METHODOLOGY

CHAPTER 2

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Methodology

2.1. Sample

2.2.1. Sampling

Subjects for the study were selected through incidental sampling from different hospitals and clinics of Ahmedabad. Total 180 HIV+, HIV+ with dermatitis and dermatitis individuals were selected. The samples were selected from Ahmadabad because Ahmedabad is one of the biggest cities in Gujarat; there were more number of HIV positive people as compared to any other city of Gujarat. Also, when the data collection of the research started Ahmedabad was one of the biggest Voluntary Counselling and Testing Centres (VCTC) that provided Antiretro Viral Therapy (ART) to people living with HIV/AIDS as compared to any other city of Gujarat. Not only HIV+ people from Ahmedabad come for ART but people living in outskirts of Ahmadabad, Baroda, Mehsana, Anand, Sawli, Kheda, Dakore etc, used to come for ART in Ahmedabad. So, sample drawn from a large population is better as compared to small population. In order to search such sample the researcher met with different doctors working in government and private hospitals and clinics. The information regarding the research work was provided to more than 500 individuals, out of which about 285 people were interested in taking part in the research work. So they were called for next meet for signing the consent form and to provide a complete case history. The sample was selected by using the following inclusion and exclusion criteria.

2.1.2. Criteria for selection of sample

Inclusion criteria:

1) Individuals who are above 18 years of age.

2) Individuals with HIV+ status.

3) HIV+ people with dermatitis.

4) People suffering from dermatitis.

5) Beck depression inventory was used to find the level of depression; those with moderate and severe depression were not selected for the study.

6) HIV+ people who were taking Antiretroviral Therapy from last two years and regularly were selected as part of the research.

7) People suffering from dermatitis who were taking medication for treatment of dermatitis were selected.

8) For HIV+ people, those with CD4 count above 250 were selected.

Exclusion Criteria:

1) Individuals suffering from any other then, a) HIV+ b) HIV+ with dermatitis and, c) Dermatitis alone, were not included in the sample.

2) Individuals with moderate or severe depression were not included in the sample.

3) Individuals suffering with any other co morbid psychiatric problem were not included in the sample.

4) During intervention if any patient develops another disease that patient will be excluded from the sample.

5) Those who were not taking ART (HIV+ people) were not selected.

6) Those people who stopped taking medication earlier were not selected.

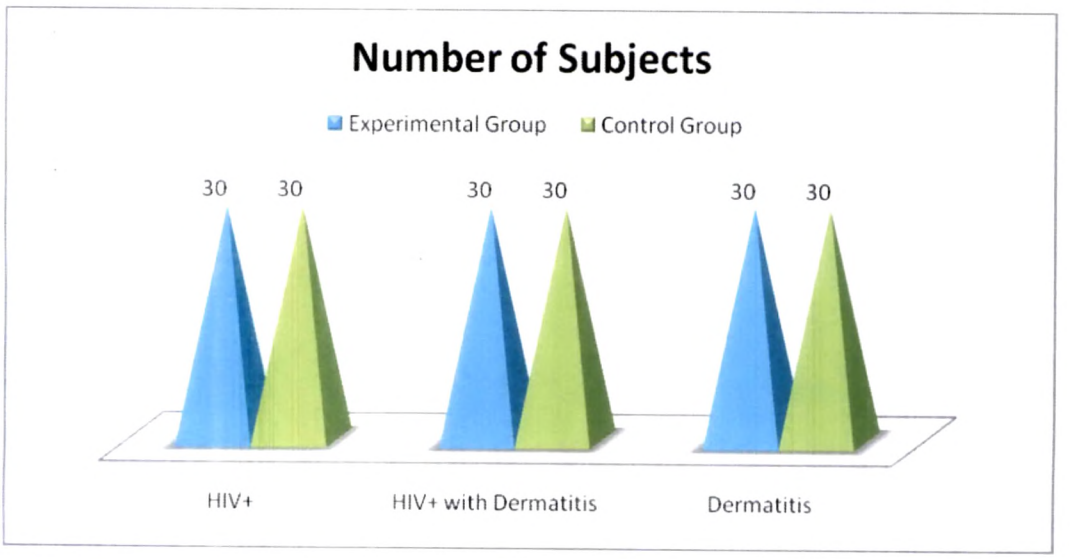
7) Those HIV+ people with CD4 count below 250 were not selected.

2.1.3. General characteristics of sample. The sample break up has been given below:

Total 180 subjects (Graph A), were divided into experimental and control groups, 90 in each group. These 90 individuals were further divided into three more groups based on the type of disease they are suffering with i.e., HIV+, HIV+ with dermatitis and Dermatitis alone; 30 individuals in each group.

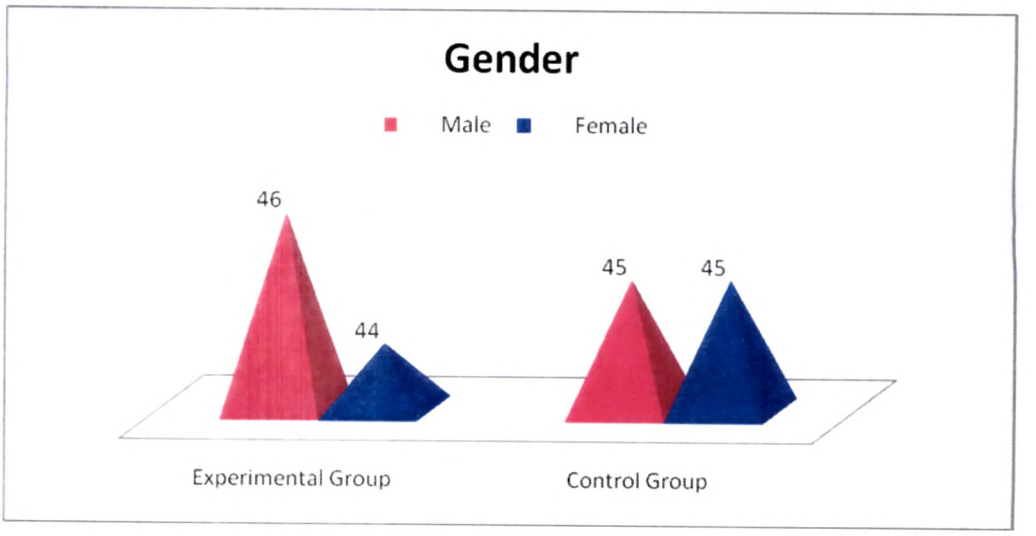
The descriptions of the sample break up according to the demographic variables i.e., number of males and females, age of subjects, marital status, with whom they are staying of the subjects under the experimental and control groups has been presented in graph B, C, D and E. Under experimental group there were 46 males and 44 females; out of these males and females 33 were from age group 18 – 35 and 57 were from age group 35 and above. 4 were unmarried, 12 were married and 74 were living single (divorced, waiting for divorce, living separately from spouse, widow and widower). 10 were living with spouse and rest 80 were staying with others (parents, relatives, siblings and children). Under control group there were 45 males and 45 females; out of these males and females 43 were from age group 18 – 35 and 47 were from age group 35 and above. 5 were unmarried, 10 were married and 75

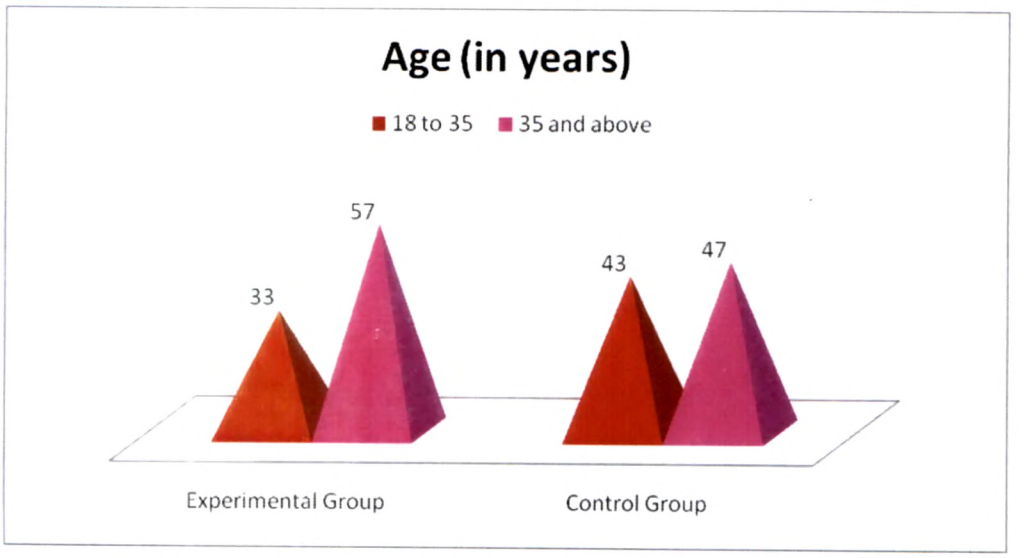
were living single (divorced, waiting for divorce, living separately from spouse, widow and widower). 2 living single, 12 were living with spouse and rest 76 were staying with others (parents, relatives, siblings and children.)



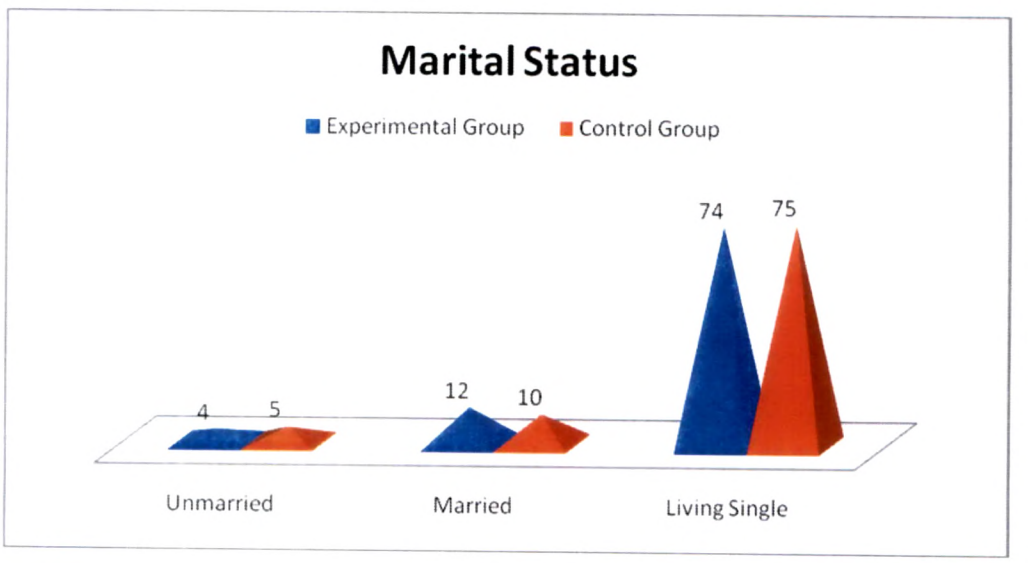
Graph A: Showing number of subjects in experimental and control groups.

Graph B: Showing descriptions of the sample break up according to the demographic variables i.e., Gender (males and females) of the subjects under the experimental and control groups.



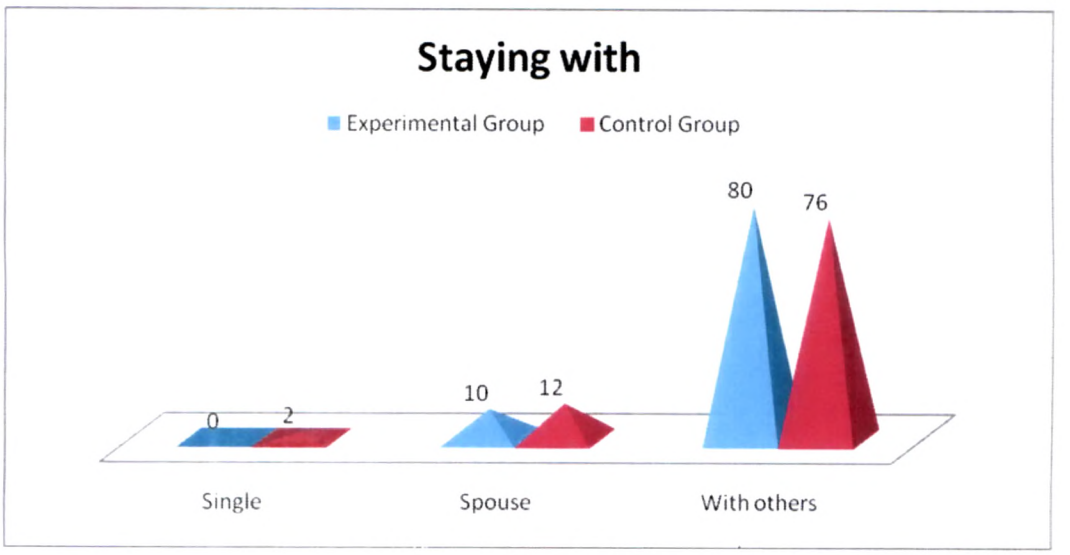


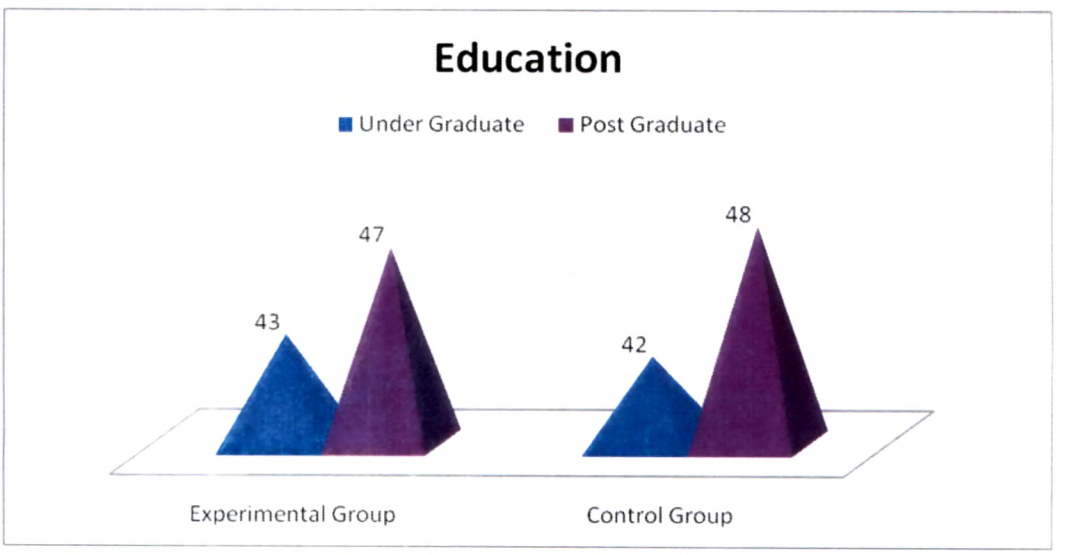
Graph C: Showing descriptions of the sample break up according to the demographic variables i.e., age (in years) of the subjects under the experimental and control groups.



Graph D: Showing descriptions of the sample break up according to the demographic variables i.e., marital status of the subjects under the experimental and control groups.

Graph E: Showing descriptions of the sample break up according to the demographic variables i.e., with whom they are staying with, of the subjects under the experimental and control groups.



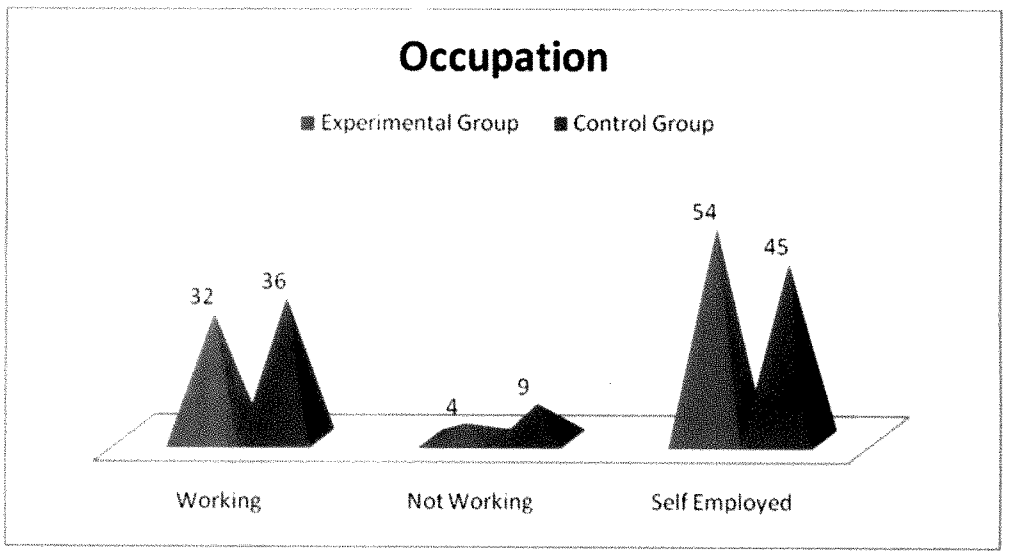


Graph F: Showing education details of subjects under experimental and control groups.

Graph F and G is showing education and occupation details respectively, of subjects under experimental and control groups. In experimental group 43 were under graduate

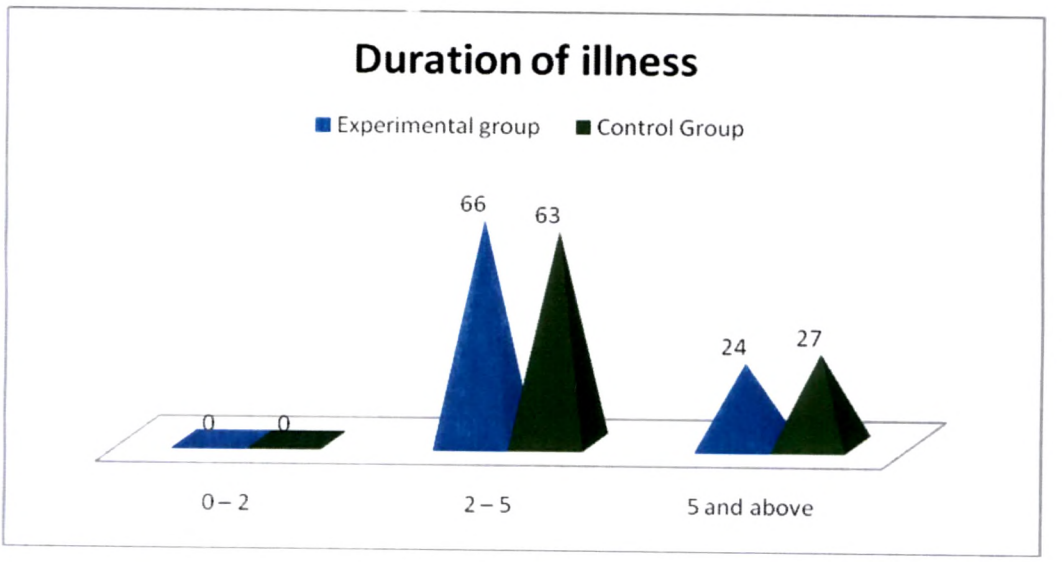
and 47 were post graduate. 32 were working, 4 not working and 54 were self-employed (Business, social worker, HIV/AIDS counsellor). In control group 42 were under graduate and 48 were post graduate. 36 were working, 9 not working and 45 were self-employed (Business, social worker, HIV/AIDS counsellor).

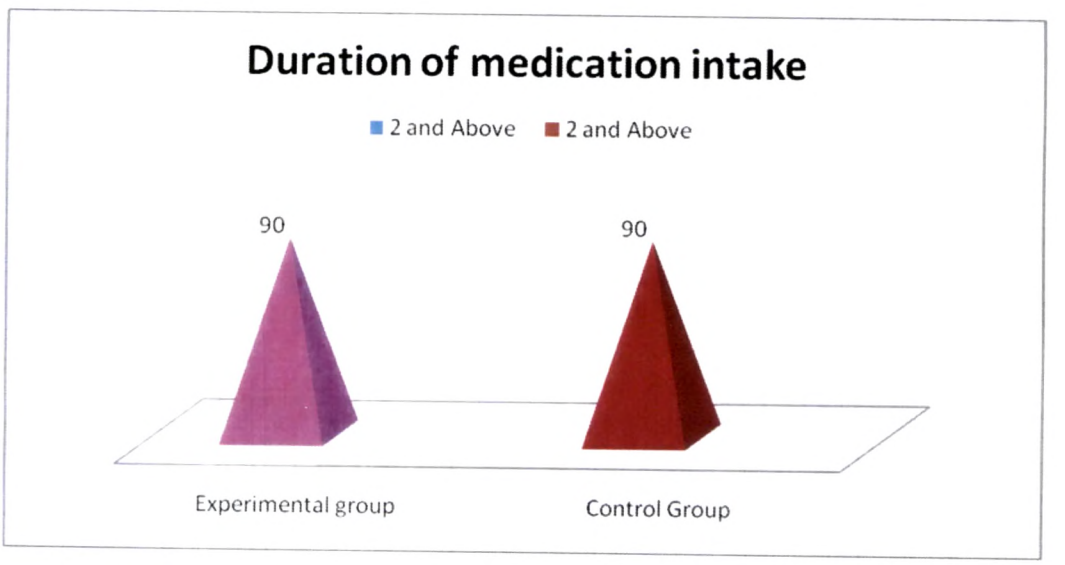
Graph G: Showing occupation details of subjects under experimental and control groups.



Graph H and I is showing the description of the sample break up according to the disease related variables for the experimental and control groups. In experimental group the duration of illness of 66 subjects was between 2 – 5 years and duration of illness of 24 subjects was 5 and above (up to 8 years), all 90 + 90 subjects under experimental and control groups were taking medication from more than two years. In control group the duration of illness of 63 subjects was between 2 – 5 years and duration of illness of 27 subjects was 5 and above (up to 8 years)

Graph H: Showing the description of the sample break up according to the disease related variable i.e., duration of illness (in years), of the subjects in experimental and control groups.





Graph I: Showing the description of the sample break up according to the disease related variable i.e., duration of medication intake (in yrs), of the subjects in experimental and control groups.

Table 2a: Showing number of individuals in each group suffering with different skin diseases

Diseases / Groups		Psoriasis	Herpes Zoster	Eczema	Atopic Dermatitis	Acne Vulgaris
Experimental Group	HIV+ with dermatitis	10	8	5	3	4
	Dermatitis without HIV+	10	8	5	3	4
Control Group	HIV+ with dermatitis	10	8	5	3	4
	Dermatitis without HIV+	10	8	5	3	4
Total	120	40	32	20	12	16

2.2 Tools and Measures:

The measures used for the study were compiled in the form of a questionnaire and the measures were arranged section wise. The sections are as given below:

Patient consent form – In the beginning, once the subjects were convinced about participation in the research, they were given patient consent form. On consent form it was written that, "I xyz have understood the project work and I am willingly

participating in this project." Then they have to sign. If they wish, they can provide their contact number which will be kept confidential.

Section A: Demographic Information

1. Case History Form – The case history form was developed to get information about the subject's demographic details like age, gender, languages known, religion, marital Status, occupation, nationality, family members, educational -qualification, History of present illness, Stressors of life, unrealistic demands, attitude towards self and others, Medical history: Drugs taken ,previously and at present and if, there is any benefit or side effect of the drugs taken. Format of the case history form was taken from, "The Indian handbook of clinical hypnosis, edited by Vyas and Vyas (2006)".

Section B: Information about clinical parameters

1. Recruitment form – Recruitment form was developed to collect disease related information like, duration of illness, when came to know about HIV/Skin disease, whether taking medication for the disease suffering with? If taking medication then from how many days? Whether changed medication in between? Discontinued medication, if yes, when started taking medication again? CD4 count/plasma viral load tests done in last three months or not, if yes, what was the count? Whether suffering from any other disease? Whether suffering with any psychological disorder, if yes, taking medication for that or not and from how long taking medication for the disease/disorder?

2. Symptom Checklist – The checklist was developed by the skin specialist in order to mark the number and severity of signs/symptoms shown by the subject suffering from dermatitis so that the difference or improvement in the subject's condition can be compared; by comparing symptoms shown before and after therapeutic intervention.

Section C: Information about psychosocial parameters

1. Self – Confidence Inventory – This self report Inventory was developed by Basavanna (1975) for measuring the confidence in the adolescents and adults and is used extensively in India. The inventory consists of 100 items. The scores vary from 0 to 100. Lower the score higher would be the level of self – confidence and vice –versa. Reliability: The odd - even split – half reliability was calculated and was found to be 0.94.

2. State-Trait Anxiety Inventory – The State-Trait Anxiety Inventory (STAI) was initially conceptualized as a research instrument for the study of anxiety in grades 9 to16 and adults. It is a self-report assessment device which includes separate measures of state and trait anxiety. According to the author, state anxiety reflects a "Transitory emotional state or condition of the human organism that is characterized by subjective, consciously perceived feelings of tension and apprehension, and heightened autonomic nervous system activity." State anxiety may fluctuate over time and can vary in intensity. In contrast, trait anxiety denotes "relatively stable individual differences in anxiety proneness . . ." and refers to a general tendency to respond with anxiety to perceived threats in the environment. The State-Trait Anxiety Inventory (STAI) – form Y is a brief self-rating scale for the

assessment of state and trait anxiety, in adults. The concepts of state and trait anxiety were first introduced by Cattell and have been further elaborated by Spielberger. State anxiety (S-Anxiety) refers to the subjective and transitory feeling of tension, nervousness, and worries and may be characterized by activation of the autonomous nervous system, at a given moment. Trait anxiety (T-Anxiety) refers to relatively stable individual differences in anxiety proneness as a personality trait, that is, in the tendency to perceive and respond to stressful situations with elevations in the intensity of state anxiety (S-Anxiety) reactions. In general, the STAI measures anxiety as a feature of the general population, thus it is expected its scores to follow the normal distribution. However it is widely used in the assessment of patient populations. The State-Trait Anxiety Inventory (STAI) is reported to be reliable and valid and has been used extensively in research and clinical practice. The development of STAI was initiated in 1964 by Spielberger and Gorsuch and STAI-Form X was published in 1970. On the basis of accumulated knowledge gained from extensive research with the STAI, a revision of the scale began in 1979, and eventually Form -Y was published in 1985. The STAI comprises separate self-report scales for measuring state and trait anxiety, consistent with the definitions given above. The S-Anxiety scale (STAI Form Y-1) consists of twenty statements that evaluate how the respondent feels "Right now, at this moment". The T- Anxiety scale (STAI Form Y-2) consists of twenty statements that evaluate how the respondent feels "generally". In responding to the S-Anxiety scale, the subjects choose the number that best describes the intensity of their feelings: (1) not at all, (2) somewhat, (3) moderately, (4) very much. In responding to the T-Anxiety scale, subjects rate the frequency of their feelings on the following four-point scale: (1) almost never, (2) sometimes, (3) often, (4) almost always. Each STAI item is given a weighted score of 1 to 4. A rating of 4 indicates the presence of high levels of anxiety for ten S-Anxiety items (#3, 4, 6, 7, 9, 12, 13,

14, 17 and 18) and eleven T-Anxiety items (#22, 24, 25, 28, 29, 31, 32, 35, 37, 38, 40). A high rating indicates the absence of anxiety for the remaining ten S-Anxiety items and nine T-Anxiety items. The scoring weights for the anxiety-present items are the same as the chosen numbers on the test form. The scoring weights for the anxiety-absent items are reversed. Scores for both the S-Anxiety and the T-Anxiety scales can vary from a minimum of 20 to a maximum of 80.The test-retest reliability was excellent, with Pearson coefficient being between 0.75 and 0.98 for individual items and equal to 0.96 for State and 0.98 for Trait. (Spielberger, Gorusch, and Lushene,1976). Reliability and Validity According to studies by Spielberger (1970), test- retest correlations were calculated to be .54 for the State section and .86 for the trait section. The STAI interchangeability rating related anxiety instruments was .80 for Taylor Manifest Anxiety Scale, .75 for IPAT Anxiety Scale, and .52 for the Multiple Affect Adjective Check List.

3. Beck Depression Inventory – It was developed by Dr. Aaron T Beck (1961), is a 21 question multiple – choice self report inventory. Each answers being scored on a scale value of 0 to 3. Total score of 0-13 means minimal depression, 14-19 mild depression, 20-28 moderate depression and 29-63 severe depression. Higher total scores indicate more severe depressive symptoms. It is one of the most widely used instruments for measuring the severity of depression. The questionnaire is designed for the individuals aged 13 and above and is composed of items relating to symptoms of depression such as hopelessness and irritability, cognitions such as guilt or feelings of being punished, as well as physical symptoms such as fatigue, weight loss and lack of interest in sex. The BDI is widely used as an assessment tool by healthcare professionals and researchers in variety of settings. The test was also

shown to have a high one-week test–retest reliability (Pearson r =0.93), suggesting that it was not overly sensitive to daily variations in mood. The test also has high internal consistency (α=.91).

The Beck Depression Inventory (BDI) is 21-item test presented in multiple choice format which purports to measure presence and degree of depression in adolescents and adults. Each of the 21-items of the BDI attempts to assess a specific symptom or attitude "which appear(s) to be specific to depressed patients, and which are consistent with descriptions of the depression contained in the psychiatric literature." Although the author, Aaron T. Beck, is associated with the development of the cognitive theory of depression, the Beck Depression Inventory was designed to assess depression independent of any particular theoretical bias.

Reliability: Test-retest reliability has been studied in the case of 38 patients who were given the BDI on two occasions. It was discovered that the changes in BDI scores tended to parallel changes in the clinical reading of the depth of depression, indicating a consistent relationship between BDI scores and the patient's clinical state. The reliability figures here were above 0.90. Internal consistency studies demonstrated a correlation coefficient of 0.86 for the test items, and the Spearman-Brown correlation for the reliability of the BDI yielded a coefficient of 0.93.

Validity: In assessing the validity of the BDI, the readily apparent face validity of the BDI must be addressed. The BDI looks as though it is assessing depression. While this may be quite advantageous, it may make it easy for a subject to distort the results of the test. Content validity would seem to be quite high since the BDI appears to evaluate well a wide variety of symptoms and attitudes associated with depression. One study addressing concurrent validity demonstrated a correlation

of 0.77 between the inventory and psychiatric rating using university students as subjects. Beck reports similar studies in which coefficients of 0.65 and 0.67 were obtained in comparing results of the BDI with psychiatric ratings of patients.

4. Multidimensional Health Locus of Control (MHLC) Scale – It have been in use since the mid – late 1970's and were first described in Wallston, Wallston, and De Vellis, 1978, Health Education Monographs, 160-170. The form contains three 6 items subscales: internality, powerful others externality and chance externality. In past 25+ years it has been used in over a thousand studies and has been cited in the literature hundreds of times. MHLC scales have been used in literally hundreds of studies. Generally, the results are that they are moderately reliable (i.e., they have Cronbach alphas in the 0.60 - 0.75 range and test-retest stability coefficients ranging from 0.60 - 0.70). These reliability estimates vary, of course, depending on many issues (e.g., the particular population studied; the length of time between administrations). Thus, it is fair to say that the scales are "reliable."

5. Subjective Vitality Scale – The concept of subjective vitality refers to the state of feeling alive and alert--to having energy available to the self. Vitality is considered an aspect of eudaimonic well-being (Ryan & Deci, 2001), as being vital and energetic is part of what it means to be fully functioning and psychologically well.

Ryan and Frederick (1997) developed a scale of subjective vitality that has two versions. One version is considered an individual difference. In other words, it is an ongoing characteristic of individuals which has been found to relate positively to

self-actualization and self-esteem and to relate negatively to depression and anxiety. The other version of the scale assesses the state of subjective vitality rather than its enduring aspect. At the state level, vitality has been found to relate negatively to physical pain and positively to the amount of autonomy support in a particular situation (e.g., Nix, Ryan, Manly, & Deci, 1999). In short, because the concept of psychological well-being is addressed at both the individual difference level and the state level, the two levels of assessing subjective vitality tie into the two level of well being. The original scale had 7 items and was validated at both levels by Ryan and Frederick (1997). The chronbach alpha coefficient is 0.88

6. HIV/AIDS- Targeted Quality of Life Instrument (HAT - QoL) – It was developed by Holmes William C (1998), to measure the Quality of Life of HIV/AIDS infected persons. It is a self administered, Health – Related Quality of Life Instrument which contains 34 items divided in 9 dimensions i.e. Overall function, 6 items; Life satisfaction, 4 items; Health worries, 4 items; Financial worries, 3 items; Medication worries, 5 items; HIV mastery, 2 items; Disclosure worries, 5 items; Provider trust, 3 items and Sexual function, 2 items. Internal consistency coefficients of all final HAT-QoL dimensions are $\geq$0.80. For HAT-QoL, only one (Provider Trust) of the nine dimensions revealed a significant test-retest difference (+5.9, p=0.05). All HAT-QoL intraclass correlation coefficients (ICCs) were $\geq$0.64 (seven values were $\geq$0.73).

Description of scoring : All dimensions are scored so that final dimension score is transformed to a linear 0 – to – 100 scale, where 0 is the worst score possible and 100 is the best score possible. Obtaining this final, transformed dimension score, is done in four steps:

Impute a value for all subject responses, item by item, as noted below. Most item responses will be valued using Code A, some will be valued using Code B.

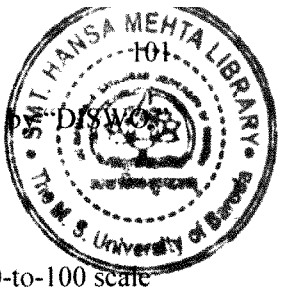
a.	Response Option	Code A	Code B
b.	"All of the time"	1	5
c.	"A lot of the time"	2	4
d.	"Some of the time"	3	3
e.	"A little of the time"	4	2
f.	"None of the time"	5	1

Use Code A for the following items: 1b, 1c, 1d, 1e, 1f, 3a, 3b, 3c, 3d, 4a, 4b, 4c, 5a, 5b, 5c, 5d, 5e, 6a, 6b, 7a, 7b, 7c, 7d, 7e, 9a, 9b

Use Code B for the following items: 1a, 2a, 2b, 2c, 2d, 8a, 8b, 8c

If the response to one item in a dimension is not completed, substitute the average imputed value of the other completed items in the dimension for the missing item (as long as at least half of the other items have been completed). For example, if one item of a four-item dimension is not completed, and the imputed values of the other, completed items are "1," "2," and "4," the average imputed value to be used for the missing item is "2.33." If more than half of the items in a dimension are not completed, however, no substitution should be done, and the final score for the dimension should be considered missing.

Add the imputed values of all items from a dimension to get a total imputed value score for that dimension (below, the total imputed value score for the overall function dimension will be denoted by the term "OVFXN," life satisfaction by "LISAT," health worries by "HLTHWO," financial worries by "FINWO," medication



worries by "MEDWO," HIV mastery by "HIVMA," disclosure worries by "DISWO," provider trust by "PROTR," and sexual function by "SXFXN").

Transform each dimension's total imputed value score to the 0-to-100 scale using the following formulae:

Overall function: OVFXN100 = (100/(30-6))*(OVFXN-6) , where OVFXN is total imputed value score for overall function dimension;

Life satisfaction: LISAT100 = (100/(20-4))*(LISAT-4), where LISAT is total imputed value score for life satisfaction dimension;

Health worries: HEAWO100 = (100/(20-4))*(HEAWO-4), where HEAWO is total imputed value score for health worries dimension;

Financial worries: FINWO100 = (100/(15-3))*(FINWO-3), where FINWO is total imputed value score for financial worries dimension;

Medication worries: MEDWO100 = (100/(25-5))*(MEDWO-5), where MEDWO is total imputed value score for medication worries dimension;

HIV mastery: HIVMA100 = (100/(10-2))*(HIVMA-2), where HIVMA is total imputed value score for HIV mastery dimension;

Disclosure worries: DISWO100 = (100/(25-5))*(DISWO-5), where DISWO is total imputed value score for disclosure worries dimension;

Provider trust: PROTR100 = (100/(15-3))*(PROTR-3), where PROTR is total imputed value score for provider trust dimension;

Sexual function: SXFXN100 = (100/(10-2))*(SXFXN-2), where SXFXN is total imputed value score for sexual function dimension.

7. COPE Inventory – It is a multi dimensional inventory developed by Carver et al. (1989). It incorporates 13 conceptually distinct scales which were developed on theoretical grounds or chosen on the basis of previous work which demonstrated their role in facilitating or impeding adaptive coping in different contexts. The COPE can be used to assess situational coping (typical responses to stressors), or both. The COPE is made up of the following scales.

Active coping: taking action, and exerting efforts, to remove or circumvent the stressor, planning: thinking about how to confront the stressor, planning one's active coping efforts, Seeking instrumental social support: seeking assistance, information or advice about what to do, Seeking emotional social support: getting sympathy or emotional support from someone, Suppression of competing activities: suppressing one's attention to other activities in which one might engage, in order to concentrate more completely on dealing with the stressor, Turning to religion: increased engagement in religious activities, Positive reinterpretation and growth: making the best of the situation by growing from it, or viewing it in more favourable light, Restraint coping: coping passively by holding back one's coping attempts until they can be of use, Acceptance: accepting the fact that the stressful event has occurred and is real, Focus on and venting of emotions: an increased awareness of one's emotional distress, and a concomitant tendency to discharge those feelings, Denial: an attempt to reject the reality of the stressful event, Mental disengagement: psychological disengagement from the goal with which the stressor is interfering, through day – dreaming, sleep, or self – distraction, Behavioural disengagement: giving up, or withdrawing effort from, the attempt to attain the goal with which the stressor is interfering. Two additional scales, Alcohol/Drug use and Humour, were

developed after the other scales and have been added since, but these are still regarded as more exploratory.

For scoring, separate scores for each of the scales are computed simply by adding the scores on the four items that make up each scale. Since the scores for each item range from 1 (don't do this at all) to 4 (do this a lot), the scores for each scale range from 4 to 16. The Chronbach alpha reliability coefficient is 0.74.

8. Bell Adjustment Inventory - It was developed by H.M. Bell in 1934. A test of personality that assesses the individual's adjustment in a variety of situations; example: Home, health, social, emotional and overall dimensions. "Home adjustment is expressed in terms of satisfaction or dissatisfaction with home life, Health adjustment in terms of shyness, submissiveness, introversion, etc...and Emotional adjustment in terms of depression, nervousness, etc.."

Number of items in home, health, social and emotional dimensions of adjustment consisted of 35, 31, 34 and 35, respectively. The possibility range of scores for home, health, social and emotional adjustments were 0 to 35, 0 to 31, 0 to 34, and 0 to 35, respectively. High scores on the inventory signify poor adjustment and low scores better adjustment in different specific areas and also in respect of adjustment taken as a whole.

Test-retest reliability of different adjustment dimensions as reported in the manual ranged from .70 to .93 and internal consistency (odd-even) from .74 to .93. The inventory was validated by using contrast groups, normals and diagnosed neurotics as well as against the Eysenck Personality Inventory and a number of

personal variables. In each case, the validity coefficient was found to be significantly high.

9.Nagpal – Sell Subjective Well – Being Scale – The scale was developed by Dr. H. Sell and Dr. R. Nagpal in 1985 which consists of 40 items divided into 11 factors (the number in brackets give the number of items constituting the factors):

General well – being positive affect [3] – The referents of this factor reflect feelings of well being arising out of an overall perception of life as functioning smoothly and joyfully. The items reflect our theoretical construct of positive affect only in what we had called its overall perspective (Nagpal and Sell, 1985). It is of interest to note that all the more specific concerns, such as family life or work, did not load to any substantive degree on this general factor. At least for job satisfaction, this confirms previous findings refuting a 'pie' – model of life satisfaction (Near, 1984).

Expectation – achievement congruence [3] – The item on this factor refer to feelings of well – being generated by achieving success and the standard of livings as per one's expectation, or what may be called satisfaction. The factor confirms our theoretical construct of expectation – achievement harmony. However, as shown specifically for satisfaction at the work place (Herzberg, 1966), positive and negative aspects have emerged as independent and not correlated.

Confidence in coping [3] – This factor relates to perceived personality strength, the ability to master critical or unexpected situations. It reflects what is sometimes called positive mental health in an 'ecological' sense, i.e. the ability to adapt to change and to face adversities without breakdown. It confirmed our theoretical construct of mental mastery but again the negative items of this construct have formed an independent and non – correlated factor (Inadequate mental mastery).

Transcendence [3] – The items of this factor relate to life experiences that are beyond the ordinary day – to – day material and rational existence. They reflect feelings of subjective well – being derived from values of a spiritual quality. The construct of rootedness, belongingness was fully confirmed in this factor.

Family group support [3] – This factor reflects positive feelings derived from the perception of the wider family (beyond the primary group of spouse and children) as supportive, cohesive and emotionally attached.

Social support [3] – There is two separate areas of feelings of security and density of social networks. These two theoretical constructs have merged in this factor which contains items describing the social environment beyond the family as supportive in general and in times of crisis.

Primary group concern [3] – On this factor, positive and negative terms are correlated and form one cluster. The feelings about the primary family form part of overall well – being and had not anticipated this factor as an independent concern. This cluster also correlates highly with the item of both spouses earning, in the sense that family life is perceived as happier if both spouses work.

Inadequate mental mastery [7] – All items with significant loadings on this factor imply a sense of insufficient control over, or inability to deal efficiently with, certain aspects of everyday life that are capable of disturbing the mental equilibrium. This inadequate mastery is perceived as disturbing or reducing subjective well – being. Most of the items on this factor form part of the theoretical construct of mental mastery over self and environment. However, only inverses out of this construct and only items concerning the person himself constitute this factor. The positive statements concerning self form the factor which is named as confidence in coping.

Perceived ill – health [6] – This is probably again a one dimensional factor since happiness and worries over health and physical fitness are highly correlated, and both hold load significantly. Worry over disturbed sleep has significant loadings on this factor as well as on the factor of inadequate mental mastery.

Deficiency in social contacts [3] – The common feature of the items constituting this factor is worries about being dislike and feelings of missing friends. These are the negative items from our construct of density of social networks.

General well – being – negative affect [3] – This factor reflects a generally depressed outlook on life. As in the case of positive affect, it represents our theoretical construct of negative affect only to the extent that the overall perception of life is concerned. Specific worries over family, health and the like do not load here. The pair positive and negative affect are the only paired 2 – dimensional factors which are not uncorrelated. On 40 – item, the correlation ranged from -0.18 to -0.36.

Scoring and interpretation of Subjective Well – Being (SUBI): The SUBI can be scored by attributing the values 3, 2 and 1 response categories of the positive items, and 1, 2 and 3 to the negative items. The minimum and maximum scores that can thus be obtained are 40 and 120 respectively. The total score can be interpreted summarily in the light of three board score ranges: 40-60, 61-80 and 81-120 to have an overall picture of the well – being status. If most scores falls above middle values, the probability is that the person enjoys a good sense of well – being. If most scores are below the middle values, it may be inferred that the individuals is experiencing difficulties in terms of happy living.

10. Sensation Seeking Scale (SSS) – The scale was developed by Marvin Zuckerman, University of Delaware. The first form of this test was devised in 1961 as an incidental part of experimental research in sensory deprivation. The idea behind it was to develop a measure of individual differences in what is an "optimal level of stimulation". The SSS has generated a large amount of interest in the idea of stable individual differences in the need for varied sensations, arousal levels, experiences and sensation – seeking temperament of clients. The scale may help therapists or vocational counsellors to formulate realistic goals for their clients.

Sensation seeking is a trait defined by need for varied, novel and complex sensations and experiences and the willingness to take physical and social risks for the sake of such experiences. Sensation seeking may be described as a TRAIT or a STATE. A trait can be defined as the tendency to experience the relevant state and behave in a specific manner on many occasions in many situations. The trait of sensation seekers refers to the tendency to seek relatively novel and stimulating situations and to explore them. The State of sensation seeking is one define by a predominance of characteristic types of strong, positive affect feelings in situations of great novelty and risk. The phrase "varied, novel and complex sensations and experiences" describes the qualities of stimulation that are valued by a sensation seeker. "Varied" reflects the need for change. High – sensation seekers will vary their routines to avoid boredom, in contrast to the lows who are less distressed by an unvarying routine. "Novel" means something unlike previous experience in some respects, if not all. Novelty means maximal unpredictability in a sequence of events as opposed to the other extreme of perfect predictability. "Complexity" refers to the immediate comprehensibility or perceptual closure as opposed to cognitive or perceptual ambiguity requiring more information processing. "Risk" may be defined

as the appraised likelihood of a negative outcome. One of the characteristics of high – sensation seekers is their tendency to do things that lower – sensation seekers regard as too risky.

The Sensation seeking scale form v is divided into four sub – scales: Thrill and adventure seeking (TAS), Experience seeking (ES), Disinhibition (Dis) and Boredom Susceptibility (BS). The form contains 40 items and each sub – scale contains 10 items. The scores obtained in each sub – scale is called raw score which is then converted into T scores. Higher the score higher the sensation seeker and lower the score lower the sensation seeker.

The six factor reliability of the TAS scale range from 0.72 to 0.92, and all coefficients exceed the range of cross – factor correlations. The reliabilities of ES range from 0.51 to 0.75, and all are higher than the cross – factor correlations. The correlations of the Dis factor range from 0.60 to 0.79 and are all higher than cross – factor coefficients. Only the BS scale falls short of the expectations for factor reliability.

Table 2b: Table showing Names of the measures taken and number of dimensions in each measure with minimum and maximum scores

Measures	Dimensions	No. Of Items	Min	Max	Reliability
Self – Confidence Inventory	1	100	0	100	0.94
State – Trait Anxiety Inventory	State	20	1	4	0.54
	Trait	20	1	4	0.86
Depression Inventory	1	21	0	63	0.90
Multidimensional	Internal	6	6	36	0.60 to

Health Locus of Control	Chance	6			0.75
	Powerful Others	6			
Subjective Vitality Scale	1	7	1	7	0.88
HIV/AIDS – Targeted Quality of Life Instrument	Overall function	6	0	100	0.70
	Life satisfaction	4			
	Health worries	4			
	Financial worries	3			
	Medication worries	5			
	HIV mastery	2			
	Disclosure worries	5			
	Provider trust	3			
	Sexual function	2			
COPE Inventory	Active coping	4	4	16	0.74
	Planning	4			
	Seeking instrumental social support	4			
	Seeking emotional social support	4			
	Suppression of competing activities	4			
	Turning to religion	4			
	Positive reinterpretation and growth	4			
	Restraint coping	4			
	Acceptance	4			
	Focus on and venting of emotions	4			
	Denial	4			
	Mental Disengagement	4			
	Behavioural disengagement	4			
	Alcohol/drug use	4			
	Humour	4			
	Home	35	0	71	0.70 to

Adjustment Inventory	Health	31		and above	0.93
	Social	34			
	Emotional	35			
	Occupational	24			
Subjective Well – Being Scale	General well – being positive affect	3	40	120	0.87
	Expectation – achievement congruence	3			0.65
	Confidence in coping	3			0.81
	Transcendence	3			0.55
	Family group support	3			0.50
	Social support	3			0.51
	Primary group concern	3			0.61
	Inadequate mental mastery	7			0.63
	Perceived ill – health	6			0.64
	Deficiency in social contacts	3			0.56
	General well – being negative affect	3			0.58
Sensation Seeking Scale	Thrill and adventure seeking (TAS)	10	0	40	0.51 to 0.92
	Experience seeking (ES)	10			
	Disinhibition (Dis)	10			
	Boredom Susceptible (BS)	10			

2.3 Procedure

Phase I

Planning: - For the research, the researcher decided to take three types of subjects i.e. people with HIV+, people with HIV+ and Dermatitis and people suffering with dermatitis only. The researcher planned to take people suffering with dermatitis and HIV positive. The very common disease associated with HIV is dermatitis. The disease is visible and so if ,there is any positive effect of the intervention i.e., hypnotherapy, the improvement is visible and will work as proof as compared to any other disease. Three groups were taken so that the comparison can be done easily to find out in which group the intervention was more effective.

Institutional Contact - Before starting the actual data collection process the researcher met with members of different NGOs, doctors of private clinics and hospitals of Baroda and Ahmadabad, so that a rough estimate can be made that how many individuals are suffering from HIV/AIDS? And out of them, how many will be available for the research work? It was found that more than three lakh people living in Gujarat are suffering with HIV/AIDS. For the research work one of the NGOs agreed to talk with their members and to take part in the research work. So, the researcher prepared a small presentation to provide information regarding the research work, its positive effects, about the intervention, how they can benefit from the intervention etc.

A meeting was fixed with the members of that NGO. The research design was explained to all of them. Queries regarding hypnotherapy were solved, misconceptions regarding hypnotherapy were cleared, and duration of intervention was told to them. Very few people about 20-25 agreed to become part of the research work. But they demanded money in return of their favour. The demand was accepted but to pay money to each subject for each session was difficult for the researcher so

the researcher applied for scholarships/funds to different institutions. In the mean while the researcher met with different doctors to find out the prevalence and types of dermatitis in HIV+ people. It was found that diseases like herpes simplex, herpes zoster, psoriasis, eczema, acne, candidiasis, purities, xerosis, genital warts, Kaposi's sarcoma etc are the most common diseases in people living with HIV/AIDS. Information regarding each skin disease was collected by talking with skin specialists and reading books.

Due to financial constraints the researcher started losing clients. So, re-contacting the agencies and collection of data became a tedious job. The researcher again started visiting different doctors so that if they agree, they can provide subjects for the study. Since contact numbers and addresses of people living HIV/AIDS is kept confidential so it was very difficult to convince the subjects by contacting them directly. The process of contact was very tedious as the researcher first tried to convince the doctor regarding the positive effect of hypnotherapy without having any side effect. When the doctors got convinced, they tried to convince the PLWHA. Only those who got convinced they met the researcher. Again, after meeting the PLWHA the researcher had to explain everything in detail.

The researcher also convinced the doctors and subjects that she will not disclose the identity of the doctors and their patients. If the information discloses that the doctor is treating people living with HIV/AIDS then other patients will stop coming to him. If identity of people living with HIV/AIDS gets disclosed it will be problematic for them. As society have negative attitude towards the PLWHAs. Also, it will be unethical from both doctor's and researcher's side. It was promised from the researcher's side neither the identity of the subjects will be disclosed nor identity of the doctor will be disclosed.

On such note many doctors promised that they will send their patients to the researcher for her research work and also they will help her throughout her research work to maintain contact with the subjects so that they will not leave the research in between and will not stop coming in between of the research work. After agreeing on these points date for the meeting was decided and was informed to each doctor the place, date and time of meeting so that information regarding research work can be provided to each individual and from that subjects for the study can be collected. Time and date for people suffering with dermatitis was different so as to maintain the confidentiality of the HIV+ people with and without dermatitis.

Ethical clearance – Contacting institutions and process of ethical clearance were done simultaneously. For ethical clearance a committee was prepared constituted of experts from different medical and social science fields. They were explained the complete research work and impact of hypnotherapeutic intervention which do not have any side effects. The criteria used by the reviewers in the review process were: Are the objectives of the study clearly described? Is the rationale for the study clearly outlined (eg. literature references to similar studies)? Is the study design appropriate to the objectives? Are the source and number of subjects clearly stated? Are the eligibility criteria (screening, inclusion, exclusion) clearly defined? Are the methods / procedures to achieve the intended results clearly described? Are the methods/ procedures appropriate to achieve the intended results? Is the rationale for the sample size clearly stated? Is the method of analysis described (including statistical measures for quantitative studies)? Does the proposed data analysis address the study's primary objective? Is it reasonable to do the proposed research on humans at this time? Is the group of research subjects appropriate? Is the procedure for

obtaining informed consent appropriate? Are the access to subjects and methods of recruitment appropriate? Is deception involved and, if so, is it justified and are there appropriate arrangements for briefing of subjects? Has the researcher identified the risks for subjects associated with their participation in the research, and has (s)he described how these will be mitigated or addressed? Has the researcher identified the benefits (direct and/or indirect) that may be derived from the research?

After reviewing the research proposal, the clinical procedures used, therapeutic interventions to be used for the human subjects and the implications; the committee recommended that the research should be carried out without any apprehensions. The planned intervention procedures don't have any adverse effects for the subjects living with HIV/AIDS. Also, the ethics committee resolved that the research should be carried out for the benefits of the people living with HIV/AIDS. When the ethical committee gave permission for the research work then the process of data collection started.

Phase II

Data collection **-** The first meet was just to present the research design, to give information regarding the research work, its positive effects, about hypnotherapy etc. After presentation it was asked that how many of them are interested in becoming part of the research work and to come regularly. Those who were ready to become part of the research work were called next day for signing consent form, to provide complete history and for psychological testing.

Patient's consent form was typed in both English and Gujarati language so that subjects can understand what is written and can understand for what they are

signing. A copy of consent form is attached in Annexure. On consent form it was written that, "I xyz have understood the project work and I am willingly participating in this project." Then they have to sign. If they want then they can provide their contact number which will be kept confidential. In case history form (a copy is attached with Annexure) they were asked regarding demographic details like age, gender, religion, educational qualification, occupation, marital status, family members, and also history regarding their disease was taken e.g., duration of illness, taking medication or not, duration of medication intake, whether changed any medication, which type of drug they are taking (allopathic or ayurvedic or any other type), whether suffering with any other disease, if yes, the name of the disease. For psychological testing, 10 psychological tests were decided by the researcher so as to find out the wide spectrum of psychological aspects on which hypnotherapy is effective and to compare with the subject's data that were in control group and were not under intervention.

Recruitment of participants - Subjects for the study were selected using purposive sampling from different hospitals and clinics of Ahmedabad. Purposive sampling was used because the sample for the research work was specific i.e., people with HIV+, HIV+ with dermatitis and Dermatitis alone. In order to search such sample the researcher met with different doctors working in government and private hospitals and clinics. First the goals of research work and effectiveness of hypnotherapy was explained to each and every doctor so that they get convinced and can convince their patients to become a part of the research work. An orientation program was organized for patients so that information about the research work and about the positive effects of intervention i.e. hypnotherapy can provided. In that

orientation program not only the positive effects of the intervention was shared but also misconceptions regarding the therapy was cleared, also, questions asked by the patients were answered. This procedure not only helped in clearing the idea of research but also helped in rapport building. Each individual was explained about the research, about hypnotherapy, how it will help the individuals to deal with HIV and skin diseases. People suffering only with skin disease were given information separately so that people living with HIV+ and HIV+ with skin disease will feel free to express themselves and their identity will remain confidential.

The information regarding the research work was provided to more than 500 individuals, out of which about 285 people were interested in taking part in the research work. So they were called for next meet for signing the consent form and to provide a complete case history.

Those who were willing to take part in the research they were ready to sign on consent form. Case history was taken of each individual in order to find out the duration of disease and to find out whether the individual is suffering from any other disease except HIV+, HIV+ with dermatitis and Dermatitis.

Special attention was paid by researcher and the concerned doctors while selecting HIV+ individuals with dermatitis and Dermatitis patients that the number of individuals suffering with the specific skin disease should be equal in number so that the comparison can be done easily e.g. if the researcher selects 40 patients suffering with the skin disease psoriasis then each group should contain 10 subjects of psoriasis i.e. 10 subjects HIV+ with dermatitis in experimental group, 10 subjects dermatitis in experimental group, 10 subjects HIV+ with dermatitis in control group, 10 subjects dermatitis in control group. Total 120 patients were selected. The table F shows the number of subjects in each group suffering with different skin diseases.

While taking case history it was asked to each individual regarding the time which they can provide for taking therapeutic sessions. According to availability of time, date and time were decided and groups were formed. Those who were not able to give time in initial few months they were kept in control groups and considered as waiting control group and they will be given therapy after completion of the research work. Those who were ready to adjust their time and were very enthusiastic about being part of the research work were kept under experimental group. While taking case history it was found that few individuals was suffering with more than one disease like Tuberculosis, mood disorder, substance – abuse disorder, diabetes, cancer etc and were taking medication for that were not taken for the research work as it was one of the exclusion criteria that those suffering from any other disease accept HIV+, HIV+ with dermatitis and dermatitis will not be taken for the research work. Also when psychological testing was done those who scored more on depression level were also rejected for the research work as it was also an exclusion criterion that individual suffering within the range of moderate to high depression level will not be selected for the research work.

So, after taking care of all inclusion and exclusion criteria total 192 individuals were selected by the researcher. Where 90 individuals were in experimental group and 102 were in control group. More number of subjects was kept in case of control groups because if there is any dropout of subject during the research then that will not affect the result of the research, As the chances of dropouts are more in case of control groups because they will be called only for Pre, Post and Follow up Testing and not for therapeutic intervention. Experimental and Control groups were further divided into three groups each i.e. Experimental group as Group 1 was for HIV+ people, Group 2 was for HIV+ with dermatitis and Group 3 for dermatitis

patients and Control group as Group 4 was for HIV+ people, Group 5 was for HIV+ with dermatitis and Group 6 for dermatitis patients. Rapport building and history taking was done in initial 4 sessions where pre testing was also done using psychological tests and in case of HIV+ with dermatitis and dermatitis patients were referred to skin specialist skin check-up so that effect of intervention can be studied by comparing improvement is skin symptoms before starting the intervention and after completion of intervention.

Phase III

Pre Testing - The psychological tests used were: Self – Confidence inventory, Bell Adjustment Inventory, State and Trait Anxiety questionnaire, HIV/AIDS – Targeted quality of life Instrument, Cope scale, Subjective well – being Inventory, Multidimensional Health Locus of Control, Beck Depression inventory, Subjective Vitality Scale and Sensation Seeking Scale.

The number of tests was more due to which conduction of psychological tests was not possible in one day and in one session. So, the tests were divided according to the number of items and the time to be taken for completion of tests. Based on the time to be taken in each test the conduction of tests was done in three days. First day Depression, Self confidence inventory, Cope, Subjective vitality and Sensation seeking Scale were given to the subjects. Time taken for conduction of depression and self confidence inventory was one and half hour. After half an hour of tea and snack break second session of test was done where conduction of tests cope, subjective vitality and sensation seeking was done. For second session time taken was one and half hour. Second day Adjustment inventory, Anxiety, Multidimensional

health locus of control and subjective well being inventory were given to subjects. Conduction of adjustment and anxiety inventory took one and half hour. Half an hour break was given for tea and snacks then second session of testing was done. In second session conduction of multidimensional health locus of control and subjective well – being inventory were done. It took less than one hour to complete. Third day HIV/AIDS – Targeted Quality of life instrument was given to the subjects who were suffering with HIV+ and HIV+ with dermatitis. The conduction of HAT QoL took 20 minutes to complete. Care was taken by the researcher that the testing process will not become monotonous and tiresome for the subjects for this; breaks were given at regular intervals between the testing of two psychological tests. Snacks and tea were also provided to the subjects so that the results of the tests will not get affected by fatigue, boredom, hunger and monotony.

The first session (session 0) was a relaxation session which was given after two days of pre testing. The first session was of about 90 minute which was given to experimental groups so as to make them comfortable with the intervention and also to know what kind of difficulty they are facing while they were in trance. In relaxation session breath watching, progressive muscular relaxation (PMR) and positive visualization techniques were used where they were given positive suggestion for improving their health and immune system. After bringing back from trance the researcher took feedback from them that whether they were feeling relaxed during the trance and whether the state of relaxation is still continuing even after the trance? Also whether there is any difference in their state of mind before going to trance and after coming out of the trance? Their reply was 'yes' that they were feeling very relaxed and peaceful after going into trance and even after coming out of the trance. Also, when it was asked that whether they want to continue the therapy for next 5-6

months they said 'Yes' as they never felt such a peace of mind and relaxation in the whole body ever before. The relaxation session helped the researcher to figure out whether the subjects can go into moderate to deeper level of trance, to find out the likes and dislikes of the subjects, their beliefs, whether they are comfortable with the intervention i.e., hypnotherapy or not. On the basis of the relaxation session Standard script for intervention was developed. Based on individual cases some minor modification was done in standard script while giving therapy to those individuals.

Phase IV

Preparation of standard verbatim - The verbatims or the intervention script was first prepared in English language based on feedback given by the subjects, their likes and dislikes, their belief system, their culture etc after the first relaxation session. It was found during the first relaxation session that the combination of breath watching and progressive muscular relaxation techniques of induction and deepening of trance was successful. And since it's a long process of induction therefore all the subjects went into moderate to deeper state of trance. So breathe watching and progressive muscular relaxation techniques were used throughout the therapeutic sessions for induction and deepening of trance. It was also found that the subjects enjoyed the imagery during the trance and they mentioned the peace of mind and relaxation that they felt during trance because of imagery. Therefore the intervention script consists of combination of sensory imagery visualization and guided imagery.

After preparing the complete verbatim the script was shown to hypnosis expert, the guide of the researcher. After approval of the expert the verbatims were

then translated to Gujarati language by an expert and professional translator. The verbatims were prepared every week based on the last therapeutic session's feedback. If the subjects gave positive feedback for example they loved the imagery used during the trance then the next script was based on earlier imagery or similar to that. Otherwise a new imagery was introduced in the script for the next session. Similarly to break the monotony of the therapeutic process in few verbatims eye fixation was used as an induction technique, followed by breathe watching and progressive muscular relaxation techniques. The standard verbatim were used to give therapeutic sessions to all the subjects divided into different groups based on their availability of time and comfort to be present at the place where the therapeutic sessions were given. The therapeutic session were given in group.

Table 2c: Showing the hypnotherapeutic techniques used in sessions

Sessions	Hypnotherapy Techniques
Session 0 was relaxation session to prepare the individuals for therapeutic process and to know what kind of difficulty they are facing while in trance.	
Session 0	Breath watching, Progressive muscular relaxation (PMR) and positive visualization.
In first eight sessions, suggestions for ego strengthening, changing negative mood set to positive and boosting up of immune system were given.	
Session 1	Eye Fixation, backward counting, PMR and imagery
Session 2	Eye fixation, breath watching, PMR, ego strengthening and pleasant imagery.
Session 3	Eye fixation, breath watching, PMR, and ego strengthening
Session 4	Eye fixation, breath watching, PMR, ego strengthening and guided imagery.
Session 5	Breath watching, PMR, ego strengthening, pleasant imagery and guided imagery.
Session 6	Breath watching, PMR, ego strengthening, pleasant imagery and guided imagery.

Session 7	Eye fixation, PMR and guided imagery
Session 8	Eye fixation, PMR, ego strengthening and guided imagery.
In sessions 9 – 16 symptom management suggestions were given.	
Session 9	Eye fixation, Breath watching, PMR, Ego strengthening and positive imagery.
Session 10	PMR, Ego strengthening and guided imagery.
Session 11	Breath watching, PMR, ego strengthening, Sensory imagery conditioning.
Session 12	PMR, Ego strengthening, and guided imagery
Session 13	Breath watching, PMR and positive visualization.
Session 14	PMR, ego strengthening, and guided imagery
Session 15	PMR, ego strengthening, pleasant imagery and guided imagery
Session 16	PMR, ego strengthening, and positive visualization

In total sixteen week sessions of intervention was planned by the researcher so that the subjects can benefit more from the intervention and there will be more improvement in their health. Each session was of 90minutes. For first 8 weeks Progressive muscular relaxation, ego – strengthening, changing of negative mood set to positive mood set and boosting up of immune system sessions was given in group to all the 3 experimental groups. First, 8 sessions were given once a week.

After these eight week sessions, sessions for another eight weeks were planned. These sessions basically designed for symptom management in three different experimental groups. The symptom management sessions were planned and given according to the disease the participants were suffering with i.e., HIV positive, HIV positive with dermatitis and

dermatitis. These eight sessions were given once a fortnight. Before starting the therapeutic session all the psychological testing were done and those who were suffering from skin disease their diagnosis were also done by a skin specialist. The skin specialist diagnosed the symptoms of the disease and noted down in a checklist (copy of checklist is attached in Annexure No.III) prepared by the skin specialist. Using the checklist the improvement in the skin disease symptoms can be compared after post testing and follow – up with pre testing so as to find out any reduction in the number of symptoms in case of experimental group as compared to control group. It has been already advised by the researcher and concerned doctors that the medication taken by the subjects should not be stopped during the therapy especially in case of people living with HIV positive.

Phase V

Therapeutic Sessions – In the 1st eight therapeutic session Eye fixation, Progressive Muscular relaxation breath - watching, sensory imagery etc techniques were used for induction and deepening of trance and to prepare the subjects for deeper level of trance in further sessions. Also pleasant imagery and visualization was used to change negative mood set to positive mood set.

After 1st eight sessions, next eight sessions of symptom management were given. The sessions were based on removing the symptoms of diseases (HIV+ and skin diseases) and to improve immune system so that the subjects become insensitive with other infections and diseases. These sessions were given fortnightly. (Copy of verbatims is attached in Annexure no. IV)

Phase VI

Post Testing - After completing all the sixteen therapeutic sessions a gap of two days was given before doing post testing. Second time the series of tests was administered on all the subjects (Experimental and Control Groups). The series of tests was conducted on all the six groups i.e. 3 Experimental and 3 control groups in three days as it was done while doing pre testing. Also skin specialist checked the skin disease symptoms of all the 120 subjects suffering from HIV+ with dermatitis and Dermatitis alone, subjects under experimental and control groups as post testing.

Phase VII

Follow – up Testing – After two months of post testing again all the psychological tests and skin check up were done as follow up on all the subjects (Experimental and Control Groups). Follow – up is done to check whether the suggestions given during the intervention still had any effect on the subjects under experimental groups even when the therapeutic sessions are over.

In all, the psychological measurement and skin disease check up was done three times during the whole research work. The control groups were kept as waiting list controls. They were considered for next phase of study. After completion of whole research work the waiting list controls were given hypnotherapeutic sessions so that they do not miss the benefits of the therapy.