rewarding them or taking remedial action is what is paramount.

Christensen et al (2011) states that qualitative studies help shed more light on particular phenomenon, than just provide answers to how many or what. While as stated above, Weiser et al (2006) had previously expressed concern that some of the factors like human rights issues that have been elicited by this study might be the challenge to Routine HIV Testing, this study being a lived experience of health-workers has helped shed more light on those factors.

As shown by this study, The Porter-Lawler Theory of Motivation cited by Certo & Certo (2012) could also be used in explaining these findings meaning that where little is known about health-workers' non-compliance with standing protocols, perhaps it could be used as an inductive framework to understand the factors that underlie such phenomena.

## **Chapter 6: Recommendations**

### **6.1: Recommendations for Improvement of RHT Application**

This study has shown that there is a lot of cloud of doubt hanging above issues related to RHT application that probably stem from poor understanding of human rights issues and poor understanding of the protocol itself. The issues that confuse or disturb health-workers are issues of confidentiality, stigma and discrimination and issues of informed consent. The relationship of these issues and how they apply to the protocol are a matter of conflict in health-workers' minds. There is no clarity in this area.

Information needs to be availed to all health-workers through adequate training and probably training of the importance of sufficient documentation. While the status quo remains, a lot of uncertainty and lack of knowledge leads into unaccountability of health-workers that comes in the form of lack of ownership and responsibility and poor documentation that in the end paralyze the program.

As seen from findings of The Department of Health of Ghana (2013), training alone will not be enough but simultaneous implementation of simple and proven accountability strategies and tools like PBRS/PDPs that enhance RHT performance to all relevant health-workers will go a long way in achieving desired results as will commitment in ensuring that programs are included in annual plans (PDPs), monitored and influenced through analysis, feedback, appraised and timely corrective measures taken right from the very top of each hierarchy to the bottom.

### **6.2: Recommendations for Further Research**

This study has shed light on factors that affect health-workers in their application of RHT however it has not done the same on factors that affect patients' acceptability of RHT. Success in the full application of RHT by health-workers will go a long way into achieving prevention and treatment of HIV/AIDS in the community around of Thamaga Primary Hospital. However, success in the full application of RHT will not guarantee 100% routine testing of patients that come to the hospital. Patients still decline tests when they are offered the test. This fact is corroborated by studies by Weiser et al (2006) which indicate that acceptability of RHT in Botswana is at 81% and Moazzam et al (2010) who suggested that low testing rates of HIV testing in antenatal clients was because patients declined the tests. Weiser et al (2006) went on to

suggest that among the factors that may affect RHT, violence against women may be another hindrance to RHT.

A qualitative study involving clients who have declined the HIV test would therefore perhaps shed more light into the issue of violence against women. Indeed from a neutral point of view, this would shed more light into issues of gender based violence or from an even more neutral point of view; this would shed more light on partner based violence. A specific study would be to interview women who decline HIV tests and find out the factors that make them decline the test. Other specific studies would be to interview partners of men who have sex with men who decline HIV tests.

Another study relevant to this study's findings would be to find out the effectiveness of RHT training programs in changing health-workers' negative approach to RHT protocol application and their effectiveness in changing their understanding of human rights issues. Relevant to this study but not limited to HIV would be to study the feasibility of indiscriminate application to health-workers of accountability tools like PBRS/PDPS in essential evidence based protocols or programs application.

### **6.3 Conclusion**

This study has shown that accountability is by far the main factor that influences health-workers' application of RHT in Thamaga Primary Hospital. The other major factors that affect RHT application in the hospital are knowledge of RHT and human rights which carry almost the same weight in influencing the application of RHT. Factors that affect RHT at varying degrees but far less than the above factors and in-order of their importance from the most to the least are workload, resources, patients' age and patients' knowledge. All these factors are interrelated and are applicable to The Porter-Lawler Theory of Motivation. Training in RHT and human rights related to RHT, with simultaneous application of accountability enhancing strategies like PBRS/PDPs will improve RHT application.

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## Appendices

### Appendix 1: Semi-structured Questionnaire

#### Semi-structured questionnaire

1. How do you define RHT? What has been the most difficult problem with RHT that you have noticed? Do you think patients and health-workers view RHT differently, if so how? Do health-workers apply RHT differently, if so how? Do different cadres of health-workers treat RHT differently? Do health-workers of different work experience treat RHT differently? Have you seen problems in health-workers applying RHT if so how? And what happens?
2. Do you see barriers in implementation of RHT? What are the barriers? Do you see things that facilitate application of RHT? What are they? Do you see issues related to solving problems related to RHT? What are these issues?
3. Do health-workers treat RHT protocols the same as they treat other protocols? If not, why not? Do supervisors at different levels treat RHT in the same way? Have your supervisors discussed sanctions against non-compliance with RHT protocol, if so what sanctions, if not why not? 4. Do health-workers at different scales or positions treat RHT differently? How? Are there benefits that the health-worker or the hospital or the community gets from applying RHT? What sort of conflicts of interests if any, do the health-workers meet in applying RHT if any?
5. So far, what progress has been made towards RHT in the hospital? What recommendations can you make regarding the issues you made to make RHT application better in Thamaga?
6. Are there any more issues about RHT you would like to raise?

Additional follow-up questions will be asked appropriately.

## Appendix 2: Consent Form



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jou kennisvennoot • your knowledge partner

CONSENT TO PARTICIPATE IN  
RESEARCH

### **An analysis of factors affecting health-workers' application of the Routine HIV Testing (RHT) protocol**

You are asked to participate in a research study conducted by Joe Theu, MBBS, PDM, from the African Centre for HIV/AIDS Management at Stellenbosch University in South Africa. The results of this study will contribute to the investigator's research paper in completion of a Master's Degree in Philosophy in HIV Management. You were selected as a possible participant in this study because being a health-worker you have first-hand experience in the application of the RHT to clients in Thamaga Primary Hospital.

#### 1. PURPOSE OF THE STUDY

The purpose of this study is to identify the factors affecting the health-workers application of the RHT Protocol in-order to provide guidelines for improving the RHT service.

#### 2. PROCEDURES

If you volunteer to participate in this study, we would ask you to do the following things:

You Need to:

Participate in a group discussion of about 6 people talking about Routine HIV and Testing (RHT) issues for about 30 minutes to 60 minutes or you may be in a one on one discussion with the investigator. The discussion will be guided by the investigator but you will be free to speak your mind. The discussion will be recorded through the use of a pen and paper but if you accept, the discussion may be recorded on tape to enable the investigator not to miss any points when analyzing the discussion.

Security of the Records



Whatever method that will be used during the discussion, the discussion will be stored under lock and key only accessible to the investigator. Upon completion of the study analysis, the discussion notes and any voice recordings will be kept for about a year and then destroyed.

#### Location of the Discussion

The discussion will be conducted around the hospital in a room mutually agreed upon by all the participants. The room will have to have privacy and be secure from interruptions.

### 3. POTENTIAL RISKS AND DISCOMFORTS

There are no physical risks in participating in this study because you will not be subjected to any experiments and the discussions will be held in a safe and secure environment within your own workplace. Psychological risks will be at a minimum because this topic will not require you to talk about your personal life. However, should some issues arise that become stressful or bring about emotions, an arrangement will be made for you to see a psychologist at the nearest health facility in the shortest possible time. The Psychologist will be accessed after arrangement at Scottish Livingstone Hospital less than 30km away, Tel: 5908000

### 4. POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

There are no direct benefits from participating in this study. However, this study will contribute to the better understanding of the application of RHT in this facility and in similar health facilities in Botswana and elsewhere. Understanding RHT and its application will enable the community to get better access to the service and therefore reduce illness and death that result from the delay in accessing HIV testing and counseling.

### 5. PAYMENT FOR PARTICIPATION

There is no payment for participation in the study.

### 6. CONFIDENTIALITY

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required

by law. Confidentiality will be maintained by means of non-usage of names. Whatever method that will be used during the discussion, the discussion records will be stored under lock and key only accessible to the investigator in the investigator's office. Upon completion of the study analysis, the discussion notes and any voice recordings will be kept for about a year and then destroyed. The records will only be kept for the stated period in case Stellenbosch University requires some verification of the findings. No one else can have access to the recordings.

During publication of the study, no names of individuals or statements that may identify the participant will be published. This level of confidentiality will ensure that any statements you make that are critical of your superiors or colleagues will not be shared. You are also free to keep any identifiers of people unclear such as not using your colleagues' or supervisors' names during the interview. This will ensure that your job is not jeopardized.

## 7. PARTICIPATION AND WITHDRAWAL

You can choose whether to be in this study or not. If you volunteer to be in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may withdraw you from this research if circumstances arise which warrant doing so. Such situations include threatening other participants' confidentiality and psychological and physical wellbeing.

## 8. IDENTIFICATION OF INVESTIGATORS

If you have any questions or concerns about the research, please feel free to contact the investigator Joe Theu at Thamaga Primary Hospital, P/B 4, Thamaga, Botswana. Telephone numbers: cell: +26772481800/land: +2675999250 or his supervisor Greg Munro at - +2783629520/ email: [greg@sybaweb.co.za](mailto:greg@sybaweb.co.za)

## 9. RIGHTS OF RESEARCH SUBJECTS

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study. If you have questions regarding your rights as a research subject, contact Ms. Maléne Fouché [[mfouche@sun.ac.za](mailto:mfouche@sun.ac.za); +2721 808 4622] at the Division for Research Development at the

University of Stellenbosch in South Africa, or The Director, Ministry of Health of Botswana HIV Department at +2673632500.

**SIGNATURE OF RESEARCH SUBJECT OR LEGAL REPRESENTATIVE**

The information above was described to me-----by Joe Theu in English and I am in command of this language or it was satisfactorily translated to me by----- . I was given the opportunity to ask questions and these questions were answered to my satisfaction.

I hereby consent voluntarily to participate in this study. I have been given a copy of this form.

\_\_\_\_\_

Name of Subject/Participant

\_\_\_\_\_

Signature of Participant

Date

**SIGNATURE OF INVESTIGATOR**

I declare that I explained the information given in this document to \_\_\_\_\_ . He/she was encouraged and given ample time to ask me any questions. This conversation was conducted in English and no translator was used.

\_\_\_\_\_

\_\_\_\_\_

Signature of Investigator

Date

**Appendix 3: Letter of Permission to the Conduct Study from the Head of the Institution****SAVINGRAM**

**FROM:** Chief Medical Officer  
Thamaga Primary hospital

  
Dr J.M. Tshimbalanga

**TEL:** 5999520

**TO:** Dr Joe Theu  
Senior Medical Officer  
Thamaga Primary hospital

**REF:** 14<sup>th</sup> June 2013

**PERMIT : RESEARCH STUDY PROJECT IN THAMAGA  
PRIMARY HOSPITAL**

Reference is made to your request dated 7 June 2013 for permission to conduct a research project attached to your studies (Masters Degree in Philosophy in HIV/AIDS Management) on the topic of Routine HIV Testing and Counseling (RHT) by doing a situation analysis in Thamaga Primary Hospital.


**Permission is granted to conduct a research analysis of factors affecting health-workers application of the Routine HIV Testing (RHT) protocol valid for a period of 3 months, effective from 20 August, 2013.**

We note that this entails that this research project protocol has been submitted to The Health Research Unit (Ministry of Health) for review and appraisal. This will not give you authority to interview individuals without informed consent nor collect, reproduce, distribute any confidential data without prior approval from the hospital management.

Furthermore, we will request you to submit at least one hard copy and an electronic copy of your completed research study to The Hospital Management, Thamaga Primary Hospital for record purposes to the relevant authorities.

Thank you

## Appendix 4: Ministry of Health Ethics Approval

TELEPHONE: 363 2766 FAX: 391 0647 TELEGRAMS: RABONGAKA TELEX: 2818 CARE BD	 Republic of Botswana	MINISTRY OF HEALTH PRIVATE BAG 0038 GABORONE
<hr/>		
REF NO: PPME-13/18/1 Vol VIII (287)		25 November 2013
Health Research and Development Division		
Notification of IRB Review: New application		
Mr Joe Theu Private Bag 4 Thamaga		
<b>Protocol Title:</b>	<b>AN ANALYSIS OF FACTORS AFFECTING HEALTH-WORKERS' APPLICATION OF THE ROUTINE HIV TESTING AND COUNSELING (RHT) PROTOCOL</b>	
Protocol Sponsor:	N/A	
HRU Approval Date:	25 November 2013	
HRU Expiration Date:	25 November 2014	
HRU Review Type:	HRU reviewed	
HRU Review Determination:	Approved	
Risk Determination:	Minimal risk	
Dear Mr Theu		
Thank you for submitting a new application for the above referenced study. This approval includes the following:		
<ul style="list-style-type: none"><li>- Application form</li><li>- Proposal</li><li>- Data collection tools</li></ul>		
This permit does not however give you authority to collect data from the selected site without prior approval from the management. Consent from the identified individuals should be obtained at all times.		
The research should be conducted as outlined in the approved proposal. Any changes to the approved proposal must be submitted to the Health Research and Development Division in the Ministry of Health for consideration and approval.		
1		

Furthermore, you are requested to submit at least one hardcopy and an electronic copy of the report to the Health Research, Ministry of Health within 3 months of completion of the study. Copies should also be submitted to all other relevant authorities.

#### **Continuing Review**

In order to continue work on this study (including data analysis) beyond the expiry date, submit a Continuing Review Form for Approval at least three (3) months prior to the protocol's expiration date. The Continuing Review Form can be obtained from the Health Research Division Office (HRDD), Office No. 9A 10 or Ministry of Health website: [www.moh.gov.bw](http://www.moh.gov.bw) or can be requested via e-mail from Mr. Kgomotso Motlhanka, e-mail address: [kgmmotlhanka@gov.bw](mailto:kgmmotlhanka@gov.bw). As a courtesy, the HRDD will send you a reminder email about eight (8) weeks before the lapse date, but failure to receive it does not affect your responsibility to submit a timely Continuing Report form.

#### **Amendments**

During the approval period, if you propose any change to the protocol such as its funding source, recruiting materials, or consent documents, you must seek HRDC approval before implementing it. Please summarize the proposed change and the rationale for it in the amendment form available from the Health Research Division Office (HRDD), Office No. 7A 7 or Ministry of Health website: [www.moh.gov.bw](http://www.moh.gov.bw) or can be requested via e-mail from Mr. Kgomotso Motlhanka, e-mail address: [kgmmotlhanka@gov.bw](mailto:kgmmotlhanka@gov.bw). In addition submit three copies of an updated version of your original protocol application showing all proposed changes in bold or "track changes".

#### **Reporting**


Other events which must be reported promptly in writing to the HRDC include:

- Suspension or termination of the protocol by you or the grantor
- Unexpected problems involving risk to subjects or others
- Adverse events, including unanticipated or anticipated but severe physical harm to subjects.

If you have any questions please do not hesitate to contact Mr. P. Khulumani at [pkhulumani@gov.bw](mailto:pkhulumani@gov.bw), Tel +267-3914467 or Lemphi Moremi at [lamoremi@gov.bw](mailto:lamoremi@gov.bw) or Tel: +267-3632754

Thank you for your cooperation and your commitment to the protection of human subjects in research.

Yours sincerely



P. Khulumani  
**For Permanent Secretary**

