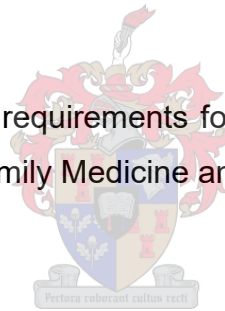


# **A STUDY OF FACTORS IN THE TREATMENT SUPPORT SYSTEM THAT CONTRIBUTE TO SUCCESSFUL HAART ADHERENCE AT TSHEPANG CLINIC**

BY

DR. LUBILANJI MBALA

Submitted as partial fulfillment of the requirements for the degree of Master in Family Medicine (M Fam Med) in the Department of Family Medicine and PHC at the University of Stellenbosch.



SUPERVISOR: JULIA BLITZ

Associate Professor

Division of Family medicine and primary care

Faculty of health sciences

Stellenbosch University

FACILITATOR: Mrs. NH MALETE

RN, RM, RCH (Psych).

Date submitted: July 2012

KEYWORDS: Adherence, Tshepang clinic, Buddy, Patients, Factors

## DECLARATION

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

December 2015

Copyright © 2012 Stellenbosch University  
All rights reserved

## **ACKNOWLEDGEMENTS**

My acknowledgements to the Almighty GOD who has been my strength and to all those who made the completion of this research possible

I sincerely thank Prof Julia Blitz and Mrs. Nomsa H. Malete for their assistance and the enormous contribution for the completion of this research.

I would like to thank my wife; Diana Mbala and my three children (Kenayah, Jonathan and Blessing) for their patience, the support and the sacrifice made throughout my study.

Thanks to my parents for boosting my morale when things were not easy.

Finally I would like to thank all the participants of this study and all the Tshepang clinic staff for their support and dedication.

Thank you all

## **A STUDY OF FACTORS IN THE TREATMENT SUPPORT SYSTEM THAT CONTRIBUTE TO SUCCESSFUL HAART ADHERENCE AT TSHEPANG CLINIC**

### **ABSTRACT**

**Background:** HIV/AIDS is a chronic disease for which no cure has been found yet. The only effective way to give a better life to the infected patients is to suppress their viral loads. The Highly Active Antiretroviral Treatment (HAART) is what we have so far in hand to achieve that goal. Adherence is crucial in managing our patients. In South-Africa, Tshepang clinic is one of the facilities which offer HAART.

**Objectives:** The aim of the study was to understand the relationship between patients adherent to HAART and their buddies in achieving successful adherence at Tshepang clinic. The objectives were to explore the views of adherent patients on ARVs about the role of their buddy and to describe the views of buddies of patients who are adherent to ARVs on their role as treatment supporters.

**Methods:** A qualitative study using focus group was the method of data collection. The discussions were conducted both in English and in local languages. The discussions were audio and video recorded. 22 participants divided in 2 groups of patients adherent to HAART and 2 groups of their buddies were selected.

**Results:** All respondents were aware that the buddy's fundamental knowledge on HIV topics was important in improving adherence. The buddy should be aware of the expected benefits of HAART. Disclosure of the HIV status was a key element in the management of HIV/AIDS despite the barriers and the buddy was expected to assist the patient in that regard. The buddy should be trustworthy and capable of complying with the need for confidentiality. Mutual respect and good communication between the buddy and the patient were to be encouraged. A buddy is expected to take the patient through the process of acceptance of the HIV status even in cases where the patient has started HAART but is still in denial. The mindset of the buddy and the patient is the foundation on which every strategy should be built. Buddies of patients with other co-morbidities

should be allowed to collect medications on their behalf. The buddies should take an interest in the life style and behaviors of patients.

**Conclusion:** The 13 themes generated from the respondents were well known in our health facility but they have not been addressed deeply. The findings of this study can be applied at Tshepang clinic in order to help achieving the goals of the antiretroviral therapy.

## INTRODUCTION

HIV/AIDS is a chronic disease for which no cure has been found yet. In 2009 the United Nations Programme on HIV/AIDS (UNAIDS) estimated that over 33, 3 million people world-wide were living with HIV infection<sup>1</sup>. From the same source, South-Africa had:

- Number of people living with HIV: 5,600 000 (5,400,000-5,900,000)
- Adult age 15 to 49 prevalence rate 17, 8 %( 17, 2-18, 3%)
- Children age 0 to 14 living with HIV 330,000 (190,000-440,000)
- Deaths due to AIDS 310,000 (260,000 -390,000)
- Orphans due to AIDS age 0 to 17 years: 1,900,000 (1,600,000-2,400,000)

The only effective way to give a better life to the infected patients is to suppress their viral loads.<sup>2</sup> The Highly Active Antiretroviral treatment (HAART) is what we have in hand to achieve that goal. ARVs have been used since 1995 in the USA<sup>3</sup>.

In South-Africa, in the government sector the anti-retroviral therapy is offered to patients who meet the criteria of eligibility according to the national anti-retroviral guidelines which are<sup>4</sup>:

- The patient must be psychologically and physically ready to start the highly active anti-retroviral therapy.
- And the patient must have a CD4-count  $< 200$  cells/mm<sup>3</sup> or CD<sub>4</sub>  $> 200$  cells/mm<sup>3</sup> but with AIDS-defining illness as defined in the CDC 1993 AIDS case definition report and/or stage 4 WHO disease
- Patients with CD<sub>4</sub> count  $< 350$  diagnosed with Tuberculosis or pregnant.

- Disclosure of the status to a person who will serve as a treatment buddy is mandatory.

Tshepang clinic started the ARV programme in 2004. So far, about 10000 patients have been enrolled. Staff at the clinic ensures that all patients enrolled for HAART have a treatment buddy. Adherence to HAART is crucial in order to achieve the goals of the therapy<sup>4</sup>. Success requires a close to 100% compliance with therapy and regular follow-up, year in and year out. Measures were developed in order to achieve good adhere to HAART. The buddy system is one of them<sup>5</sup>. The issue of the support system and the necessity of disclosure of the HIV status should not be dissociated. They are many barriers against the breach of confidentiality. Nachegea J B et al have shown that patients who have disclosed their status adhere better to their treatment as compared to those who have not disclosed<sup>6</sup>.

The South-Africa guidelines 2010 developed some strategies in order to promote adherence<sup>7</sup>. Some of those strategies were: The whole clinic team needs to support adherence at all given points of intervention. The adherence counselors and ARV team have to spend time with the patients and to explain the disease. They have to explain to patients the goal of HAART and the need of adherence. They have to negotiate the treatment plan that the patient can understand and to which he /she can commit. The patient should be explained how he/she can avoid the adverse effects of the drugs and the drugs interactions. The use of the herbal medications and the over the counter preparations may cause complications when taken with the HAART. The home visit should be considered by the clinic staff to facilitate access to drugs and alcohol counseling, access to social welfare, emergency relief for nutritional support and to deal with the issue of disclosure. The clinic team should encourage the attendance and participation in a support group.

The ARV programme has defined some techniques to measure adherence to the drugs. These techniques comprise<sup>8</sup>:

-Pill count by the health team,

-Self reporting,

- The Centre for Adherence Support Evaluation (CASE) Adherence Index<sup>9</sup>

-Blood tests (monitoring of the CD4 and viral load).

Though the buddy system is an important aspect in the management of our patients, other researchers suggested other factors which should be all put together in order to achieve good adherence.<sup>10</sup> Some of these factors are the education of the HIV patients, the readiness for HAART, the information, the motivation, the affordability of the drugs, the simplicity of the regimen and the issue of disclosure to a third person<sup>11</sup>. Alcohol and substance abuse (addiction) and mental illness should not be omitted. The pill burden and the side effects of the drugs are to be strongly considered when dealing with the issue of adherence. Accessibility (time of operation and location of health facilities, availability of drugs), affordability (costs paid by patients), acceptability (socially acceptable types of services), efficiency (cost – benefit relation), effectiveness (end results achievement of the ARV programme) and equity (no discrimination) are also important factors in achieving good adherence.<sup>12</sup>

The researcher observed that the number of non-adherent patients to HAART was increasing at Tshepang clinic. Some were lost to follow-up and patients with ARV drug resistance were on the rise at Tshepang clinic. There was about 1000 non-adherent patients and more than 600 patients with regimen I drug resistance. This background information given above had motivated the researcher to conduct this study.

The aim of this study is to understand and explore the perceptions of the patients who are adherent to HAART and their buddies on the contributory factors of the support system to the success of the treatment.

## **ETHICAL CONSIDERATIONS**

Permission and approval to conduct the research was sought and obtained from the following authorities:

1. The Health Research Ethics Committee of the Department of Family Medicine at Stellenbosch University.
2. The George Mukhari Hospital superintendent
3. A written informed consent from each of the participants.
4. The in- charge at Tshepang clinic.

## **METHOD**

### **Study setting**

Tshepang clinic is an anti-retroviral (ARV) government clinic based in Dr George Mukhari hospital. It is located in the municipality of Tshwane, in the Gauteng Province. The population served comes from the surrounding areas: Ga-Rankuwa, Soshanguve, Rosslyn, Hebron, Pretoria north and Mabopane.

Dr George Mukhari hospital is a tertiary institution rendering health care services to more than 46766 patients per year with a maximum number of 1550 beds.

The study was conducted in the HIV clinic which is run from Monday to Friday by qualified medical officers and registrars supervised by an HIV specialist.

Stable patients on HAART are down referred to their local clinics.

### **Study design**

This study was a qualitative study. Focus group discussions were the method of data collection. This method was appropriate in obtaining relevant information on the topic. Since the aim of the study was to determine the reasons of good adherence at Tshepang clinic, patients not adherent to HAART were excluded from the study. It assisted the researcher to consider even the voice of the minority regarding the question discussed. Hoepfi M defines qualitative research as a type of research that produces findings not arrived at by means of statistical procedures or other means of quantification<sup>13</sup>. Greenhalgh defined qualitative study as a study that goes beyond numbers. It commonly employs interviewing and observation as methods and data is often text rather than numbers<sup>14</sup>

### **Study population**

The study population was the successful HIV patients (in terms of adherence) at Tshepang clinic who met the inclusion criteria and their buddies. These patients were between 18 to 60 years, with an adherence index of more than 10 according to the CASE<sup>9</sup>. They had also a drug refill score of more than 90%. Only participants who had given consent to participate in this study were included. Buddies of the selected HAART adherent patients were invited for the discussions.



Exclusion criteria were: The patients who had previously participated in such group discussions and no friends were allowed to be in the same group.

Purposive sampling was used for the selection of the participants. Participants were deliberately chosen based on; adherence to HAART, their knowledge on the HIV and related issues. A total number of 24 participants were initially selected. Only 22 participants showed up: 11 patients and 11 buddies. The data collected aimed in probing rich insight in order to understand the social phenomena rather than statistical information.

Ethical issues were duly complied with before the participants all signed consent forms jointly with the researcher.

### **Data collection**

The researcher team which comprised the researcher and the moderator conducted free attitude interviews for data collection in the language of choice of the respondents. The interviews were done during 2 different days. All interviews were video and tape recorded. These interviews were done at Tshepang clinic. The main language for the discussion was English though some participants were more interviewed in local languages (Setswana and IsiZulu). The discussion guide was not just a formal questionnaire. It covered the objectives which were rigorously specified. The discussion was not rigidly fixed. This guide allowed flexibility. The choice of days and times was convenient to all participants. Patients and buddies were not identified by their names but codes were used. This was to assure anonymity of reporting.

Mrs. NHM was the moderator. She is fluent with all south-african languages. She was helped by Mr. "B" for the verbatim transcription and translation of the interviews to English. All the interviews were transcribed verbatim as recommended by Pope C and Mays N<sup>15</sup>.

### **Analysis**

After completion of the data collection the researcher engaged in the following processes to analyze the data: Immersion and crystallization. Major themes and minor themes were identified and grouped into categories and finally into patterns. With the support of the transcribed raw data the researcher incorporated the notes which were taken during interviews.

## RESULTS

These are the factors in the buddy system which transpired from the interviews that contribute to successful HAART adherence.

### **1. Acknowledgement by the buddies and patients of the role of the buddy system in improving adherence to HAART.**

The most common theme that emerged from the study was acknowledgement of the importance of the role of the buddy system in improving adherence. Most of the respondents (both patients and buddies) were of the opinion that the buddy system was very important in improving adherence to HAART. Most of them suggested that the buddy should be involved from the first day when the patient tests positive. Patients spoke about some misconceptions in the community whereby when a patient is asked to choose a buddy, people think that he is about to die.

Some patients were of the opinion that patients without buddies were facing more challenges as regarding to adherence and to some other kind of support (psychological, emotional etc.)

### **2. The buddy should be trustworthy and able to stick to the rule of confidentiality.**

Talking of the buddy system, most of the respondents (both buddies and patients) emphasized on the issue of trust and confidentiality. Mutual trust (patient-buddy) is very important in the support system. One patient came up with this interesting statement: "A support structure is important because ultimately one cannot tell the whole world about his status. He can at least tell someone who is trustworthy." Trust and confidentiality cannot be dissociated from disclosure which will be discussed later.

### **3. Relationship between buddy and patient.**

#### **3.1. Buddy being a family member.**

The majority of the participants (patients and buddies) thought that the best model of support system was the family. Other participants were not of this view because of issues within families. For example, breadwinners who are HIV positive were facing difficulties in choosing their buddies within the family because of their position.

#### **3.2. A buddy being a sexual partner of the patient.**

Most of the respondents (patients and buddies) were of the opinion that the buddy should be someone very close to the patient e.g. spouse, boyfriends or girlfriends.3.3. HIV person as a buddy to another HIV patient.

Some buddies were also HIV patients. They spoke of a firm mutual support among them.

#### 3.4. Multiple buddies for a single patient

The idea of many buddies for a single patient was mentioned in improving adherence to HAART. Some respondents mentioned the issue of one buddy for more than one patient. This was challenging because of different issues encountered by patients.

#### **4. Buddy to be knowledgeable on HIV matters.**

All the participants shared that the buddies should be well informed on HIV topics. The best set-up where they could learn easily on HIV was the counseling sessions conducted at the clinics. These counseling sessions were supposed to be ongoing. Topics to be discussed were adherence, drug resistance, side effects, opportunistic diseases, lifestyle and behavior changes. One of the patients said that information should be provided by reliable sources.

#### **5. Buddy to assist patient to disclose their HIV status when necessary**

Most participants were of the opinion that disclosure of the HIV status to the supporter played a great role in treatment outcome and adherence to HAART. Some buddies helped the patients to disclose their status to certain institutions where lack of disclosure could lead to non-adherence to HAART. Some of these institutions were: Work places, boarding schools and in some relationships where one of the partner was still unable to disclose the status .To whom one should disclose his status? Some respondents found it easy and relevant to disclose to the close family members, others thought that family members should be out of the secret because of many reasons e.g. protecting family members who are sick or those who are psychological weak; avoiding those of the relatives who are not able to keep confidential some family matters. Most of the respondents concluded that we cannot talk about disclosure without mentioning the trust and the confidentiality which were already discussed.

#### **6. Mutual respect between patient and buddy.**

Respondents emphasized on the atmosphere of mutual respect between the patients and their buddies as one of the factors in favor of good adherence. Buddies who have respect for the

patients create a good environment for communication which helps a lot in monitoring the patients.

### **7. Buddy aware of the benefits of HAART**

Knowing the expected benefits of HAART has boosted many buddies to support efficiently patients in the ARV programme. These benefits can only be expected when adherence is at the maximum. All participants (buddies and patients) acknowledged that HAART has many benefits in our community. Some of the benefits were: decreased mortality in our patients, increased weight of almost every patient, reduced absenteeism at work. They agreed that patients should all be well prepared physically and psychologically before initiation. They also spoke about the side effects which are common but all were not life threatening. Occurrence of side effects does not mean that the patient has to stop the treatment.

### **8. Ability of the buddy to develop strategies to achieve good adherence.**

Patients and buddies were to come up with their own strategies to ensure continual communication and a proper adherence e.g. sms, call back...

### **9. Awareness of the lifestyle and social behavior of the patient by the buddy.**

All respondents were of the opinion that the role of a good buddy was to be aware of the social habits and lifestyle of the patient. The buddy was supposed to discourage the use of traditional medication, herbal drugs and over the counter pills. Alcohol abuse and the smoking habit more especially the use of recreational drugs were mentioned among the things that compromise the health and the adherence to HAART. Some buddies spoke of the use of condoms as part of the success in adherence. Buddies constitute the proper channel between the health team and the patients in order to address some social habits which are against good adherence.

### **10. Positive attitude of buddy.**

Buddies are supposed to motivate patients to stay optimistic throughout their journey with the HAART. Buddies were expected to stay strong while helping HIV patients. Most respondents think that a positive attitude contributes a lot in adherence to HAART. Counseling sessions were an appropriate forum to empower both buddies and patients before embarking in ARV programme.

### **11. Buddy's ability to create a support system at patient's work place.**

A buddy came with the issue of her patient who was spending most of the time far from home. She had difficulties to keep in touch with the patient. She finally got help when the patient disclosed his status to his boss who became the second buddy for the patient at the work place. In such case the buddy can liaise with some body (a co-worker or the employer of the patient) at the work place who can monitor the patient while away from home.

### **12. Intensive effort and commitment from buddies of HIV patients to help with co-morbidities**

Many respondents noticed that patients with co-morbidities were having a big challenge to adhere to their treatment. An example is of patients who were expected to be in different clinics the same week. In this case, the buddy had to play a big role to help the patient complying with the treatment. Some buddies had to collect medications on behalf of the patients.

### **13. Help of buddy to patient in achieving acceptance of HIV status and willingness to start HAART.**

Respondents (buddies and patients) mentioned the issue of denial. Some patients, even though they were on HAART, were in denial. These are patients who were started HAART because of the pressure from their relatives but they were not psychologically ready to be enrolled. Buddies of such patients were the most relevant persons to influence the decision making of the patients.

## **DISCUSSION**

This includes the discussion of the results and the limitations of the study.

### **Results**

The following are the discussions of the results which were corroborated with the literature reviewed

#### **1. Acknowledgement by the buddies and patients of the role of the buddy system in improving adherence to HAART.**

All the respondents were of the opinion that the buddy system was very important in improving adherence to HAART at Tshepang clinic. The question which was raised in the discussion was who is supposed to be a buddy to a patient. The majority of the respondents were of the idea that a buddy should be a family member where else the minority of the participants suggested that patients were supposed to get buddies outside their families. Few of the participants didn't see it as big matter. Some respondents mentioned that the all family could be a support system for the patients with HIV. Mary Lynn Hemphill in her article mentioned that the support system for people meeting the challenges of living with HIV provides social, educational and medical benefits<sup>16</sup>. In their article, Nachegea JB et al spoke about how highly important the treatment supporter was in improving adherence to antiretroviral therapy in HIV infected people in South-Africa<sup>12</sup>. This article identified that buddies were people who were a confidant and had moral authority on the patients. These people command respect, and patients allow them to influence health-related decision making, both of which are necessary if they are to be effective treatment supporters.

## **2. Buddy to be knowledgeable on HIV matters.**

The second commonest theme that emerged from this study was the importance of the information and the knowledge on HIV and related issues. The respondents emphasized on the role of counselors and counseling sessions in empowering patients and buddies on the HIV knowledge. Respondents were of the opinion that counseling sessions should be on-going for both the patients and the buddies. They emphasized that the information expected was not only on how to adhere to HAART but on the side effect, the behavioral change, the diet... Tulloch HE et al suggested that ongoing HIV education was needed for all patients regardless of their backgrounds and cultures<sup>17</sup>. Additional tailored and targeted educational interventions were needed to address important gaps in the knowledge among persons living with HIV. Servellen G et al highlight the importance of health literacy (i.e., understanding of basic health concepts) and its relationship to behavior, including medication-taking and health-seeking behavior, and health outcomes<sup>18</sup>. Kalichman and colleagues report that poor health literacy creates barriers to fully understanding one's illness and treatment needs, and is associated with poor adherence outcomes in patients on HAART<sup>19</sup>. Margaret A emphasized that knowledge of the regimen by the patients was necessary<sup>20</sup>. Before a patient can comply fully with their drug regimen, he must fully understand it.

### **3. Need for disclosure of the HIV status. The buddy should be trustworthy and able to stick to the rule of confidentiality.**

Disclosure of the HIV status was one of the important themes which emerged from the discussion. Respondents were of the opinion that lack of disclosure of the HIV status compromises adherence in many patients. Mannheimer SB et al consider the nondisclosure of HIV status as a ground for many issues when ART is initiated <sup>21</sup>. The benefits of disclosure were many. Respondents mentioned the immediate and lasting end to the depression and improvement of the psychological well-being especially if the response of the surrounding people is supportive. The issue of confidentiality and trust were highlighted. Respondents said that buddies should be trustworthy and were obliged to keep confidential the status of the patients. The buddies had to ensure that confidentiality is maintained to avoid stigmatization and discrimination. This could also lead to lack of compliance in some victimized patients. Some respondents emphasized on the need of disclosure saying that was not only beneficiary for the patient but also for the people living with the patients, namely the sexual partners and the relatives taking care of the patients. In support of what the respondents said Mills EJ et al reported the fear of disclosure as a big barrier to adherence in both the developed and developing countries <sup>22</sup>. Reasons for nondisclosure were mentioned. Some of them were the fear of rejection by a dear sexual partner, fear of hurting some vulnerable family members, fear of isolation by siblings and professional discrimination. Some respondents were concerned about the patients' right to privacy.

### **4. Relationship between buddy and patient.**

Opinions were divided among respondents. The majority of respondents believed that a buddy should be a family member while some respondents think that a patient should be given his free choice. Sexual partners were mentioned to be also a good model of support system.

### **5. Mutual respect between patient and buddy**

Mutual respect between patients and buddies was an important aspect in the relationship between buddy-patient. Patients were expecting respect from their treatment supporters despite the fact that they were in a position of weakness. The buddies were also expecting in return some consideration from the patients in order to maintain a good atmosphere which was important for a proper communication. Some participants mentioned that the communication

could be easier if the difference of age between the patient and the buddy was not that significant. Patient-centered approach was mentioned as an important attitude in the relationship between buddy and patient

## **6. Awareness of the benefits of HAART by the buddies**

The respondents were of the opinion that HAART gives more benefits to patients than disadvantages. Weighing the benefits versus the side effects of the ARV, most of the participants came to the conclusion that these benefits should be a booster to an adequate adherence to the treatment. Respondents mentioned the need of improving the ARV system. Talking about improvement of the ARV program, Simoni JM et al came up with intervention strategies which showed to be successful<sup>23</sup>. Some of these interventions were: One-on-one counseling method, the use of didactic information on HAART or interactive discussions addressing knowledge, motivations and expectations about taking HAART. Witnessing the positive effects of ART was one of the important facilitators of adherence mentioned by Mills et al.<sup>22</sup>. The goals of the South-african ARV program should be taught to patients and buddies in the counseling sessions.

## **7. Awareness of the lifestyle, health seeking behavior and social habits of the patient by the buddy**

Alcohol abuse, smoking and use of recreational drugs were mentioned by the respondents among factors contributing to a proper adherence to HAART. Issue of using traditional medications and herbal medication came also among the barriers to adherence to HAART. Mills EJ et al mentioned some of the habits and behaviors which constitute barriers to adherence<sup>22</sup>. These factors were: The concomitant substance abuse, forgetfulness, and suspicions about the treatment, work and family responsibility. All respondents incriminated alcohol consumption as one of the biggest barriers to ARV. The use of over-the-counters medications concomitantly with the antiretroviral therapy causes a lot of problems in some patients. Margaret A et al talking on how to improve adherence, spoke about taking into account the fact that most of these patients were also taking other substances e.g. appetite and libido boosters, herbal supplements, illicitly obtained opiates and marijuana<sup>20</sup>. In the same article Margaret A et al found that patients who used alcohol and recreational drugs were more likely to be non-compliant. The same authors recommended if these patients should be identified by their supporters and they should be referred to appropriate social services.



## **8. Positive attitude of buddies.**

Participants spoke about the psychological and emotional strength, the attitude of buddies and patients. Patients were to be responsible. Antiretroviral therapy should not be given by force but by informed choice. Respondents highlighted that compliance to HAART starts with the acceptance of the HIV status and the desire to continue living regardless of the status. Therefore the buddies have to be strong and positively influence the patients when they encounter difficulties.

The cornerstone of a good adherence to HAART is based on a strong positive attitude from both the buddy and the patient. All other factors mentioned in the study should be built on a solid psychological background of the patients and the buddies.

## **9. Buddy's ability to initiate a support system at patient's work place.**

A respondent came with the idea of extending the support system to the work. Some patients spend more time at work. It becomes difficult to the buddy to make a follow-up in that case. This brings the issue of the ways of communication between the patient and the buddy once one is away. Some patients had already disclosed their status to their employers who were already helping them in complying with the medications. Other patients were not of the idea of disclosing their status at the work place because of the attitude of some colleagues and employers towards HIV patients. The fear of losing the job is real and the respondents said that should not be undermined.

## **10. Ability of the buddy to develop strategies to achieve good adherence.**

Many strategies were mentioned by respondents as ways of keeping in touch. Sms and call backs were the most preferred by all the respondents. Other strategies mentioned were: The alarm set, the use of small container to carry medication when patients are not at home...

## **11. Challenge of co-morbidities**

Co-morbidity was another theme which emerged during the discussions. Respondents mentioned how difficult it was for the same person to visit 2 or 3 different clinics in less than a week. Patients with a co-morbidity were expected to comply with all the medications prescribed. The buddies were forced to learn not only on the HIV topics, also on all the diseases of their relatives. The drug interaction was a challenge for the patients and the buddies who are not qualified health

workers. Buddies were allowed to collect medications on behalf of patients in order to assure good compliance. Among those co-morbidities, tuberculosis, hypertension and diabetes were the most mentioned.

## **12. Help of buddy to a patient in accepting his status and willingness to start HAART.**

Acceptance of the HIV status and the willingness to start HAART were important themes discussed in the interviews. Denial is a serious issue in the community said one respondent. In fact denial of the status and the early refusal of testing were mentioned to be killers of our people living with HIV. Buddies were one of the corner stone in the HIV programme in helping patients to accept their status and to stick to their treatments.

## **Limitations of the study**

### **1. Sample size**

The non-showing up of 2 participants may have distorted the course of the interviews. However being a qualitative research, the emphasis was on the depth and not on the breadth.

### **2. Respondent bias**

Since the researcher had a working relationship with the interviewees that may have affected the contents of the interview. Most of the patients were well known by the researcher. Respondents could give comments and opinions in order to please the interviewer.

### **3. Language barriers**

Translation could have been affected by the free choice of the languages used by the respondents. Some data could have been lost during the process of translation. The cross checking information with the respondents was done to make sure that what was recorded reflected what was said.

## **CONCLUSION**

This study of factors in the treatment support system that contribute to successful HAART adherence at Tshepang clinic provided important information which should be considered. These

findings may be applied in order to improve adherence to HAART in patients who have failed and to prevent failure in patients who are doing well and those who are newly enrolled.

The researcher has learnt that all the factors mentioned in the study are costless and can be applied easily to all the buddies of our patients.

## **RECOMMENDATIONS**

The following recommendations are suggested as a result of this study

1. There should be regular training of buddies on HIV fundamental knowledge (Epidemiology, meaning of Cd4 count and viral load, HAART goals and side effects, adherence, treatment failure, life style of HIV patients...)
2. Disclosure of the status should be encouraged. Patients should be supported and assisted by the buddies through this arduous process.
3. Counseling sessions should be done at each visit for patients with adherence issues and their buddies.
4. Communication between the patient and the treatment supporter should be encouraged e.g. Phone call, sms, alarm set...
5. Unacceptable behavior should be identified early and addressed accordingly before initiation of HAART. Buddies should be able to identify those habits and report them to the health workers. This should be done out of love and respect for the patients.
6. Where applicable, a support system should be implemented for certain patients at their places of work.
7. Patients who are unable to identify buddies should be helped by the social workers.
8. Patients who are infected with the HIV should be encouraged to belong to a network in the community according to their catchment areas in order to alleviate the burden of the buddies.
9. Buddies of HIV patients who have other co-morbidities and who attend different clinics should be given a privilege to collect treatments at Tshepang clinic on behalf of these patients.

10. A same study should be conducted involving patients who are not adherent to their treatment in order to cover the all adherence issue at Tshepang clinic.

## REFERENCES

1. UNAIDS Update. Epidemiological Fact Sheet on HIV/AIDS – South Africa. 2008
2. Spencer DC. The Clinical Practice of HIV Medicine, A practical guide to the care of the HIV infected. Johannesburg: Goldstream Books; 2005.
3. Harries A, Maher D, Graham S. Direct observed treatment. In: Lee JW, editor. TB/HIV A Clinical Manual. 2nd ed. Geneva: World Health Organization; 2004. p. 45.
4. Simelela NP. National Antiretroviral Treatment Guidelines. Jacana, National Department of Health (South Africa): 2004.
5. The American Heritage Dictionary of English language.4<sup>th</sup> Edition copyright 2000.Houghton Mifflin Company. Updated in 2009
6. Nachega JB, Knowlton AR, Deluca A, Schoeman JH, Watkinson L, Efron A, et al. Treatment Supporter to Improve Adherence to Antiretroviral Therapy in HIV-Infected South African. Lippincott Williams & Wilkins Inc. 2006 December 1; 43 Suppl 1: 127-33.
7. Clinical guidelines for the management of HIV and AIDS in Adults and adolescents National department of health South-Africa 2010.
8. Bartlett JG, Gallant JE. Medical Management of HIV Infection. 2nd ed. Baltimore, Maryland: Johns Hopkins University, Division of infectious Diseases and AIDS Service; 2003
9. Mannheimer SB, Mukherjee, Hirschhorn LR, Dougherty J, Celano SA, Ciccarone D, et al. The CASE adherence index: A novel method for measuring adherence to antiretroviral therapy. AIDS Care Oct 2006; 18(7): 853-61.
10. Gerald H, Friedland and Laurie A. Adherence to antiretroviral therapy. AIDS program, division of infectious diseases, Department of internal medicine, Yale University School of Medicine, New Haven, Connecticut USA. 2001 September. AIDS Rev 2001; 3.p.5.

11. Nachega JB, Stein DM, ALehman D, Hlatshwayao D, Mothopeng R, Chaisson RE, et al. HIV/AIDS and antiretroviral treatment knowledge, attitudes, beliefs and practices in HIV infected adults in Soweto, South Africa. *Journal of Acquired Immune Deficiency Syndrome* 2005; 38:196-201.
12. Nachega JB, Stein DM, ALehman D, Hlatshwayao D, Mothopeng R, Chaisson RE, et al. Adherence to the antiretroviral therapy in HIV infected adults in Soweto, South Africa. *AIDS Research and Human retroviruses* 2004; 20(10):1053-6.
13. Hoepfi M. Choosing Qualitative Research: A primer for Technology Education Researchers.JTE. [Serial on internet].1997; [modified 2011 May 04]; 9(1) [1 screen].Available from: <http://Scholar.lib.vt.edu/ejournals/JTE/V9n1/Hoepfi.html>
14. Greenhalgh T. How to read paper: Papers that go beyond numbers (qualitative research).*BMJ*. [Serial on internet].1997September 20; 315.7110.740.Available from <http://www.bmj.com/contact/315/7110/740.full>
15. Pope C. and Mays N. Qualitative research: Researching the parts other methods cannot reach: Introduction to qualitative methods in health and health services research. *BMJ* 1995; 311:42-45.
16. Hemphill ML; Support groups: Tools for living well. *Survival News*.2004 March/April .15(2):6-2.
17. Tulloch HE ;Balfour L;Kowal J;Tasca GA;Angel JB;Garber G et al :HIV Knowledge among Canadian-born and Sub-Saharan African-born patients living with HIV;Jimmigr *MirrorHealth*.2012 Feb.14:132-9.
18. Servellen G;Nyamathi A;Carpio F;Pearce D;Teague LG;Herrera G et al.Effects of a treatment adherence enhancement program on health literacy; Patient-Provider relationships and adherence to HAART among low income HIV positive Spanish-speaking latines.*AIDS patient care and STDs*.November 2005,11.19(11):745-759.
19. Kalichman SC;Cherry C;White D;Jones M and Kalichman M.The Achilles' heel of HIV treatment for prevention: History of sexually transmitted co-infections among people living with HIV/AIDS receiving Antiretroviral therapies.*JIAPAC*.November/December 2011;10(6):365-372.

20. Margaret A. Compliance: How Physicians can help.HIV Newslite. [Serial on internet].1997 June .Available from: <http://hivinsite.ucsf.edu/hiv?page=md-kbr-03-02-09>
21. Mannheimer SB, Morse E, Matts JP et al. Sustained benefit from a long-term antiretroviral adherence intervention: results of a large randomized clinical trial.J Acquir immune defic Syndr 2006 Dec 1; 43 Suppl 1:S41-S47.
22. Mills EJ, Nachega JB, Bangsberg DR,Singh S,Rachilis B,Wilson K et al.Adherence to HAART:A systematic Review of Developed and Developing Nation Patient-Reported Barriers and Facilitators.PloS Med.2006 Nov;3(11):e438
23. Simoni JM; Amico KR; Smith L and Nelson K .Antiretroviral adherence interventions: Translating research findings to the real world clinic.Curr HIV/AIDS Rep.2010 Feb; 7(1):44-51.