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Masters Thesis

**The implementation and evaluation of a psychological
well-being intervention for people living with HIV and
AIDS**

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Psychology at the University of KwaZulu-Natal.

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Unless specifically indicated to the contrary, this thesis is the result of my own work

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ABSTRACT

The HIV and AIDS epidemic is having a devastating effect on the mental health of people living with HIV and AIDS (PLWHA), who join support groups to receive support and empowerment. However these support groups are often unstructured, sporadically attended and lacking in social cohesion. The purpose of this research was to design, implement and evaluate a psychological well-being intervention for PLWHA. The intervention was based on and measured with an objective psychological well-being scale, which included dimensions of autonomy, personal growth, environmental mastery, purpose in life, positive relations with others and self-acceptance. Following establishment of experimental and control groups, six-week interventions with weekly sessions were run during which participants took turns to lead group presentations on the improvement of a previously chosen component of psychological well-being. The six-week interventions as well as individual sessions were pre and post-tested. Qualitative and quantitative evaluation revealed that participants generally found the psychological well-being intervention meaningful and valuable in its provision of knowledge, learning, understanding and empowerment. Further research with an extended intervention program, regular attendance, larger samples of participants, and comparative evaluations of physical, biological, social and environmental factors is needed in order to more clearly establish the effectiveness of psychological well-being interventions for PLWHA.

CHAPTER ONE: INTRODUCTION

1.1. Introduction

This chapter serves as an introduction to the overwhelming effect of the HIV and AIDS epidemic on the world and in particular southern Africa. It also provides a motivation for the study.

1.2. The HIV and AIDS pandemic with special reference to Southern Africa

Over the last two decades the Human Immunodeficiency Virus (HIV)/Acquired Immune Deficiency Syndrome (AIDS) has had a devastating effect on the world's population and specifically on humanity in southern Africa (Van Dyk, 2004).

Since HIV and AIDS was discovered, in excess of 20 million people have died of complications relating to the disease (UNICEF, UNSAID & UNAIDS, 2002). It is estimated that there are currently thirty-eight million people living with HIV and AIDS (PLWHA) worldwide and of these thirty eight million, twenty-three million are living in southern Africa (UNAIDS, 2004). In southern Africa one thousand people are infected with HIV and six hundred people die of AIDS daily (UNAIDS, 2004; Van Dyk, 2004). The virus does not only affect adults. There are 3 million children under the age of 15 living with HIV, with more than 13 million children under the age of 15 having lost one

or two parents through HIV and AIDS and this number will increase to 25 million by 2010 (UNICEF & USAID, 2000; Wild, 2001).

1.3. The management of HIV and AIDS

Extensive research is conducted yearly on HIV and AIDS. However despite the vast amount of research, there is currently no comprehensive cure for the disease (Slack, Lindegger, Vardas, Richter, Strode & Wassenaar, 2000). This is because unlike other potentially terminal illnesses the HI virus mutates inside the human body so the virus itself cannot be isolated. During an HIV test it is the number of antibodies in the individual's immune system that are tested and not the HI virus (Van Dyk, 2004).

The use of antiretroviral treatment (ARV's) began in the 1980's (Siegel, Karus, Epstein & Ravels, 1996). There are now various classes of ARV's that include nucleoside reverse transcriptase inhibitors, non-nucleoside reverse transcriptase inhibitors, fusion inhibitors and protease inhibitors. In these various classes of drugs are specific treatments such as Zidovudine (AZT).

ARV's slow down the immune deficiency process and prolong the lives of PLWHA where available (Freeman, 2004; Van Dyk, 2004). Once individuals have started using ARV's they must use the drug for the rest of their lives. Until recently the treatment was very expensive and was not accessible to most PLWHA in South Africa. ARV's are now being provided free of charge from some southern African clinics and hospitals, however

many people are still unable to acquire the treatment. There is also a lack of general medical treatment for diseases, which lower the immune system of PLWHA (Barnett & Whiteside, 2002; Dorrington & Johnson, 2002; Susser & Stein, 2004).

1.4. Motivation for the present research

Compounding the lack of available treatment and cure are the many psychosocial factors that impact on psychological well-being. In 1946, the World Health Organisation defined health as not only the absence of illness but as a complete state of mental, physical and social well-being (WHO, 1946). Mental health promotion is distinguishable but inseparable from general health promotion (Tannahill, 2000). The concept of mental health promotion is shifting from the old pathology paradigm to a new positively orientated psychological well-being paradigm (Wissing & van Eeden, 1998). However despite this push towards positive living generally there still appears to be much more of a focus on illness components rather than positive aspects of health (MacLeod & Moore, 2000).

While it is of utmost importance to find a cure for the HI virus it is also essential not to negate the psychological effects, which the disease is having on the mental health of the millions of PLWHA. The purpose of this research was not to focus on disease aspects of HIV and AIDS but on positive aspects of being mentally healthy while living with the disease. The aim was to design, implement and evaluate a psychological wellbeing intervention for people living with HIV and AIDS.

1.5. Résumé

This chapter served as an introduction and motivation for the study. The next chapter will entail a review of previous literature on this area of study.

CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

This chapter reviews the psychological impact of HIV and AIDS, psychological well-being of PLWHA, improving psychological well-being with special reference to HIV and AIDS, HIV and AIDS support groups and empowerment.

2.2. Psychological impact of HIV and AIDS

PLWHA are at a greater risk for developing mental disorders than individuals not infected with the disease (Swartz, de la Rey & Duncan, 2004). From the moment an individual is diagnosed with HIV, the effects of the disease have an impact on mental health. There are various moderating and mediating variables which influence these psychological effects on mental health. These include the person's health status, understanding of the disease and social support (Kelley & St. Lawrence, 1988). However even if these factors are in place, HIV and AIDS can result in mental illness.

PLWHA may misinterpret and report having disease symptoms (Kelley & St. Lawrence, 1988). HIV and AIDS can therefore result in conversion symptoms due to negative thought patterns that are caused by the disease. AIDS also has a direct effect on the central nervous system, leading to the development of neurological symptoms and syndromes such as AIDS dementia, which affect memory, motor coordination and

irritability, resulting in confusion and severe deterioration over time (American Psychiatric Association, 2000; Sadock & Sadock, 2003).

HIV and AIDS can also result in major depression, anxiety, manic episodes as well as personality disorders (Freeman, 2004). The isolation that PLWHA experience due to stigmatization, may result in depressed feelings (Tsao, Dobalian, Moreau & Dobalian, 2004; Wagner, Ferrando & Rabkin, 2000). Anxiety and depression are common when physiological effects of the disease begin to be felt (Kelley & St. Lawrence, 1988; Wagner, Ferrando & Rabkin, 2000). PLWHA also often anticipate negative effects and therefore develop a self-fulfilling prophecy, which in turn contributes to depression (Kelley & St. Lawrence, 1988). PLWHA may become anxious about dying and are afraid of who will take care of the children (Swartz, de la Rey & Duncan, 2004; Tsao, Dobalian, Moreau & Dobalian, 2004). HIV and AIDS can also result in antisocial and borderline personality disorders (Freeman, 2004).

2.3. Psychological well-being of PLWHA

Recent years have heralded a paradigm shift from a relatively more illness oriented conception of mental health to greater emphasis on psychological well-being (Wissing & van Eeden, 1998). PLWHA may have specific difficulty in accepting their HIV and AIDS status, being positive towards the future, realizing life goals, mastering situations and maintaining positive relationships with others, factors that have been found to be

important components of psychological well-being (Jahoda, 1958; Department of Health, 2000; Ryff, 1989).

2.3.1. Concept of psychological well-being

The early understandings of psychological well-being were formed around the Greek word '*eudemonia*' which was translated as 'happiness' (Ryff, 1989). This resulted in early research being mainly concerned with experiences of positive and negative affect, subjective well-being and life satisfaction. Many early scales, such as Diener's satisfaction with life scale on which much research was conducted were based on this subjective well-being conception (Conway & Macleod, 2002; Diener, Emmons, Larsen & Griffen, 1985).

The concept of psychological well-being has undergone extensive empirical review and evaluation over the last decade (Wissing & van Eeden, 1998). Numerous measurements of psychological well-being which were devised led to further increases in psychological well-being research (Keyes, Shmotkin & Ryff, 2002; Ruini, Ottolini, Rafanelli, Tossani, Ryff & Fava, 2003). Research generally indicates that psychological well-being is a diverse multidimensional concept, with exact components still unknown (MacLeod & Moore, 2000; Ryff, 1989; Wissing, & van Eeden, 2002).

Ryff's research (Ryff, 1989) indicated that *eudemonia* was in fact incorrectly translated into happiness and in fact has the additional more meaningful connotations of realizing

potential through some form of struggle. It appears as if early research into psychological well-being neglected this important aspect of positive mental health (Ryff, 1989). Ryff's research has brought about a shift in focus from a subjective to an objective conception of psychological well-being. This has resulted in new objective psychological well-being scales being developed, such as Ryff's objective scale of psychological well-being (PWB) (Conway & Macleod, 2002; Keyes, Shmotkin & Ryff, 2002; Ryff, 1989; Ryff & Keyes, 1995).

Ryff (1989) has reviewed extensive literature on positive psychological functioning and combined the theoretical groundings of Maslow's (1968) conception of self-actualization, Rogers' (1961) view of the fully functioning person, Jung's (1933) formulation of individuation, Allport's (1961) conception of maturity, Erikson's (1959) psychosocial stage model, Buhler's (1935) basic life fulfillment tendencies, Neugarten's (1973) descriptions of personality change in adulthood and old age and Jahoda's (1958) six criteria of positive mental health to form an objective standardized scale of psychological well-being (Keyes, Shmotkin & Ryff, 2002; Ryff, 1989; Ryff & Keyes, 1995).

These six dimensions of psychological well-being include: autonomy, personal growth, environmental mastery, purpose in life, positive relations with others and self-acceptance (Ryff, 1989; Ryff & Keyes, 1995).

2.3.2. HIV and AIDS impact on psychological well-being

2.3.2.1. Autonomy

Autonomy is the regulation of one's behaviour through an internal locus of control (Ryff, 1989; Ryff & Keyes, 1995). Because being autonomous and independent is not as greatly recognized in southern African cultures as western cultures, PLWHA in Africa tend to isolate themselves, afraid to disclose their status for fear of being persecuted. This isolation may result in depressed feelings (Tsao, Dobalian, Moreau & Dobalian, 2004; Wagner, Ferrando & Rabkin, 2000).

2.3.2.2. Personal growth

Personal growth is the capacity to develop and expand the self, to become a fully functioning person, to self-actualize and accomplish life goals (Ryff, 1989; Ryff & Keyes, 1995). Anxiety and depression are common when the body begins to be affected by the physiological effects of the disease (Kelley & St. Lawrence, 1988; Wagner, Ferrando & Rabkin, 2000). This can affect the ability to grow and achieve. Personal growth might seem futile with only a few years to live. Negative attitudes readily appear. Negative attitudes affect self-esteem, which is one core component of self-concept, a self-rating of emotional stability. Low self-esteem has been linked to mental disorders (Fox, 1990, 1997, 2000a, 2000b; Hayes, Crocker & Kowalski, 1999).

2.3.2.3. Environmental mastery

Environmental mastery is choosing and controlling the environment through physical and/or mental actions (Ryff, 1989; Ryff & Keyes, 1995). Because of stigma, isolation, anxiety, depression and opportunistic illnesses, PLWHA may feel unable to control their environment and life situations.

2.3.2.4. Purpose in life

Purpose in life refers to the significance of one's existence and the setting and reaching of goals, which contribute to the appreciation of life (Ryff, 1989; Ryff & Keyes, 1995).

From the moment a seropositive result is received individuals are likely to be uncertain and anxious about the future and about their health. Having goals and purposes in life are vitally important in providing reasons for human existence. Meaning is achieved through striving towards some purpose in our lives. No matter who the person is, without a purpose life can be mundane. PLWHA also often anticipate negative occurring events, which contributes to depression (Kelley & St. Lawrence, 1988).

2.3.2.5. Positive relations with others

Positive relations with others are essential for developing trusting and lasting relationships, and belonging to a network of communication and support (Ryff, 1989; Ryff & Keyes, 1995). As mentioned before, much stigmatization surrounds HIV (Susser

& Stein, 2004). Stigmatization refers to a psychosocial phenomenon, where an individual is disqualified from complete social acceptance (Goffman, 1962). The main reasons for the stigma around HIV are: the media initially isolated and focused on PLWHA; technical medical language was incorrectly translated into lay terms causing misconceptions about the virus; lower-income communities have less knowledge and understanding of the disease; HIV and AIDS is regarded by many cultures as a punishment for having had wrongful sexual practices, being homosexual or using drugs and PLWHA are seen as not being able to play a meaningful part in the world (Barnett & Whiteside, 2002; De Gagne, 1994; Macklin, 1989; Van Dyk, 2004).

* Stigmatization mainly comes from community members and leaders (Freeman, 2004; Poindexter, 2000). Because many cultures in southern Africa are community orientated where people exist through others, stigmatization brings a huge shock to traditional ways of life. The stigmatization results in PLWHA being persecuted and even stoned by community members.

* Stigmatization also comes from within families and intrapersonally. PLWHA find it difficult to tell family members and partners about their positive status and when they do reveal their status they are often hugely ostracized (Poindexter, 2000). They are afraid to lose their support as disclosure and accompanying stigmatization may result in them not receiving the necessary support, love and care, which are required to overcome their doubts and fears. Because there is so much stigmatization, PLWHA find it difficult to have positive and healthy relationships with other people. Individuals tend to not be

accepting of them and tend to place them in a different category of “us and them”. They may also introject social stigmatization in the form of self-blame and guilt, causing further depression

Support systems have been found to act as a buffer in stressful situations and place people at a lower risk for developing disorders (Levine & Perkins 1997). Without social support PLWHA are at a much greater risk for developing numerous mental disorders such as depression. Due to stigmatization and associated lack of social support HIV positive mothers have been found to be concerned over who will take care of their children (Tsao, Dobalian, Moreau & Dobalian, 2004).

2.3.2.6. Self-acceptance

Self-acceptance is the most recurring aspect of psychological well-being, a fundamental feature of mental health and an element of optimal functioning (Ryff, 1989; Ryff & Keyes, 1995). The first reaction to a seropositive result is often denial followed by anger (Kelley, & St. Lawrence, 1988). PLWHA may have difficulty accepting their status. They might become angry with themselves for becoming infected. It is important for PLWHA's to accept themselves and not label themselves as being HIV positive. There may be anger at the person from whom they contracted the diseases (Kelley & St. Lawrence, 1988). Without accepting the self one cannot accept and forgive others.

2.4. Improving psychological well-being with special reference to HIV and AIDS

Research with the PWB has revealed that psychological well-being develops through a combination of emotional regulation, personality characteristics, identity and life experience (Helson & Srivastava, 2001). It increases with age, education, extraversion and consciousness and decreases with neuroticism (Keyes, Shmotkin & Ryff, 2002). Age, gender and education seem to have an impact on the Ryff's scales (Keyes, Shmotkin & Ryff, 2002). As with general measures of well-being, exercise is also related to greater levels of psychological well-being on the PWB scale (Edwards, Edwards & Basson, 2004). Female's perception of being discriminated against impacts on eudaimonic well-being and specifically personal growth, environmental mastery, autonomy and self acceptance (Ryff, Keyes & Hughes, 2003).

Research has revealed that various forms of social, psychological and physical interventions are associated with improved psychological well-being. These include social support, as mentioned above, as well as well-being therapy, cognitive therapy and physical activity. Well-being therapy by Fava (1999) and Fava, Rafanelli, Cazzaro, Conti & Grandi, (1998) uses cognitive therapeutic techniques and focuses on positive health moments, which are based on Ryff's well-being scale dimensions. Remembered moments of positive well-being and thoughts that affect well-being are noted using a diary keeping technique (MacLeod & Moore, 2000). Being physically healthy and exercising improves an individual's psychological well-being, while disease impacts negatively on mental health. The influence of physical activity on psychological well-

being has been noted in many studies (Edwards, Edwards & Basson, 2004; Hayes & Ross, 1986; Scully, Kremer, Meade, Graham & Dudgeon, 1998).

For PLWHA, research with general measures of psychological well-being have revealed that aerobic exercise and the creation of meaning around being HIV infected increase positive mental health (Farber, Mirsalimi, Williams & McDaniel, 2003; Nixon, O'Brien, Glazier & Tynan, 2001). Cognitive behavioural interventions have also been used to improve psychological well-being of PLWHA (Lutgendorf, Antoni, Ironson, Starr, Costello, Zuckerman, Klimas, Fletcher & Schneiderman, 1998).

2.5. HIV and AIDS mutual support groups and empowerment

PLWHA benefit from support structures such as the National Association of People living with HIV and AIDS (NAPWA) who organize support groups to deal with psychological difficulties (Campbell, 2003; Granich & Jonathan, 1999). People who join a group do so out of a concern for themselves, one another and a need for a common goal. Social supports form an empowering system, which is important for emotional well-being and vital during extremely stressful times (Crystal & Kersting, 1998; Rappaport, 1985). People in support groups share a common context, providing an environment where peer education, the release of negative feelings, the sharing of distress, the overcoming of despair, the building of self-confidence and the instilment of knowledge can occur (Granich & Jonathan, 1999; Patel, 2003).

Support groups have been shown to increase self-confidence and help to overcome depression (Schneider & Russell, 2000). Social support is linked to higher levels of general psychological well-being. High levels of support are related to improved psychological well-being, while lower levels of support are associated with depression (Nott, Vedhara & Power, 1995). Spirituality and prayer may also be helpful for PLWHA with prayer often occurring before commencement or after support group meetings (Kendall, 1994). Support groups have been found to help PLWHA to relax and enjoy each other's company (Van Dyk, 2004).

Support groups have been found to be particularly effective if combined with activities such as: awareness campaigns, HIV and AIDS destigmatization and the treatment and welfare of other PLWHA (Schneider & Russell, 2000). Stressful situations are a daily occurrence in low-income communities where there is a negative relationship between stress levels, coping, social support and mental health (Carels, Baucom, Leone & Rigney, 1998). Support increases feelings of general well-being leading to the helping of others through peer-education and a reduction of HIV transmissions especially with high-risk individuals (having difficulty engaging in safe sex practices) who often do not have the support structures to deal with HIV stress and the disease (Carels, Baucom, Leone & Rigney, 1998; De Gagne, 1994).

A six week empowerment program for Thai HIV-infected mothers, which included peer group and other support meetings and structures, expert help on maternal and self nurturance as well as the control of stress and alternative medication, was shown to

significantly increase coping, quality of life, adaptation and self reported increase in autonomy, responsibility, interactions and communication (Jirapaet, 2000).

Psychological well-being is related to and can be increased through the empowering process that is understood to occur in support groups (Rappaport, 1985).

Empowerment is understood by Rappaport (1985) as a process of giving and receiving, which occurs in effective support groups, as individuals use their own knowledge and power to help support each other. Empowerment involves developing a sense of control over existence at the individual, organizational and community level (Zimmerman, 2000). Empowerment emerges through the expansion of mediums such as knowledge (Bhana, 1998). Circumstances which require personal empowerment are identified by the group and through mutual help and sharing resources are established to deal with problematic conditions (Mthembu, 2001). These resources include the home/family environment, the social environment, individual characteristics and material assets (Hagan & Smail, 1997). Empowered individuals have a sense of control over their future actions (Campbell & MacPhail, 2002).

Although support groups may be highly effective, they generally lack resources and are often unstructured with meetings not organized into discussion and action components. Furthermore PLWHA are not always able to attend sessions because of their health, family commitments, finances and employment. While there has been extensive research on psychological well-being, there appears to be limited research into psychological well-being interventions for PLWHA which consider the psychological difficulties of

PLWHA. The purpose of this study was to develop and evaluate a participatory structured psychological well-being intervention for PLWHA within the context of a support group.

2.6. Résumé

This chapter provided an overview of the literature on the psychological impact of HIV and AIDS, psychological well-being of PLWHA, mutual support groups for PLWHA and the need for an empowering participatory psychological well-being intervention for PLWHA. The next chapter looks at the methodology of this research.

CHAPTER THREE: METHODOLOGY

3.1. Introduction

This chapter is concerned with the aim, hypothesis, sample, research design, intervention implementation and evaluation, measuring instruments, data analysis techniques and ethics involved in the study.

3.2. Aim

The aim of this research was to develop, implement and evaluate a psychological well-being intervention for PLWHA within the context of a support group.

3.3. Hypothesis

It was expected that the PLWHA support group who received the psychological well-being intervention would demonstrate significant improvements in psychological well-being compared to the control group sample.

3.4 Sample

It was initially very difficult to find a support group sample for the intervention. The

support group used was organized by the National Association of People living with HIV and AIDS (NAPWA). This support group had recently been established and it was not yet cohesive with many people becoming members. The sample was composed of African Zulu and Xhosa speaking men and women, who had a level of education from grade ten upwards and were not using antiretroviral drugs. The entire sample, which completed questionnaires, consisted of thirty-four people, 29 women and 5 men.

3.5. Research design

The originally proposed classic design involved randomized crossover experimental and control groups with pre (T1), post (T2) and follow-up testing (T3), schematically represented as follows.

Randomization	Experimental	First Intervention	
	Control		Second intervention
	T1	T2	T3

3.6. Intervention implementation and evaluation

Intervention implementation and evaluation involves a needs assessment (where an area requiring an intervention was identified), planning and procedure (where an intervention was formulated and developed around a theory and implemented), outcome evaluation (where the effectiveness of the intervention was assessed by qualitative and/or

quantitative measurements) and process evaluation (assessing the reason's why the intervention was/was not successful) (Hoorweg & Niemeijer, 1989; Owen & Rogers, 1999; Petersen, Bhagwanjee, Bhana & Mahintsho, 2004; Potter, 1999; Schinke, Botvin & Orlandi, 1991; Rootman, Goodstadt, Hyndman, McQueen, Potvin, Springett and Ziglio, 2001). Interventions need to be both effective during the intervention (short term and practically) and also effective in the long term (Gidycz, Rich & Maric, 2002; Flores & Hartlaub, 1998; Heppner, Neville, Smith, Kivlinghan Jr. & Gershuny, 1999; Lanier, Elliot, Martin & Kapadia, 1998).

3.6.1. Needs assessment

From the literature review it was established that there was a need to improve the psychological well-being of PLWHA.

3.6.2. Intervention planning and procedure

The psychological well-being intervention was based on Ryff's concept of well-being. It consisted of one session per week for 6 weeks. One of the six aspects of well-being identified by Ryff was used as a topic for each of the six weeks.

The following information was provided to the participants and translated into Zulu before the intervention began.

1. We are planning a programme to improve the psychological well-being of participants
2. To join the programme, people have to answer questionnaires, commit to regular group attendance and help each other to improve their psychological well-being
3. Half the group will receive the programme before the other half. Everybody will have a chance of being in the program.

The original intention was to request participants to complete psychological well-being questionnaires before providing any further detailed information on the actual intervention. Some experimenter effect of HIV and AIDS support group organizers motivating participants with regard to the meaning of psychological well-being and the effect of a future psychological well-being intervention, before actual filling in of questionnaires during pre-testing, may have taken place and falsely elevated pre-test scores. However such a procedure was recommended by the HIV and AIDS support group organizers in order to enlist support group participants, mobilize support for the forthcoming intervention and considered to be the correct ethical procedure to follow during initial formation of a support group such as the one in this research.

At the pre-test there were nineteen individuals from the original support group, who were allocated randomly into either an experimental or control group. Each participant signed a consent form (Appendix A) before they began the intervention. Field interventions seldom materialize exactly as planned and the initial experimental design with randomized sampling was modified into a quasi-experimental design with convenience

sampling. At the first week many of the people in the experimental group did not arrive and therefore those thirteen people who were present at the first week of the intervention were placed into the experimental group, with the other six individuals being placed in the control group.

The number of people at each of the six experimental group's sessions ranged from four to thirteen and only one person arrived for all of the six sessions. This was because of ill health, work and family commitments. Only three of the control sample arrived for the post-test.

During the first intervention many new individuals had joined the original support group. While they were not in the initial control group fifteen people wished to join the second intervention and were therefore included along with the original three control group members. The second intervention therefore comprised eighteen people. However only eight members were at the third data collection post-test (T3). Attendance in the second intervention group was also sporadic with only one person coming to all six sessions. At their follow-up testing (T3) only four members from the first experimental group were present.

Each session ranged from about thirty minutes to an hour with the time being broken up into presentation, personal insight and sharing and then a summary. In each intervention session, participants chose one of the six aspects of psychological well-being (a definition was provided the week before to that group member) and they then presented to the

group on how they believed that factor of psychological well-being could be improved (e.g. how can autonomy be improved). This was followed by a group discussion where each member provided their own personal insight on how that aspect of well-being could be improved. Participants were encouraged to self-reflect and share these reflections with each other in an attempt to increase their knowledge and understanding of that aspect of psychological well-being. A summary of the session was provided at the end by the researcher who covered the information which had been discussed thus summarizing the way in which that aspect of psychological well-being could be increased. The topic for the next session was then explained to the participants who were going to be presenting to the group. This session structure was used throughout the six weeks of the intervention.

The information presented by the participants as well as the information generated by the discussion was recorded.

3.6.3. Outcome evaluation

The outcome of the intervention was assessed using the quantitative (Appendix B) and qualitative (Appendix C) pre, post and re-test measurements, and the weekly qualitative measurement (Appendix D).

3.6.4. Process evaluation

The intervention was assessed weekly as well as finally at the post-test and re-test evaluations (Appendix E and F). Each participant wrote down his or her evaluation of each session and the intervention as a whole.

3.7. Measuring instruments

3.7.1. Quantitative outcome measure (Appendix B)

Ryff's (1989) Psychological Well-being Scale has been standardized through comparisons with other measures of psychological well-being (life satisfaction, positive and negative affect) (Schmutte and Ryff, 1997). It was used to assess individual PLWHA on the six dimensions of well-being: autonomy, personal growth, environmental mastery, purpose in life, positive relations with others and self-acceptance. This scale is presently regarded as the best objective measure of positive mental health (Conway & Macleod, 2002). The scale exists in 3, 9 and 14-item forms. The 3-item version was used in this research.

Previous research in the United States of America (USA), using telephone interviews on a nationwide representative adult sample over twenty-five years of age, indicated high levels of internal consistency and Alpha coefficients on the six subscales as follows: autonomy **.83**, personal growth **.85**, environmental mastery **.86**, purpose in life **.88**,

positive relations with others **.88** and self-acceptance **.91**. They also have high levels of correlation with the 20-item parent scale: autonomy **.97**, personal growth **.97**, environmental mastery **.98**, purpose in life **.98**, positive relations with others **.98** and self-acceptance **.99** (Ryff & Keyes, 1995). The scale has a **.89** level of AGFI (adjusted goodness-of-fit index) suggesting that it is a very-good-fitting model. Test retest reliabilities for the 20-item scale were autonomy **.88**, personal growth **.81**, environmental mastery **.81**, purpose in life **.82**, positive relations with others **.83** and self-acceptance **.95** (Ryff, 1989). USA sample mean and standard deviation findings for psychological well-being dimensions were: autonomy (mean 15.2 and standard deviation 2.6), personal growth (15.7 and 2.5), environmental mastery (14.9 and 2.8), purpose in life (14.4 and 3.2), positive relations with others (14.8 and 3.2), self-acceptance (14.6 and 3.1) and total well-being (14.9 and 2.9) (Ryff, 1989; Ryff & Keyes, 1995).

There have been two studies using Ryff's psychological well-being scale in South Africa. The first study was to establish preliminary South African norms with university students (Edwards, Ngcobo & Pillay, in press). The second study was to compare psychological well-being amongst different types of sport and exercise (Edwards, Edwards & Basson, 2004). The first study using 430 university students yielded a mean age of 22.23, standard deviation of 4.6 and range of 16-48 years (Edwards, Ngcobo & Pillay, in press), with South African sample means lower on all measures than US sample means. South African sample mean and standard deviation findings for psychological well-being dimensions were: autonomy (mean 13.0 and standard deviation 3.5), personal growth (13.7 and 2.7), environmental mastery (12.1 and 3.2), purpose in life (9.8 and 3.1),

positive relations with others (10.7 and 3.3), self-acceptance (12.6 and 2.6) and total well-being (12.0 and 3.1). Spearman's correlational analysis showed all dimensions correlated significantly with each other at the 1% level of significance. All correlations were modest ranging from 0.14 (purpose in life and autonomy) to 0.33 (environmental mastery and autonomy). Principle component factor analysis revealed that a single factor of psychological well-being accounted for 35,22% of the variance and that all components were moderately correlated with this one factor, extending from 0.47 (purpose in life) to 0.65 (autonomy and environmental mastery). The reliability analysis revealed an overall alpha coefficient of 0.63.

The scale has been translated into different languages, received some international cross cultural validation and been used in various research settings (Keyes & Ryff, 2003; Lindfors, 2002; Plaut, Markus & Lachman, 2002; Staudinger, Baltes & Fleeson, 1999).

3.7.2. Qualitative outcome measure (Appendices C and D)

At the pre, post and follow-up test each participant wrote down their understanding of psychological well-being. This provided the data for qualitative evaluations of the six week interventions.

There were pre and post session assessments with regard to the meanings of the various psychological well-being concepts (autonomy, personal growth, environmental mastery, purpose in life, positive relations with others and self-acceptance). For example

participants were required to write down what autonomy meant to them before the session on autonomy and then again after the discussion of this concept in order to evaluate any change in meaning.

3.7.3. Qualitative process measure (Appendices E and F)

After each session, the participants evaluated individually the weekly intervention in terms of how they experienced it and what they thought could be improved. The intervention as a whole was evaluated at the post and follow-up test.

3.8. Data analysis techniques

The quantitative data was analyzed using the SPSS statistical data analysis package. One-way analysis of variance and paired samples 't'-tests were conducted.

The qualitative data at each session and at the pre, post and follow-up test were coded and analyzed using content analysis, which essentially refers to a method of studying and analyzing the meanings of communications in a systematic and objective way. The major communication units in this research were the meanings expressed in terms of recorded words and themes obtained through participant observation in all group sessions. Content analysis also uses counting (frequencies) to understand how frequently that response or piece of information occurred (Kerlinger, 1978; Lewin, 1979). In this

research a frequency of one indicates that the theme occurred once, a frequency of two twice etc.

3.9. Ethics

Ethical clearance was required from the University of Kwa-Zulu Natal campus. Informed consent was required from each participant, who was free to withdraw from the study at any time. Due to its private nature one of the utmost factors in this research was confidentiality and for this reason the questionnaires and data was kept locked up. No names are divulged and the results only presented in group form. The intervention was fully explained to participants. They were free to withdraw or choose not to participate in any session.

3.10. Résumé

This chapter was concerned with the aim, hypothesis, sample, research design, intervention implementation and evaluation, measuring instruments and ethics involved in the study. The next chapter is involved with analysis and discussion of data.

CHAPTER FOUR: RESULTS

4.1. Introduction

This chapter explicates and interprets the data analysis. It is divided into process and outcome evaluation sections with a discussion following each.

4.2. Reliability

Using Cronbach’s alpha, the reliability analysis revealed an overall alpha coefficient of 0.77 for Ryff’s scale.

4.3. Outcome evaluation

4.3.1. Quantitative data

In the following tables the dependent variables from Ryff’s well-being scale are coded as follows: autonomy (au), personal growth (pg), environmental mastery (em), purpose in life (pl), positive relations with others (pr) and self-acceptance (sa). Total refers to the combined tally of the well-being component scores. Standard deviation is SD. In all tables G1, G2 and G3 refer to the first intervention group, control group and second intervention group respectively. The number 1, 2 or 3 next to the well-being scale or total indicates whether the data was collected at the pre-test (T1), post-test (T2) or

follow-up (T3) point. The five percent level of significance was chosen for all statistical comparisons. The single asterisk (*) indicates significant findings at the five percent level of significance.

Table 1. Psychological well-being intervention means and standard deviations (comparative data) - analysis of variance ($N=11$) for the first intervention group

	au		pg		em		pl		pr		sa		total	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
exp (T1)	11.63	4.00	17.00	1.69	13.88	1.64	13.63	3.02	11.63	4.41	13.50	3.12	81.25	12.83
con (T1)	10.33	2.89	15.00	1.73	13.67	3.21	13.00	1.73	13.67	2.52	12.67	1.15	78.33	4.93
exp (T2)	12.50	2.56	12.38	5.58	11.00	4.21	12.13	3.18	13.75	3.88	12.75	2.87	74.50	17.98
con (T2)	11.00	2.65	15.67	1.53	11.33	1.53	13.33	2.52	10.33	2.31	11.00	2.00	72.67	7.51

* $p<.05$

Table 1 refers to the means and standard deviations of the 8 experimental and 3 control group participants in the first intervention. Analysis of variance indicated no significant differences between experimental and control groups on post-test autonomy ($F = 0.736$), personal growth ($F = 0.956$), environmental master ($F = 0.017$), purpose in life ($F = 0.343$), positive relations with others ($F = 1.973$), self-acceptance ($F = 0.918$) and total

psychological well-being ($F = 0.028$). From Table 1 it can be observed that there were no marked changes between the experimental and control group measures. While it was hypothesized that the experimental group’s psychological well-being would increase more than the control group, this did not occur. In fact both the experimental and control group’s psychological well-being total appeared to decrease between the pre and post-test. Due to small sample sizes, missing data and irregular attendance of session no meaningful conclusions can be drawn from the above data.

Table 2. Psychological well-being intervention means and standard deviations (longitudinal data) – ‘*t*’ test ($N=4$) for the first intervention group

	au		pg		em		pl		pr		sa		total	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
T1	11.25	5.32	16.50	2.38	14.75	1.26	12.00	3.65	11.25	5.85	15.25	2.75	81.00	15.64
T2	11.75	3.50	13.25	6.60	10.75	4.57	11.75	4.65	13.75	5.32	13.50	3.00	74.75	25.88
T3	11.75	1.89	15.75	2.63	14.25	4.19	11.50	4.51	11.75	2.22	13.75	2.22	78.75	11.87

* $p<.05$

Table 2 refers to the means and standard deviations of the four experimental group participants who were present at all pre-post, post-test and follow-up points. The paired samples *t*-test revealed that there were no significant differences between the pre and post-test autonomy ($t = -0.264$), personal growth ($t = 1.399$), environmental master ($t = 2.309$), purpose in life ($t = 0.293$), positive relations with others ($t = -1.109$), self-acceptance ($t = 2.049$) and total psychological well-being ($t=1.217$), or between the pre-

test and follow-up test autonomy ($t = -0.200$), personal growth ($t = 0.522$), environmental master ($t = 0.333$), purpose in life ($t = 0.480$), positive relations with others ($t = -0.184$), self-acceptance ($t = 1.134$) and total psychological well-being ($t = .527$). From the above table it is evident that while there were no significant changes, the overall psychological well-being appears to have decreased between the pre and post-test and then increased again at the follow-up test. The participants may have overestimated their psychological well-being at pretest. Also it seems that a longer intervention might have been needed.

Table 3. Psychological well-being intervention means and standard deviations (combined data)-‘*t*’-test ($N=16$) for the first and second intervention groups

	au		pg		em		pl		pr		sa		total	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Pre-test	10.69	4.42	16.56	2.22	12.69	4.42	12.94	3.51	11.56	4.65	12.94	3.13	77.38	16.05
Post-test	11.62	2.83	14.38	4.63	12.94	3.94	12.69	2.57	14.00*	3.37	13.19	2.71	78.81	14.29

* $p<.05$

Table 3 refers to the combined means and standard deviations of the 16 participants in the first and second intervention group. The paired samples ‘*t*’-test revealed a significant difference between pre and post-test positive relations with others ($t = -2.195$) measures. There were no significant differences between the pre and post-test autonomy ($t = -0.767$), personal growth ($t = 1.923$), environmental master ($t = -0.187$), purpose in life ($t =$

0.264), self-acceptance ($t = 0.264$) and total psychological well-being ($t = -0.346$).

Although this latter finding is insignificant, table 3 does indicate a slight increase in post-test psychological well-being. While no meaningful interpretation can be made owing again to relatively small sample size, missing data and different time periods, this analysis provides some evidence of the effectiveness of the positive relations with others component and the intervention as a whole when larger data samples are analyzed.

4.4.2. Qualitative data

Content analysis of responses by participants (of the first intervention group) of their understanding of the various dimensions of psychological well-being covered in each session are reflected in table 4.

Table 4. Weekly before and after session evaluation of first intervention group

Component	Component before	Freq	Component after	Freq
au	Believe in decisions	2	Be strong	3
	Full responsibility	1	Accept life	1
	Goals	1	Be oneself	2
	Believe in bible	1	Many goals	1
	Good to me and others	2	Live own life	1
	Trust myself	1	I feel	2
	Independent	3	The purpose	1
	Environment	1	The behaviour	4
	Attitude	2	The confidence	1
	Analyze	2	Trust oneself	2
	Face reality	1	Listen to oneself	1
			Improve strength and control	1
			weakness	
			Be positive	2

			Own decisions	2
			Listen to others	4
			Lack self control	1
pg	Self-concept	1	Go ahead	1
	All aspects	1	Discuss issues	1
	Work on weaknesses	1	Self-concept	1
	Grown	1	Know past errors to increase	1
			No anger	1
			Avoid always winning	1
			Accepting	1
			Knowing	1
			Controlling	1
			Responsible	1
			Goals	1
em	Support self	3	Self responsible	4
	Support community	4	Care for community	3
	Home important	2	Care of nature	3
	Live place secure	1	Control own situation	2
	Control own situation	1	Be strong	2
	Situation	3	Be healthy and clean	3
	Important for life and well-being	3	Resourceful	2
	Clean and healthy	1	Life skills	1
			Solve problems	1
			Communication	2
pl	Progress	1	Encouraging thinking	8
	Improve skills and knowledge	1	Be sure	1
	God's purpose and reason why here	2	Listen to others good advice	3
	Goals	3	Faithful	1
	Never self-doubt	1	Help others	2
	Strong	2	Goals	5
	Help others	1	God's purpose	2
	Many challenges	1	Never underestimate	1
			Work on weaknesses	1
			Life is tough	2
pr	Independent	3	Open	1
	Teach others to be	2	Accepting	6

	happy		Truthful	1
	Teach HIV	1	Trust	3
	Solve problems together	1	Learn from others	3
	Talk nicely and communicate	5	Love	3
	Help others	3	Work out difficulties	1
	Accepting	4	Result in a wider impact	1
	Love	2	Connection	1
sa	Accept yourself	7	Accepting	7
	Proud	2	Happy	1
	Self confidence	4	Share ideas	2
	Serious	2	Self confidence	3
	No regrets	1	Focus	1
	Don't listen to others wrong	1	Proud	2
	Know and change weaknesses	1	Change life	1
	Right	1	Love they selves	2
	Look after yourself	1	Share ideas	1
	Respect	1	Self belief	1
	Faithfulness	1	Use good ideas	2
	Face reality	1	Free in oneself	1
	Know yourself	1		
	Own decisions	1		

Table 4 compared the first intervention group's reported understanding of the psychological well-being components before and after sessions. While before the 'autonomy' session an understanding of autonomy was evident, after the session a better understanding, which entailed relying on oneself and being strong, was reported. Before the 'personal growth' session there was some understanding of personal growth, after the session there was greater clarity concerning personal growth as being more holistic, goal and achievement orientated. Although there was a good understanding of 'environmental mastery' before the session, after the session the use of existing resources and skills to bring about environmental mastery was also noticed. While there was a good initial

understanding of ‘purpose in life’, after the session this understanding included more concern for helping others and having goals. The amount of knowledge changed to a deeper and more meaningful understanding of interpersonal relationships after the ‘positive relationships with others’ session. A deeper understanding of how to accept, love and believe in self was evident after the ‘self-acceptance’ session.

Content analysis of responses by participants (of the second intervention group) of their understanding of the various dimensions of psychological well-being covered in each session are reflected in table 5.

Table 5. Weekly before and after session evaluation of second intervention group

Component	Component before	Freq	Component after	Freq
au	Independent	8	Take own decisions	1
	Listening to others	1	Respect others	5
	get right advice		You decide	1
	Self-esteem	2	Trust self	3
	Not influence by others	7	Self-esteem	2
	Self-confident	2	Confidence	6
	Mature	2	Learn from others	2
			Goals	1
			Encouraged	2
			Dignity	2
			Love yourself	1
			Independent	1
			Trust yourself	3
			Stable	1
pg	Self care	2	Self-care	1
	Mind matured	1	Knowledge	1
	Differentiate good and bad	1	Independent	1
	Independent	2	Solutions	1
	Good	1	Self-acceptance	1
	relationships		Accepting others	1
			Empowered	2

	Improving self	1	Goals	2
	Accept self	2	Overcome	1
	Self-concept	1	Face reality	3
	Goals	2	Good and bad	1
	Successful	1	Accept bad	1
	Growth	1	Winner	1
	Empower	2		
	Gain knowledge	1		
	Work through bad	1		
em	Educate community	4	Educate community	6
	Hygienic	1	Stay focused	1
	Difficult people control	1	Do right things	1
	Clean	1	Help family	1
	environment	1	Set up goals for community	1
	Professional help	1	Teach children	1
	Focused	1	Understand environment	2
	Right thing	1	Educated and have skills	2
	Strength	1	Survive	1
	Don't be shy	1	Control emotions	1
	Help parents	1	Open minded	1
	Help from community	1	Goals	1
	Face it	1	Purpose	1
	Goals	2	Communication self care	1
	Control self	2	Understand self and others	1
			Care for environment	1
pl	Meaning	1	Daily	1
	Purpose	3	Enjoy	1
	Responsibility	1	God's purpose	1
	Grow from hard times	1	Goal	4
	Accept reality	1	Positive mind	1
	Positive mind	1	Paths	1
	Goals	4	Happy	1
	Spiritual purpose	1	Don't be disappointed	1
	Every day	1	Dignity	1
	Independent	1	Independent	1
	Thinking	1	Live for	1
	About the past	1		

pr	Positive communication	6	Communication	3
	Keep promises	1	Positive contact	2
	Be with positive people	2	Qualities	3
	Building affection, attention, appreciation	2	Speaking skills	1
	Loved, happy and healthy	1	Share your views	2
	Solve problems	2	Treat others well	1
	Help others	4	Trust yourself	2
	Self growth	1	Think about how bring attention, affection, acceptance, appreciation and affirmation into relationship.	1
	Will get self through hard times	1	Encourage others	1
	Compromise	1	Be an example	1
			Share views	1
			Honest	1
			Pay attention	1
			Help solve others difficulties	3
			Be with others good relationship	1
			Live with other people	1
			Commit yourself	1
sa	Focus	1	Admit yourself	3
	Be oneself	2	Open mind	1
	Proud	1	Face reality	3
	Defend yourself	2	Challenges	1
	Positive life	1	Positive in life	2
	On own	2	Be healthy	1
	Help from others	3	Be yourself	3
	Self-esteem	1	Good path	1
	Face reality	1	Goal	3
	Accept yourself	2	Self-belief	2
	Psychological behaviours	1	Learn from others	5
	Attitude	1	Be happy with who you are	1
	Accept challenges in life	1	Control self	1
			Accept yourself	2

Table 5 compared the second intervention groups reported understanding of the psychological well-being components before and after sessions. After the session the understanding of ‘autonomy’ had improved and involved listening to others yet being confident and trusting self. After the ‘personal growth’ session facing reality, which is especially important for PLWHA, was evident. After the ‘environmental mastery’ session an understanding of being more proactive and holistic more than self-orientated was evident. The understanding of ‘purpose in life’ took on a more daily dignified perspective. After the ‘positive relationships with others’ session the concept of relationships was more orientated towards others needs and helping others as well as understanding self. The understanding of the self and belief in self while learning from others appeared to be evident after the ‘self-acceptance’ session.

Content analysis of responses by participants (of the first intervention group) of their understanding of the concept of psychological well-being at the pre, post and follow-up testing points are reflected in table 5.

Table 6. Psychological well-being evaluation of first intervention group (N=8)

G1T1	Freq	G1T2	Freq	G1T3	Freq
Deal with everyday challenges and life	1	Taking care of situation that might affect your mind and	1	Link between mind body and soul	1
Body, soul mind makes a person emotionally balanced this	1	dealing with experiences and being empowered		Getting many ideas and growing in your mind and sharing	1
		Relationship	1	You think you must encourage	1

is		between the		the people to	
psychological		mind, body and		work in the	
well-being		soul		community	
Mind works	1	To make feel	1	Taking care of	1
in a correct		well and		the situation you	
way		healthy, mental		face, don't let	
Mind well-	1	and healthy.	1	things bother	
working or		To improve		you, ready for	
healthy		yourself, know		anything which	
Open up my	1	things share		comes your way.	
breath and		ideas improve			
not give up		yourself and			
To exchange	1	encourage			
views with		others.			
other people		Work with the	1		
Carrying on	1	community and			
with life and		control the			
accept thins		environment			
which come		Free in my			
up		mind can			
Mind	1	tolerate others	1		
development		The art of			
and soul		knowing			
		yourself			

Table 6 is the experimental groups reported understanding of psychological well-being at the pre, post and follow up test. At the pre-test the participants understood psychological well-being as being about the body and the mind. At the post-test the concept of psychological well-being was more integrated around environmental mastery, autonomy, positive relations and being empowered which are essential components of psychological well-being. This more conceptual understanding of psychological well-being was still evident at the follow-up test.

Content analysis of responses by participants (of the control group) of their understanding of the concept of psychological well-being at the pre and post testing points are reflected in table 7.

Table 7. Psychological well-being evaluation of control group ($N=3$)

G2T1	Freq	G2T2	Freq
Important to save my life and others	1	The meaning of to know things better or to judge things wrong	1
To be helpful to other people	1	To treat a person in the way I would like to be treated	1
A good relationship with friends and family which helps with coping	1	Share problems with other people make me feel great for the future and for the situation which I live in	1

Table 7 is the control groups reported understanding of psychological well-being at the pre and post-test. While some understanding of psychological well-being was evident, unlike the first intervention group, the control groups understanding of psychological well-being did not appear to change from pre to post-test.

Content analysis of responses by participants (of the second intervention group) of their understanding of the concept of psychological well-being at the post and follow-up testing points are reflected in table 8.

Table 8. Psychological well-being evaluation of second intervention group ($N=8$)

G3T2	Freq	G3T3	Freq
Very important	1	To face, and learn each day your experiences	1
The signs of being healthy, control behaviour, cant do without.	1	It is very well and important to have good relationships	1
What doing with life and future, know past	1	Helping to know what to do in life, have e positive mind and not be disappointed with unimportant things.	1
Maintain everything and be strong minded	1	How your mind takes things, how strong you are in life, trusting yourself in past and future things.	1
Have a healthy mind and cope with daily experiences, not to be affected by things I can't change.	1	To know myself and improve myself my contributions in life and have good relationships.	1
Important to improve your life and you must have strong ability.	1	Growing up and understanding situations in sharing others view but being autonomous. Being independent and gaining more knowledge and skills.	1
To improve on your achievements in life, achieve goals and have continuous learning daily.	1	To take life daily and as it is and to learn from others who have more experience.	1
About mental health and how mange yourself, how you handle emotional, social and health situations, personal growth in life and how to deal with future problems.	1	To know yourself, your vales and beliefs, your goals and how to maintain personal growth, positive relations.	1
		Being independent, attitudes, and how to handle grief.	1

Table 8 is the second interventions group's reported understanding of psychological well-being at the post and follow-up test. The understanding of psychological well-being before the intervention entailed being healthy, having life and a strong healthy mind,

coping with things, having goals and personal growth. This is an adequate understanding of psychological well-being. At the follow-up test the meaning of psychological well-being expanded to include facing experiences, having good relationship, knowing what to do, trusting self, improving self and relationships, growing, gaining knowledge, being autonomous and independent, knowing self and having goals which are the key components of psychological well-being. There seem to be changes in the reported understanding of psychological well-being.

4.4. Process evaluation

In the following tables the dependent variables from Ryff's well-being scale are coded as follows: autonomy (au), personal growth (pg), environmental mastery (em), purpose in life (pl), positive relations with others (pr) and self-acceptance (sa). The evaluation column refers to a summary of actual themes emerging from the participants after each session. The frequency column (Freq) contains extra tallies of the initial themes. In all tables G1, G2 and G3 refer to the first intervention group, control group and second intervention group respectively. Pre-, post and follow-up testing are coded T1, T2 and T3 respectively.

Content analysis of responses by participants (of the first intervention group) of their program evaluation after each of the intervention's components are reflected in table 9.

Table 9. Qualitative program evaluation after each component in the first intervention group

Component	Evaluation	Freq
au	Good	2
	Thank you	1
	Gained information	3
	Everything fine	1
	Improved self-esteem	1
	Everyone must share	1
pg	Like	1
	Education	1
	Everyone needs	1
em	More active but happy	1
	Good	1
	Educational	2
	Gained ideas	1
	Opened mind	1
	Feel better	1
	Share ideas	1
pl	Learnt –satisfied	1
	Class makes me happy	1
	Gain information	1
	Good-talked and heard lots of examples	1
		1
pr	Heard many things	1
	Got more information	1
	Fine	1
	Gives me strength and challenges me	1
	Helped me a lot	1
sa	Fine-help us accept situation	2
	Good-nothing should be changed	1
	Be more examples	5
	All speak	1
	Make me proud	1

Table 9 summarized the evaluation of each session by the first intervention group. The participants reported the following. The ‘autonomy’ session was fine, information was

gained but everyone should have participated. The ‘personal growth’ session was an educational topic which the participants found to be important. The ‘environmental mastery’ session was more active with knowledge and ideas being gained. The ‘purpose in life’ session also created knowledge and participants were happy with examples that were provided. The ‘positive relations with others’ session was helpful and collective learning occurred. The ‘self-acceptance’ session was fine except all participants should have participated, and more examples should have been provided. (The idea of having more examples was suggested by the researcher to the participants, who agreed with the suggestion.)

Content analysis of responses by participants (of the second intervention group) of their program evaluation after each of the intervention’s components are reflected in table 10.

Table 10. Qualitative program evaluation after each component in the second intervention group

Component	Evaluation	Freq
au	Entertaining	1
	Better understanding of topic	1
	Interesting	1
	Important	1
	Need others advice-autonomy not always good	1
	Encouraged me	1
	More time	1
	Know myself	1
pg	Reality	1
	Helped	2
	More empowerment	1
	More mature	1

	Educational	1
	Helped me to grow	1
em	Learned	2
	Helped understanding	2
	Power	1
	Improved me	1
	Good	1
pl	Improved me	1
	Gained direction	2
	Eye-opener	1
	Feel good, but need notes of what we have learned	1
		1
pr	Got information	1
	We must share more	1
	Improved my communication	1
	Improved knowledge	1
	Changed mind	1
	Gain power	1
sa	Good topic	3
	Gives me encouragement	2
	Helpful	1
	Face reality	1
	We must talk more	1
	Informative	1
	Need notes of what we have learned	1
	Very important	1

Table 10 refers to the evaluation of each session by the second intervention group. The participants reported the following. The ‘autonomy’ session was good and an important topic, but people could not always be independent. The ‘personal growth’ session was helpful, empowering and educational. The ‘environmental mastery’ session was helpful and empowering. The ‘purpose in life’ session helped participants gain direction, however session notes should be devised and given out. The ‘positive relations’ with others session again instilled knowledge and empowerment. The session on ‘self

acceptance’ was empowering, however summaries of the sessions should be provided. Through out the intervention each session was summarized at the end for all participants.

Content analysis of responses by participants (of the first intervention group) of their program evaluation at the end of the intervention are reflected in table 11.

Table 11. Qualitative program evaluation at end of intervention by all participants

Program evaluation G1T2	Freq	Program evaluation G1T3	Freq	Program evaluation G3T3	Freq
Great	1	Good Improved	2	Shown me	2
Learned a lot	1	me	1	along way to	
People must	1	Nothing should		go	
take it		be changed		Well and	1
seriously		Learned a lot	1	fantastic	
Nothing	1	Fine	1	Beneficial	1
should be		Could be a	1	Educational	
changed		certificate		Improve me	1
Thankful	1	Made us grow	1	Gave me lots	2
Good	1	Reality	1	Self-belief	1
Given me a lot	1				

Table 11 refers to the intervention evaluation at post-test and follow-up test points. The first group expressed satisfaction with the intervention. They had learned a great deal, felt that nothing should be changed, and that all participants should take the sessions seriously. At follow-up testing they re-evaluated the intervention, which resulted in the same appraisal. The second group found the intervention created knowledge, improvement and self-belief.

4.5. Résumé

This chapter provided a data analysis of the evaluation and outcome of the research. The next chapter will entail the discussion of the data.

CHAPTER FIVE: DISCUSSION

5.1 Introduction

This chapter is concerned with discussion of the analysis of data of the quantitative and qualitative outcome and process evaluations.

5.2. Discussion of outcome evaluation results

5.2.1 Quantitative data

Due to non-attendance, missing data and the short duration of the intervention it was difficult to draw any definite or conclusive results from the quantitative data. As was expected and noticed in other studies, attendance at support groups is often sporadic (Mthembu, 2001). The statistical comparisons between the first intervention group and the control group were insignificant. The overall level of psychological well-being of the first intervention group and control group in fact appeared to decrease between pre and post-test. It also appears as though participants may have overestimated their level of psychological well-being as both the first intervention group and control group's personal growth, environmental mastery, purpose in life, positive relations with others and self-acceptance were higher than previous studies on a South African university sample (Edwards, Ngcobo & Pillay, in press), yet lower than original USA sample data (Ryff, 1989; Ryff & Keyes, 1995).

As noted before in chapter three, some experimenter effect by the HIV and AIDS support group organisers may have occurred before actual filling in of initial questionnaires during pretesting when motivating participants with regard to the meaning of psychological well-being and the effect of a future psychological well-being intervention. This may have been a further reason for falsely elevated pre-test scores. The original intention had been to request participants to complete psychological well-being questionnaires before providing any further detailed information on the actual intervention. However the need for more information and motivation was recommended by HIV and AIDS support group organisers in order to enlist support group participants, mobilize support for the forthcoming intervention. Provision of such additional information before pretesting was considered to be the correct ethical procedure to follow during initial formation of a support group such as the one in this research.

The first intervention group's total psychological well-being mean score appeared to increase again at the follow-up measure. This suggests that a longer intervention might have been more effective. There was clearly some increase in psychological well-being when the data of the two intervention groups were combined, however this only reached statistical significance in the case of the dimension of positive relations with others. This does indicate some effectiveness of the intervention in relation to this dimension and that more meaningful extrapolations of the data could have occurred with larger samples. However this change in positive relations with others could have also been a result of being part of a support group as support groups can help PLWHA to relax and enjoy each other's company (Van Dyk, 2004).

The fact that the only significant change occurred on the positive relations with others dimension, points to an essential strength of the psychological well-being intervention which needs to be expanded further in future research. More particular focus in future should be on positive relations with others through empowerment and actual behaviour change related to social support. For example group members could be encouraged to contact each other after session and such contacts monitored on an ongoing basis. In addition, future psychological well-being interventions could be extended to include more emphasis on attitudinal, experiential and behavioural change through including aspects of expressive therapy and psychological skills training with regard to specific tasks. For example specific tasks could be structured in terms of action steps to further develop self-efficacy and empowerment.

In general, further research with an extended intervention program, regular attendance, larger samples of participants, and comparative evaluations of physical, biological, social and environmental factors is needed in order to more clearly establish the effectiveness of psychological well-being interventions for PLWHA. Research interventions should extend for a period of at least twelve weeks to three months in order to effect more significant change. Where possible, financial incentives could be offered to overcome participants economic constraints, which typically affect regular attendance. The benefit of the program should be provided to increase attendance, but done so in a manner, which does not bias initial pre-testing. Larger samples of PLWHA would result in more people benefiting. Non-strenuous physical exercise such as breathing, tai chi, yoga or slow walking could be implemented and evaluated using physiological scales and measures.

Social interventions such as community, family and group support could be implemented and monitored using social support scales. Environmental support such as funding and the providing of resources should be acquired to assist these interventions.

The above recommendations were supported and extended by the following qualitative data provided by the participants during group sessions.

5.2.2 Qualitative data

Qualitative data analysis using content analysis revealed more comprehensive and meaningful information than quantitative data analysis. In order to explicate this we need to keep the original and essential definitions of psychological well-being concepts in mind as explicated in the research of Allport (1961), Buhler (1935), Erikson (1959), Jahoda (1958), Jung (1933), Keyes, Shmotkin & Ryff, (2002), Maslow, (1968), Neugarten (1973), Rogers (1961), Ryff, (1989) and Ryff and Keyes (1995).

The first intervention group's general understanding of the topics appeared to improve during the weekly sessions. Autonomy refers to the regulation of one's behaviour through an internal locus of control (Erikson, 1959). After the 'autonomy' session the experience of 'relying on oneself' was reported.

Personal growth refers to the capacity to develop and expand the self, to become a fully functioning person, to self-actualize and accomplish life goals (Rogers, 1961; Maslow,

1968). After the 'personal growth' session there was greater clarity concerning personal growth as being more holistic, goal and achievement orientated.

Environmental mastery refers to the choosing and controlling of our environment through physical and/or mental actions (Jahoda, 1958; Ryff, 1989; Ryff & Keyes, 1995). In this regard the use of existing resources and skills to bring about environmental mastery was emphasized by the group after the 'environmental mastery' session. Such resources and skills are also particularly important for any experience and realization of empowerment (Hagan & Smail, 1997; Mthembu, 2001; Zimmerman, 2000).

Purpose in life refers to the experienced significance of one's existence and the setting and reaching of goals, which contribute to a fuller, deeper and richer appreciation of life (Maslow, 1968; Ryff, 1989; Ryff & Keyes, 1995). After the 'purpose in life' session a greater understanding of the need for a more goal orientated way of life, as described by Maslow (1968), was reported.

Positive relations with others refers to developing trusting and lasting relationships, and belonging to a network of communication and support (Ryff, 1989; Ryff & Keyes, 1995). Understandings changed to a more meaningful and deeper appreciation of interpersonal relationships after the session on positive relationships with others. In addition there was more focus on learning and love.

Self-acceptance refers to the most recurring aspect of psychological well-being, a fundamental feature of mental health and an element of optimal functioning. Following the self-acceptance session a deeper understanding of how to accept, love and believe in self, essential in self-realization and actualization was apparent (Jahoda, 1958; Maslow, 1968).

With the second intervention group there emerged further understanding and clarity on the topics being discussed. Autonomy was understood as being confident and trusting the self. Facing reality emerged as an additional aspect of personal growth. As described in chapter three, facing reality is important for PLWHA. The understanding of ‘environmental mastery’ became more proactive and holistic rather than selforientated. Purpose in life became more integrated into a daily dignified pattern of living. Concerning the dimension of ‘positive relationships with others’, relationships were more orientated towards helping others in their varied needs. Such a mindfulness of the needs of others is essential for building good and healthy relationships (Jahoda, 1958; Maslow, 1968). ‘Self-acceptance’ acquired a deeper understanding of and belief in the self. It is important to accept self before acceptance of others can occur (Erikson, 1959; Jahoda, 1958; Maslow, 1968; Rogers, 1961).

Content analysis of the first and second group’s pre and post-test descriptions of psychological well-being provided evidence as to the enhanced quality and increased depth of the meaning of psychological well-being. After the intervention there appeared to be a conceptual change in the first intervention groups understanding of psychological

well-being with many of the dimensions included in their definitional concept of psychological well-being. There was no apparent change in the control group's understanding of psychological well-being. While there was no control measure for the second intervention group, their understanding of the concept of psychological well-being also improved after the intervention with every component of psychological well-being identified in their definition of psychological well-being.

It should also be noted that evidence for positive changes reflects an attitudinal and perceptual rather than behaviour change. Further research evaluating knowledge attitudes and behavioural changes related to psychological well-being interventions is needed.

5.3. Process evaluation discussion

The process evaluation revealed generally that the participants were happy with each session, the topics were rated highly, sessions resulted in knowledge and an interactive social empowering process became evident. Psychological well-being is related to and can be increased through such an empowering process that is understood to occur in support groups (Rappaport, 1985).

The first intervention group felt there should have been more active participation by all of the group members. This limited participation by some of the members could have been one of the reasons for the limited change in the first group's quantitative level of

psychological well-being. In the second group all participants was asked to participate in each session so that greater knowledge and empowerment could be received. This could have been associated with the greater changes observed in the second intervention group's understanding of psychological well-being.

On the whole more examples could have been used so that these could serve as practical guidelines for difficult situations where empowerment was needed. While written summaries were not provided because the sessions were summarized verbally at the end, written handouts might have provided greater learning. Future interventions should possibly provide summaries of session in terms of written notes.

5.4. Résumé

This chapter provided a discussion of results. The next chapter will entail the conclusion, limitation of the study and further research suggestions.

CHAPTER SIX: CONCLUSION

6.1. Introduction

This chapter provides the conclusion and limitations of the study and suggests further research that should be undertaken.

6.2. Concluding statements

The purpose of this research was to design, implement and evaluate a participatory psychological well-being program for PL WHA and the intervention was based on and measured using Ryff's concept and subscales of psychological well-being. As expected health, employment and family commitments affected attendance. However an experimental (8 participants), a control group (3 participants) and a second intervention group (8 participants) was established.

From the weekly and overall program process and qualitative outcome evaluation the participants reported to be happy with the intervention with feedback revealing that knowledge, learning and understanding had occurred in the participants. The overall level of psychological well-being for the combined data of both intervention groups did appear to improve slightly but significantly, with the only significant increase on the subscale of positive relations with others. The final qualitative outcome data showed that

the understanding and clarity of the concept of psychological well-being improved in both intervention groups as compared to baseline and control measures.

6.3. Limitations

An extensive literature review revealed no previous special psychological well-being interventions for PLWHA that could be used as a specific guideline for this study with regard to the length of the sessions as well as the measures that should be used. On the other hand this limitation could also be viewed as an advantage in terms of opportunity to design an original intervention. A second limitation was the extensive period of time taken to locate a support group. This resulted in the intervention being shorter than it possibly could have been. A third limitation was sporadic session attendance, which probably impacted on group cohesiveness, reduced the effectiveness of the sessions and resulted in minimal quantitative change being observed between pre-post and retest measures.

6.4. Further research

There is great need for further intervention to improve the psychological well-being of PLWHA. Further psychological well-being intervention research with larger samples, over a longer period of time, is needed. PLWHA need a structured, stable environment that will allow for more cohesiveness and support. Further interventions could address all aspects of biopsychosocial well-being. It is suggested that the biological components

include mild exercise; walking, tai chi or yoga; the psychological components include well-being therapy, with cognitive, verbal well-being interventions as in the present study, social support from group meetings in addition to family, community and environmental contributions.

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Appendices

Appendix A: Consent form

Appendix B: Ryff's psychological well-being scale

Appendix C: Psychological well-being outcome evaluation

Appendix D: Outcome evaluation before and after sessions

Appendix E: Weekly process evaluation of sessions: feelings and improvements

Appendix F: Intervention process evaluation: feelings and improvements

The participants who were present at a pre and post-test assessment were given numbers (e.g. participant 1). The members who were only present for a pre-test were given letters (e.g. participant A). The original unedited written qualitative data is provided below. The raw quantitative data is also provided.

Appendix G: Intervention group 1: Session, feelings and evaluation

Appendix H: Intervention group 2: Session, feelings and evaluation

Appendix I: Intervention group 1: overall intervention evaluation

Appendix J: Intervention group 2: overall intervention evaluation

Appendix K: Intervention group1: Well-being component before and after session

Appendix L: Intervention group2: Well-being component before and after session

Appendix M: Intervention group1 -Psychological well-being pre-test (T1), post-test (T2) and follow-up test (T2)

Appendix N: Control group-Psychological well-being pre-test (T1) and post-test
(T1)

Appendix O: Intervention group 2 -Psychological well-being post-test (T2) and
follow-up test (T2)

Appendix P: Quantitative data

Appendix A

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**MINI-DISSERTATION: THE IMPLEMENTATION AND EVALUATION OF A
PSYCHOLOGICAL WELL-BEING INTERVENTION FOR PEOPLE LIVING WITH
HIVANDAIDS.**

CONSENT TO PARTICIPATE IN RESEARCH

Dear participant we are asking you to take part in this research so that we can evaluate the effectiveness of psychological well-being intervention.

This research will be conducted by David Edwards and supervised by Prof Inge Petersen.

If you agree to participate in this study you will be asked to choose one of the six topics on psychological well-being and present to the group on how you believe that factor of psychological well-being can be improved

If you agree to participate, you will be increasing the understanding of psychological well-being interventions.

Your participation is completely confidential. The results will be reported in a group category.

In you decide to participate you can withdraw at any stage of the process.

You may ask any questions about the study. David Edwards is available on 0845118096.

Signing your name means that you agree to participate in this study.

I,agree to participate in this study evaluating the effectiveness of a psychological well-being intervention. I understand that my participation is entirely voluntary, confidential, that I can withdrawal at any time and that the nature of the research has been explained to me. IfI have any questions I can call David Edwards on 0845118096.

.....
Signature

.....
Date

Appendix B

Ryff's psychological well-being questionnaire

The following set of questions deals with how you feel about yourself and your life. Please remember that there are no right or wrong answers.

Circle the number that best describes your present agreement or disagreement with each statement	Strongly Disagree	Disagree Somewhat	Disagree Slightly	Agree Slightly	Agree Somewhat	Strongly Agree
1. I tend to be influenced by people with strong opinions	1	2	3	4	5	6
2. I think it is important to have new experiences that challenge how you think about yourself.	1	2	3	4	5	6
3. In general I feel I am in charge of the situation in which I live.	1	2	3	4	5	6
4. I live life one day at a time and don't really think about the future.	1	2	3	4	5	6
5. Maintaining close relationships has been difficult and frustrating for me.	1	2	3	4	5	6
6. When I look at the story of my life, I am pleased with how things have turned out.	1	2	3	4	5	6
7. I have confidence in my opinions, even if they are contrary to the general consensus.	1	2	3	4	5	6
8. For me, life has been a continuous process of learning, changing and growth.	1	2	3	4	5	6

9. The demands of everyday life often get me down.	1	2	3	4	5	6
10. Some people wander aimlessly through life, but I am not one of those people.	1	2	3	4	5	6
11. People would describe me as a giving person willing to share my time with others.	1	2	3	4	5	6
12. I like most aspects of my personality.	1	2	3	4	5	6
13. I judge myself by what I think is important, not by the values of what others think is important.	1	2	3	4	5	6
14. I gave up trying to make big improvements or changes in my life a long time ago.	1	2	3	4	5	6
15. I am quite good at managing the many responsibilities of my daily life.	1	2	3	4	5	6
16. I sometimes feel as if I've done all there is to do in life.	1	2	3	4	5	6
17. I have not experienced many warm and trusting relationships with others.	1	2	3	4	5	6
18. In many ways, I feel disappointed about my achievements in life.	1	2	3	4	5	6

Appendix C

Question: What does psychological well-being mean to you?

Appendix D

Depending on the well-being component being discussed e.g. autonomy.

Question: What does autonomy mean to you?

Question: What does autonomy mean to you now that it has been discussed?

Appendix E

Please evaluate this week's intervention session in terms of how you experienced it and how it can be improved.

Appendix F

Please evaluate the intervention in terms of how you experienced it and how it can be improved.

Appendix G

Intervention group 1: Autonomy session, feelings and evaluation

Participant 1: the session is good because I know believe that to be strong as life need you 2 be you have 2 know about autonomy making your own decisions

Participant A: to increase the program I think is depends on how we feel in life.

Participant B: “believing in myself”, I think it’s a big issue t rather than other people. This ca be increased if and if I do have a self-esteem and by controlling my feelings, brainstorm myself. Thank you.

Participant C: the session was good I have gained a lot of information on it. This is going to improve my behaviour. I do not think that there is something to be improved because everything done was discussed with the group.

Participant 4: This session is good for me since I believe that I have a low selfesteem, it will improve my esteem for know is good.

Participant 1: to increase my behaviour I can share my views to other and I don’t let my self to be good in all times nobody perfect good we learn by mistake.

Participant 8: during the session I like to heard everything that I must behaviour in my life and I not listening the badfriend and bad people I must do the wright thing I must be confidence everytime, like if im thing anything and I do. Im not not listening the people say that must do the wrong thing. In the community or in the world. I must strong everything in my life. No one can tell anything I take my decision everytime.

How session should improve- anyone must sharing the ideas with other people so that you get more information about the behaviour.

Participant 3: I improve a good things, I go with side, be your self. This class tech out my self.

Participant 5: I learn to be the one who came with the right answer at the end for my life as they says.

Intervention group 1: personal growth session, feelings and evaluation

Participant 6: could differentiate

Participant 8: I like this session it educate me about the how to accept must leave the old attitude continue with wright. The time person tell you the story don't act now you must relaxer and start afresh because if you act sometime you do the wrong things to lead to arrest.

Participant 2: personal growth is a session that everyone need to know about like we all grow things you did when you were young mistakes you made need not to be repeated that growing. The session was short but enjoyable and I wouldn't change anything.

Intervention group 1: environmental mastery session, feelings and evaluation

Participant 5: our session is just going to be more active and we are happy with it.

Participant 2: I think the session was good cos we all need too be taught about taking care of our situation and it is good as it is sharing ideas made it easy for us. I really enjoyed the classs.

Participant 7: in today's session I have learned that never let the demands of life affect you.

Participant 3: in this class I improve a lot of thinks and I gain many ideas from other person. So I like see people like you in our place or where I life.

Participant 1: the season to me re open my brain, make me know that environment et depend to us if us stand up and talk about it there more improvement.

Participant 4: I feel ever well with this session because course to learn about myself.

Participant 6: It taught me that how can we live at homes many people together and about cleanliness.

Participant 8: by taking caught e.g. another people to understand what are you talking about we must sharing the ideas.

Intervention group 1: purpose in life session, feelings and evaluation

Participant 5: give the youth the way of success. Develop your dream by giving them the right channels of what they can face in life.

Participant 6: and this point I learned today satisfied me.

Participant 3: this class make me happy all the time. I like to you teacher thing you very much. God bless you.

Participant 8: this session was very good because I gain more information about purpose in life e.g. purpose you must brainstorming after you must choose the right point after you are going to do. We must to improve like every support group meeting e.g. give the topic and talk about how things about this topic think you get improvement.

Participant 2: the session was very good especially that we had four people who were willing to talk about the tonic. We heard lot of examples that made the session to be more interesting.

Intervention group 1: positive relations with others session, feelings and evaluation

Participant 6: I understand this point I know that what it means to live with other people.

Participant 8: it was right because I heard many thing about positive relationship with other. How to communicate. How to solve your problem you sharing your ideas.

Participant D: this session is good for us it give us more information about how could understand and be friendly with other people.

Participant 3: for this class going many thinks which don't understand before.. so how I take opinion and take it in my mind.

Participant 2: the session was just fine because we all shared our views and I get new ideas from others. Having a positive relation with others is important cos there are times where life is hard and you feel like you are in the end of the road than if you are good too people it will be easy if you are good too people it will be easy for them too give you a shoulder to lean on.

Participant B: this session give me strength and challenges me, to trust other people in relationship togetherness can build our country and love ourselves so that we can love others people. Thank you

Participant 4: this session help me a lot now my self I know my attitude and values. By this session that I think will try to overcome bad attitude and improve a good one.

Intervention group 1: self-acceptance session, feelings and evaluation

Participant 2: the session was just fine especially some of us are living with Hiv so it helps us accept and know that you are not the only one facing the hardship of life.

Participant C: it was good, nothing to be change and I have gained something on my self acceptance.

Participant 7: give more examples

Participant A: to improve that is to make some more examples and focus to what happened during that days.

Participant 1: the things can improve I things is to make the topics clear in a little beat, like puttings more examples.

Participant 3: for to day program it very good for me. I think it is very important to make example every time, when we do something in class.

Participant 4: this session very good te indeed the way of improving is by giving more example.

Participant 8: for this session if we are talking about the topic you must explain include the example so can understand easily.

Participant 5: the lesson. I must improve by given the all other members to take even when they are not sure about it. jut to share everything with the class.

Participant 6: this point is important in life

Participant B: Today this session makes me proud of myself and accept as I am. Even if a person is HIV+ it is very important to accept your status, trust yourself and believing in you with your status. Make an agreement between you and lives so atht you accept the way you are you'll live longer.

Appendix H

Intervention group 2: Autonomy session, feelings and evaluation

Participant E: it was very entertaining because we had different views from others we made our to be little meat matured. To improve this a should understand what independent means to him or her.

Participant 15: that was very interest, it more though about believe to your self in whatever your do, be positive that you can do it on your own.

Participant 19: was very important it give me a confidence in my life and dignity and live a positive life and to know each an every step I taken.

Participant 18: the autonomy was not good for life because entries you need save person advice or comment you life. Your need more ideas and opinions.

Participant G: the session encourage me that I can make things in my own with out depending to others to believe which I am I but it is better to have more time to discuss it all the topic the last of the course.

Participant 16: autonomy was helping to know what is independent if im depend im not depending to someone that he/she will come and do things for me.

Participant 10: last week session it can help me too mush because now I know myself and other people, I can grow up for spiritual and now can know to help myself to face my reality and to know to respect me and others.

Participant 9: its is important to depend on yourself not to others. To trust everything you do is right not to ask that what if I did this to do things on your own way.

Intervention group 2: personal growth session, feelings and evaluation

Participant 13: with this session I do myself to be near enough growth. Learning more things like really African facing own things, leading people, to be a good leader in communite.

Participant 18: we need to take pride in our dressing ,meaning we need to be neat and tidy at all times. Persona growth is very important in outlives and we need to do everything we can take care of out body.

Participant 19: todays session helped me a lot to have have they way of doing things. It can be improved by oneself to see and deal with things.

Participant 17: the session could be improved by experiencing difficulties in life and to empower, a strength to fight it, if we could not face those difficulties in terms of being accepted always good behaviours and never feel in denial.

Participant 16: help me a lot I know what persona growth mean it mean to focus face reality to be acceptance not denial to be honest to have leasons.

Participant 12: with the today's session I have learned to be more matured in life. This session has taught me to introspect or to do introspection to my self as a living being and also to understand other people.

Participant F: this session make me more growing up and I like to achieve goals strictly than before. Each day on my mind I want to achieve something in order to success.

Participant 15: it about taking care of your self... be strong in all your dealings, face reality be able to understand other people life without differentiate. It about face all the good and bad thoings in life, empower yourself, make yourself go forward to everything in life.

Intervention group 2: environmental mastery session, feelings and evaluation

Participant 14: I think I've learned a lot because we shared lots of opinions with my classmates and pull my socks where necessary.

Participant E: today's session helped me a lot to understand how can a person can deal with problems in his/her environment.

Participant 10: to me this session can help me know to keep by environment clean I get many point to develop my self and others for cleaning.

Participant 18: if they do not need to listen to us we can seek professional help to help them quit.

Participant H: these sessions give me the power (strength) to face my community educate them about good things give them lots of skills control the situation around us mustn't be shy, I must know myself try to active goals.

Participant 16: improve me to know how to control environment situation because life is changing I know all that

Participant 19: to me growing up. This session make my life feel stronger and faithful. Always I will try to laugh to every body. I love my environment more than before.

Participant 17: session is great rely impressed now I learnt how to face reality and to accept others from whom they are. The good places and the conditions I need be have. The environment itself to understand and what to have and to achieve for good living.

Participant 15: this is the very much good on reminding about the place and the people we living with. And that thre a person within me how to control, like and communicate with the situation.

Intervention group 2: purpose in life session, feelings and evaluation

Participant E: I am feeling very good because I've heard other people's purposes in their lives. And what must I do in order to do some of the good thing which will help me to do positive things.

Participant 16: the topic of today improve me to my life I know now a have to have purpose in life because if I don't I'll be a loose.

Participant 18: people they becomes their purpose in life some people also feel their have a spiritual purpose in life.

Participant H: these session I gained a lot because now I know what I'm doing where I'm going and where I stand these can be improved by have a challenge to other people talk about it make sure everyday achieve something that can give you strength of doing things.

Participant 15: it gave me that I have to stear to m purpose. A specially since I haven't achieve it yet. A be positive and live strong within me and my purpose.

Participant 19: it was an eye-opener because it made me realise my real purpose in life and think broad about what do I really want to do in life and set up goals.

Participant 12: I feel good about knowing what can I do to improve my life. I think if David can make some copies about what we have learnt and what we are going to learn as notes to remember next time.

Intervention group 2: positive relations with others session, feelings and evaluation

Participant 16: the topic of positive relation with other people improve me to myself. I know now how to communicate with other people who I can communicate to choose the right person who will encourage me not who discourage me.

Participant E: today I got tat information be a motivator to others. Now I can solve some of problems without contact to adults. I can stand as an individual problem solver. To improve this we must first learn top share some of the things so we can be winners.

Participant 19: this session of today make me to improve the way that I communicate with other people. To me means don't loose your beliefs and I like to encourage other people because on the other side I weak. I got short temper. But this session and take my life put on the other way of thinking.

Participant 15: it rise an ability to understanding of how to communicate with others and do the same as they do. But that no mean you have to through your beliefs.

Participant H: these session I found tat is improving my knowledge changing my mind on what I'm thinking adding more power on my bleaves it can be improved by try to communicate with other try to communicate with the positive thinkers all the time.

Intervention group 2: self-acceptance session, feelings and evaluation

Participant 18: self acceptance was a good topic the says you must be self acceptance and be good in ..of self –acceptance is very important.

Participant 16: self-acceptance to me was helping me to admit myself and like myself to face the challenges of life and I know about this things now and to face the reality to be open minded.

Participant G: it give me more encouragement that I can achieve my gaols, I can communicate with the others, to face the realty.

Participant 10: this is helping me because last time I thought this I know the things but I don't know it is helping me for spiritual and physical. Now I know face a reality.

Participant H: self-acceptance was a good topic that says you must be selfesteem and be good in spiritual motions mustn't relay on peoples' beleave you must be strong and improve yourself. To improve this situation we mustn't be shy we must talk about it in out families and communities.

Participant E: we have our contact so we can be able to deal with some problems.

Participant 15: this is very good topic, it give person self confident deali with, you no matter how hard it is especial to a bad attitude towards others.

Participant 19: to me this topic make me want to empower myself and to improve the standard of thought. And if I comlore my life with other person is a bad attitude.

Participant 17: today's session was very educating about knowing out inner selves. And to know where we lack off. We can improve it by having more relevant time on giving questions about and how to solve difficult problems and to face reality in terms of being affected by virus diseases how can we face it and deal with it.

Participant 12: today's session was very much in formative. It is really important to know about your self. I thought that all the points given today must be typed and give to one another next week so as to read for yourself. Then the sharing of one's ideas as a discussion will be helpful.

Participant 9: today's session is very important to me its challenges the way I look myself and how can I accept myself as it is today and forever myself will be not the same as yesterday.

Appendix I

Intervention group 1: Program evaluation post-test (T2)

Participant 2: I believe the session was perfect, I had trouble dealing with my own troubles. But now I know that every thing happens for a reason. I've learned a lot like now I live my life as a want 2, I believe in my self. I think if everyone takes the session serious they will be empowered for their sake and those close to them. Nothing should be changed.

Participant 6: this course I thank it. it means now I know about physical cology.

Participant 3: this program is good to me. I like see myself continues to see others understand everything in this program.

Participant 5: the programme is giving me the lot of things, because it shows that you can't live alone in this crazy world, so it mush better to compromise with other persons is just so important.

Intervention group 1: Program evaluation follow-up test (T3)

Participant 7: the session was good and I learnt a lot from it. there is no need of improvement since everything was fine.

Participant 6: I learnt a lot which I could not face

Participant 8: the program was do good that you talk to the people and you must trust yourself what you I do. I like to improve every support group must have the topics that are going to talk about to improve yourself in order to represent.

Participant 2: I think the program was fine and it was going to be better if we get something like a certificate of attending so we could always be reminded when things don't go your way. But the programme made us grow emotional, physical and ready for very consequence.

Appendix J

Intervention group 2: Program evaluation post-test (T3)

Participant 18: this program the learned others i still have a long way to go I need work.

Participant 13: thought about programme to me is to be very well and fantastic. It is beneficial and I get lot of things like respect, proud etc. and I like it all the way. It rise dignity.

Participant 16: this course improve me in many I know now how is to be indepenedent and the personal grow and purpose life. I think this course will help us if we continue doing courses like this one because there are many propel who has stress need the personal growth.

Participant 15: the lessons have given me lots of watch outs in life. And gave me the trust in me. And believe in all my beliefs.

Participant 12: I have gained a lot about me as a person to live a positive life and to continuously grow and change my life and attain good things and to easily forget about the bad things. Maybe the programme can be extended to be more beneficial so as to get notes and write test so as to get some certificates to show that we have attended.

Participant 19: this program make me growing up and be patient I trust myself than before. I will improve my dignity, loyalty independent and trust yourself and enjoy yourself as much as you can trust to laugh every time others to improve your life.

Participant 14: in this program I've learned that I still have a long way to go I need to support people who needs my support somewhere somehow.

Participant 17: can be improved by doing it, feel it. maintain your obstacles, goals and behaviour towards the future.

Appendix K

Intervention group1: Autonomy before session

Participant 2: to me it means believing in every decision I make and take full responsibility of the consequences of my decisions.

Participant A: to control my behaviour, I'm looking forward with the goals that I want to reach in future and believe in what the Bible said with teachings and do everything that are good to me and others.

Participant B: autonomy-this means that I do trust myself and I can manage to take any decisions without listening from other person (using my own brain).

Participant C: the way I regulate depends on the atmosphere and attitude.

Participant 4: to take a decision it depend on the motivation. I meet by that time.

Participant 1: the things that control my own behaviour is the way I look the things by that time.

Participant 8: I like take the decision to join the support group. To face to problem, how can I help if the the person is positive, how to advice to stay a long life.

Participant 3: I have self confidence to control my self. I did not take any decision before I think.

Participant 5: my personal thinking and my system of solving my problems in life, because other personal solution are becoming so strong.

Intervention group1: Autonomy after session

Participant 2: once we've talked about it I now know that life needs strong people and we need 2 accept life as it is be myself be positive have many goals and my life is my life I have 2 live it and not let anyone live it 4 me.

Participant A: now I know that autonomy means the way I feel, the life, the purpose, the behaviour, the confidence. Feel- how do I feel in my life about everything that purpose the condition. Purpose-if I still as a living person what I like to do or don't. Confidence-how do I reach that goals I want and what it make we easier to reach. Behaviour-how as I behave if sometimes my goals disappoint me.

Participant B: autonomy means that you can trust and obey your feelings and listening to yourself, improve your strength and try to control your weaknesses. Be positive an what you are doing. Behave yourself and believe in yourself. Trust yourself and be strong to make your own decisions. Try by all means to control yourself rather than by others.

Participant C: now! I believe that by making my own decisions and listening to other peoples views, and not being stubborn. That what it means.

Participant 4: my behaviour is negative because I not able to speak even that I able to think I think this session can help me a lot.

Participant 1: what turns out now to me as we talk about what behaviour means to me now don't let the others to dig you down be your on decision be positive to all what you do.

Participant 8: I controlled in my behaviour first I tell in my mind and I do that thing to change behaviours. I strong the thing when you are thinking and make that you gain the collet thing.

Participant 3: I gain a lot of opinion from other person. I agree others with side I must what I decide to do, what I would for me. I must focus on the way I behaviour, like respect each other, don't take good ideas from good person or good friends.

Participant 5: the way I was in thinkng off was wrong, because I wasn't believe in what other people says. That put me in bad feeling because I thought I would be selfish to my friends in anytimes, they are so really they told me if I'm doing wrong but their points a too good.

Intervention group 1: personal growth before session

Participant 1: personal growth to me means self concept that is persons perception of himself, his attitudes, opinion about all aspects of his being physical social and intellectual that is how he perceives his success

Participant 2: is to see the weaknesses of your believes and work on growing them. It like changes in every part of you life tat make you see that you have grown in them and controlling the life line.

Intervention group 1: personal growth after session

Participant 1: personal growth now to me means to go ahead, allow others to use turn rights to discuss our issue be self concept. To increase you must know that error was an error. Don't be anger. Avoid to try to win at all the time.

Participant 2: Personal growth is about accepting, controlling and knowing your life. It about taking responsibilities ties it means looking forward and planning your life as to the present what you want what you can change.

Intervention group 1: environmental mastery before session

Participant 5: it means to become more and more support of your thought and to be more active in other situation concerning with community.

Participant 2: is knowing that there's no better place like home even when troubles come just try to find way of living in a place that makes you happy.

Participant 7: personally, I think environmental mastery means that each and every person must be in control of his/her own situation and never depend on someone but believe in yourself.

Participant 3: it is to take control of environment. It is to control the or the situation of where we live or to control life or the place. I suppose to take or the control or to take parts in the social program or to help people's problem.

Participant 1: environment means the situation of that particular things happened in that places like urban area and rural area.

Participant 4: environment mastery is special affection in a human life it causes depression, negative attitude and values. Negative attitude causes a spreading of AIDS and STDs.

Participant 6: the place we live in. firstly we must keep our culture and you must know where you come from. There are things we must not do in our community things that are a disgrace.

Participant 8: by through to environment control should taking care of we all know the rural areas. There are too littered such as broken bottle, this food decay etc. so we must dig a big tunnel so that every rubbish must through in. impurities water e.g. from river must be boiled because they have to fetch it for drink, boths and cooking. The people and council must work together in bring essential needs to the community. Clinic must be built to prevent exposure of the disease.

Intervention group 1: environmental mastery after session

Participant 5: we must stop destroying our beautiful world, we need to plants more plants more food for our own resources. We need to teach our community about the danger of uncleaned and to gave the the good lessons of obeying the expired food and the daty places.

Participant 2: it means controllling your own situation be positive if theres no water like in the rural areas that not the reason to give up in life you can fetch water from the river and boil it. You don't need to be rich too live healthy just be clean and find way of living in a poor environment.

Participant 7: environmental mastery means that every person is responsible for the situation. Sometimes you may not have everything that is needed in life but we don't let those demands let us down. All we need is to deal with the situation to the best of our capabilities.

Participant 3: is to proved food for the poor people. The government must take care of supply food the poor. People must care of nature. E.g. tress, flowers, grass, etc. we must stay in the clean sulder, we need have toilets in our please.

Participant 1: environment mastery now as wee talk about it, it means you must control your behaviour first and ate the health things like fruits vegetables and talk about it like in or homes about cleanness cause it must be more easy where it started in our homes.

Participant 4: to control the environment we need a life skill. With life skill you be able to communicate with people. Also you be able solve you problems and for others.

Participant 6: Nature first. We must dig holes to throw rubbish. Counsellors must look for electricity and water. Water when I have water we must put it in our clean containers put a lead of Jik in it. The government must organise others whi can teach about cleanliness.

Participant 8: is know now to prevent the disease we must educate the people about clean so that we can prevent and you must know what are you live now must control.

Intervention group 1: purpose in life before session

Participant 5: it means a much better program because the development among the community is improving so that means the skills and the knowledge of being the real person in the area is showing a good combination.

Participant D: purpose in life means: the reason for which something is done and exists.

Participant 7: to me purpose in life means that you must know why God brought you on this earth. You need to have a vision and a dream about your future and always be proud of who you are. Aim high and never underestimate your abilities.

Participant 6: there are a lot of things that happen in life. Maybe you lost parents through death it becomes a problem. You find yourself sick and being positive.

Participant 1: a dream or purpose would be like a guideline in one's life. If you have a purpose you are aiming to achieve a goal.

Participant 3: the purpose in life it means a lot to me. It is to help people for many things in life. To help the poor people to advise them. In life there are many challenges. Many people did not understand.

Participant 2: is to have a goal a vision in life whilst working on that goal there are obstacles but that won't let you down because it's a purpose of living.

Intervention group 1: purpose in life after session

Participant 5: know the aims and purpose is to bring the good thinking. Be sure of what you are doing. Give the other peoples the chance to give you a views or points to develop your dream. Please be sure of living the space of troubles or of the bad doing peoples. Try to be strong to be faithful and to be the rose light to your community

Participant D: it means make your life still continuing with some aims and visions thinning of succeeded. Make plans of future. Visions of your life. Be positive on what you did. See yourself to succeed.

Participant 7: you must understand God's purpose of bringing you on this earth because God has a purpose for each one of us and we also need to be grateful for that. You need to have a dream and a vision about your future. Take yourself and aim high. Never underestimate your own abilities. If you happen to fail to do something never give up and never regard yourself as a failure but take that as a challenge. You must follow your dreams and learn to know your weaknesses and work on them. Socialize with people who are willing to help.

Participant 6: you can accept ideas from other people and take that which will build you. And in life you come across a lot of problem like you get ill it does not mean you will not get to where you want to do tell yourself you are going forward. And what is your aim. And things are not always good in life.

Participant 1: what turns out now as we talk about the purpose to me now. A purpose or dream is to aiming to achieve one's dream. If you have purpose there some barriers in the way, not all of the people appreciate you dream, but if you have a dream you have to constant to pursue your dream. If life have a purpose there termitetron pages attracting in order to distabe you but if you have a goal you go through that.

Participant 3: people must have a skills. When we talking about a skill, we must have skill of doing something. To help others. To make a decision of life. To positive in life. And how to have a dream, if you want something.

Participant 2: I find a purpose in life more important to us cos there no life without purposes and in life there are bad things that we experience so it doesn't mean that it the end of the road.

Intervention group 1: positive relations with others before session

Participant 6: firstly everytime one has to be free. You can teach them what it means to be positive. We can sleep in one place. We can dance together. We can all use the same toilet. There is one thing that can be a danger, blood only.

Participant 8: if I've a problem you must tell your friends or bet's friends in order to solve that problem because I trust others. Is talk with other people nicely and communicate with other people. Talk about the thing in the community. If you talking with the people sharing ideas at the end you help someone.

Participant D: it means to share some opinion with other people. To caring together with others. To understand each other. Love other people not judging other people.

Participant 3: it means to be positive with other person, I do not agree with them by what they said to me. Because my opinion are defy to them. Or to improve the relation with them to choose many things, or share the point with them or other.

Participant 2: means accepting their belives and opinion even if they are against what I want I believe. Too make a relation work we need too know others well and don't change them too what you believe in.

Participant B: this means that you have somebody who is close to you, talk to each other. Can be amongst the family, friend from outside. Build a good relationship is to understand each other. To be open to each other. Love, trust, accepting the other people. Respect, not judgemental accept as she/he is. The more you talk the more of relationship build.

Participant 4: positive relationship mean to level to my self. I have to know myself so that other will know me. I have do good to to the other so that they will do good to me.

Intervention group 1: positive relations with others after session

Participant 6: Firstly open to other people. Accept another person as they are. And sometimes I believe in Romans another person may believe in ancestors, accept him or her as they are. Speaking the truth everytime. And perhaps I stay with people who drink alcohol and I don't drink, I just stay and accept their situation.

Participant 8: that you must trust each and talk nicely with your friends. If you talking with other people you get more information about the problem. How to solve it and you not judge her/his.

Participant D: accept each other. Share opinions. Discuss my problems which face others. Do not judge other people. Love them all be truly person to anybody. Try to discuss any issues with others to make more relationships.

Participant 3: I gain a lot. By positive relation we must trust each other, share ideas with them and leave. We must understand counnpvide with others. And don't undermine them

Participant 2: now I know that a positive relation is accepting and loving, caring and respecting others it means being the for a person completely.

Participant B: be positive relationship I understand that there should be a trust on both sides. Accepting each other the way we are and not being judgemental. Love each other with unconditional love. If that can be increased South Africa at large can be nice country without wars, crime no killing other people. We should be a good to each other.

Participant 4: positive relationsh with othe is the way connect with the other, and accept them as it is.

Intervention group 1: self-acceptance before session

Participant 2: self acceptance for me means being there for your believes and taking everything about you seriously like at the end of the day you don't regret decisions you've made about you.

Participant C: is to have no doubt about myself and being happy the way I am and created and without having complains or regretting myself.

Participant 7: I personally think that self acceptance means to accept yourself as you are. it means you must be proud of who you are and have self confidence. Never underestimate your own choices and decisions, never let anyone decide for yourself accept yourself, learn your own weaknesses and try to change them if possible.

Participant A: self acceptance means: to do what is wright to your life. It means how confident do you feel, how do you alow things and how do you look after yourself. In everything that challenges your life.

Participant 1: self acceptance means respect, proud and faithfulness.

Participant 3: self acceptance it is most important thing in life because its helps us to face the real life. To accept yourself on what you are if Q better way of believing in world.

Participant 4: self acceptance means to accept my life as it is for example if I am disable I have to accept that and if I am HIV + I have to accept

Participant 8: self acceptance means that I do the thing that I do confidence. Anything that I think I do and not trust anybody. You do yourself.. Nicely. The more you think for accept but you can change, the thing come other side don't distabe.

Participant 6: it is the way you must know yourself that you are important in life and the way you are confident.

Participant 3: it means a lot to me because it give me the good solution about my life and good cooperating with other people's so that gave me to the right of taking what ever other peoples says but I am the one who came with the solution.

Participant A: is about accepting yourself as you are is either you poor, rich, sick, uneducated but its vital to accept yourself more than accepted by others.

Intervention group 1: self-acceptance after session

Participant 2: I now know that it is easy to live accepting than to try and change things we cannot. As people we all have that part of our life we don't like but accepting it can make your problems easy to face.

Participant C: to be happy with the way you are the importance of sharing ideas with the other peoples can improve your self-acceptance.

Participant 7: self acceptance means sharing ideas with other people but never underestimate yourself. You must have focus in life and be proud of who you are.

Participant A: self acceptance means how do you challenge if you have faced with some problems in life. Self acceptance means you have change your life about being confident with some challenges. And to be sure that you have accept your self toward everything.

Participant 1: self acceptance now to me means to be acceptance any kind of things bad and good and it is important to be proud and be confidence to all what you are doing and love myself the way I am.

Participant 3: it good for me to accept what I am, because to accept thing, or the way am I, is the way life goes on. I have the problem with some I leave.

Participant 4: self acceptance is to accept things as it is. I believe that is the art of reducing gelace.

Participant 8: I heard the session that you must sharing the ideas with other people, so that you can get the solution because at the end you must take the decision, and if you are sharing the ideas with other people, so that the next problem you can solve your problem

Participant 5: you need to believe in you. Give your mind a space to accept the good and the bad things that can tool place anytime. Take the ideas of other people and be so positive in your ending, like to take their advices share your with the really people that can increase you believe and gave you the "degree" or diploma of being the successful person in the world.

Participant 6: firstly be confident in yourself and love yourself so that other people may like you as well. If you have a problem you must be able to talk about it with other people even if you do not tell them that you are the person who has that problem so that you may get someone to advise you. Another thing is being free in your soul and that means it happens you can be able to face it.

Participant B: self acceptance is whereby you accept yourself the way you are. don't mind about people what they say about you, but the most important thing is to believe in you and accept you because you, yourself you accept yourself with your confidence.

Appendix L

Intervention group 2: Autonomy before session

Participant E: it means tat you are free for doing anything you want to do. No one can take decision for you. By having a chat with others so that you can get other people's vision and you as individual can decide which is wrong or right.

Participant 9: an independent mean to know to do your own not to depend to others.

Participant 18: independent means to have self-esteem you not depend. Is to keep the own advise un not depend on others.

Participant 10: means have self-esteem not to depend on others.

Participant 13: to be have you own right to do any things something you like or dislike, to do whatever you want. You can be self confident, dignity.

Participant 11: is to have your life on your own, but sometimes you need opinions from others.

Participant 19: independent to me means to be confident and dignity trust yourself in all what ever you doing don't influence by other people.

Participant 15: is to be able to do things for yourself, on your own with no one help.

Participant F: it means you have mature enough no one can say something that you don't want.

Participant G: to be independent means to do what u are not do depend other people.

Participant I: on my opinion the independent show the wise person. Is to keep the owns advice. Is not depend the others.

Intervention group 2: Autonomy after session

Participant A: To be free of taking decisions and respect others opinions. As you and individual can decide which is wrong or to right.

Participant 16: can't differentiate

Participant 9: to socialise, trust, self-esteem and not doubt yourself.

Participant 18: independent it means is to trustful yourself means that confidential and respect.

Participant 10: be positive on what you do and stick to your goals and gain from others opinion.

Participant 13: it essentially to faithfully, self confident, dignity, believe in yourself what you do respected and respect other in their socially, physical aspect, their rights.

Participant 11: you must love and accept your self, you must be confidentiality. You must be proud and strong for what you think and want to do. Although you need some options from others but yours must be strong and be positive with life.

Participant 19: trust yourself don't influence by other people make sure always you are independent

Participant 15: to believe in yourself, stick to your dealings, be stable to whatever you believe in. your words must to your words always.

Participant F: be self confident and trust yourself.

Participant G: you must be face the situation the way of is people be confident.

Participant I: is to trust yourself. Is to respect others and confidential and the positive yous life think that must be do.

Intervention group 2: personal growth before session

Participant 18: personal growth is taking care of your body. Firstly we need to brush our teeth at least twice a day to ensure that we have a fresh breathe at all times. Taking baths daily will also help to keep us clean and fresh. We also need to eat healthy food like vegetables and fruit. We must try to stay away from junk food like sweet and chocolates because it can damage out teeth. We need to take pride in our dressing meaning we need to be neat and tidy at all times. Personal growth is very important in our lives and we need to do everything we can to take care of our bodies.

Participant E: by personal growth its when a person mind getting matured. It is when a person understand some of he thing better than before. Its when you got attitude tat can't change by hearing news from others by you. It is when a person can differentiate good or bad thing without being told about it. You can convince a person who is a bout to give up life because of other challenges in life. To be independent this can help a person to be fully grown. To accept that you are free you must have a good relations with others.

Participant 17: it means about building a framework for the course about improving one self and others. Is the feeling of your innermost being and acceptance is about your life line story. Self concept your expectations, be self aware and have good self esteem. To deal with anger conflict and have goals.

Participant 16: it means to me when you born your mother feed you in the school and learn and your mind started to grew and you started to matured sometimes you came across many difficulties in life and you learnt by mistakes if you grew enough you differentiate good things and bad things if you grew enough if you choose good things in life choose to successful, focus try to be winner not a loser be free in you innermost don't depend to someone.

Participant 19: it means to empower myself and I want to gain more knowledge. And often that I want to see myself in good way. I can do it if I trust myself and patient. Achieve many goals on your life accept everything daily. Take care of yourself emotionally.

Participant 15: that is where a person have a power to over come almost everything in life. Have an experience of Bad and hard think and go through it and still fill strong. In all the dealings of life.

Intervention group 2: personal growth after session

Participant 18: personal growth is taking care of your body. Firstly we need to brush our teeth at least twice a day to ensure that we have a fresh breathe at all times. Taking baths daily will also keep us clean and fresh. We also need to eat healthy food like vegetables and fruit. We must try to stay away from junk food like sweet and chocolates because it can damage out teeth.

Participant E: it means that your mind is getting knowledge of doing things it is when you having understand some of things better than you was before. It is when a person can't tell you to change the way you do things. It is when you are independent and accept that because you are about youre life. It is when you find your friend in problem and you come with solution.

Participant 17: his about accepting my innermost being and accept others. Taking care of oneself emotionally to be aware of bad and good things happens in life. I have be empowered for what I need in future in terms of values, obstacles and attitude behaviours and prejudice. To have goals. Dealing with reality to overcome.

Participant 16: it means to focus in your life what you want to do and face the reality to differentiate between good and bad things you wanna do to learn to accept the things that have happened you have to be honest don't depend to some one be a winner not a loser.

Participant 19: when see yourself grow up daily and face all challenges in your life, emotionally, dignity. Achieve your goals everyday each day of your life must have set up goals or improve something about your life. Empower yourself.

Participant 15: this is a good lesson for the day and in all the lessons we hade in, it give me a way or to face reality in life, without feeling an tense in body and in life which is very good for person.

Intervention group 2: environmental mastery before session

Participant 14: concerning environmental you need to educate the community to take care of their environment e.g. no littering they should litter in the bins not to leave papers lie around. Planting of trees where necessary. Eat a balanced diet. Drink clean water.

Participant E: it is not easy to control people because they can undermine you. But as a person who got experience of dealing with different people. You can take a control because you have been with different people you can easily understand them when there is a problem you'll have.

Participant 10: it is important to keep environment clean and safety because environment is develop our economy. It is our resp. to control a bad situation like dumping rubbish and proct it from litter.

Participant 18: everyday we face different types of situations for example teenagers that consume alcohol and use drugs. If we have friends of loved ones that use drugs and consume alcohol we can give them advice on what it can do to them. We can tell them about the dangers and how harmful it can be to their bodies. If they don't want to listen to us we can seek professional help to help them quick. Another example is when children disobey their parents love. These to we can explain to them that our parents love us and only want what bets for us. So in return we must to make our parents proud of us by listening to them and helping them with chores at home and ding the best we do at school. In very situation we need to stay focused and do the right thing.

Participant H: I control the situation around me about talk to the community discuss the matter that we have try and get solution. To stand in from the people you must have strength don't be shy and you must know what you talking about. You must try to express the cleanliness so that all the people will leave the better life.

Participant 16: environmental situation to me = whatever happened to me I have to face it. Whether good or bad. If something happened to me that make feel like I'm nothing in the world I have to think that what I'm gonna do to be out of that situation because is challenge of life I have to know life is not the same and life is challenging. I have to understand what ever I come across with in life.

Participant 19: I control the situation at home like if someone in my family had corruption. I will try to solve that problem by taking my family and discuss it. To communicate with other people in community educate other people. Must have goals in life.

Participant 17: means to understand things in life and how to control your living. To control yourself emotionally. And have challenges in life. Be able to understand the situation and help others.

it show how good I am in communicating with me and other people at work. This is a very big and complicated, because sometimes you find your self very agree but you have to be cool down or cool that person who not who not on his her se

Intervention group 2: environmental mastery after session

Participant 14: it means most of the people don't know that disease are caused by the dirty environment, so its my responsibility to teach advise then that we must prevent diseases by leaving in a good environment.

Participant E: you have to communicate with people so tat they can understand you. You must tell them about people other places who take of their environment. To deal with you environment problem so that you can get to solution. It can be improved by taking care of where they are living.

Participant 10: it is important to keep environment clean and safety it is our responsible to go out to tell people about it because some of people they do know what is environment mean? If all people know about it environment it is easy to keep it clean.

Participant 18: so in return we must to make our parents proud of us by listening to them and helping them with chores at home and doing the best we do at school. In very situation we need to stay focused and do the right thing.

Participant H: I try myself to speak to the community try to control the situation that we have at that moment try to educate the community about what is good for them what they must do try to have skills especially for the children so that they can grow up with that knowledge try to achieve goals in life.

Participant 16: it means to understand the environment situation to be educated and have skills to work and to face the challenges of life to know how to survive if something bad happened to you, to control your emotional to be open minded and to clean the environment.

Participant 19: means to if you are person you must have a purpose in your life. Must have goals set up your goals. Always keep your self healthy. Communicate.

Participant 17: means that be able to understand situation and help others. Get lot of skills and educated. Be able to understand yourself and others emotionally and physically. Be in the environment where you could acknowledge the condition.

Participant 15: a person have to have a control of a person within have a good communication with other, look after the environment you live at, you skill if you have to and ...then for more information.

Intervention group 2: purpose in life before session

Participant 14: life is full of ups and downs when you live you have to suffer and through suffering you can find meaning and purpose in life. It is up to you to take responsibilities of your choices and of your life and be accountable of what you do in life and don't expect good things to happen to your life, because it is difficult and you should learn to grow from suffering. We must accept reality because when we accept it we are able to cope with our lives. Sometimes we avoid facing the truth about ourselves and our lives by denying or withdrawing attacking or blaming because reality is often painful and frightening so it can ...more effort to change it.

Participant E: as a person you can not live without a purpose in your life. Each and every person is living with a purpose in her or his life. In order to live you must have a purpose which will enable you to live a proper or a good life. In order to be a hero you must conclude your purposes so that you can be a winner.

Participant 16: it means to me to know what the purpose in life what you have to do about life and what things you have to make improve your life and you have to choose what life do you want if you want a better life you have to be a positive person who have a positive mind who know what he/she want when and what you to do to get what you want.

Participant 18: each individual has their own purpose in life. Some people are career orientated and some are family orientated. I think that their childhood upbringing helps each individual to determine what their purpose in life is and the paths they choose in life. People set goals in life and they spend the rest of their lives attaining these goals. This becomes their purpose in life. Some people also feel they have a spiritual purpose in life.

Participant H: my purpose in life is to achieve goals and have good qualities always have plans in life because if you don't have plans in life you don't have any direction. In life you must have elements of success all the time you must have positive mind. It's myself can make my day special and achieve something in life.

Participant 15: it about how do you want to live your life, with who or what knoll of people. Do you want to live your life with , that how do you people you live with is their purpose in life, if you live, with people who's live with good goals in life and you can achieve good life as well.

Participant 19: it is something that one can do intentionally and at the end of the day you went to get good achievement. Is to have good vision of life thinking about the good things and see my self being independent. I am able to do thing on my own without someones being told. And I able to take life seriously.

Participant 12: it about knowing where you come from and where you are going to. Is about achieve something that you need in life. What can you do in life to improve your life. Is about having goals and objectives. Is about thinking before you do. Is about attending and not loosing.

Intervention group 2: purpose in life after session

Participant 14: to means take each and every day as a blessing and spend it wisely and enjoy life and take things as they are don't despair or loose hope because were are here through Jehovah's purpose.

Participant E: it means each and every person must have a goal. If you have a goal you must fulfil so that you can live a good life. In order to be a person you must reach all you goals so that you can be a person or a subject to their people so that they can respect you and see from you what to do and what not to do in order to be a hero.

Participant 16: it means to be a positive person and who have positive mind who knows what I want in life to achieve and to focus to understand life that it changes to be a person who have vision and goals about life and to be successful and to be a winner what I'm doing.

Participant 18: purpose in life is achieve in life that their childhood upbringing helps each individual to determine what their purpose in life is and the paths they choose in life.

Participant H: my purpose in life I want to be happy in my life at all time, I want to further my studies so that I can get a better job have my own house, car and have good healthy family.

Participant 15: it means to achieve and look forward to your goals which is good a good thing to live life in good purpose and achieve at list some of your goals. Because we live in good and bad situation we can't achieve all own goals and that we have to live with and not be disappointed.

Participant 19: means have: vision, dignity, independent, intentionally, realise.

Participant 12: it means more to me, it is more valuable to me to have a purpose. It is a thing that you live with and you can not live without.

Intervention group 2: positive relations with others before session

Participant 16: communicate with other people stay healthy having a positive contact with your fellow human beings. Keep your promises pay attention to how other people behave too. Surround yourself with positive thinkers. Think about how you bring attention, affection, acceptance, appreciation and affirmation into your relationship. Your word is your bond. If something silly if you don't mean it don't say it you deserve to be loved and happy choose to be happy and healthy.

Participant E: to be positive relations with others means to be in contact with other people to solve some of your problems which can make you to give up life. They have to tell you their so that to deal with them so that they can start to live in hope that one day they will win. Do something which will encourage others on different problems.

Participant 19: to me means improve to communicate with other people share their views and opinion. If there is a problem discuss and get solution.

Participant 18: having a good relationship with other people is the foundation for a positive and successful future. Be friendly and courteous when speaking to other people. Be honest at all times and speak with a smile. Having good relationship with help our growth and mould us into the person we become. If people do not have good relationship with other people they perceived as unfriendly and unapproachable. There are many people who through good relationship with others have gotten through many hardships in life. Remember always be friendly and speak with a smile.

Participant 15: this has to be the same as other do to compromise, be what those you mix with, by that particular time have good communication with others.

Participant H: positive relationship is very good because if you're human being you must share ideas with other people taking good advice you mustn't isolate yourself you must try to communicate with the other (people) you can share good relationship with the church members if you got problems don't be shy to tell your family or one of them that you trust.

Intervention group 2: positive relations with others after session

Participant 16: positive relation with other people it means to communicate with other people you need to have a positive contact with your fellow human beings be the best you can be qualities are important the skill to speak the ability to listen with other people and th quick mind of sharing with other peoples views communicate your beliefs through actions by doing rather than saying. Treat others like the way would like to be treated. You to trust yourself when you doing things. Do what you promise you will. Think about how you bring attention, affection, acceptance, appreciation and affirmation into your relationship.

Participant E: positive relations means to encourage people who are in problems so that they can live in hope. You mustn't be yourself whilst dealing other problems. You must be an example if there unsolved problems which are burden to others.

Participant 19: meaning good positive in other people. Share their views patient with them and honest with them friendly with other people not loose your belief pay attention and listen and get solution.

Participant 18: the first thing is that you can't live alone. So you have to have to live with others people. But have to choose a good relationship. Good relationship so other people is have different problems and discuss with them how to solve your problem. You have to commit yourself with good relationship people and always willing to motivate you and help you in different problems that is a good relationship to other people.

Participant 15: a person has to be in good mind and understand other people, be able to communicate with others have to be positive to whatever you do with those people you mix with or the place or condition of the place.

Participant H: positive relationship can be improved by communicate with other people share your quality views you must know you're beleaves and what you want in life you must try to encourage other people. Don't be shy on what you doing you must trust you self.

Intervention group 2: self-acceptance before session

Participant 16: it means to me to admit myself of what I am what things hat had happened to me that make me feel uncomfortable and what I'm gonna do to survive and what things tat I have to do means to have focus and not pretend to be someone when I'm doing things and to be proud of who I am and to planned before I do want to do when how what are you want to do.

Participant 10: means that you must know to defend yourself and others but not for right for knowledge or spiritual.

Participant E: means to understand what anything which happens on your life. You have live a positive life so that you can be a hero.

Participant 9: know to defence yourself, and to admit my self who I am and to do not adopt another person character.

Participant 18: means a lot to me especially to my friendly and a communicate as a hole legal advice person who guide self accepted who person guide. I can be impose by must relay to other people you must do things on your you must by to lesen to the people must get angry.

Participant H: self acceptance mean a lot to me especially to my family and a community as a hole. I can be improve by must relay to other people you must do things on you your must try to lesson to other people must get angry. Self-esteem, face reality control by other people good advice believe you self.

Participant G: self acceptance means u must to believe to yourself who u are to understand the situation as it is to face the reality.

Participant 12: self-acceptance to me means to accept your self positively and accept your body and the way you are and the things you can not change from you.

Participant 17: by possessing attitude, self acceptance, psychological behaviours to know yourself as an individual and accept challenges in life.

Participant 19: could't differentiate

Participant 15: is to take me as I am, with no other one' attitude or minds.

Intervention group 2: self-acceptance after session

Participant 16: to admit yourself who you are like yourself your body to be satisfied with things you have to be open mind. Don't disappointed face reality and challenges of life and to be positive and healthy. Don't pretend to be someone that you will never be.

Participant 10: it means that must know t believe yourself and other people and to know to take a good path for achieving your goal.

Participant E: means to be a hero because you understanding what is happening to you life. You must have to learn from others who are on your level so that you will be strong on your pints. Admit it the the situation as it is.

Participant 9: means to believe in yourself and not to undermine yourself because of failure. You should wait until your day is coming.

Participant 18: self acceptance means I must face the reality and I must who I'm I must take good advice from other person I must manipulate by other person I must judge other person life I must be enjoy.

Participant H: self-acceptance means I must face the reality and I must know who I am, I must take good advice fro other people I must control by other people I must judge other peoples life I must be happy for what I am. I must try to control my anger mustn't have bad attitude towards other people.

Participant G: self acceptance u must to think about yourself that u can achieve your goals u can't.... with your life, make a plan, and take on action for that. Don't change anything because it is a reality.

Participant 12: it can improved by working towards goals in life, know your and understand yourself. Take advice form other people.

Participant 17: means willingness to accept yourself of who you are. Possessing positive attitudes and good behaviours and not to compare yourself or rely on other. Accept yourself as an individual.

Participant 15: accept who you are, don't compare you to other people, follow your heart, be have in all dealings....

Appendix M

Intervention group1 -Psychological well-being pre-test (T1)

Participant 2: It means the way I deal with everyday joys and troubles and accepting challenges in life.

Participant 9: psychological well-being means that the body and the mind and the soul makes a person. The three of them must work together, that what makes the psychological well-being of a person cause if one of these is disturbed. Somehow, it can have a negative impact to the other parts so it is important for a person to be mentally, physically and emotionally balanced.

Participant 8: your mind works in a correct way. It means you can think and you can talk.

Participant 3: It means to me I suppose to make my mind to be well working or to be healthy.

Participant 1: Psychological means to open up my breath and don't give up in life there are many challenges.

Participant 3: psychological means-to exchange views with other people is very interesting to me.

Participant 6: it gives me another picture of carrying on with life and my soul. My mind also. You accept anything that may come up in life.

Participant 4: Psychological well-being means the important mind development and soul.

Intervention group1 -Psychological well-being post-test (T2)

Participant 2: psychological well-being- it taking care of the situation that might effect your mind and it dealing well with every day cos living is about bad a good experiences. You need 2 be empowered to accept everythings and that means taking things not 2 your mind but 2 life as it is.

Participant 7: psychological well-being is the idetionship between the mind body and soul.

Participant 3: it means to make feel will and physically. I feel feet, mental, healthy. At all the time.

Participant 8: Socological means- it means to improve your self. Know about all the things. Sharing ideas with other people so that you can improve and how to encourage others.

Participant 1: psychological now to me means don't give up in life there are many challenges in life.

Participant 3: sychological means-In my thought, the big thought is to work with the community is just the good thinking, because that makes me to prove that the partnership with the community is just more involved so I would like to do the control of nature like cattles, sheep, goats and there in good situation to prevent poverty.

Participant 6: Psychology, I hear because the way I used to think I saw it important that I must be able to live with other people even when we do not think in the same way. Well I am free in my mind because now I can tolerate other people.

Participant 4: sycological well-being means the art of knowing you self.

Intervention group1 -Psychological well-being follow-up-test (T3)

Participant 7: psychological well-being means there must be a link between the mind, the body and the soul since we all know that a human being is divided into three. There is a mind, the body and the soul.

Participant 6: psychology means getting many ideas and growing in your mind and sharing

Participant 8: means that you think that you must encourage the people work to the community.

Participant 2: it's taking care of the situation you are facing as it is and not let things get to disturb your mind. It's being there for everything that comes your way.

Appendix N

Control group-Psychological well-being pre-test (T1)

Participant 10: It is very important to safe my life and others.

Participant 9: Means to be helpful to other people who need help in different groups

Participant 11: psychological well-being according to my life I have had a good relationship with my family and friends, that is why y life goes on no matter there are troubles and difficults things it is easy to cope on it.

Control group-Psychological well-being post-test (T2)

Participant 10: It is meaning of to know things better or to judge things wrong.

Participant 9: psychology-to treat a person in the way ill like to be treated.

Participant 11: P-W-B. According to my opinion the way I feel and I live it is good for me because I always share my problems with other people which makes me feel great for the future and for the situation which I live on it.

Appendix O

Intervention group 2 -Psychological well-being post-test (T2)

Participant 18: psychology you very important

Participant 13: psychological well-being-I can explain as the signs of healthy. I can't arrive without psychological well. I can control me that how can I behave. It tells me what can I do during sometime.

Participant 16: It means to me what I'm gonna do about my life and my future. What things that I've never done and my I suppose to do that will make me happy and important to me make my future plans and to know where I came from? What I want to do in my life in which time.

Participant 15: to me is to maintain everything or all most every without hesitation and strongly or in strong mind.

Participant 12: to me psychological well-being means to have a healthy mind to be able to cope with day to day life experiences. Not to be stressed or depressed by things that I can not change.

Participant 19: psychologically it is important to improve your life. And if a person must have strong ability.

Participant 14: psychological well-being is to –improve on your achievements in your life, achieve goals and have continuous learning process day after day.

Participant 17: it about your mental health, how you manage yourself. How your brain work, in terms of handling your depression, stress, anxiety it all from your brain to your physical health. When you mentally disturbed is when your life is in disorders frustrated, angry, terrifies, devastating then your body structure, physically act on it. Is about your personal growth of life. How you manage yourself mentally and physically. And you can deal with problems in future.

Intervention group 2 -Psychological well-being follow-up-test (T3)

Participant 18: psychological aspects of well-being mean to me means to face yes. As it is and learn each and everyday who have experience.

Participant 13: Psychological- I learn that it is very well and I think it mean a lot as a human being to now about my own good relationships.

Participant 16: the psychological was helping to know what I'm gonna do in life to be positive mind to not disappointed with things that not important.

Participant 15: it lesson about how your mind take things. How strong you are in life, can you trust your self in things you have to do and you have done.

Participant 12: to me it means a lot about me as a human being to be able to know myself and to have more improvements contribution, in life and good relationship with other people.

Participant 19: psychology to me means it when if you want to improve your life in good condition and emotional it make me growing up by understanding situation in my life by sharing the views other people and don't change thoughts by other people. Tell yourself that you are independent don't rely other person I will gain more knowledge and skills.

Participant 14: psychological aspects of well-being mean to me. It means to take life as it is and learn each day and everyday from people who have more experience.

Participant 17: psychological well-being means to know yourself, your well being your innermost, your values and perceptions. About your behaviour within your self and others. Your self concept, goals, how to maintain your personal growth, the relationship positive between you and others, the being independence, eth attitude, and how to handle the grief.

Appendix P

	a1	pg	e	pl1	pr	sa	total1	a2	pg	e	pl2	pr	sa	total2	a3	pg	e
1	15	18	13	16	12	12	86	13	13	15	11	12	13	77	.	.	.
2	13	18	15	14	13	17	90	16	18	12	12	16	16	90	13	18	16
3	8	17	11	14	8	8	66	15	6	9	12	16	8	66	.	.	.
4	13	18	15	15	16	13	90	13	18	15	14	11	15	86	.	.	.
5	12	17	13	16	12	14	84	12	9	6	13	16	12	68	.	.	.
6	7	13	13	8	4	14	59	8	4	4	7	6	10	39	13	14	8
7	18	17	15	16	10	18	94	13	18	14	18	18	16	97	12	18	16
8	7	18	16	10	18	12	81	10	13	13	10	15	12	73	9	13	17
9	12	16	10	12	14	12	76	13	14	11	11	13	11	73	.	.	.
10	7	16	15	12	11	14	75	8	16	10	13	9	9	65	.	.	.
11	12	13	16	15	16	12	84	12	17	13	16	9	13	80	.	.	.
12	.	.	.	.	.	.	.	9	18	14	15	14	11	81	12	18	12
13	.	.	.	.	.	.	.	16	11	6	12	13	14	72	9	16	11
14	.	.	.	.	.	.	.	8	18	14	17	13	6	76	6	18	14
15	.	.	.	.	.	.	.	15	18	18	15	16	17	99	13	18	18
16	.	.	.	.	.	.	.	11	17	10	15	10	12	75	7	11	15
17	.	.	.	.	.	.	.	12	18	17	7	10	14	78	13	18	17
18	.	.	.	.	.	.	.	1	13	0	6	0	11	31	13	16	14
19	.	.	.	.	.	.	.	6	16	13	11	16	14	76	13	16	18

	pl3	pr	sa	total3	age	gend	group
1	.	.	.	.	25	femal	1
2	11	13	13	84	24	femal	1
3	.	.	.	.	38	male	1
4	.	.	.	.	27	male	1
5	.	.	.	.	32	male	1
6	8	9	16	68	39	femal	1
7	18	14	15	93	33	femal	1
8	9	11	11	70	35	femal	1
9	.	.	.	.	25	femal	2
10	.	.	.	.	30	male	2
11	.	.	.	.	35	femal	2
12	11	10	12	75	41	femal	3
13	13	15	15	79	21	femal	3
14	12	12	14	76	36	femal	3
15	13	18	10	90	27	femal	3
16	16	15	11	75	23	femal	3
17	16	15	18	97	32	femal	3
18	12	11	16	82	34	femal	3
19	13	18	13	91	30	femal	3