PSYCHIATRIC MORBIDITIES IN PEOPLE LIVING WITH HIV/AIDS

(A STUDY OF HIV POSITIVE CASES OF GUJARAT)

PH.D. Thesis

By

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PH.D Guide

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A Thesis submitted to
The Faculty of Social Work
The Maharaja Sayajirao University of Baroda
For the Degree of
Doctor of Philosphy
In
Social Work
By
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PREFACE

The current piece of research deals with the psychiatric morbidities associated with HIV/AIDS. The study emphasized on undiagnosed psychiatric complications that are co-morbid with HIV/AIDS but go unnoticed. The researcher has taken four major cities of Gujarat viz: Ahmedabad, Surat, Rajkot and Vadodara as sample. Data was obtained with prior permission from Gujarat States AIDS Control Society (GSACS).Psychiatric morbidities such as depression, suicidal ideation and anxiety formed the base of the research study while Quality of Life with its parameters like social support, guilt, sexual life satisfaction, financial status and medical care was also dealt with.

The researcher has adopted a combination of both, qualitative as well as quantitative research methods. However, majority of the tools were standardized and quantitative in nature.

The researcher has attempted to review the vast available literature on the said topic and has incorporated the relevant and supporting studies available in journals and books.

The results and findings are further analyzed obtained with the help of statistical methods like chi-square, correlation matrix and presented in simple and bivariate tables.

The research has been concluded by suggested a few social work intervention modalities that can help fight the deadly AIDS pandemic which is and can pay the toll of many lives.

These models can help rebuild the selves which are damaged due to AIDS and also focus on the various psychiatric problem woven in the fabric of AIDS.

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I am indebted to my parents who have been a constant support-emotional, moral and of course financial as this thesis would not have existed without them.

Many thanks to my husband and my son who are my joy for being my family and helping me in this endeavor.

I wish to thank all my respondents for allowing me to interview them and reproduce the same here.

Last but not the least I extend my thanks to my extended family and all the faculty members who have directly and indirectly helped me in this research.

To My Grandparents & Parents

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CHAPTER - I

I N T R O D U C T I O N

"Challenges help us to find our true selves. They take us to a journey within the depths of who we are, leaving us at a destination we hope is worthy. Some people find themselves at a lesser place. AIDS is one of these challenges. This is a challenge we want to see go away. We want it regulated to a condition that can be vaccinated against, treated and cured. We are not yet there. But HIV infections can at least be prevented. So why does it continue on its journey through our societies, joy riding through ignorance, indifference and insufficient resistance. Why do we allow it to infect our young population jeopardizing the future development of our nation?"

We have lived with AIDS for more than a quarter century now. HIV is particularly complex that raises sensitive issues regarding sex and sexuality, gender and economic inequalities and socially tabooed behavior such as injecting drugs and homosexuality.

To halt .....HIV's impact requires standing up to it and not standing certain groups of people. [1]Recognized as an emerging disease only in the early 1980's, AIDS is one of the most talked about disease on the globe. During the 80's HIV and AIDS appeared to be a disease confined to certain well-defined population groups, such as commercial sex workers, gay men and haemophiliacs. From being treated as a 'minority disease' HIV has reached every corner of the globe. Now it is a disease which is identified among the general population. Threatening, it continues to spread disproportionately fast in most countries and is likely to persist well into the 21st century (The World Health Report, 1998). Thus in the light of emerging and re-emerging diseases, AIDS represents the most crucial challenge of its impact on the population.

[1] M.S.Usha, "Women and AIDS in India", *Womens Link* April, 2001.

Despite the impressive reduction in morbidity and mortality related to HIV infection, and due to the consequent increase in life expectancy gained, important physical, psychosocial and psychiatric repercussions of this disease are expected to become more relevant. For these reasons, a multidisciplinary approach, with several specialties involved in counseling and treatment, become relevant in HIV/AIDS. From the beginning of this disease up to the present time, the psychosocial aspects as well as psychological/psychiatric disorders affecting HIV-infected individuals have become a major concern for professionals taking care of these patients.

1.1. THE NATURAL HISTORY OF AIDS:

[2]The first recorded sample of HIV was discovered in 1959 in a blood specimen obtained at Leopoldville (now Kinshasa) in the Belgian Congo. This was the first known death chalked up by AIDS. The virus is thought to have originally affected chimpanzees. The crossover from animals to humans may have occurred in the 1950's through an accident or a bite. Intermittently, other theories of its origins have been advanced. One theory, put forward by Bette Korber, traces the disease to a single viral ancestor that could have emerged between 1910 and 1950. Through an analysis done at the Los Alamos National Lab in New Mexico, Korber contends that the pandemic may have come from one or more infected humans around 1930.

Another highly controversial—but plausible—theory is that of American philosopher, Louis Pascal, first spelt out in 1987. All the early AIDS cases originated in the Central African states of Congo, Rwanda or Burundi. This belt was subjected to trials of a live polio vaccine on 300,000 men, women and children. Pascal argued that the vaccine, which was grown in cultures obtained from chopped up chimpanzee kidneys, may have carried this virus. Polio researcher Dr Albert Sabin had reported that such a batch was contaminated by an unknown virus. In fact, monkeys harbor

[2] www.lifepositive.com

SIV or Simian Immunodeficiency Virus (SV-40 to be more specific), which is thought to be the ancestor of HIV.

The first cases of AIDS were reported in the United States in 1981, amongst male homosexuals in Los Angeles and New York. Within two decades, up to 50 million may have been infected globally, approximately 22 million have succumbed and nearly 15,000 new infections are said to occur daily.

1.2. WHAT IS AIDS AND HIV?

HIV has two major categories: HIV-1 and HIV-2. HIV-1, which currently has about 10 subtypes, is most common worldwide and the only form found in the US. HIV-2 is less virulent and though currently confined to West Africa—it`s spreading. The Human Immunodeficiency Virus (HIV) basically provokes an infection, which destroys the body`s immune system. An AIDS or Acquired Immune Deficiency Syndrome is the advanced stage of this disease, when the immune system becomes irreparably damaged, engendering multiple infections and cancers. A person is considered HIV positive when he/she tests positive for any of the 26 diseases (Kaposi`s sarcoma, lymphoma, pulmonary tuberculosis, recurrent pneumonia within a 12-month period, wasting syndrome and other indicators) that can easily invade the body during our immune system`s non functionality. On invading the body, the virus specifically attacks T-cells. A core part of the human defense system, they mobilize other cells to seek and destroy contagious foreign elements besides leading the immune system`s fight against infections. T-cells are targeted because the AIDS virus parasitizes the CD4 molecules on their surface.

With a protective outer shell of proteins and glyco-proteins, the AIDS virus contains genetic information on the inside. Although substantially smaller than the host T-cells—the virus reproduces by sponging off the host`s cellular resources! Our

body fights back by producing up to two billion new T-cells to replace the infected ones, stabilizing the T-cell count temporarily. Yet from day one, the T-cells fight a losing battle. The genetic information of the AIDS virus, which is encoded as RNA (ribonucleic acid), needs to be reverse transcripted which the intruder accomplishes with the help of the host cell itself. The now legible DNA is thereafter randomly transferred into the nucleus. All this is accomplished barely a dozen hours following the infection. By this time, the aggressor begins to substantially weaken the host cell, which eventually dies, eroding the immune system and making the body vulnerable to diseases.

Although HIV targets T-cells and other cells in the body, it thrives mainly in the lymph nodes—another important part of the immune system. Each lymph node has a netlike structure inside it that acts as a protective filter by trapping virus and infected T-cells. But as healthy T-cells move through contaminated lymph nodes, they are infected by HIV. Particularly during the early stage of the disease, lymph nodes contain more infected cells than the blood.

1.2.1. Symptoms:

In the early stages, a mild flu and swollen glands are typical. But the symptoms are often unmistakable when full-blown AIDS develops. Loss of appetite, weight loss, constant fever, prolonged fatigue, diarrhea, constipation, changing bowel patterns, swollen glands, chills coupled with excessive sweating, especially at nights, lesions in the mouth, sore throat, persistent cough, shortness of breath, tumors, skin rashes, headaches, memory lapses, swelling in the joints pain in various parts of the body, vision problems and a regular feeling of lethargy and ill health make up the litany of symptoms. With immune systems out of killer, HIV-positive persons are susceptible to several types of cancer, particularly Kaposi`s Sarcoma (KS), an uncommon form that occurs under the skin and in the mucus membranes of the eyes,

nose and mouth. Affected persons have lesions that appear as dark-coloured raised blotches. Though the lesions are painless, once KS spreads to the lungs, lymph nodes and digestive tract, the victim experiences difficulty in breathing, gastrointestinal bleeding and painful swelling around the lymph nodes, especially in the legs.

1.2.2. Modes of Transmission:

HIV is transmitted primarily by sex (anal, vaginal or oral sex with an infected partner), by injections (sharing contaminated needles for drug use or accidental piercing with a contaminated needle), or from infected mother to child through pregnancy or breast-feeding. Infected semen and vaginal fluids, infected blood and blood products lead to the transmission of HIV. Drug abuse with unsterilized needles is another high-risk activity. Unprotected sex with multiple partners is the primary cause of infection. During unprotected sex, the infected fluid could enter the bloodstream through a tiny cut or a sore. Anal penetration has a higher risk of transmission, which is why a high percentage of homosexuals develop the disease. Bleeding during sex also raises the chances of infection. Therefore unprotected sex during menstrual periods and anal intercourse are best avoided. An infected mother can also transmit the virus to her baby before or during birth or through breast milk. Although traces of HIV have been detected in body fluids (saliva, urine, faeces and tears) there is no evidence that HIV spreads through these fluids. Nor is it water-borne, air-borne or transmitted through mosquitoes and other insects. Some HIV-infected patients progress to AIDS quickly while others can remain healthy for 10 years or more. Between initial infection and full-blown disease, a middle phase called symptomatic HIV infection, or AIDS-Related Complex (ARC), occurs, prompting symptoms such as weight loss, diarrhea, and swollen lymph glands. Scientists have recently discovered clues to why some patients develop AIDS quickly. In a study published last March in the journal Science, National Cancer Institute researchers

found that inherited genes may set the clock for AIDS progression. Certain gene patterns tend to stave off AIDS, while others promote it. The researchers say the study may help lead to an AIDS-preventive vaccine or improved therapies against the virus.

1.2.3. Gender Differences in the risk of HIV infection:

HIV risk factors among injection drug users (IDUs) differ markedly by gender, according to a 10-year study funded by the National Institute on Drug Abuse (NIDA). A recent study by researchers at the Johns Hopkins University reported that while drug-related risk behaviours and homosexual activity are the most important predictors of HIV seroconversion among males, factors consistent with high-risk heterosexual activities are the main predictors among females. The findings, reported in the May 28 (2001) issue of the Archives of Internal Medicine, provide insight into the relationship between gender and high-risk sexual behaviours in the development of HIV infection.

"Early studies of injection drug users suggested that most HIV infections were due primarily to sharing needles," said NIDA Director Alan I. Leshner, Ph.D. "This study adds to the body of evidence that supports the need for gender-specific interventions in the treatment of that group of drug users."

Between 1988 and 1998, a team of researchers, led by Dr. Steffanie Strathdee at the Johns Hopkins University Bloomberg School of Public Health, examined both drug related and sexual risk factors for HIV transmission in a study of more than 1,800 injecting drug users in Baltimore, Maryland. Study participants were aged 18 or older, did not have an AIDS defining illness at enrolment, and reported a history of illicit injection drug use within the previous 10 years. Through semi-annual interviews, researchers collected data on drug use history, socio-demographics, and drug use and sexual behaviour within the last 6 months. Blood samples were also

obtained at each study visit. Researchers used commercial HIV and antibody ELISA to identify those participants who had become HIV positive since their last visit. Dr. Strathdee and her colleagues found that the greatest predictor for HIV sero-conversion among both male and female IDUs was high-risk sexual behaviour. Study findings revealed that male injection drug users who reported recent homosexual activity were four times more likely to become infected with HIV.

Among females, indicators of high-risk heterosexual activity outweighed needle-sharing behaviours as independent predictors of HIV seroconversion. HIV incidence was more than two times higher among women who reported recently having sex with another injection drug user. Another common predictor of HIV seroconversion observed by researchers among both male and female IDUs was younger age. Investigators found that IDUs who were aged 30 or younger at enrolment were more than twice as likely to seroconvert than those aged 40 or older. "This is consistent with several reports which indicate that younger IDUs are more likely to engage in needle sharing and other behaviours that place them at higher risk of acquiring HIV and hepatitis B or C viruses," stated Dr. Strathdee.

1.2.4. Prevention:

While AIDS is a high-risk disease it can be prevented if proper precautions are taken and greater awareness meted out to those who are ignorant of the virus and its repercussions on the human body. Here we have listed a few measures which can be adopted by everyone in order to stave off the insidious entry of HIV. Prevention is still the best bet. Promiscuous sexual behaviour can leave a person highly susceptible to contracting the virus. Where abstinence is not possible, always use latex condoms. The female condom can also help protect both partners. Use only water-based lubricants. Oil lubricants (such as Vaseline) might even tear latex condoms. Use

spermicidal (birth control) foams and jellies in addition to condoms. By themselves, spermicides may not be effective in preventing HIV.

Avoid alcohol or drugs during sex, you might lose control of your senses and engage in unsafe sex. Stick to safer sex practices at all times and avoid having multiple partners. Practice monogamy. If this is a tall order, serial relationships are a lesser evil than multiple ones.

High-risk sexual behaviour should be avoided at all costs. These include: oral genital sex involving contact with semen or vaginal fluids, oral anal sex, vaginal sex without a condom, anal sex sans a condom (active or passive), fisting or manual anal intercourse, the sharing of sex toys, using saliva for lubrication and blood contact of any kind during performance. If unable to resist oral sex, use a dental dam. If a woman is infected, avoid sex during the menses as menstrual blood is infectious.

For transfusions, use disposable syringes and needles. Ensure you get blood that is screened and certified as HIV-free. Better still, get blood from close family members rather than professional donors whose medical antecedents are nebulous.

(a) Presence of sexually transmitted diseases (STDs) increases the risk of contracting HIV from an infected partner. STDs could cause breaks in the skin of the vagina, penis or anus permitting the virus to enter your bloodstream. If you ever contract an STD of any kind, ensure you get prompt treatment.

The Centre for Disease Control (CDC) recommends that an HIV-positive woman should not breast-feed her baby. The infant should be given ART for the first several weeks to substantially reduce the risk of infection.

1.2.5. Myths and Facts:

Say “AIDS” and dime-a-dozen misconceptions abound. The chart topper is that AIDS is supposedly a disease of gay men and intravenous drug users. The facts are otherwise. No doubt in the early years many HIV-positive cases were reported amongst the Western gay community. In recent years, however, prevalence rates among gays have levelled off. Instead, heterosexual transmission has been forging ahead of all other modes of transmission.

The AIDS virus is NOT contracted through touching, hugging, kissing, massage, sharing toilet seats, drinking or eating from utensils used by an infected person or any other mode of casual contact. Nor does working, socialising and living with infected people cause the disease.

Repeated sexual contact without proper precautions with an infected person, using an infected syringe, exposure to infected blood or sexual fluids are ways through which the disease can be transmitted.

Donating blood also does not run the risk of disease contraction since needles used for such purposes are always sterile. Since the AIDS virus is unable to survive outside the human body beyond a short duration, dried blood is not infectious. Due to this reason, mosquitoes are incapable of transmitting HIV as the virus cannot replicate itself in the intestine of insects.

Although medical personnel are potentially at risk from infection, this is minimal if protective gear such as gloves, masks and goggles are always used when handling potentially infected material.

1.3.1. AIDS ACROSS THE GLOBE:

Acquired Immunodeficiency Syndrome is the leading infectious cause of death in the world. Untreated disease caused by the Human Immunodeficiency Virus

(HIV) has a case fatality rate that approaches 100%. AIDS has torn families apart and caused untold suffering in the most heavily burdened regions. HIV has reversed gains of life expectancy registered in the last three decades of the 20th century. HIV/AIDS is a global health emergency. HIV infection also fuels other epidemics of global concern-most notably Tuberculosis which has become a leading cause of death not only among people with HIV but also among their HIV negative family members and contacts. Access to effective prevention and treatment, and consequently the fates suffered by individuals infected with HIV, vary widely. AIDS is a disease whose impact is much greater where there is poverty and social inequality including gender inequality. It is not easily managed in settings in which weakened health system fails to perform, especially for minorities and those living in poverty. HIV thus raises urgent human rights issues, especially concerning the right to health.

In 1983, Prof. Luc Montagnier and others discovered a novel pathogenia retrovirus topic for the CD4 cells that orchestrate cell-mediated immunity and protect humans from a broad range of viral, mycobacterial and fungal pathogens. Where effective screening was available, transfusion associated transmission was eliminated, but HIV was not easily stopped.

1.3.2. Current situation:

How well has the international community coped with this new threat to global health? Inspite of remarkable scientific achievements the development of inexpensive diagnostics by the mid-1980s, the sequencing of the entire HIV genome less than 15 years later, and the development of effective antiretroviral therapy by 1995 the virus continued to spread.

Everywhere in the world, HIV is transmitted through a fairly limited number of mechanisms. The most heavily burdened continent is Africa, where the spread of the pandemic has been accelerated by a variety of factors including widespread poverty, gender inequality, and health systems weakened by pressures such as the large external debt loads of states. Africa is a home to more than 70% of those currently infected with HIV. HIV infection has fanned epidemics of TB in some African countries, increasing the risks of the whole population, regardless of serostatus. Across the sub-Saharan Africa, rates of TB have more than trippled and many conclude that the disease cannot be controlled without aggressive treatment of AIDS.

Developed countries are also afflicted by AIDS. The Russian Federation and Ukraine, along with other countries in eastern Europe and countries in central Asia, have the most rapidly expanding HIV epidemics. In these countries the disease is more closely tied to a rapid rise in indices of social inequality. Although the absolute number of AIDS cases in former Soviet Union remains relatively small, the epidemic is expanding rapidly in other countries of the region.

1.3.3. [3]Eastern Europe and Central Asia:

HIV prevalence has grown rapidly in this region. Since 1995 relatively few cases were recorded but by the end of 2003, about 1.3 million people were living with HIV/AIDS in the region. Over a quarter million people became affected in 2003 alone. The worst affected countries were Baltic States, the Russian Federation and Ukraine. The resulting sense of hopelessness among those left out of new market economies is fuelling HIV transmission through injecting drug use and unsafe sex. As most drug users are young and sexually active, sexual transmission is also becoming a significant mode of HIV transmission.

1.3.4. Latin America and Caribbean:

Some two million people between the ages 15 and 49 are living with HIV/AIDS in Latin America and Caribbean, with 36% women in Latin America and virtually half (49 percent) in the Caribbean. In the Caribbean, the main mode of transmission is heterosexual, however in Peurto Rico, injecting drug use appears to be the main source of the epidemic. In South America HIV is transmitted mainly through injecting drug use and heterosexual relations.

In Central America infection appears to be occurring through sexual transmission, both heterosexual and among men involved with men. The chief factors responsible for the spread of HIV in the region, are the combination of unequal socio-economic development and high population mobility.

1.3.5. Middle East and North Africa:

HIV prevalence in the Middle East and North Africa is still very low. However HIV infection is increasing among injecting drug users in Bahrain, Iran, Libya and to a lesser degree in Algeria, Morocco, Egypt, Oman and Tunisia.

[3] Women and AIDS-Confronting The Crises- A joint report by UNAIDS/UNIFEM/UNFPA-2004

In the above mentioned countries social and cultural norms limit the discussion of sexuality and reproductive and sexual health issues and many countries have not developed prevention programmes.

1.3.6. High Income Countries:

There is mounting evidence that prevention activities in several high-income countries are not keeping pace with the changes occurring in the spread of HIV. Such shortcomings are most evident where HIV is lodged among marginalised sections of society, including minorities, immigrants and refugees.

1.3.6.1. Western Europe:

In western European countries that report HIV cases, heterosexual intercourse may now be the most common mode of transmission, with the role of injecting drug use varying between countries. A large part of the increase in new infection is among people who had acquired HIV while living in countries with generalised epidemics.

1.3.6.2. North America:

In North America, where the epidemic was thought to be under control due to the general availability of antiretroviral therapy (ART), women's prevalence rates jumped 5% between 2001 and 2003. Twenty five percent of all North Americans are living with HIV/AIDS.

1.3.7. AIDS in Asia:

The HIV/AIDS problem is highly dynamic and a matter of grave concern to Asia, which already has the next highest number of people living with HIV/AIDS after Africa. Home to 50 percent of the world's population, any small increase in HIV prevalence is translated into large numbers of infections that would severely put the already stretched infrastructure under strain. Poverty, economic disparities, illiteracy

and cultural and gender-related issues contribute to Asia's vulnerability to HIV and the enormous potential for the epidemic to spin out of control. While AIDS came much later to Asia, it is spreading rapidly and the epidemic is in a fairly advanced stage in many countries. According to surveillance data, the rapid spread of HIV in Asia did not begin until the late 1980s or early 1990s when high HIV prevalence (up to 30% or more) among female sex workers in Thailand, Cambodia and Myanmar were reported. In Mumbai, India rate of HIV among sex workers increased dramatically from one percent in 1986 to 18 percent in 1990 and to 51 percent in 1996(Larson and Narain 2001).In addition, intense and rapid spread of HIV was documented among injecting drug user (IDU) populations in Thailand, parts of north-east India and the "golden triangle" area (where borders of China, Myanmar and Thailand meet).

Based on HIV prevalence rates, countries could be divided into three broad categories:

- those with HIV prevalence rates of more than 1 percent among the general population namely Cambodia, Myanmar, Thailand and six states of India(Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland and Tamil Nadu).

- those with prevalence of less than 1 percent in general population with high-risk behaviour namely Malaysia, Nepal, Indonesia, Vietnam, China and Pakistan.

- and the remaining countries with low prevalence of less than 1 percent among high-risk population.

While national HIV prevalence rates remain relatively low in most countries of Asia there is no cause of complacency. The epidemic continues to spread rapidly and new infections in this region are increasing faster than anywhere else in the world. Many countries are experiencing serious localized epidemics.

In Asia, the epidemic therefore remains highly dynamic and is evolving rapidly.

1.4. VULNERABILITIES, RISK BEHAVIOUR AND EPIDEMIC POTENTIAL:

The region's vulnerability to HIV can be determined by various factors including men having multiple partners and patronising sex workers, injecting drug use, relatively high prevalence of sexually transmitted infections and low condom use in addition to other factors including poverty, illiteracy and limited access to health and information service. While poor tend to die soon after developing AIDS, poverty and other social factors force women to undertake prostitution for survival and young men particularly to inject drugs, thereby enhancing their risks of acquiring HIV. Moreover, taboos on talking about sex and sexuality, attitudes of discrimination and stigma associated with HIV contribute to HIV/AIDS transmission.

Over 50 percent of all new HIV infections occur among young people between 15 and 24 years- the group that has often limited access to important information and sexual health services critical to their health and well-being. Cultural mores are more likely to allow men to have multiple sex partners and patronise commercial sex establishments, while wives are expected to remain faithful. Across Asia commercial sex workers are at particular risk of contracting HIV as their social status makes them less able to negotiate the use of condoms and biologically they are more vulnerable to infection. One of the key factors precipitating the spread of HIV is sexually transmitted infection. Needle sharing among IDUs is a high risk activity that has fuelled the spread of HIV/AIDS in a number of Asian countries.

The above mentioned factors point clearly to enormous potential for expanding the AIDS pandemic in many Asian countries.

1.5. SOCIAL AND ECONOMIC IMPACT:

The future of the epidemic in Asia is contingent upon the extent and effectiveness of current and future prevention efforts. Moreover, since it takes seven to ten years for people with HIV to develop AIDS, the annual toll will continue to grow in the future, requiring further prevention efforts and increased medical and social services for the next several years. In the wake of the HIV pandemic, tuberculosis is beginning to increase in areas hit hard by HIV. There is a fear that a parallel epidemic of TB may follow HIV, as has been witnessed in Africa.

The greatest tragedy, besides the high medical and health care costs, will be the loss of thousands of lives, particularly among young adults in their most productive age and infants born to HIV-infected mothers, directly affecting child survival rates. This will have a major impact on the already fragile health and economic infrastructure in terms of direct medical and patient care costs, and indirect costs in the form of absenteeism and decreased productivity.

In some of the worst affected countries of Africa, AIDS is already eroding the development achievements of the past ten years and undermining the capacity of health and social service. Average life expectancy has fallen by 15 years as a result of AIDS. In terms of economic impact, studies during 1990s indicated that Thailand and India may have lost US$ 9 and US$11 billion respectively due to AIDS by year 2000 (Charles et.al.1993).

The economic impact is greatest because HIV primarily affects individuals in their economically productive years when they are ready to contribute to the society. The impact of the epidemic has been documented to be most significant at the family and community, especially in poor and marginalized groups. Poor families and lower middle income households become poorer.

Significant but less quantifiable are the emotional and psychological costs to the individual, family and community. The HIV/AIDS epidemic is severely affecting children. In addition to the risk of acquiring HIV infection from an infected mother, children risk losing both parents. By the end of 2002 over 13 million children globally were estimated to have lost their mother or both parents to AIDS.

1.6. [4]AIDS IN INDIA:

India is one of the largest and most populated countries in the world, with over one billion inhabitants. Of this number it is estimated that around 2.5 million Indians are currently living with AIDS.

HIV emerged later in India than it did in many other countries in the world. Infection rate sores high throughout the 1990's and today the epidemic affects all sectors of Indian society, not just the groups such as the truck drivers and sex workers- with whom it was originally associated. In a country where poverty, illiteracy, and poor health are wide spread HIV presence becomes a daunting challenge.

1.6.1. The History of AIDS in India:

According to the United Nations, the Asia Pacific regions where more than seven million people are living with HIV/AIDS could become the epicenter of the global AIDS pandemic in the next decade, with China and India the worlds, two most populous nations facing a potential AIDS catastrophe.

In south and south-east Asia more than a quarter of adults and 40% of young people with HIV/AIDS are women. According to India's National AIDS Control Organization (NACO), HIV/AIDS is no longer confined to specific groups or urban areas but is steadily spreading into the wider population and rural areas.

[4] An Overview of HIV/AIDS In India (www.avert.org/aidsinida.htm)

At the beginning of 1986, despite over 20,000 reported AIDS cases worldwide, India had not reported cases of HIV or AIDS. This was recognition, though, that this would not be the case for long and concerns were raised about how India would cope once HIV and AIDS cases started to emerge. One report published in a medical journal in January 1986, stated:

"Unlike developed countries India lacks the scientific laboratories, research facilities, equipment and medical personnel to deal with HIV/AIDS epidemic. In addition factors such as cultural taboos against discussion of sexual practices, poor co-ordination between local health authorities and their communities, widespread poverty and malnutrition and a lack of capacity to test and store blood would severely hinder the ability of the government to control AIDS if the disease did become widespread." Later in the year, India's first cases of HIV were diagnosed among sex workers in Chennai, Tamil Nadu. It was noted that contact with foreign visitors had played a role in initial infections among sex workers, and as HIV screening centres were set up across the country there were calls for visitors to be screened for HIV. Gradually these calls subsided as more attention was paid to ensuring that HIV screening was carried out in blood banks".

In 1987 National AIDS Control Programme was launched to co-ordinate national responses. Its activities covered surveillance blood screening and health education. By the end of 1987, out of 52,907 who had been tested, around 135 people were found to be HIV positive and 14 had AIDS. Most of these initial cases had occurred through heterosexual sex, but at the end of the 1980's a rapid spread of HIV was observed among injecting drug users in Manipur, Mizoram, and Nagaland- three north-eastern States of India bordering Myanmar (Burma).

At the beginning of the 1990's as infection rates continued to rise, responses were strengthened.

In 1992 the government set up National Aids Control Organization (NACO) to oversee the formulation of policies, prevention work and control programmes relating to HIV and AIDS. In the same year the government launched a strategic plan for HIV prevention. This plan established the administrative and technical basis for programme management and also set up State AIDS Bodies in 25 states and 7 Union Territories. It was able to make a number of important improvements in HIV prevention such as improving blood safety. By this stage, cases of HIV infection had been reported in every state of the country. Throughout the 1990's it was clear that although individual states and cities had separate epidemics HIV had spread to general population. Increasingly, cases of infection were observed among people that had previously been seen as low-risk such as house-wives and richer members of the society.

In 1998 one author wrote: "HIV infection is now common in India; exactly its prevalence is not known but it can be said without any fear of being wrong that infection is widespread. It is spreading rapidly into those segments that society in India does not recognize as being at risk".

1.6.2. [5]THE NATIONAL AIDS CONTROL PROGRAMMES (NACP):

Each of the three phases of the National Control Programmes in India have focused on, or emphasized different aspects of HIV epidemic in efforts to contain the spread of the disease.

The presence of HIV infection was first detected in India in 1986, when Dr. Jacob John and Dr. Suniti Solomon identified 10 HIV positive out of a group of 102 female sex workers and injecting drug users revealed that HIV infection was already established among these high-risk groups in India. The same year, 1986, the government set up an AIDS Task Force under the Indian Council of Medical

[5] HIV/AIDS Information Gateway ,February 2011

Research (ICMR) and established a National AIDS Committee (NAC) chaired by the Secretary, department of Health and Family Welfare.

In 1997 the National AIDS Control Programme was initiated with the help from the World Bank. In the next four years, the programmes main activity was the screening of the “sexually promiscuous population” and blood donors, and carrying out some educational programmes.

In 1989, a Medium term Plan for AIDS control was developed with the support of the World Health Organization (WHO).

The Medium Term Plan was low key and focused only on Maharashtra, Tamil Nadu, West Bengal, Manipur and Delhi, areas that surveillance data indicated were at high risk of HIV infection. State AIDS cells were established in these states and awareness activities and some early targeted interventions were field tested.

Till 1992, the bulk of funds for AIDS-related projects were used for improving blood testing and surveillance facilities. In addition to the 62 surveillance centers testing facilities were set up for screening transfused blood and prevent HIV infection from this source.

NACP I:

In 1991, several international donors such as the UK Department for International Development (DIFD), the Norwegian Agency for Development Co-operation (NORD), USAID, The Ford Foundation, The International Development Association which is a wing of the Worlds Bank, the United Nations Development Programme (UNDP), and the United Nations Drug Control programme (UNDCP) expressed their willingness to support the NACP.

Accordingly, the strategic plan for prevention and control of AIDS in India was developed for the period 1992-97,later described as the first phase of NACP. NACP-1

was the first effort in India to develop a national public health programme in HIV/AIDS prevention and control. The aims of the programme were:

- Prevent HIV transmission
- Decrease the morbidity and mortality associated with HIV infection and;
- Minimise the socio-economic impact of HIV infection. The National AIDS Committee was established headed by the health minister for overall policy making and overseeing the programmes. The National AIDS Control Organisation was established in June 1992 under the Department of Health for the implementation of the programme. NACP-1 sought to provide certain services, education campaigns, condom promotion, a system to monitor the prevalence of HIV, treatment for sexually transmitted diseases for AIDS related conditions. Two components were later added: targeted interventions and "intersectoral collaboration".

Services of NACP-1

1. Mass information, education and communication programmes were launched to create public awareness of HIV/AIDS using various media and aimed at different audiences from the general public to school children.
2. Following a Supreme Court judgement in 1996, a public interest litigation that called for a revamping of the entire blood collection, processing storage and distribution system in the country, national and state blood transfusion councils were established, a National Blood Transfusion Policy was formulated and guidelines were issued covering all aspects of blood donation, testing and storage.
3. Condoms were known to be effective in preventing the transmission of HIV and other STDs. NACP-1 sought to popularise the use of condoms, improve their quality and increase their availability.

4. An annual sentinel surveillance system was introduced to monitor trends in HIV prevalence. Initially 180 sites were set up to monitor HIV prevalence among those attending clinics for antenatal care and for the treatment of sexually transmitted diseases.
5. People with untreated sexually transmitted disease are much more at risk of HIV infection if they are exposed to the virus through sex. So control of STDs is an important strategy for HIV prevention. The NACP-1 planned to upgrade 504 existing STD clinics with equipment, and laboratory facilities and drugs for STDs.
6. NACP-1 also introduced the targeted intervention, a strategy that eventually became the mainstay of the AIDS programme. Pilot projects were started on the "targeted interventions" for education and condom promotion directed at groups identified to have high risk behaviour. Finally, it was during NACP-1 that discussion began on a multi sectoral" approach: the collaboration of many governmental departments, the private sector, the corporate sector and the international organizations on issues concerning AIDS.

1.6.2.2. NACP-II (1999-2007)

In November 1999 NACPII was launched with financial credit support from the World Bank of US $ 191 million. The focus of NACP-II moved from generating awareness on HIV prevention, to targeted intervention. The targeted intervention was meant to change high risk behaviour in population who were at risk of contracting the infection and spreading it in general population. Mass education campaigns were conducted using print media and folk art form, especially directed at people under the age of 25 years. Sex education programmes were introduced in schools, colleges and youth forums such as the National Service Scheme, Nehru Yuva Kendras and the Village Talk AIDS programme.

Voluntary Counselling and Testing Centers (VCTCs) were introduced early in NACP-II. Counselling and testing enabled those at risk to know their HIV status and seek treatment which was becoming available more widely.

The programme for Prevention of Mother (later parent) to Child Transmission (PPTCT) of HIV aimed to prevent the transmission of HIV from pregnant HIV positive women to their children. They offer pregnant women testing for HIV and provide drugs and advice to those who are HIV positive. Towards the end of the programme PPTCT centers were combined with VCTCs to form Integrated Counselling and Testing Centres (ICTCs).

Surveillance of the HIV epidemic was upgraded during NACP-II. In the annual rounds of countrywide sentinel surveillance, unlinked blood samples are collected from high risk groups from targeted intervention projects, from STD clinic attendees and from pregnant women from certain designated sentinel and tested to provide information on trends in the HIV epidemic in the country and to estimate the HIV burden of the country.

Treatment for opportunistic infections was an important strategy in NACP-II as the programme began to recognise the need to move beyond prevention and start providing medical services related to AIDS. For people with more advanced illness, the programme advocated the continuum of care model with home-based care and hospital referral when appropriate. Though effective antiretroviral drugs were in the market by the start of NACP-II it was only when Indian companies started manufacturing generic copies of these drugs and marketing fixed drug combination at low prices that the government considered providing them through its services. The antiretroviral therapy (ART) programme started in April 2004 in the high prevalence states. By Dec 2006 about 56,000 patients were receiving first line of antiretroviral drugs from 107 ART centres throughout the country.

The NACP-II institutionalised the use of the society model for the programmes at the state level. The State AIDS Cells of all 32 states and union territories were converted to societies registered under Societies Registration Act for greater flexibility and more effective programme management.

1.6.2.3 NACP-III-2007-2012:

The third stage of the National AIDS Control Programme is meant to provide an integrated package of prevention, care, support and treatment with the aim of reducing incidence- as estimated in the first year of the programme, by 60% in high prevalence states and by 40% in the vulnerable states. It will use "behaviour change communication" with the further involvement of NGOs and community-based organisations. It plans to set up more than 2000 TI's across the country for high risk groups and vulnerable groups. Further, it will also extend the existing infrastructure for care, support, and treatment. It aims to improve the quality of medical care for AIDS by developing guidelines and training modules for health care staff and services. It plans to further decentralize its activities from the state to the district level and also involve various governments and the private sector in its efforts.

Strategies of NACP III:

1. **Targeted Interventions:** The programme lists three levels of priority populations: first with the highest risk of exposure to HIV are the "core transmitter" groups or those at maximum risk of acquiring HIV infection and transmitting to others, sex workers, men who have sex with men and transgender, and injecting drug users. Second are what it describes as "bridge population"-those who are at risk of HIV because they have a sexual partner in the core group and one or more partners in the core group and alone or more partners in the general population and thus form a bridge for the infection to pass from the core groups to the general population. In

addition to providing information, promoting condom use and making condoms available and referring to treatment centres for STDs when needed. This are meant to provide detoxification, de-addiction and rehabilitation, needle exchange, substitution therapy and lubricants and appropriate condoms to MSM. Finally, NACP-III addresses those in the general population who are at lower risk of HIV infection, but are also very vulnerable. In India, women account for around one million out of 2.5 million estimated number of people living with AIDS. Apart from awareness programmes, local specific programmes are held for women who are more vulnerable because they are spouses of truckers, migrants or construction workers.

2. **Condom Promotion:** Condom Promotion under NACP-1 and II led to an increase in the awareness about its consistent use in HIV/AIDS prevention. The availability of free, subsidised commercial brands of condoms also increased but did not have a significant impact on its use. NACP III aims to distribute 3.5 million condoms every year. This, it aims to do through commercial sales via condom vending machines.
3. **Safe Blood:** The specific objective of the blood safety programme is to ensure reduction in the transfusion associated with HIV transmission to 0.5%, while making safe and quality blood available within one hour of its requirement in a health facility. The programme aims to bridge the graph between the demand for blood (8.5 million units annually) and supply (4.4 million units of which only 52% is through voluntary donation), and improve the quality of blood. This will be done through improving the quality and reach of the infrastructure for blood storage, component separation and transport, through encouraging clinicians to make the optimum use of blood and blood products.
4. **Counselling and Testing:** HIV counselling and testing services are the key entry point to prevention of HIV infection and to treatment and care of people with HIV

Since the start of counselling and testing services in India there are now more than 4000 counselling and testing centres, mainly located in government hospitals.

NACP III aims to provide counselling and testing to 22 million by 2012. Under NACP III, VCTCs are merged with treatment facilities such as antenatal services and tuberculosis treatment centres and renamed Integrated Counselling and Testing Centres (ICTC). The ICTC provides voluntary counselling and testing, provides basic information on HIV and how to reduce the risk of acquiring it, and referring to care and treatment services.

5. **Care, Support and Treatment:** In terms of treatment, NACP-III promises treatment for opportunistic infections (such as TB and fungal infection) and first-line antiretroviral drugs to those adults and children who qualify according to its medical criteria. In February 2008, the government introduced second-line drugs to those who have become immune to the first-line drugs and the programme has started in two centres. Mumbai's J. J. Hospital and Chennai's Tambaram hospital, as of March 2008. Under NACP-III it is planned for all HIV/AIDS linked services to be integrated and scaled up to sub-district and community level. In high prevalence districts, the spectrum of preventive, curative services will be available in medical colleges or district hospitals. Non-governmental organizations and community based organizations are expected to link people needing care to hospitals providing HIV services provide support services and home-based care for people living with HIV/AIDS and outreach services at the district level.
6. **Collaborations:** NACPIII works with various types of organisations in prevention, care, support and service delivery. NGOs that provide nutrition and other welfare services, community care centres providing medical and social support, women's groups, youth groups, trade unions, private sector, civil society, organisation networks of people living with HIV/AIDS and government department to integrate HIV prevention into their activities.

7. **Mainstreaming:** Altogether 31 Union Ministries and departments of the Government of India have mainstreamed HIV/AIDS prevention in their day to day functioning. A number of private companies have taken up prevention campaigns and other programmes within their corporate and field locations, including removing stigma and discrimination in the workplace. NGOs and civil society organization have made significant contribution in reaching HIV prevention and care services to the highly vulnerable population groups.
8. **Surveillance:** One of the achievements of NACP is; a credible HIV sentinel surveillance system. Information gathered through HIV sentinel surveillance, AIDS case surveillance, behavioural sentinel surveillance and STD surveillance helps in tracking the epidemic and provides the direction to the programme. A nationwide Computerised Management, Information System (CMIS) provides programme monitoring and evaluation.

1.7. THE EPIDEMIOLOGY IN INDIA:

Trends in HIV epidemiology are monitored through the sentinel surveillance system. Based on the sentinel surveillance data, the HIV prevalence in adult population can be broadly classified into three groups of states in the country.

Group 1: Maharashtra, Tamil Nadu, Karnataka, Andhra Pradesh, Manipur, Nagaland where the HIV infection has crossed one percent or more in antenatal women. These are high prevalence states.

Group 2: Gujarat, Goa and Pondicherry, where HIV infection has crossed five percent or more among high-risk groups, but the infection is below one percent in antenatal women.

Group 3: The remaining states, where the HIV infection in any of the high risk groups is still less than 5 percent and is less than 1 percent among antenatal women, constitute the long-prevalence states.

Behavioural Surveillance Surveys (BSS) show that awareness levels on HIV/AIDS also vary widely among these states. Generally awareness levels are higher in high-prevalence states that form a belt across central India with rural women in these states the most disadvantaged in terms of awareness.

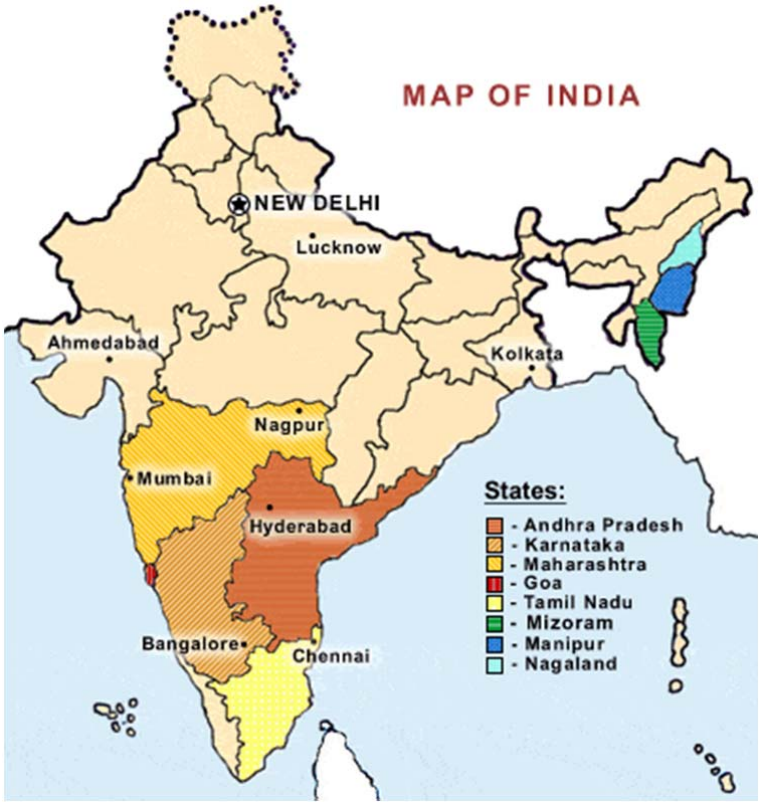
Data from various sentinel sites and other studies in Maharashtra show that over the years HIV infection has increased sharply among commercial sex workers (CSW), rapidly progressing among STI clinic attendees and is steadily spreading in low-risk population. The time lag for HIV infection to spread from high-risk to low-risk groups is between 3 to 5 years, as the infection will spread from CSWs to their clients, who act as a bridge population, and then to wives of these clients during this time period.

Among intravenous drug users the infection has spread very sharply in Manipur with HIV prevalence of more than 70 percent. The trends of HIV infection among various risk groups of population in India reveal that although HIV prevalence is low in a majority of the states, the number of HIV infections is very high. There are wide regional variations in HIV prevalence. There are simultaneous epidemics in certain states, that is heterosexual epidemic in Maharashtra and Tamil Nadu and IDU epidemic in Manipur.

Epidemiological analysis of reported AIDS cases reveals that:

1. The disease is mainly affecting people in the sexually active age group. A majority of the cases are in the age group of 15 to 44 years, thereby making a considerable economic impact to the country.
2. The predominant mode of transmission of infection in AIDS patients is through heterosexual contact (84.29%). Other modes of transmission are injecting drug use (2.87%), blood transfusion and blood product infusion (2.99%) and others (7.25%).
3. Females account for 74.88 percent of AIDS cases and females 25.12 percent. The ratio is 3.1.
4. The major opportunistic infection in AIDS patients is tuberculosis indicating a possibility of adult epidemic of TB and HIV in the future.

1.8. [6]THE HIV/AIDS SITUATION IN DIFFERENT STATES:



MAP OF INDIA SHOWING THE WORST AFFECTED STATES.

The vast size of India makes it difficult to examine the effects of HIV on the country as a whole. The majority of states within India have a higher population than most African countries, so a more detailed picture of the crisis can be gained by looking at each state individually. The HIV prevalence data for most states is established through testing pregnant women at antenatal clinics. While this means that the data are only directly relevant to sexually active women, they still provide a reasonable indication as to the overall HIV prevalence of each area. Data for six states are also available from a survey of the general population.

[6] An Overview of HIV/ AIDS In India(www.avert.org/aidsindia.htm)

1.9. HIV AND AIDS ESTIMATES

Total Population* Estimated Population Living with HIV/AIDS** Adult HIV prevention**	1.2 billion (mid 2010) 2.4 million (2009) 0.3%[0.3-0.4%] (2009)
HIV prevention in most-at risk population**	IDUs:9.2% (New Delhi) (2009) MSM: 7.3%(New Delhi) (2009) FSWs:4.9% (New Delhi) (2009)
Percentage of HIV-Infected People Receiving Antiretroviral Therapy***	36–55% (estimates, 2009)

*U.S. Census Bureau **UNAIDS and UNGASS

***WHO/UNAIDS/UNICEF, *Towards Universal Access,2010*

[7]The first HIV/AIDS case in India was identified in Chennai, the capital of Tamil Nadu state, in 1986. Twenty-four years later, 2.4 million Indians are HIV positive, according to an estimate from the National HIV Sentinel Surveillance (United Nations General Assembly Special Session [UNGASS], 2010). Between 2001 and 2009, however, HIV incidence fell by more than twenty five percent, and estimated national prevalence remains below one percent. This figure is significantly lower than previous estimates that used only sentinel surveillance data but is considered more accurate because it is based on a national household survey (National Family Health Survey, 2005–2006, [NFHS-3]). It is also supported by expanded national surveillance efforts, which estimate a national adult prevalence of 0.29 percent (UNGASS, 2010).

[7] HIV/AIDS Programme (http://.www.gsacsonline.org/program.html)

According to the 2010 UNGASS HIV country report, India's epidemic is concentrated within Most-At-Risk-Populations (MARPs), with prevalence substantially higher among these populations than in the general population. Prevalence also varies dramatically by district, state, and region, with numerous isolated pockets of high prevalence. Approximately 60% of people living with HIV/AIDS (PLWHA) live in the six high-prevalence states, although prevalence in the general adult population of these states has recently experienced an overall decline. Even in states with low prevalence, there are pockets of high prevalence, and some are seeing increases in new infections. Rising trends among antenatal care (ANC) clinic attendees have been observed in the low- and moderate-prevalence states of Gujarat, Rajasthan, Orissa, Uttar Pradesh, Bihar, and West Bengal. At the national level, trends among ANC clinic attendees and female sex workers (FSWs) appear to be on the decline, although in some parts of southern India, up to 15 percent of FSWs are HIV positive. Trends among injecting drug users (IDUs) vary, with considerable differences between regions. Trends of increasing HIV prevalence among men who have sex with men (MSM) are generating concern, with estimates from the 2008–2009 National HIV Sentinel Surveillance at 7.3 percent in New Delhi, up from 6.4 percent in 2006. Particularly high HIV prevalence among MSM has been reported in parts of southern India (between 7 and 18 percent) and in rural areas of Tamil Nadu state (9 percent).

According to the 2010 report of the Joint United Nations Program on HIV/AIDS (UNAIDS), sexual intercourse is the primary mode of HIV transmission in India, accounting for about 90 percent of new HIV infections. More than 90 percent of infected women acquired the virus from their husbands or intimate partners. In most cases, women are at an increased risk not due to their own sexual behaviour, but because their partner is an IDU or also has female sex workers (FSWs') or MSM as other sex partners. Injecting drug use is the main mode of transmission in the north-

eastern states, although sexual transmission is increasing. Prevalence rates among IDUs are on the rise in many states, with new regions, such as southern India, also showing upward trends in this group.

Among Female Sex Workers'(FSWs'), prevalence trends show an overall decline in the south, where targeted program interventions have had a greater reach and achieved broader coverage in terms of raising awareness, testing, and condom use. The 2009 Behavioural Surveillance Survey conducted in five states (Karnataka, Uttar Pradesh, Andhra Pradesh, Tamil Nadu, and Manipur) has shown an increasing trend in consistent condom use among both FSWs and MSM. Similarly, the 2010 UNAIDS report found an increase in condom use in higher-risk sex among both women and men greater than 75 percent. India is a major destination for trafficked girls under age 16 (especially from Bangladesh and Nepal). Trafficked women and girls are particularly vulnerable to HIV infection because they are often unable to negotiate condom use and are often subjected to violent sex. In 2008-2009, FSWs in 47 districts had HIV prevalence rates higher than five percent. The epidemic is shifting from the most vulnerable populations (IDUs, FSWs, and MSM) to "bridge" populations, primarily migrant workers and truckers (UNGASS, 2010). HIV is becoming more common among women and rural inhabitants, who accounted for 39 and 67 percent of PLWHA in 2009, respectively. Historically, these groups have been more difficult to reach with public education campaigns, but awareness is on the rise. The NFHS-3 found that 61 percent of women ages 15 to 49 had heard of AIDS, compared with 84 percent of men. Smaller percentages (20 percent of women and 36 percent of men) had comprehensive, correct knowledge of HIV/AIDS. Young women living in urban areas were more than twice as likely as those in rural areas to have comprehensive knowledge of HIV/AIDS. Only 40 percent of pregnant women knew that HIV/AIDS can be transmitted from mother to child, and just 15 percent knew that taking certain drugs can reduce the likelihood of transmission.

Many Indians, including health care providers, consider AIDS a disease that affects only people with unorthodox lifestyles. This attitude reflects the stigma and discrimination directed toward Indians affected by HIV/AIDS and contributes to the inadequate health care services they receive. Compounding the problem, negative attitudes from health care staff cause anxiety and fear among many PLWHA who, as a result, hide their HIV status and thereby miss the opportunity to avail themselves of treatment and other services. Gender inequality has also contributed to the epidemic, as women often lack the power to negotiate or assert their rights in regard to their sexual choices and, more broadly, their access to education, economic opportunity, and health care.

According to the World Health Organization (WHO), India is one of the world's 22 high-burden countries for tuberculosis (TB), with 170 cases per 100,000 populations in 2008. The HIV-TB co-infection rate of adults testing HIV positive among incident TB cases is 6.7 percent. HIV-TB co-infections pose a challenge to providing treatment and care for both diseases.

1.10. [8]WHO IS AFFECTED BY HIV/AIDS IN INDIA?

People living with HIV in India come from incredibly diverse backgrounds, cultures and lifestyles. The vast majority of infections occur through heterosexual sex and most of those who become infected would not fall into the category of 'high-risk groups, including sex workers, men who have sex with men, truck drivers and migrant workers, do face a proportionately high risk infection.

1.10.1 The Future of HIV/AIDS in India:

Various groups have made predictions about the effects that AIDS has on India and the rest of Asia. There has been a lot of debate about the accuracy of

[8] An Overview of HIV/AIDS in India(www.avert.org/aidsindia.htm

estimates about AIDS. For instance, a 2002 report by the CIA's National Intelligence Council predicted 20 million to 25 million AIDS cases in India by 2010 more than any other country in the world. India's government responded by calling these figures "completely inaccurate" and accused those who cited them of spreading panic. The government has also disputed predictions that India's epidemic is "on an African trajectory", although it claims to acknowledge the seriousness of the crises.

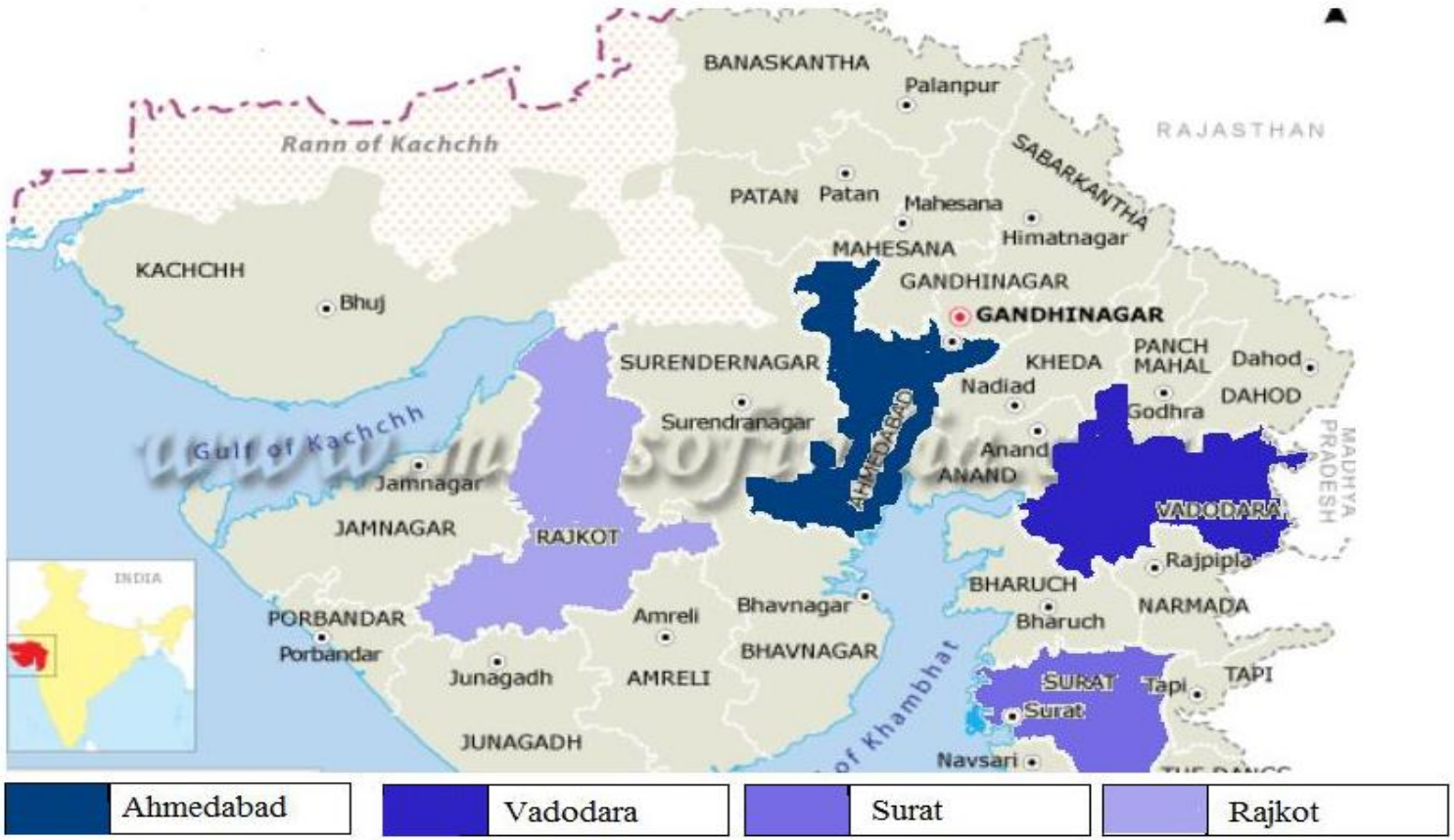
Indeed, recent surveys do suggest that national HIV prevalence has probably fallen slightly in the recent years. This trend is mainly due to drop in infections in southern states; in other areas there has been no significant decline. Even if the country's epidemic does not match the severity of those in southern Africa, it is clear that HIV and AIDS will have a devastating effect on the lives of millions of Indians for many years to come. It is essential that effective action is taken to minimize this impact.

1.11. [9]THE HIV SCENARIO IN GUJARAT:

Gujarat is one of the highly industrially developed states in the country. Being an industrialized state, migration of labourers from various parts of the country is very high. Mobility and migration of people make them more vulnerable as a result of separation of spouse and release of social sanctions leading to high-risk sexual practices and consequently may contract HIV, which in turn is carried to their spouse and to their children. On one hand with the increase in urbanization most of the societies are in transition, young population is under less social restrain. On the other hand, lower literacy level of rural women especially in the state; local customs and traditions make a woman more vulnerable to the infection. A large number of women suffer from Reproductive Tract Infections (RTIs), which are mainly due to poor

[9] www.GSACSonline

Map of Gujarat showing the proportion of PLWHAs in four major districts



sexual hygiene especially during menstruation and sexually transmitted infections from their spouse.

In Gujarat also the first AIDS patient was diagnosed in 1986. Gujarat came into middle level prevalence as early as 1994 along with Tamil Nadu due to high vulnerability of the state. However, still Gujarat state is in middle level, whereas Tamil Nadu and other states like Maharashtra, Andhra Pradesh, Karnataka, Manipur and Nagaland went into high prevalence. To respond to the menace of HIV in the state, State AIDS Cell (SAC) was created in December 1992, for implementation of phase I of National AIDS Control Programme. The implementation of the Programme was done by the State AIDS Control Organization and the approval of the State empowered committee constituted for the purpose of the state level. With a view to ensure speedy and effective implementation of the programme through inter-sector co-ordination for AIDS prevention, and also to involve NGOs', the state AIDS Empowered Committee decided to convert the existing State AIDS Cell into a registered society. Government of India had also decided to constitute AIDS Control Society for effective implementation of the programme, especially in the second phase beginning from April 1999. Since then National AIDS Control Programme is being implemented through States AIDS Control Society.

1.12 IMPACT OF HIV/AIDS:

Impact of AIDS manifests itself in various domains of life of the affected and the afflicted. Its impact can be felt socially, culturally, economically and mentally.

Social impact can be measured in terms of :

- Gender inequality
- violence
- care-giving

- changes in intergenerational relationships.
- poverty

Economic Impact can be measured in terms of:

- mortality rate
- financial burden on PLWHA
- impact on agriculture, industries and other economic activities.
- national budget
- poverty
- property rights of a woman

Cultural Impact can be measured in terms of:

- domestic violence
- polygamous marriages
- widow inheritance.

Psychological impact can be measured in terms of:

- depression
- anxiety
- emotional distress
- suicide and violence
- substance use and abuse
- cognitive disorders (associated Dementia and Delirium)
- personality disorders (psychotic disorder and post-traumatic stress disorder) and Quality Of Life and Self Esteem

1.13. [10]AIDS RELATED COMPLEX:

This now outdated term implied to symptomatic disease and was originally used to define individuals with a number of symptoms and signs which were thought to be directly due to chronic HIV infection. Technically certain criteria were used to define whether an individual was within the ARC category or not. The term signified the onset of symptoms and certain conditions associated with chronic HIV infection. Specific infections although initially trivial can reflect a profound deficiency in the function of the immune system. An example of this includes thrush or candela. 'Symptomatic HIV infection' is now accepted term for this stage of the condition.

1.14.[11] AIDS Phobia:

Phobias and fears related to HIV and AIDS have been reported early in the history of HIV infection. There have been reports from the late eighties describing the problems of the "worried well" i.e. people with an overwhelming fear of having contracted AIDS. It was predominantly reported from homosexual men and users of IVD who were particularly at risk for HIV infection cases of AIDS related phobia among heterosexuals with risky behaviour have been reported from India. In addition, to distinct AIDS related fears, somatisation disorders have been reported among men with risky behaviour who tested negative for HIV but continue to have concerns about the infection.

1.15. AIDSISM:

AIDS-ism is built on a foundation of homophobia, misogyny, addict-phobia and fears of contagion and death.

[10] Nursing Care of the Person with AIDS/ARC,(ed):Angie Lewis. An Aspen Publication-1988
[11] Chandra. P.S, "HIV and Psychiatric Disorders", *Indian Journal of Medical Research,* April 2005, Volume 121, pages 451-467

1.16.[12] PSYCIATRIC COMPLEXITIES ASSOCIATED WITH AIDS:

Despite all the medical advances we have made in the treatment of HIV infection, the psychiatric care of persons with HIV and AIDS remained one of the most challenging aspects of medical care. Mental health programmes are a necessity to all comprehensive HIV clinics and in private practices. Persons with HIV have underlying mental health issues and conditions. Whether it is substance abuse, mood disorders or psychosis individuals with these issues need evaluation by a skilled mental health specialist. Perhaps the most challenging issue to address is the aetiology of the psychiatric manifestation. Was it pre-existing but undiagnosed? Is it due to HIV or could the therapies themselves be contributing? Are there other infectious or organic reasons for this behaviour? Being HIV infected could result in psychiatric disorders as psychological consequences of the infection or because of the effect of the HIV virus in the brain. Disorders may be as varied as depression, post-traumatic stress disorder, AIDS phobia, grief and the whole gamut of cognitive disorders. Apart from the more obvious impact of HIV on mental health, there are several ways in which HIV infection and psychiatric disorders are linked.

- [13]HIV infection owing to its malignant course and the associated stigma often results in emotional reactions of a serious nature among those infected.
- HIV has direst effects on the brain that may lead to neuro-cognitive disturbances, psychosis or behavioural changes.
- Opportunistic neurological and systematic infections and their treatment may lead to neuro-psychiatric problems.
- Some of the drugs used in HAART (Highly Active Antiretroviral Therapy) are known to be associated with psychiatric side effects.

[12] Cohen.M.A and Gorman.J.M. (ed) Comprehensive Textbook of AIDS Psychatry

.[13] Chandra. P.S, "HIV and Psychiatric Disorders", *Indian Journal of Medical Research,* April 2005, Volume 121, pages 451-467

- Persons with severe mental illness are known to be vulnerable to HIV infection and there are various management concerns in this population.
- Substance abuse and HIV are linked in direct ways (intravenous drug use) and in indirect ways by their influence on sexual behaviour.
- Treatment adherence and course of illness have been found to be influenced by emotional factors and substance use.

The above description indicates the complexities of the link between psychiatric syndromes and HIV infection. In a given individual, more than one of these factors might be involved thus leading to complex clinical manifestations and requiring a multipronged approach in assessment and management of the problem.

1.16.1. [14]The History of AIDS Psychiatry:

Although the AIDS epidemic was first described in medical literature in 1981, it was not until 1983 that the first articles were published about the psychosocial

AIDS related fears and phobias have been associated with an anxious temperament, health anxiety and are often associated with misinformation and inadequate knowledge, particularly in countries like India.

aspects of AIDS. The authors deplored ostracism of persons and their medical system of care. Nicholas described the need for compassion, support and understanding, to address the fear, depression and alienation experienced by patients. He also made recommendations for use of psychotherapy and group therapy.

[14] Cohen.M.A and Gorman.J.M. (ed) Comprehensive Textbook of AIDS Psychiatry, 2008

1.16.2. [15]Bereavement and Grief:

The severity of HIV and AIDS, the loss of health, a decrease in functioning, the deterioration of body integrity, and the anticipatory loss of life may result in bereavement. Homosexual men with AIDS who have witnessed multiple deaths during their illness experience recurrent episodes of bereavement. The bereaved person considers symptoms of sadness, insomnia, poor appetite and weight loss as being normal reactions to their loss. The symptoms of bereavement share the characteristics with major depression; these do differ in the presence and intensity of survivor guilt, loss of warmth emergency of hostility, and the preoccupation with images of the deceased. If bereavement persists for longer than two months and is accompanied by increasing functional impairment, morbid preoccupation with worthlessness, and marked psychomotor retardation, the diagnosis of major depressive episode can be established.

1.16.3. [16]Anxiety Disorders:

Anxiety is a painful and ubiquitous concomitant of most severe medical illness, and AIDS is no exception. Anxiety may be experienced as a symptom, as one of the anxiety disorders, as a consequence of AIDS-associated illness, or as a result of one of its treatments. It can occur at any stage, from the realization of being at risk, to the anxiety about a possible symptom, to the time of HIV testing, diagnosis, disclosure, disease progression, and severe illness and dying. Patients with histories of anxiety or mood disorders are susceptible to recurrence of anxiety symptoms during the course of HIV illness. Anxiety can be present with a wide range of physiological manifestations, such as shortness of breath, racing or pounding heart, chest pain, dizziness, numbness or tingling, nausea, or choking sensation. When patients present

[15] Chandra. P.S, "HIV and Psychiatric Disorders", *Indian Journal of Medical Research,* April 2005, Volume 121, pages 451-467

[16] Cohen.M.A and Gorman.J.M. (ed) Comprehensive Textbook of AIDS Psychiatry, 2008

themselves with these somatic symptoms for which no underlying medical aetiology can be established, clinicians should consider an anxiety disorder as the cause. In addition to somatic complaints, patients with anxiety disorders often present fear, worry, insomnia, impaired concentration and memory. Diminished appetite, ruminations, compulsive rituals and avoidance of situations make them anxious. When anxiety symptoms are severe or persistent, patients may have an anxiety disorder.

These disorders include:

- Panic disorder
- Generalized anxiety disorder
- Obsessive-compulsive disorder
- Post-traumatic Stress disorder

Episodes of anxiety lasting for one to several months are frequent in HIV-infected patients. Its prevalence is significantly lower if rigorous DSM-IV criteria is applied, which require a minimum of six months of symptoms. This could be the reason why there is a wide range of results in different studies. Current rates of generalized anxiety are between 5 and 21%.

Post-Traumatic Stress Disorders and multiple loss syndromes have been described in some persons who have experienced AIDS related multiple losses. HIV positive women have a higher prevalence of PTSD symptoms. Evaluation of anxiety in HIV infected individuals should take into account the variety of medical conditions, which can present with anxiety symptoms. Many of the medications used in treatment of HIV/AIDS have been reported to cause anxiety as a possible side effect. Psychoactive substances, both prescribed and recreational should also be considered in evaluation of anxiety.

1.16.4. [17]Suicide:

HIV infected people may be at higher risk for suicidal behaviour, particularly after a diagnosis of HIV diseases, or during progression of AIDS, as patient's health and quality of life decline. Other patients such as those with certain personality disorders may be at increased risk for violent behaviour.

Key Point: A significant percent of patients who commit suicide will have seen their primary care clinician in the month before suicide. This underscores the importance of routine mental health screening in the primary care setting, which can help identify who are at risk to receive treatment for the underlying cause of their suicidal behaviour.

Although only a small number of HIV-infected patients attempt or commit suicide or violence, routine mental health assessment and procedures in the clinic setting for responding to mental health emergencies can ensure that the potential for such behaviour is identified and appropriately addressed.

Suicidal behaviour is defined as suicidal ideation, suicide attempts, deliberate self harm, with or without suicidal intent; or completed suicide. Violence is defined as the threatening or actual use of physical force against another person with the intent to cause harm.

Rates of suicidal behaviour have been more widely studied in gay men than in other population although some studies have shown that HIV infected women have higher rates of suicide attempts than HIV infected men. Studies conducted before the introduction of HAART indicated an increased risk of completed suicide in patients with HIV/AIDS that was 7 to 36 times greater than in the non-HIV infected population. Since the introduction of HAART more recent evidence suggests that

[17] Suicidality and Violence in Patients with HIV/AIDS", HIV Clinical Resource , January 2007

suicide among HIV infected patients may be mediated more often by factors other than HIV including depression, alcohol or other substance related disorders. As patients with suicidal behaviour often represent with co-morbid depression, screening for and timely treatment of depression may reduce a patient's risk for suicide.

[18] Suicide is a complex bio psychosocial outcome of depression, hopelessness, isolation and lack of support. HIV infection with all its negative connotations and discrimination can be a harbinger of future suicidal ideation or completed suicide. Several factors have been associated with suicidal ideations among persons infected with HIV. Homosexual orientations, partner's HIV status, loss of infected partner, past history of deliberate self harm and presence of physical symptoms have been reported as risk factors. Some of the psychiatric variables predicting suicidal ideation include concurrent substance abuse, past history of depression and presence of hopelessness. Stigma has been considered as an important variable in predicting suicide and has important implications for India.

1.16.5. [19]Depression:

Depression is the most common reason for psychiatric referral among people with HIV-infection (Strober et.al., 1997).Major depression in HIV-positive population is elevated about two fold above those in healthy community sample. Depression has a severe impact on the quality of life and on medication adherence. Depression is a debilitating condition; its symptoms include sadness, pessimism, anhedonia, guilt, and suicide in addition to neuro-cognitive changes such as impaired sleep and appetite. These latter signs can often produce fatigue, anorexia and wasting syndromes making the diagnosis of depression challenging in this patient group additionally, somatic symptoms of depression may be confused with opportunistic infections, further

[18] Chandra. P.S, "HIV and Psychiatric Disorders", *Indian Journal of Medical Research,* April 2005,

[19] Cohen.M.A and Gorman.J.M. (ed) Comprehensive Textbook of AIDS Psychiatry, 2008

complicating the differential diagnosis. Major depressive disorder is frequently under-diagnosed and under-treated (Evans et al., 1996-97) in persons with HIV and AIDS. Depression in HIV can be either primary or secondary in nature. When depression develops during the course of HIV infection, it is described typically as a mood disorder due to a medical condition if it is etiologically related to HIV infection, opportunistic disease, antiviral treatments, or co-morbid medical conditions. When a person with HIV or AIDS has a longstanding history of depression or bipolar disorder, however, it is more likely that the diagnosis of major depressive disorder would be supported.

HIV- infected patients do not become depressed simply because their disease progresses; however, it is particularly important to screen for depression during crises points noted below.

[20]Crises Points for HIV-infected Persons:

- Learning of HIV status
- Disclosure of HIV status to family and friends.
- Introduction of medication
- Occurrence of any physical illness
- Recognition of new symptoms/.progression of disease (e.g. Major decrease in CD4 cells, increase in viral load.
- Necessity of hospitalization
- Death of a significant other
- Diagnosis of AIDS
- A return to a higher level of functioning (e.g. re-entry into job market, school, giving up entitlements.)

[20] Duffy V The 14 crises points of AIDS. AIDS Patient Care STDs 1994, Vol:8 Pages, 28-32.

- Major life changes(e.g. Child birth, pregnancy, loss of job, end of relationship, relocation)
- Necessity of making end-of-life planning decisions.

1.16.5.1.[21] Effect of Depression on natural course of HIV infection:

While some studies point to lack of an association between depression and medical outcome, other studies have reported that presence of depressive disorder could result in neglect of physical health and poor compliance to treatment regimen among individuals with HIV infection. Studies have also demonstrated the association of psychological distress and immune system function in HIV spectrum disease. Psychological distress has been associated with decreased number of helper cells and B cells at low levels of viral burden.

1.16.5.2. HIV status Disclosure and Depression:

Disclosure has several important connotations in HIV in India especially in the context of stigma and myths surrounding the illness. Disclosure may impact mental health in positive and negative ways. Discussion of one's HIV status with significant others may open up the opportunities to receive support or may add to stress by causing discrimination and withdrawal of support. Concealing one's status on the other hand, may be stressful and may impact on mental health. A study that examined the impact of disclosure related variables on mental health indicated that it was not the nature or extent of disclosure but the motivation to disclose and the outcome of disclosure that had an impact on mental health and quality of life. Positive outcomes and wanting to disclose one's HIV status were associated with better mental health

[21] Chandra. P.S, "HIV and Psychiatric Disorders", *Indian Journal of Medical Research,* April 2005,

and better quality of life. People with better mental health may have better social support and hence may be more motivated to reveal their status.

1.17.[22] COGNITIVE DISORDERS ASSOCIATED WITH HIV/AIDS:

1.17.1. Dementia and Delirium:

HIV enters the Central Nervous System (CNS) soon after initial infection and is responsible for a range of neuropsychiatric complications. Although HIV is neuroinvasive, it does not directly infect neurons. The major brain reservoirs for HIV infection and replication are microglia and macrophages. Atrocytes can be infected but are not a site for active HIV replication. Accordingly, HIV associated neurologic complications are indirect effects of viral neurotoxins (viral proteins gp 120 and tat) and neurotoxins released by infected or activated microglia.

In addition to HIV-Associated Dementia (HAD), other HIV-associated neuropsychiatric complications include the following.

- Cognitive motor disorder, which differs from HAD in severity and degree of functional disability but may progress to HAD.
- Neurohbehavioural impairments (e.g. apathy, depression, anxiety/agitation, sleep disturbance, hypomania)
- Myelopathy, which is functional disturbance and/or pathologic change to the spinal cord
- Aseptic meningitis.

Despite the decreasing incidence of HAD in recent years, cognitive impairment is the most common CNS complication in people with HIV/AIDS. Delirium is the most common cognitive disorder in hospitalized patients with AIDS. The prompt diagnosis of cognitive impairment dementia and delirium may

[22] "Cognitive Disorders And HIV/AIDS: HIV Associated Dementia And Delirium" , HIV Clinical Resource , January 2007

significantly decrease morbidity and mortality. Greater degree of immunodeficiency and age are significant risk factors for HAD. However, the incidence of HAD has decreased since the introduction of HAART. After initiation of HAART, some people with HAD have shown marked improvement in cognitive status. This has been postulated to be due to an improvement in immune system, as evidence by increased CD4 cell count and a decrease in plasma viral load and Cerebral Spinal Fluid (CSF) viral load. Early studies, particularly in the pre-HAART era, have indicated that CSF HIV viral load correlates with severity of cognitive dysfunction, particularly in patients whose CD4 count is <200 cells/mm. At this time, measurement of viral load in CSF is predominantly a research tool, rather than routine standard of care.

HAD produces a highly variable clinical course and a spectrum of signs and symptoms, ranging from subtle cognitive and motor impairments to profound Dementia. Common early symptoms include word-finding difficulty, forgetfulness, psychomotor slowing, and diminished writing or visual and motor skills.

Common psychiatric symptoms include depressed mood and hypomania. Some patients experience a gradual mental decline, whereas others deteriorate rapidly over short period of time. Seizures, global cognitive deterioration, mutism, incontinence, and severe confusion are common clinical features of late-stage HAD.

Delirium is the most common neuropsychiatric complication in hospitalized patients with AIDS. Delirium may be life-threatening and requires immediate medical attention. Occasionally, patients may present with early signs of delirium in the primary setting. Thus, it is essential that clinicians be able to recognize the signs and symptoms and refer patients to the hospital immediately.

The following patients are at risk of developing Delirium:

- Those in advanced stages of immune-suppression
- Those with a history of opportunistic infections, substance use, head/brain injuries, or episodes of Delirium
- Those with HAD or infections and malignancies of the CNS.

Key Point: Early stages of dementia and delirium are often subtle, difficult to recognize, and may resemble primary psychiatric disorders.

1.18. [23]QUALITY OF LIFE:

The concept of Quality of Life (QOL) has attracted the attention of numerous researchers particularly within the health care context. According to Brown, Renwick and Negler, the interest in quality of life stems from trends towards greater appreciation of the personal needs and wishes and in individuals within the health and social services. Although the concept has been and is used frequently there is no exact definition or thorough conceptualization of quality of life. It is generally described in terms of positive subjective judgments such as happiness, satisfaction, well-being, and subjective judgments such as happiness, satisfaction, and well-being. Empirical research indicates that all of these concepts have been used inconsistently and that many have been used interchangeably. As quality of life is assumed to be a broader concept than the others, it could be argued that Quality Of Life may subsum concepts such as happiness and life satisfactions. In a clinical setting, according to Franchi and Wenzel, the definition of quality of life is "limited to those aspects of life directly affected by the health state…. And is often referred to as health-related Quality Of Life."

[23] Schonnesson,L and Ross,M., *Coping with HIV Infection Psychological and Extential Responses in Gay Men*

Quality of Life is viewed as being socially constructed and multidimensional .There is no absolute value of quality of life as there are many different cultural values and expectations on what constitutes quality of life and cultural values. Ross and Ryan take as an example the gay male culture. Since sexuality has such a central place in the gay identity and in the construction of the HIV disease, sexuality is a central component of quality of life definitions. Within this context it is interesting to note that in Nilsson Schonnesson's study on QOL among gay men with HIV, sexuality (in terms of "having sex") was not included as an aspect of their subjective perception of quality of life.

HIV-treatment advances and their expanding repertoire and increased life expectancy have contributed to a growing concern about the QOL among PLWHA. A common assumption by lay person is that people with HIV/AIDS experience an impoverished Quality Of Life. In addition, researchers tend to assign to their respondents who are sick a lower quality of life than the people themselves do. Quality of life may even be increased when people get seriously ill with their HIV infection.

1.19. **SOCIAL WORK SIGNIFICANCE:**

The social work profession remains an untapped resource in the community for detecting, preventing, mitigating, sensitizing and rehabilitating of PLWHA. In order for its proper utilization Social Work practices should be mainstreamed with other health services and should be made available in all the organizations providing services to PLWHA. Working in conjunction with other disciplines is a necessary component of the care of patients with HIV/AIDS.

Since the needs of AIDS patients have changed over the last two decades, the approaches that social work employs have also changed. The early 1980's saw the

beginning of the epidemic. During this time, social workers helped patients, partners, and families face the inevitability of the death of their loved ones.

In the mid 1980's HIV spread to intravenous drug users and heterosexual women and children, leading to another shift in the AIDS social work perspective. Education about drug addiction and the resources available for help was particularly important and as AIDS spread widely in African-American and Hispanic communities the understanding of these cultures also became important.

In 1985 zidovudine was introduced. In 1995, when a combination of therapies was introduced it came to be known as highly antiretroviral therapy (HAART).

The number of newly affected people has hardly decreased over the years. Many people are still dying with AIDS. The dominant themes are no longer dying and grief but survival and ways of living with the disease. Social workers have to thrive on the challenges they meet daily. They must be adept at handling the emotionally charged situations they encounter in their work.

1.19.1. Social Work Intervention with HIV/AIDS Patients: Practical Approaches:

Persons with HIV have abroad array of needs aside from medical and psychiatric care. Here the social worker assumes the role of a case manager who is in charge of coordinating the various disciplines around the patients' needs.

1. Establishing a relationship with the patient:

Forming a therapeutic relationship with a patient while assisting with multiple concrete service needs is a challenge. Felix Biestek (1957) defines the patient-caseworker relationship as the dynamic interaction of attitudes and emotions between caseworker and client, with the purpose of helping the client achieve a better adjustment."

Knowing a patient's interests can also often be a vehicle for connecting. Social workers also need to be sensitive to the complex emotions that the patient may be experiencing including anger, fear, shame and guilt.

Creating hopefulness and help patients cope with progressing illness and strengthen the relationship between the social worker and the patient.

2. Assisting with adherence to Medical regimen:

Adherence to a specific regimen is important for anyone dealing with an illness, but vital for those with AIDS. The effectiveness of the medication depends on taking them according to s prescribed schedule. Non-adherence can result in failure of the medications to be effective, and the choice of regimens available at this time is limited. The social workers role is o communicate with the physician in assessing the patient's adherence and communicate with him if there are any problems. A good patient-doctor relationship is strongly associated with adherence.

3. Function and mobilization of Support Groups:

Support groups can often reveal the loneliness associated with AIDS. Being with others can be revitalizing. Group interaction for AIDS patients has been described " as an effective means to provide support, an outlet for feelings, a common bond, and a relief of societal stigma" (Cohen and Alfonso, 2004). Groups can provide companionship, help lighten the weight of heavy burdens and create feelings of optimism. They can help put life in perspective and create a more positive outlook.

People with AIDS sometimes feel disconnected from family and friends. This is especially true with older people who are experiencing the loss of others who are not HIV positive who have become ill and died from other conditions. Many older people are also coping with several age related illnesses at the same time. Group can give them the opportunity to form new and sometimes very strong relationships.

4. Assisting with concrete services:

Patients with AIDS need assistance with multiple concrete services. The most prevalent needs are for housing, financial benefits, insurance, clothing, food, transportation etc. In the above mentioned areas the services provided by the social workers are invaluable. They can guide patients through the system to obtain benefits, and often accompany them to the various local and state agencies.

5. Additional social work services:

Many other issues are addressed in a social worker's encounters with patients. Some are considered very tough subjects that need to be discussed for patients consider all aspects of how AIDS relates to them. Topics surrounding disclosure of HIV- positive status o family and friends are often discussed.

Conversations about risk reduction and safe sex practices are also a necessary part of social workers communications with AIDS patients. Mending relationships with family members, partners and friends is an area in which some patients need guidance and support.

Planning for the care of dependent children is a topic that many patients do not want to address. It is usually very difficult for patients to face the possibility of leaving their children.

In addition to all these functions, social workers also address the mental health issues of HIV patients. Apart from providing them emotional support and counseling, they also take up preventive role where early detection and psychiatric morbidities in these patients are to be identified and properly attended. As mentioned earlier, HIV positive cases may be more prone to such conditions and it is our prime duty to protect them and enable them to live as best as they can. It is with this intention the present study is carried out.

CHAPTER II

R E S E A R C H M E T H O D O L O G Y

2.1. INTRODUCTION:

Research in common parlance refers to a search for knowledge. The Advanced Learner's dictionary of current English lays down the meaning of research as a "careful investigation or inquiry especially through search for new facts in any branch of knowledge". Research maybe defined as the systematic and objective analysis and recording of controlled observation that may lead to development of generalization, principles or theories, resulting in prediction and possibly ultimate control of events (Whitney, 1950). Research can also be defined as a scientific undertaking which, by means of logical and systemised techniques, aims to:

1. Discover new facts verify and test old facts.
2. Analyze their sequences, inter-relationships, and causal expectation which can be derived within an appropriate theoretical frame of reference.
3. Develop new scientific tools, concepts and theories which would facilitate reliable and valid study.

Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. It involves the various steps that are generally adopted by the researcher in studying one's research problem along with logic behind them (Rascol, 1969). It is necessary for the researcher to design his methodology for his problem according to the design of the study.

2.2. RESEARCH DESIGN:

In the present study the investigator has undertaken cross-sectional design (one shot design. A cross sectional design slices a sample of the population (*at one time*).

The focus in a cross-sectional survey is on description- describing the characteristics of a population or the differences among two or more population. Cross-sectional designs can also be used to assess inter-relationships among variables within a population. These type of designs can be especially be useful in epidemiology, the study of the incidence and prevalence of disease in a population. *Incidence* refers to the number of new cases of a disorder reported during a specific time period. *Prevalence* is the frequency of a disorder in a particular population. Lastly, cross-sectional designs are ideally suited to the descriptive and predictive functions.

2.3. STATEMENT OF THE PROBLEM:

Psychiatric Morbidity in People Living With HIV/AIDS (PLWHA)- A Study of HIV positive cases in Gujarat.

2.4. RESEARCH QUESTION:

i. Are HIV positive people prone to psychiatric morbidities?

ii. What are different psychiatric morbidities that HIV/AIDS positive people have?

2.5.1. NULL HYPOTHESIS (Ho):

People living with HIV are prone to psychiatric morbidities.

2.5.2. ALTERNATE HYPOTHESIS (H1):

People living with HIV are not prone to psychiatric morbidities.

2.6. RATIONALE:

- The review of literature and relevant studies showed that there is a paucity of information and evidence of psychiatric morbidities amongst PLWHAs. Such studies were conducted in India also, but were confined only in Southern India, and were concentrated only on mental health per se. Hence keeping this fact as a pivot the researcher has decided to undertake one such study in Gujarat.
- With the help of this study mental health specialists can help in the prevention and treatment of several complications of HIV infection.
- They can identify and modify behavioural factors related to the acquisition of the infection or affecting the course of the disease.
- They can help describe the significance and inner consequences of HIV/AIDS diagnosis.
- They can determine the usefulness of interventions aimed to alleviate the psychiatric implications of these aspects.
- The study can help in integration of mental health into HIV/AIDS initiatives and programmes in the country.
- Primary health care providers including HIV counsellors' can be trained to recognise and treat common mental disorders and refer patients to specialized services when needed.
- HIV can be integrated into mental health services.
- Such a study can help in relevant guidance, continued advocacy and monitoring of actual levels of coverage of interventions for mental health and HIV/AIDS in our country.

2.7. OBJECTIVES OF STUDY.

1. To study the presence of psychiatric morbidities like anxiety, depression and suicide ideation in PLWHA.
2. To study the Quality of Life of PLWHA.
3. To study the self esteem of PLWHA.
4. To explore the association between HIV positive status and psychiatric morbidity with reference to age, gender, occupation, habitat and religion.

2.8. VARIABLES:

Considering the present investigation, the following are the dependent and independent variables.

2.8.1. Dependent Variables:

The dependent (DV) is defined as one about which the investigator makes a prediction. Hence in this study the dependent variable will be the presence of anxiety, depression, suicide ideation, quality of life and self esteem among PLWHAs.

2.8.2. Independent Variables:

The independent variable is defined as one which is manipulated, measured and selected by the experimenter for the purpose of producing observable changes in the behavioural measure or dependent variable (DV). Underwood calls dependent variables as the stimulus variables and independent variables as the response variables. In this study the independent variables will be HIV positive status, age, sex, marital status, caste, rule of residence and educational qualifications

2.9. OPERATIONAL DEFINITIONS :

2.9.1. Psychiatric morbidity:

Psychiatric morbidity is that state of mind which manifests certain disturbances and has the potential of developing into a psychiatric disorder if unattended. It can be treated with behaviour therapy, counselling and drugs if required.

2.9.2. HIV/AIDS:

AIDS was first reported in the US in 1981 and has since then become a major worldwide epidemic. AIDS is caused by the human immunodeficiency virus (HIV). By killing or damaging cells of the body's immune system HIV progressively destroys the body's ability to fight infections. The term AIDS applies to the most advanced stages of HIV infection. HIV is spread most commonly by having sex with an infected partner. HIV is also spread through contact with infected blood which frequently occurs among drug users who share needles or syringes contaminated with blood from someone infected with the virus. Pregnant Women with HIV can transmit the virus to the offspring. Many people do not develop any symptoms when they first become infected with HIV. Some people however have a flu-like illness within a month or two after exposure to the virus. More persistent or severe symptoms may not surface for a decade or more after HIV first enters the body in adults, or within two years in children born with HIV infection. This period of "asymptomatic" (without symptoms) infection is highly individual. During the asymptotic period, however the virus is actively multiplying, infecting and killing cells of the immune system and people are highly infectious. As early HIV infection often causes no symptoms a doctor or other health care worker usually can diagnose it by testing a blood for the presence of antibodies.

2.9.3. Anxiety:

Anxiety is an unpleasant state marked by worry, apprehension and tension. Anxiety is one of the most common reactions of many individuals upon receiving a diagnosis that they are infected with HIV. It affects the well-being of HIV positive individuals when they pre-occupy their minds with the possibility of future helplessness or dependency.

2.9.4. Depression:

Depression is a serious condition that affects thoughts, feelings and the ability to function in daily life. It is twice as common in PLWHA as in the general population. Depression is characterised by the presence of most of all of the following symptoms: low mood, apathy, fatigue, thoughts of suicide, loss of pleasure in activities, low self worth etc.

2.9.5. Suicide:

Suicide is a complex bio psychosocial outcome of depression, hopelessness, isolation and lack of support. HIV infection with all its negative connotations and discrimination can be a harbinger of future suicidal ideation or complete suicide. Several factors have been associated with suicidal ideation among persons infected with HIV. Some of the psychiatric variables predicting suicidal ideation include concurrent substance abuse, past history of depression and presence of hopelessness. Stigma has been considered as an important variable in predicting suicide and has important implications for India.

2.9.6. Dementia:

HIV associated dementia (HAD) represents the more advanced neuro-cognitive disorder associated with HIV infection. The signs include marked impairment in ability to attend, concentrate and process information quickly and

flexibly. Psychomotor slowing can be accompanied by in-co-ordination. Affective changes also may be present and range from depression to marked liability of affect and inappropriateness. Irritability and violent outbursts can occur. Some patients with dementia become severely withdrawn, apathetic and uncommunicative. Occasionally psychosis and delirium complicate late HIV associated dementia.

2.9.7. Stigma and Discrimination:

Stigma and discrimination are not only obstacles to HIV prevention, care and treatment for PLWHA but are the epidemics worst consequences. HIV related stigma consists of negative attitudes towards those infected with HIV and those affected by AIDS by association, such as orphans or the children and families of PLWHA.

2.9.8. Social Support:

Thoits (1995) defines social support as “instrumental, emotional or informational assistance from significant others” and goes on to find social support “one of the major coping resources for people experiencing stressful life events or chronic strains .like HIV” “Significant others” is generally understood to mean partners, friends and family, but could also refer to traditional caregivers in a hospital environment. Friedland, Renwick and McColl (1996) go on to elaborate that different types of social support may be valued at different stages of an illness.

2.9.9. Self-Esteem:

Basically the definition of Self-Esteem means that you should be confident in whatever you are doing, you should feel good both in mind and body giving due importance to yourself, having that positive attitude in you and most of all to be worthy of the love and happiness you always deserve. If one recognises himself as someone that is successful and you also feel that you deserve to be happy and successful then there is a healthy self-esteem in you.

In science of the mind and psychology, the definition of self-esteem has many technical variations. In laymen terms, self esteem is how a person measures his overall worth and this can be attributed to the sum-total of his own gifts and abilities versus his perceived feelings. Self Esteem is considered as a basic human need, a crucial element in human psychology and the make-up of the human personality. Everyone needs self-esteem and no-one can live without it. It is often argued that self-esteem is something that is automatic within us, in the sense of the consciousness and the subconscious at work. When we talk about self-esteem, we understand the processes that lead up to its build up happen in the subconscious, which opens up much more theories of the process of cortical and neural evolution and how it ties in with emotional maturity and processes in the brain that gravitates around personality, character, rationale and confidence.

2.9.10. Quality of Life:

The concept of Quality of Life (QOL) has attracted the attention of numerous researchers. The World Health Organization (WHO) has defined Quality of Life as 'individual's perception of their position in life in the context of the culture and value systems in which they live in relation to their goals, expectations, standards and concerns'. In a clinical setting, according to Franchi and Wenzel, the definition of Quality of Life is limited to those aspects of life directly affected by the health state and is often referred to as Health Related Quality Of Life.(HRQOL)

2.10. DESCRIPTION OF TOOLS:

2.10.1. Interview schedule:

Profile of the respondents was obtained through an interview schedule. This was developed by the researcher with the help of the other experts. This interview schedule enabled the investigator to seek information pertaining to demographic variables like age, sex, occupation, habitat (residence), marital status, income and type of family. The interview schedule, obtained information pertaining to their medical symptoms history in order to know if they had any symptoms suggestive of their HIV positive history either in the past or at present. A section of questions which would enable the investigator to understand the respondent's vulnerability to acquire AIDS was also developed. Questions in this section focused on areas such as spouse's HIV positive or negative status, blood transfusion, use of condom, premarital or extra marital sex etc. Through these questions the investigator sought information as to the mode of the respondent's HIV acquisition.

The concept of social support includes different aspects of social relationships like the network structure or social interactions, emotional, psychological, tangible or informational support and the perceived quality or adequacy of support. Researchers have agreed to the fact that access to social support and perception of feeling supported are important buffers to the negative psychological consequences of stressful experiences. When it comes to life threatening diseases, it is highly likely that social support need and types of support may vary over the course of the disease. Social Support and HIV has been studied in relation to its impact on physical health but in particular psychological functioning.

The section on social support included questions which enabled the investigator to know the degree of social support experienced by the HIV positive person. Stigma and discrimination are deeply woven in the cultural fabric of our

country, questions to know as to at what level of society like the household, workplace, at hospital or at any other place the patient faced a problem. Loss or gain of social support can also be known if the patient has disclosed his HIV positive status or not.

As family is the basic social unit where an individual thrives for love, care and support, the investigator has probed questions which would enable her to know the level of love and trust with the spouse as well as the other family members. Reaction of the spouse and family was also taken into account.

Many programmes and policies have been implemented at a national level which has helped creating awareness with regards to spread of HIV, myths about HIV, prevention of HIV, symptomatology and modes of transmission of HIV and cure of HIV. Questions pertaining to the same have also been included in order to know the respondent's level of knowledge in these areas.

2.10.2. World Health Organization Quality of Life Instrument (WHOQOL):

The World Health Organization Quality Of Life Instrument (WHOWOL) HIV instrument has been developed from an extensive test of 115 questions plus the WHOQOL -100 in 10 centers around the world. These questions represent the finalised version of the WHOQOL -HIV to be used for field trials. The WHOQOL – 100 is a generic English version. The questions in this instrument respond to the definition of Quality of Life as individual's perception of their position in life in which they live and in relation to their goals and expectations, standards and concerns.

Administration: The questionnaire asks as to how an individual feels about his/her Quality of Life, health and other areas of his or her life. The respondent is supposed to circle the number that best fits how much he/she is worried about his /her health over the past two weeks.

Standardized Tools:

All tools used in the study are developed by western researchers hence keeping in mind the Indian psyche the investigator conducted a pilot study using all the tools to see as to whether they fetch satisfactory and desired results. As the tools concentrated more on mental and physical health and did not touch upon any personal or religious issues the responses sought were satisfactory.

2.10.3. Beck's Depression Inventory:

This inventory was developed by Aaron T. Beck which is used to measure the presence of depression.

Description: The Beck Depression Inventory (BDI) is a 21 item test presented in multiple choice formats which proposes to measure presence and degree of depression in adolescents and adults. Each of the 21 items of the BDI attempt to assess a specific symptom or attitude which appear to be specific to depressed patients, and which are consistent with descriptions of depression contained in the psychiatric literature. The BDI was designed to assess depression independent of any particular theoretical bias.

Scoring: Each of the inventory items corresponds to a specific category of depressive symptom and/or attitude. Each category purports to describe a specific behavioural manifestation of depression and consists of a graded series of four self-evaluative statements. The statements are rank ordered and weighted to reflect the range of severity of the symptom from neutral to maximum severity. Numerical values of zero, one, two or three are assigned to each statement to indicate severity.

Interpretation:

Scores when fall between:

8 - 12 Borderline depression

13 - 15 mild depression

16 - 19 mild to moderate depression

20 - 29 moderate depression

Above 30 - severe depression

Above 40 - medicine needed

Below 8- no depression

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 .90. Internal consistency studies demonstrated a correlation co-efficient of .86 for the test items, and the Spearman-Brown correlation for the reliability of the BDI yielded a co-efficient of .93.

Validity: In assessing the validity of the BDI, the face validity of the BDI must be addressed. Content validity would seem to be quite high since the BDI appears to evaluate a wide variety of symptoms and attitudes associated with depression. One study addressing concurrent validity demonstrated a correlation of.77 between the inventory and psychiatric rating using university students as subjects. Beck reports similar studies in which coefficients of .65 and .67were obtained in comparing results of the BDI with psychiatric ratings of patients.

2.10.4. Positive and Negative Suicide Ideation Inventory (PANSI)

It was developed by Osman, Gutierrez, Kopper, Barrios, & Chiros, 1998, to assess the frequency of negative risk and protective factors that are related to suicidal behaviour.

Description: The Positive and Negative Suicide Ideation (PANSI) Inventory, is a 14 item self report instrument, for addressing the frequency of negative risk and protective factors associated with suicide-related behaviours. The development of this instrument was based on contemporary theoretical rationale that both negative risk and protective factors are important in the analysis of suicide related behaviours. Negative risk factors in suicidal behaviour may include symptoms such as depression, hopelessness and negative thoughts or perception about stress-related events. These factors may increase the risk factors. Protective factors modulate or serve as a buffer against taking one's own life. Examples of protective factors may include the use of adequate problem-solving strategies as well as having adequate family connectedness and positive friendship relationships.

The PANSI has a unique advantage as a screening instrument; it can be used to assess both positive and negative risk factors that are related to suicidal behaviour. The PANSI appears to be a promising general measure of risk and protective factors related to adolescent suicide. Primarily the psychometric properties of this scale are comparable to other widely used self-report measures of related constructs.

Scoring: Each item in the inventory is related on a 5 point Likert type scale format ranging from 1(none of the time) to 5 (most of the time).

Reliability: The test-retest reliability analysis of PANSI scale scores were conducted in a sub sample of 54 adolescents with duration of stay for 2 or more weeks. The test-retest reliability estimates for the PANSI-Negative and PANSI-Positive were .79 and

.69 respectively. As a state measure of suicide related behaviour, these estimates are considered satisfactory.

Validity: The present study evaluated the factor structure, reliability, and validity of the Positive and Negative Suicide Ideation inventory in a sample of high-school youths. The PANSI is designed as a measure of risk and protective factors related to suicidal behaviour. Participants (114 boys and 103 girls) completed the PANSI and other self-report instruments. Results of the confirmatory factor analyses supported adequate fit of the 2-factor oblique model to the sample data. Both factor scales attained adequate levels of reliability. Boys and girls did not differ in their responses to the PANSI scales. The PANSI scale scores were associated with scores from related measures. Logistic-regression analyses were used to evaluate the contributions of the PANSI scale scores to differentiate between the study groups. Receiver Operating Characteristic (ROC) analyses, using data from the psychiatric suicide risk and high-school control youths, were used to identify cut-off scores of 1.63 and 3.33 for the PANSI-negative and PANSI-positive scales, respectively.

2.10.5. Clinical Anxiety Scale (CAS):

This scale was developed by Snaith et.al. It is a recently developed test derived from the Hamilton Anxiety Scale. (HAS) Its originators set out to undertake an item analysis of the HAS, to determine which items had the most weighting, and to devise a new instrument for the assessment of anxiety in the diagnostic category of anxiety neurosis and other clinical conditions. Unlike HAS which covers the whole range of symptoms of anxiety neurosis, the CAS is largely confined to psychic anxiety and tension in the somatic musculature. The emphasis is on how the patient feels at the time of rating.

Description: The scale comprises of six items viz: psychic tension, ability to relax, startle response, worrying, apprehension and restlessness.

Reliability and Validity:

The development and validation of a new rapid assessment instrument, the Clinical Anxiety Scale (CAS), is described. The CAS has good reliability and validity and is compatible in format with a number of other rapid assessment instruments designed for human service professionals who wish to evaluate the effects of their interventions with clients experiencing dysfunctional anxiety.

Scoring:

0-4 Normal/Recovered

5-10 Mild Anxiety

11-16 Moderate Anxiety

17-24 Severe Anxiety.

2.10.6. Culture Free Self Esteem Inventory:

Self Esteem as measured by the Culture Free SEI for children and adults, refers to the perception of the individual possesses of his own worth. An individual's perception of self develops gradually and becomes more differentiated as he measures and interacts with significant others. Perception of self-worth once established tends to be fairly stable and resistant to change.

The Culture Free Self Esteem Inventories (SEI) for children and adults are self report scales. The scales measure an individual's perception of self. This inventory

was developed by James Battle and is used to identify individuals who may be in need for psychiatric intervention.

Description: The culture free self Esteem Inventory for adults contains 40 items and the following sub-scales.

1. General Self Esteem items.
2. Social self Esteem items.
3. Personal Self Esteem items.
4. Lie items (items that indicate defensiveness).

The instrument without the lie scale consists of 32 items intended to measure an individual's general, personal and social self-perception. The items are divided into two groups those indicate high Self Esteem. And those which indicate low Self-Esteem. The individual checks each item either "yes" or "no".

Scoring and Interpretation: Scores for the Culture Free Self Esteem Inventory for children and adults are derived by totaling the number of items checked which indicate high Self-Esteem, excluding the lie scale items. A separate score maybe computed by totalling the number of items checked correctly in the lie score is 10. The total possible score for Form AD is 32 and the highest lie score is 8.

Score	**Classification**
30+	Very High
27 - 29	High
20 - 26	Intermediate
15 - 19	Low
14 -	Very Low

Test-Retest Reliability:

One hundred twenty seven students enrolled in an introductory educational psychology course participated in the initial Test-Retest reliability of Culture Free SEI for adults. Means, standard deviations and correlations for the total sample, males and females indicated that Test-retest correlation for all subjects' were.81 males and females 0.79 and 0.82.

2.11. DATA COLLECTION PROCEDURE:

Universe: Gujarat.

Sampling frame: In order to collect the data a list of total cases of HIV positive cases in 2009-2010 was obtained from Gujarat AIDS Control Society (GSACS) which gave the number of HIV positive cases in all four major urban cities of Gujarat viz: Ahmedabad, Baroda, Rajkot and Surat. The investigator then drew the percentage of cases to be drawn from each city.

2.11.1. Sampling Procedure:

The following data was available from GSACS:

Newly HIV Positive Cases Detected in 2009-2010 at ICTCs

	General	PPCT	Total	Proportion	Sample
Rajkot	1337	56	1393	17%	50
Ahmedabad	2448	186	2674	32%	94
Baroda	1349	62	1411	17%	50
Surat	2723	174	2897	34%	99
Total			8375		293

With probability proportion to the size of the number of HIV positive cases available from four major urban cities of Gujarat.

Rajkot - 1393 divided by 8375 = 17%

Ahmedabad - 2674 divided by 8375 = 32%

Baroda - 1411 divided by 8375 = 17%

Surat - 2897 divided by 8375 = 34%

From the total Sample of 293 we require 17% from:

Rajkot 293 x17 divided by 100 = 50 cases

Ahmedabad 293 x32 divided by 100 = 94 cases

Baroda 293 x17 divided by 100 = 50 cases

Surat 293 x 34 divided by 100 = 99 cases.

2.11.2. Steps of Data Collection:

Inclusion criteria for selection

Males and Females above 18 years of age. HIV sero positive individual

Consent Form

A consent form was developed for the present study. This is a written consent form which elicited information that the respondents have agreed to be part of the study. Prior to the admission of all parameters, the willingness of the subjects was ascertained and they were made to sign a consent form. The purpose of the study was explained, confidentiality was assured and the consenting process was properly followed.

As HIV/AIDS is still a sensitive topic in the Indian context conducting an in-depth research in the said topic requires a great deal of challenges. For a smooth flow in all the technical aspects permission was taken from the relevant authorities for the same. The researcher personally met the authorities at Gujarat State AIDS Control Society (GSACS) and explained the purpose and nature of a research proposal to them and sought their consent and permission.

Ethical Issues and approval

An ethical committee was formed at the university level comprising experts from the medical field, social science research, members of HIV positive network, professors and members of NGOs. Ethical issues were deliberated by them. Their views were incorporated in the questionnaires and the selection of tools. After seeking their approval, the researches proceeded further.

The researcher sought permissions from the superintendent of the civil hospital from where data was collected.

Once the tools were finalised a pre study on a small sample was conducted using the tools selected to figure if they were suited to meet the researcher's requirement. Once the researcher began approaching the patients at the Antiretroviral therapy (ART) Centre of Civil Hospital, Baroda it was observed that the members of the HIV positive network also attended the ART Centre on a regular basis. Hence rapport was established with them too and data was collected form the positive network also.

The procedure for information consent was followed properly and then the data was collected afterwards.

2.12. DATA ANALYSIS:

1. **Frequency Percentage Tables:** This was to find out the responses in each variable that have been considered for the study.

2. **Chi Square:** Chi square was applied to develop an association between socio-demographic variables (age, education, religion, occupation, sex, habitat etc) and dependent variables like: depression, anxiety, self-esteem, quality of life and suicidal ideation.

3. **Correlation:** We have developed a correlation to observe the relationship between measuring (dependent) variables.

2.13. CHAPTERIZATION:

The present research is divided in five chapters

Chapter 1 is the introduction. It deals with the introduction about all the topics to be covered in the study. It gives the reader an idea as to what is AIDS, its impact on various aspects of life and the different psychiatric complexities associated with it, the scenario of HIV pandemic across the globe and especially in India. Lastly it deals with the Social Work significance of the work undertaken.

Chapter 2 is about the methodology used in the research. Initially the definition of research is taken care then the rationale, variables and objectives of the study are described. Various variables under consideration are defined in this section. The universe, sampling frame and the description of the various tools have been mentioned in the methodology section.

Chapter 3 deals with the review of the past studies by the researcher. It throws light on the past studies and researches undertaken in the same field. This enables and supports the existing body of knowledge of the present research.

Chapter 4 deals with the analysis and interpretation of the research. This chapter in particular helps in meeting the set objectives of the research.

Chapter 5 is the summary of major findings and conclusion.

Chapter 6 is the discussion and recommendations for the future course of action. It also paves way for future research in similar field and puts forth various broad areas where research can be undertaken.

2.14. LIMITATIONS OF THE STUDY:

The present study has certain limitations which can be avoided by future researchers. The present study was undertaken in Gujarat taking four major cities as the sampling frame. These four cities are those cites of Gujarat which are economically and educationally sound and thus people of these cities have an adequate awareness, hence the responses elicited by them were governed by these factors. Due to this reason the responses cannot be generalized to other underdeveloped cities of Gujarat. Had the sample been a combination of a few cities where education and economic level were relatively low there could have been a wider scope of comparison as well as generalization.

Secondly, the study had both males and females as included as subjects. But in course of data collection it was observed by the researcher that if the subjects were either only males or only females there could exist a greater degree of freedom n responding to questions which were of an intimate nature

The inclusion criteria with respect to age seemed to be very vast ranging from youth to old. Had the age bracket been compressed a little categorization could have been easier. This is because each age group has different needs and perceptions and the results obtained from such studies can be utilized for policy formulation and implementation.

The tools used were standardized and mostly quantitative. With the researchers experience such a study could yield better results if more qualitative tools such as focused group discussions could have been used as the respondents have many issues and experiences to share.

The avoidance of these limitations can yield better results for conducting future researches of this sort.

CHAPTER III

REVIEW OF LITERATURE

HIV infection and Psychiatric disorders have a complex relationship. Being HIV infected could result in Psychiatric disorders as psychological consequences of the infection or because of the effect of the HIV Virus on the brain. HIV infected patients have a high lifetime rate of Psychiatric and Psychological disorders. Despite the impressive reduction in morbidity and mortality related to HIV infection, and due to the consequent increase in life expectancy the gained important physical, psychological and psychiatric repercussions of this disease are expected to become more relevant. Many researchers aimed to establish the predictors and frequency with which psychological problems appeared. It was first noticed that it is very common for a substantial proportion of subjects to suffer persistent and pathological disturbances. Psychiatric morbidity was defined by the presence of a DSM-IV (or equivalent to ICD-10) diagnostic code reflecting psychiatric illness. However, most studies in the beginning of the epidemic referred to psychiatric morbidity and emotional distress in HIV-infected patient during hospitalization or after consultation.

3.1 MENTAL DISORDERS IN PEOPLE LIVING WITH HIV/AIDS:

It is well known that subjects suffering severe organic diseases are burdened by a higher prevalence of mental disorders which could rise to 30-50percent. Most diagnosis are: combined affective disorders mainly with anxiety and depressive symptoms which are frequently linked to adjustment problems.

It is important for mental disorders to be promptly diagnosed among HIV infected individuals. This morbidity might spoil the efforts carried out at primary prevention and frequently diminishes coping capacity. It is also associated with higher mortality and lower antiretroviral treatment compliance and causes severe

impairment of the quality of life among HIV infected individuals. Among HIV infected patients psychiatric evaluation should be made in the wide context of a multi systematic disease not only with an ample variety of psycho-pathologies, but also with organic alterations and drug toxicities. Psychiatric symptoms may be difficult to differentiate form some manifestations of AIDS. These facts make psychiatric syndromes diagnosis in HIV positive patient troublesome. Physicians may also erroneously view psychiatric symptoms as a natural reaction to HIV diagnosis which sometimes leads to the appropriate psychiatric or psychological treatment not being aggressively pursued.

3.2. PSYCHIATRIC HISTORY:

Psychiatric history prior to HIV infection acquires great relevance. HIV infection is more prevalent among populations known to be a higher risk for mental disorders such as subjects with homosexual practices or intravenous drug users. The most frequent diagnosis in homosexual men are major dependency and substance abuse especially alcohol use disorder. Psychiatric disturbances mostly associated with substance abuse and a higher risk for HIV infection include bipolar disorder, schizophrenia, schizoaffective disorders, borderline and antisocial personality disorders and depression.

3.3. PSYCHOSOCIAL ASPECTS:

Poor social support and the use of avoidance or denial as a habitual way of coping, are factors related negatively to disease adaption, but positively to Psychiatric morbidity. Other factors associated to the of significant Psychiatric and Psychological sequel are life events in particular diverse ones that can be associated with an increased rate of early HIV disease progression and exposure to grief due to AIDS.

3.4. SOCIODEMOGRAPHIC CHARACTERISTICS:

Personal and demographic characteristics such as older age, pre-morbid IQ, educational attainment, female gender, low income and ethnicity are also associated with Psychiatric morbidity.

3.5. STUDIES ABOUT PSYCHIATRIC MORBIDITY IN PEOPLE LIVING WITH HIV:

Chuang et al (1992) conducted cross sectional study on 173 subjects who were homosexuals using Semi-structured interview (DSM-III-R), Profile of Mood States (POMS) and Beck Hopelessness Scale (BHS). The conclusion were high current rates of Axis I disorders and adjustment disorders among HIV positive compared with HIV negative subjects and high current rates of organic mental disorder among AIDS subjects.

In a paper presented by Rabkin J(1996) he has placed primary emphasis on studies that have used structured interviews for diagnosis of prevalence of psychiatric disorders in HIV positive samples. Review of various studies suggested that HIV positive status or any stage of illness are not by themselves strong predictors of mood anxiety disorders. But they can also be a consequence of risk behaviour group membership.

A study was conducted by Kantin,S. Kolb, M.A. , Hudzik, G. et. al (1998) with an objective was to describe psychiatric disorders among HV infected patients followed up in a general hospital to determine factors associated with these psychiatric disorders. The methods used in the study were psychometric scales, one hour standardized questionnaire and psychiatric diagnosis according to DSM IV and ICD 10. The number of participants was 65. Nearly half the participants were unemployed or without occupational activity. The prominent modes of transmission were heterosexual (53.1%) and IDU (29.7%). Nearly 60% patients presented

psychiatric disorders. According to the DSM IV criteria mood disorders were observed in 40% respondents, very few i.e less than 10% represented anxiety disorders and only 9.2% represented with other psychiatric disorders. The study revealed that psychiatric disorders were independent of occupational activity, viral load, HIV clinical stage and sexual activities. The conclusion was that more than half (57%) respondents presented psychiatric disorders. Two factors were associated with psychiatric disorders: one related to HIV disease and the other related to drug abuse.

The association of psychiatric disorders and HIV infection in a correctional setting was studied by Jaques B, Suzanne D, John P, et.al (2002) at the centre of Epidemiology and Biostatistics/Department of Paediatrics at the University of Texas, Health Science Centre. Psychiatric disorders such as bipolar disorder, schizophrenia and depression have been associated with both HIV associated risk behaviour and HIV infection. The present study examined the association of six major psychiatric disorders with HIV infection in one of the largest prison population. The respondents were 3,36,668 inmates of Texas Department of Criminal Justice. Information was obtained on medical conditions and information on socio-demographic factors was obtained from an institutional-wide medical information system. The results indicated that the inmates were diagnoses with HIV infection exhibited elevated rates of major depression, dysthemia, bipolar disorder, schizophrenia and schizoaffective disorder. The present cross-sectional study's finding of a positive association between HIV infection and psychiatric diagnosis among inmates holds both clinical and public health relevance. It will be important for future investigations to prospectively assess the underlying mechanisms of these associations in the correctional setting.

The association of psychiatric disorders and HIV was studied by Olley B and Seedat S. et al. According to this study psychiatric disorders are common and emerge soon after diagnosis or during the subsequent course of illness. However, there are a

few prospective studies on the rates of psychiatric disorders in HIV/AIDS, particularly in the context of the developing world.

Olly B. and Seedat S (2005). also studied rates of psychiatric disorders in HIV this study. Sixty five patients recently diagnosed HIV were interviewed on presentation to a hospital-based HIV clinic and then 6 months later. The tools used were MINI International Neuropsychiatric Interview, the Carver Brief COPE and the Sheehan Disability Scale (SDS). Exposure to negative life events and risk behaviours was also evaluated. The results indicated that the overall prevalence of Psychiatric disorders in the follow-up period remained high i.e 56% of patients had at least one psychiatric disorder at 6 months.

Depression and Post traumatic Disorder (PTSD) were most prevalent at both the baseline (34.9% and 14.8%) and follow up (26% and 20%) respectively. More than half patients with depression at baseline improved i.e., 55.1%.A new onset of both depression and PTSD was observed in follow-up. Depression was said to have been associated with factors like disability in work/social life/family functioning; greater number of negative life events and a decline in CD4 count. Analysis revealed that a diagnosis of PTSD on follow-up was significantly associated with a longer duration of infection and a baseline disability in work/social life/family functioning. Persistence of risky sexual behaviour was also noted with a significant higher number of participants reporting non-use of condom on follow-up. There appeared to be a shift from maladaptive coping behaviour to more adaptive coping behaviour over a 6-month period. The study suggests that the rate of psychiatric disorders in HIV/AIDS patients was consistent over time. The findings emphasize the importance of regular evaluation for psychological disorders in HIV/AIDS patients, not only at the commencement of treatment but also during subsequent follow-up visits.

A study was conducted by Myer, Smit and Parker et .al (2008) to study Common Mental Disorders among HIV- infected individuals in South Africa and predictors and validation of Brief Rating Scales. A cross-sectional study was conducted among individuals enrolled into HIV care and treatment near Cape Town, South Africa. Psychiatric diagnosis was measured using MINI-International Neuropsychiatric Interview. Brief rating Scales for depression(the Centre for Epidemiological Studies Depression Scale(CES-D), Post traumatic stress disorder (PTSD), the Harvard Trauma Questionnaire (HTQ) and alcohol dependence/abuse (the Alcohol Use Disorders Identification Test (AUDIT).Majority of the respondents were females. Forty Eight percent were receiving ART. Overall, the prevalence of depression, PTSD and alcohol dependence/abuse was 14%, 5% and 7% respectively. The data demonstrated high levels of depression, PTSD and alcohol dependence among HIV infected individuals.

3.6. ANXIETY:

Excessive anxiety contributes to a sense of helplessness in which a person feels little control over the present or future and continues maladaptive behaviour patterns. Anxiety is a major health hazard in HIV seropositive individuals. This is because it is probably one of the factors responsible for the quick progression of their HIV sero positive status to AIDS.

The study of anxiety among those with serious chronic medical conditions has emerged as an important area of research and public health interest. The term anxiety refers to the unpleasant sense of apprehension that accompanies physical symptoms such as sweaty palms, shallow breathing, rapid hearts rate, general nervousness and feelings of stress. Many people often perceive anxiety to be negative but anxiety is not necessarily detrimental. It can be helpful when it becomes the impetus for making behaviour changes to reduce future risk re-exposures, to discontinue practices that

would permit illness transmission and to adopt more healthy styles of living. However anxiety levels are harmful when they interfere with the clients comfort and effectiveness in daily life and create subjective misery. Anxiety can produce ulcers, headaches, rashes, backaches, skin rashes and a variety of other physical problems. Anxiety is one of the most common reactions of many individuals upon receiving a diagnosis that they are infected with HIV. Anxiety affects the well-being of HIV positive individuals when they preoccupy their minds with the possibility of future helplessness or dependency. There may even be awful feelings of abrupt and complete loss of control over one's life. They often have profound feelings of grief about the loss they have experienced or are anticipating. As the need for care increases, a sense of loss of privacy and control over life is also experienced. This feared dependency might be physical as the person imagines future scenarios involving eventual depletion of saving. Loss of a job means loss of income which in turn means loss of physical attractiveness and sexual relationships, status in society, financial stability, independence and lifestyle.

Mwiya Hiamunga Imasiku conducted a studied the intensity of anxiety in HIV positive individuals. The samples consisted of 180 subjects. Half of the individuals came from India and half from Zambia. The findings of the study revealed that HIV positive individuals have higher levels of anxiety. Anxiety was found to be positively correlated with physical illness. This indicates that high level of anxiety and physical illness behaviour seem to co-exist. It is therefore likely that a high level of anxiety is a core factor that might be responsible for the quick progression of HIV infection to AIDS.

Grant and Atkinson (1994) through their study on psychiatric aspects of AIDS revealed that over 20% of sero positive individuals have been reported to experience anxiety symptoms at least once in a month, compared with negligible rates in the community among low-risk controls.

A study conducted by Atkinson et al (1988) having a cross-sectional design and using Diagnostic Interview Schedule (DIS) using DSM-III, Symptom Checklist 90- Revised (SCL-90-R) and Profile of Mood States (POMS) revealed significant elevated lifetime and 6 month rates of major psychiatric disorders (generalised anxiety disorder and major depression) in HIV infected and sero negative homosexual men.

Williams et. al (1991) conducted a study with 208 homosexual men as sample. The methods used were SCID for DSM-III-R Global Assessment of Functioning (GAF), Hamilton Anxiety Rating Scale (HARS), Hamilton Depression Rating Scale (HDRS) and Brief Symptom Inventory (BSI). The conclusions of the study were low rates of current depressive and anxiety disorders in homosexual men with and without HIV infection and high lifetime prevalence for depressive and substance abuse/dependence disorders. Brown et al (1992) studied 442 men belonging to the age group of 18 to 44 years. The anxiety measures that were used are SCID for Axis I and II for DSM-III-R, HARS, HRDS, POMS, GAF, SCL-90-R, Beck Depression Inventory (BDI) and State Trait Inventory(STI) The conclusions were high prevalence of current anxiety diagnosis especially mood and anxiety disorders. High lifetime prevalence of mood disorders, alcohol use disorders and psycho-active substance use disorder. Amazingly in this study very high prevalence of current sexual dysfunction was also observed.

Catalan et al (1992) conducted a cross-sectional study with 73 men using Present State Examination (PSE), Profile of Mood States (POMS), Beck Hopelessness Scale and Self Esteem Scale (SES). The results of the study indicated that seropositive subjects had significantly worse total PSE scores and had high levels of hopelessness and symptomatic HIV positive subjects had higher depression levels than seronegative subjects.

Mary Ann Cohen, et.al (2002) conducted a study to assess the prevalence of distress, anxiety and depression in persons with HIV infection. The methods used were Hospital Anxiety and Depression Scale and the Distress Thermometer. The results of the Distress Thermometer revealed that 72.3% had a score of 5 or greater, demonstrating high distress. The results of the HADS revealed that 70.3% had high anxiety with a score of 7 or greater indicating depression. The study demonstrated a high prevalence of distress, anxiety and depression among persons with HIV. The HADS and the Distress Thermometer showed a good correlation with each other.

3.7. SUICIDE:

Suicide is another psychiatric disorder that has captured attention of many researchers in the west. Suicide is an off shoot of depression and has been studied by Kelichman and Heckman (2000). The objective of this study was to examine the suicidal ideation amongst middle aged and older PLWHAs. The sample size was that of 113 PLWHA subjects older than forty five years. The tools used were questionnaires which included questions on suicide ideation, Quality of Life, coping and social support. The results demonstrated correlations between suicide ideations and emotional distress. Disclosure within the family and lack of social support was also positively co-related to suicide ideation. However, less than 30% respondents had suicide ideations. The conclusion lies in the fact that age was a significant factor that was responsible for a greater degree of suicidal ideation which calls for greater targeted interventions.

Kathleen. J., et al (2000) studied suicide ideation rate amongst PLWHA at the Centre for Research at the Medical College of Wisconsin in 1989-99. In this study also the age limit was that of 45 years and older. The sample consisted of 85 men and 28 women. Tools used were self-reported questionnaires. The study revealed that less than 30% i.e., only 29 respondents tried to attempt suicide in the previous week, 27 of

them selected the statement indicating that they had thoughts of killing themselves but would not carry them, while 2 respondents selected the statement indicating they would like to kill themselves. Significant finding was that none said they would kill themselves. An unpredicted result in the study was that disclosure to friends was a significant factor giving rise to suicidal thoughts.

Both the above studies have suggested that disclosure has proved to be a precipitating factor that led to suicidal ideations. Hence counselling enhancing perceived support, increasing coping resources for persons who have thoughts of suicide but are yet not in need of crises intervention should be regarded as a priority.

A cross sectional study was conducted to investigate the prevalence and predictors of suicidal ideation and past suicide attempt in a sample of 229 HIV positive and negative homosexual and bisexual men. Sixty five of them were HIV negative and 164 were HIV positive. Tools used in this study were Beck Depression Inventory and the General Health Questionnaire. The aim of this study was to study current suicidal ideation and past suicide attempt as dimensions of psychiatric morbidity in HIV positive people. The results indicated that suicide ideation was greater in HIV positive respondents as compared to HIV negative respondents. However it should be noted that the study brought forth the fact that suicide ideation was not due to the presence of psychiatric disorder but it was the severity of HIV infection and lower patterns of psychological adaptation of disease. The findings provide a base for improving clinical knowledge about the factors that may increase suicide ideation and risk.

Andrew L. and Donnenberg J(1996) carried out a study with an objective of examining suicide risk among HIV positive. The tool used was the National Death Index. The sample consisted of 4147 HIV positive military applicants who were disqualified in the US, between October 1985 and December 1993.The results

indicated that HIV positive applicants were 92% male. 10 HIV positive and 24 HIV negative applicants died of suicide. It was noticed that the suicide rate was higher in these applicants as compared to the general US population.

In the Indian context suicidal ideation, depression and anxiety among HIV infected was studied by Chandra Prabha et. al (1996) at the National Institute of Mental Health and Neuroscience, Bangalore. The inclusion criteria was those PLWHAs who were recently diagnosed as HIV positive. Anxiety, depression and suicidal ideation were assessed amongst 51 seropositive men and women with various stages of infections. The results indicated that less than 14 % showed serious suicidal ideation. Analysis also revealed that presence of pain, alcohol abuse, poor family relations and pressure of AIDS in the spouse were significant factors associated with depression, anxiety and suicidal ideation.

Timothy G. Heckman et. al (2002) studied the rates and predicators of suicidal thought among HIV-infected persons living in rural communities of 8 U.S. States. At baseline, participants reported thoughts of suicide, psychological symptomatology, life-stress or burden, ways of coping, self-efficacy, social support and barriers to health care and social services. Analysis showed that 38% of HIV-infected persons had engaged in thoughts of suicide during past week. It was also revealed that participants who endorsed thoughts of suicide reported more depressive symptoms and experienced more stress associated stigma.

Kelly B, Raphael B and Judd. F. (1998) performed a cross-sectional study to investigate the prevalence and predictors of suicidal ideation and past suicide attempt in an Australian sample of HIV positive and HIV negative homosexual and bisexual men. Sixty-five HIV-negative and 164 HIV-positive men participated. A suicidal ideation score was derived from using five items selected from the Beck Depression Inventory and the General Health Questionnaire (28-item version). Lifetime and

current prevalence rates of psychiatric disorder were evaluated with the Diagnostic Interview Schedule Version-III-R. The HIV-positive (Centre for Disease Control and Prevention [CDC] Stage IV) men (n=85) had significantly higher total suicidal ideation scores than the asymptomatic HIV-positive men (CDC Stage II/III) (n=79) and the HIV-negative men. High rates of past suicide attempt were detected in the HIV-negative (29%) and HIV-positive men (21%). Factors associated with suicidal ideation included being HIV-positive, the presence of current psychiatric disorder, higher neuroticism scores, external locus of control, and current unemployment. In the HIV-positive group analysed separately, higher suicidal ideation was discriminated by the adjustment to HIV diagnosis (greater hopelessness and lower fighting spirit), disease factors (greater number of current acquired immunodeficiency syndrome [AIDS]-related conditions), and background variables (neuroticism). Significant predictors of a past attempted suicide were a positive lifetime history of psychiatric disorder (particularly depression diagnoses), a lifetime history of injection drug use, and a family history of suicide attempts. The findings indicated increased levels of suicidal ideation in symptomatic HIV-positive men and highlight the role that multiple psychosocial factors associated with suicidal ideation and attempted suicide play in this population.

3.8. DEPRESSION:

Depression is prevalent and interfering yet potentially treatable illness commonly comorbid with HIV/AIDS. In HIV, symptoms and diagnosis of depression have been associated with poor adherence to antiretroviral medication regimens and to accelerated disease progression. Symptoms of depression include persistent sadness, loss of interest, decreased appetite, low concentration, sleep disturbances, guilt/worthlessness, feelings of decreased energy, psychomotor retardation and suicidal ideation. In addition to significant distress symptoms of depression can also cause other health related functional and quality of life impairments.

Treatment of depression in HIV/AIDS patients is jeopardized not only by the inability to diagnose the condition specifically but also by poor adherence to treatment, which has many social, medical and non-medical factors. Majority of studies done in India have reported higher rates of depression among women compared to men which is implicated to higher caregiver burden, more social stigma and poor health care. Greater severity of depression, on the other hand, has been found to be associated with greater frequency of injection risk among depressed injection drug abusers making them more vulnerable to HIV infection.

Cruess.D, Douglas, S et.al, (2005) conducted a study to examine whether improvements in the diagnostic status of major depression are related to increases in Natural Killer Cell activities among sero positive women. Among the 57 HIV sero positive women improvements in the diagnostic status of depression and decreased in scores on the 17 item Hamilton Depression Rating Scale. They were significantly associated with increase in NK cell activity over time. Eleven women (19.3%) had a major depression diagnosis that resolved over time and this group also had a significant increase in cell activity.

The study suggested that depression may impair certain aspects of inmate cellular immunity relevant to delaying the progression of HIV disease and that these alterations are reversible with the resolution of a depressive episode. These findings support an examine of NK cell activity in assessments of the relationship between depression and morbidity and mortality in HIV disease.

Morrison and colleagues examined the prevalence of depression and other mood disturbances among HIV seropositive and HIV seronegative women and found that HIV seropositive women without an active substance abuse problem had a significantly higher prevalence rate of major depressive disorder (19.4%) than HIV seronegative women (4.8%).

Review of various studies done by Kalichman C and Kathleen J (2000) brought certain facts related to psychological sequel of HIV infection. Research has shown that depression appears to be prevalent in the early stages of HIV infection. Depression is also complicated by frequency of bereavement from AIDS related deaths. Suicide risk is high and in most cases is equal to the degree of depression. Two parameters that have not yet been given due attention in terms of research are anger and guilt.

Depression was studied in co-relation with stigma and discrimination amongst men and women living with HIV by Leickness C and Kalichman S et.al (2000). The objective of the study was to identify the prevalence of discrimination experiences and internalized stigma amongst PLWHA. The sample consisted of 420 HIV positive men and 643 HIV positive women. It was found that 40% of persons with HIV had experienced discrimination resulting from HIV infection and one in five lost a place to stay or a job because of his positive status. More than one in three participants indicated feelings of guilt, dirt and shame. A hierarchical regression model showed that lack of social support, demographic characteristics, health treatment status and internalized stigma were significant predictors of cognitive- affective depression. It can thus be said that an urgent need for social reform to reduce AIDS stigma and the design of Interventions to assist PLWHA are needed.

3.9. DEMENTIA

A proportion of HIV infected persons can develop brain disorders not only from secondary complications but also by direct effect of the HIV. Primary HIV related brain disorder include HIV associated dementia or AIDS Dementia Complex (ADC) and to a lesser degree, cognitive impairment, the HIV associated Minor Cognitive Disorder (MCD).

HIV associated dementia is characterized by marked impairment in cognitive functioning, involving the ability to observe concentrate memorize and quickly and flexibly process information. Marked disturbances in language abilities and psychomotor slowing are also observed. The prevalence and severity of AIDS associated dementia is related to the rate of immunosuppression and disease stage. In 3 to 10% of patients dementia is the first AIDS defining diagnosis. Before fulfilling dementia diagnostic criteria, cognitive impairment is detected in up to 50% of AIDS patients. Neuropsychological deterioration seems to parallel with CD4+ lymphocyte reduction which has been recently shows to be a better marker than viral load for cognitive impairment. A reduction in the incidence of ADC should be expected with the widespread use of HAART, but its impact on the incidence and clinical course of this complication is still unclear, controlled studies have reported a positive effect of antiretroviral treatment on the impairment of neuropsychological test in ADC.

Finally there is some evidence that psychiatric disturbances in symptomatic HIV infection may be associated with subtle brain involvement preceding the immunological and neurocognitive impairment characteristic for AIDS.

3.9.1. Diagnostic Criteria for HIV associated Dementia:

I. Acquired abnormality in at least two of the following abilities, present for at least one month and causing impairment in work or activities of daily living.

1. Attention or concentration

2. Speed of information processing

3. Abstraction or reasoning

4. Memory or learning

5. Speech or language

II. At least one of the following

1. Acquired abnormality in motor functioning

2. Decline in motivation or emotional control or change in social behaviour.

III. Absence of another cause of the above cognitive, motor behavioural symptoms or signs.

Sacktor N and Bacellar C et. al (1996) conducted a study at the Department of John Hopkins University, School of Medicine, Baltimore with an objective of determining if sustained decline in psychomotor speed test is associated with an increased risk of progression to dementia. AIDS, Clinical and neuropsychological data were obtained on 291 HIV positive homosexual men. The results indicated development of dementia AIDS and death. HIV positive subjects with sustained psychomotor slowing had a hazard of dementia AIDS and death.

Day et al.(1996) conducted a study to determine the incidence of clinical dementia in patients with AIDS and ARC, 29 men and 3 women, 19 with ARC and 13 with AIDS, were examined neurologically and neuropsychological every 6 months.

Though no patient was clinically demented at baseline, 9 (28%) dementia during the 2 yrs. Progression to dementia was associated with neuropsychological deterioration.

Chiesi A and Vella S et al.(1996) studied the epidemiology of AIDS Dementia Complex (ADC) in Europe the subjects were 6548 adult people with AIDS consequently diagnosed from 1979 to 1989. The main outcome of the study was co-diagnosis of ADC at the time of AIDS diagnosis. AIDS Dementia Complex was reported in 295 patients i.e., 4.5%. The study suggested an increase in the risk of developing ADC either at the time of AIDS diagnosis or thereafter is associated with increasing age, intravenous drug use, and decreased CD4 cell count. Women tend to have a higher risk of ADC at the time of AIDs diagnosis.

Wong M and Robertson K et al (2007) measured the frequency and associated risk factors of HIV dementia in an HIV clinic in Kampala. The sample consisted of 78 HIV seropositive patients. Participants underwent detailed socio-demographic medical history, functional, neurologic and neuropsychological evaluations. The results indicated that 31% (24 of 78) of the HIV patients had dementia. Advanced age and low CD4 counts were the variables identified as significant risk factors. Each additional 10 years. of age conferred a greater than two fold risk of HIV dementia. The study concluded that HIV dementia is common in HIV seropositive Ugandan individuals attending AIDS clinic. It is more frequently associated with patients.

3.10. SOCIAL SUPPORT:

The concept of Social Support is an omnibus term relating to different aspects of social relationships. It includes; the network structure or social interactions, emotional, psychological, informational support and the perceived quality or adequacy of this support. Researchers arrive at a consensus that access to social support and perception of feelings are important buffer (referred to as the buffering

model of social support) to the negative psychological consequences of stressful experiences. When it comes to life threatening diseases, it is likely that social support needs and type of support may vary over the course of the disease. Social support decreases the effects of stress (Cohen and Wills 1985). Social Support and HIV have been studied in relation to its impact on physical health but in particular psychological functioning. Social Support is strongly associated with mental health (Sandler and Barrera, 1984; Searson et al. 1983). For people with chronic illness there is a positive association between support and psychological resources that help the individual to cope with illness. There is also an evidence, that diagnosis of a chronic illness may erode existing support and that people with poor prognosis may receive the least support. Although some studies have found a relationship between certain aspects of social support and self–reported physical health, Green emphasizes that as of yet no significant correlation has been found between objective measures of health status and social support. Many of the greatest difficulties faced by chronically ill persons result from their physical disability. People living with HIV related illness face not only the challenges and difficulties that accompany any serious medical condition, but also the additional problems of stigma and discrimination. There is a strong level of association between social support and psychological well-being among people with HIV. Psychological state has been correlated with number of confidants and satisfaction with perceived availability of support (Linn et. al, 1993, Ostrow et. al, 1987) and those who can are satisfied with their level of support received have a greater ability to cope (Lesserman et al, 1992).

Hays et al (1992, 1993) found social support predicts depression now and one year later. Social support also acts as a buffer against psychological distress. According to Turner there is evidence suggesting that to some extent depression is a determinant of support.

Ostrow et.al (1991) show that the relationship between social support and mental health among black and white gay men with HIV is quite different, with the former tending to be more reliant on gay friends and the latter upon their families. Gay men are reported to have better support than those belonging to have a degree of distance from their families.

Fleishman and Fogal argue that seeking support may be a response to distress; that is when distress reaches unacceptable levels the individual seeks support. Just as social interactions can be of support they can also be a source of stress.

Ingram et.al point that negative interactions may have important adverse consequences on psychological functioning and may be particularly salient for people with HIV given the stigma attached to the disease. They also emphasize the little attention paid to the nature of and effects of negative social interaction.

Ingram et.al also developed a measure to access HIV-related unsupportive or upsetting social interaction. They could identify four types of unsupportive responses that people with HIV might receive from others; insensitivity, disconnecting, forced optimism and blame. Their findings suggest that unsupportive social interaction and social support are relatively independent constructs. Data reveal that persons who reported more HIV related unsupportive social interactions also reported being more depressed. Unsupportive social interactions predicted a significant amount of variance accounted for by physical functioning and positive social support.

Ingram et.al, thus emphasize the importance of accessing positive social support and negative social interactions separately and suggest that these variables make independent contribution to well-being among people with HIV.

Various functions of social support have been distinguished by various researchers. Few to mention are the emotional function, the instrumental function, the material function and the informational function. The emotional sustaining types of

help appear to be the most desirable by people with HIV, although they are not significantly correlated to physical health or psychological well-being.

Hays et.al found that HIV/AIDS related informational support was critical in buffering depression for men experiencing HIV-related symptoms.

Thoits (1995) argues that coping and social support have several functions in common and therefore social support can be conceptualized as coping assistance. Some studies show that active behaviour coping is related to higher levels of perceived social support and avoidance coping to less social support.

Serovich, Julianne M, Brucker P and Kimberly J (2000) carried out a study with an objective to test a barrier theory of perceived social support to HIV positive gay men. The proposed model was tested for friends and family separately in order to investigate the uniqueness each provided. In both models it was hypothesized that the presence of barriers to social support (availability, intimacy and disclosure) diminished acquisition of social support. The influence of barriers on the relationship between social support and health outcome (i.e. depression, positive cell count) for both friend and family models was also investigated. Thus we can say that in general positive gay men support barrier theory premises for both family and friends. The study proposes implications for helping professionals and researchers.

Abramowitz, Susan; Koenig and Linda et.al (2009) conducted a study to examine the nature, type, and source of social support available to a diverse group of HIV-infected adolescents and the relationship between social support and depression. Data were obtained from the baseline assessment of Adolescent Impact, a behavioral intervention conducted in 2003-2006 involving 166 HIV-infected youth, ages 13-21, in care at four urban medical centers. Youth completed the Medical Outcomes Study Social Support Survey, Beck Depression Inventory, and questions about HIV-specific social support including locus (family and friends) and type (structural, perceived,

instrumental, and satisfaction). Linear regression modeling examined the relation between HIV-specific and general perceived social support, and between social support and depression. Participants were predominately minority (72% black and 20% Hispanic); parentally infected (60% PIY), and female (53%). Most had someone to either remind them to attend (71%) or to bring them to clinic (60%), a majority family (53%) and fewer friends (4%). More youth reported being satisfied with family (64%) social support than that from friends (51%). Behaviorally Infected Youth (BIY) had significantly more friends who knew their serostatus than Perinatally Infected Youth (PIY) (means = 4.5 and 1.7; $p < 0.001$), but received significantly less help from family in accessing care ($p < 0.001$). Satisfaction with family social support was the best predictor of general perceived social support with general perceived social support and behavioral mode of transmission the best predictors of depression. Regular screening of HIV-positive youth for social support needs, especially BIY and identification of sources for social support should be a regular part of care.

3.11. TRAUMA AND COPING:

With regard to HIV/AIDS far less has been written about loss and grief than about other aspects of the bereavement. Although traditional bereavement models offer pragmatic approaches to dealing with the grief process, they are not able to address the trauma as that result from multiple losses, cumulative grief, HIV/AIDS stigma and the horrors of HIV infection. Martin (1988) studied the mental health effects associated with AIDS related losses in gay men and found traumatic stress responses such as panic attacks, nightmares, and numbing. Dilley, Pies and Helquist (1989) discussed the stresses endured by those affected by HIV/AIDS and how these stresses result in psychic trauma. Traumatic stress occurs when an individual is overwhelmed by personal and environmental circumstances and lacks adequate support to address these stressors. In adapting to traumatic experiences clients need help in integrating their conceptualizations of life events with their conceptualizations

of themselves and their world. Persons who experience chronic trauma feel that their lives have been altered and may feel like victims. Trauma victims often cope with loss through immersion (in work), avoidance behaviour, withdrawal, substance abuse and other addictive behaviour. Coping with HIV/AIDS trauma is complicated by various factors. Appraisal is made difficult by overwhelming nature of the experience and the formidable task of understanding its emotional impact.

Sowder (1985) discusses various factors that increase the likelihood of maladaptive resolution of trauma, many of which apply to HIV/AIDS trauma: the intense horror of the disease, the length of disease before death, lack of resources to respond to loss, the perceived loss of control, the prolonged alteration of lifestyle and environment as a result of trauma.

Kelly B and Raphael B (1998) et al. investigated the psychological impact of HIV infection through assessment of PTSD in response to HIV infection. Sixty one HIV positive homosexual /bisexual men were assessed for Post Traumatic Stress Disorder in response to HIV infection (PTSD-HIV) using a modified PTSD module of the DIS-III-R. In over 1/3 of the PTSD cases the disorder has an onset greater than 6 months after initial HIV infection diagnosis. PTSD-HIV was associated with other psychiatric diagnosis particularly the first episode of major depression after HIV infection diagnosis PTSD-HIV was significantly associated with a pre-HIV history of PTSD from other causes. The findings from this preliminary study suggest that a PTSD response to HIV diagnosis has clinical validity.

Raphael and Judd F. et al investigated the psychological impact of HIV infection through assessment of PTSD in response to HIV infection. They studied 61 homosexual/bisexual men. 30% met the criteria for a syndrome of PTSD in response to HIV diagnosis (PTSD-HIV). PTSD-HIV was significantly associated with a pre-HIV history of PTSD from other causes and other pre HIV- psychiatric disorders and

neuroticism scores indicating a similarity with findings in studies of PTSD from other causes. The results support the inclusion of the diagnosis of life-threatening illness as a traumatic incident that may lead to a PTSD which is consistent with the DSM IV criteria.

Simoni J et al. (2000) conducted a study in New York on women to examine the trauma and coping mechanisms related to HIV/AIDS. The study was conducted on 230 HIV positive women. Results demonstrated that 5% of them reported a prevalence of abuse during childhood and 68% in adulthood. 7% of women reported rape or physical abuse in the last 90 days. This study emphasized on the fact that recent trauma was a co-relation to childhood. It concluded that better implications were required for improving psychological functioning in women.

Another study in relation to coping strategies amongst HIV positive men and women was conducted by Sikkema and Kathleen J. et al (2000) at the Yale School of Medicine. The sample under study were 199 HIV infected men and women. This study was conducted with an objective of studying the prevalence of AIDS related bereavement and psycho-social predictors of grief severity. It was found that 80% of HIV respondents had experienced the loss of someone close to them. Two third of the participants who had experienced an AIDS related loss reported that grief was most closely related with emotional suppression and avoiding coping strategies.

In contrast to the previous study which stressed on childhood abuse resulting into greater trauma the above study stressed on the loss of a near one as a factor contributing to the trauma of being HIV positive.

Koopman ,Cheryl, George and Felcon C et.al (2000) conducted a study with an objective of examining the relationships of coping, attachment style and perceived stress to perceived stress within a sample of 147 HIV positive people. Amongst them 80 were men and 67 were women. Multiple regression analysis was used to examine

the relationships of demographic variables, AIDS status, three coping styles, three attachment styles, and perceived quality of general social support with total score on the Perceived Stress Scale (PSS). PSS score was significantly associated with less income, greater use of behavioural and emotional disengagement in coping with HIV/AIDS, and less secure and more anxious attachment styles. This indicates that HIV positive persons who experience the greatest stress in their daily lives are those with lower incomes, those who disengage behaviourally/emotionally in coping with their illness and those who approach their interpersonal relationships in a less secure or anxious style.

3.12. HIV RELATED STIGMA, DISRCRMINATION AND SELF ESTEEM:

3.12.1. Stigma:

Stigma is defined as an attribute or quality that "significantly discredits" an individual in the eyes of others. Stigma is a process and occurs setting—certain attributes are seized upon and defined by others as discreditable or unworthy (UNAIDS, 2002). The stigmatized person is, therefore, seen to possess a spoiled or polluted identity that deviates from social norms and which deserves sanctioning (Goffman, 1963, quoted. in UNAIDS, 2002). Stigma is not unique to HIV and has been seen throughout history in relation to other diseases, including tuberculosis, syphilis, and leprosy, which are associated with the transgression of social norms. HIV has been stigmatized because it can be fatal and therefore causes fear; it is often associated with behavior that is already stigmatized, such as sex work; infection is seen as the result of "choices" made by an individual (e.g., the "choices" to have unprotected sex or to share needles to inject drugs); and it is seen as punishment for "deviant" behaviour (Bollinger, 2002).The process of stigmatizing a person may involve the following steps: differences (such as HIV status) are noted and labeled; these differences are then given a negative attribute; a distinction is made between

"us" who do not have this negative attribute and "them" who do; the person with this negative attribute is seen as others can profoundly influence the way in which people living with HIV view themselves and cope with their HIV status. Stigmatizing attitudes tended to be associated with being male, older married, less educated and unwilling to be tested for HIV (Lee.et.al 2005). Such attitudes have serious implications. HIV related stigma is frequently conflated with negative attitudes towards marginalized groups and may be reinforced by legislation and legal systems that attack basic human rights. Stigma attaches itself strongly to women because of negative assumptions made about sexual risk behaviour even when a woman has not engaged in any association with HIV. Stigma can persist even when treatment becomes readily accessible. In Brazil where anti-retroviral therapy is universally available, many HIV positive children and youth still face significant stigma. In Botswana, where free antiretroviral therapy, infant formula and safe drinking water are widely available stigma was given as the reason why over half of the pregnant women in a study did not feed their babies with formula an important means of preventing mother-to-child transmission of HIV.

A recent four city study in India found that while almost 90% of the HIV positive women were infected by their husbands, they faced more stigma and discrimination than men and were blamed for their husband's illness. Women living with their husband's family frequently faced exclusion if the husband died and many had trouble finding anyone to care for them when they themselves became ill.

3.12.2. Discrimination:

Discrimination as defined by UNAIDS Protocol for identification of discrimination against PLWHA refers to any form of arbitrary distinction, exclusion or restriction affecting people coz of their confirmed or suspected HIV positive status. Both place a burden on human development by denying thousands of people the chance of reaching their full potential. HIV related discrimination is found in all parts

of the world but its manifestation varies from place to place. In a study conducted in an eastern Chinese coastal city half the respondents believed that punishment was an appropriate response towards those living with HIV, over half (56%) were unwilling to be friends with HIV positive people and 73% thought that those living with HIV should be isolated. Research in other parts of the country shows that to avoid stigma and discrimination some HIV positive people refuse to get information about HIV and sexually transmitted disease, staying away from health care professionals and shunning those suspected of risk behaviour in an effort to blend in with the community norms (Lieber et.al 2005).

In 2005, the Asia Pacific Network of PLWHA reported on a study carried out in India, Indonesia, the Philippines and Thailand. Over half of 762 HIV positive in the survey reported having experienced some form of discrimination from health care systems including violations of women's reproductive rights. People who reported coerced testing were significantly more likely than other respondents to face subsequent HIV related discrimination and many were refused treatment after being diagnosed with HIV. Within the family and the community, women were significantly more likely to experience discrimination than men including ridicule and harassment, physical assault and being forced out of their homes (Paxton et. al 2005).

A variety of stigmatizing myths surround the issues of AIDS and displaced population. For example, host country citizens commonly assume that the migrant population brings AIDS with them. In fact, the reality is more complex. Many refugees and other displaced persons flee countries with lower HIV prevalence to more stable countries with higher prevalence. Spiegel and Greikspoor et.al, (2004) have reported that sentinel surveillance among pregnant women in refugee camps in Kenya, Rwanda and Tanzania found that the refugees had lower levels of HIV infection than the surrounding population.

Santana, Marie-Anne and Dancy (2002) conducted a study on how AIDS related stigma had a strong impact on Haitian women living in US. The study explored Haitian American women's perceptions of the impact of the AIDS epidemic on their lives. The study revealed five categories of long-term effects of AIDS stigmatization, like rejection by the dominant society, self-doubt, effect on self-esteem effect on intimate relationships and rejection by Haitians with their community living in France. Tools used in this study were semi structured interview to assess personal history of their HIV infection, social and family relationships, pre-occupation with child bearing and concerns about HIV infection and its prognosis. The study revealed significant differences between the comparison of psychological and psychosocial factors between HIV positive African and European women. Demographic differences did not differ except for current professional activity, with more African women being unemployed. The medical aspects of the HIV infection for both the populations were similar. The study further revealed interesting findings pertaining to the revelation of their HIV positive status to family and friends. It was found that more European women had informed their family and friends and had a greater desire to have children as compared to their African counterparts. The study suggests that all these differences emphasized the need to adapt medical and psychosocial care to gender and to the ethnic and cultural background of the person.

Stigma and discrimination are major obstacles to combating HIV/AIDS, because it leads people to avoid being tested, and disclosing their HIV status. Keeping this theme as a pivot, Ranjana Singh conducted a study in Mumbai. 65 % male and 35% AIDS patients who attended the outpatient Department of AIDS Research and Control (ARCON) Centre, Mumbai (2007). Tools used in the study were interview schedule, in depth interview and case studies. The findings suggested that migration was noteworthy factor which led to risky behaviour. It was further observed that sharing about the status was more with the spouses followed by any other member.

The study revealed clear evidences of discrimination like divorce, separation etc. Many women were deserted by their in laws after the death of the HIV positive husbands. Fear of miscommunication led to limited disclosure of HIV status outside the family. Finally it was observed that half the respondents have isolated themselves from any kind of social gatherings. The limitation of the study cannot be generalized because the sample selected was not a proper representation of HIV/AIDS persons selected in the selected area.

Emlet (2005) administered the 13-item HIV stigma scale to a sample of 88 adults who were HIV positive. The age range of half of them lay between the ages of 20 and 39, and the other half were 50 years and above. This study suggested that younger adults recorded higher score on the discrimination subscale than did their older counter parts.

3.12.3. Self Esteem:

William James played an influential role in the development of self-esteem, although he often did not refer to self-esteem but rather "to his own regard" (Katz, 1998). He described self esteem as a judgmental rating of the self, self-worth when one has high self-esteem and self degrading or self-hate when one has low self-esteem. Another influential figure to the notion of self-esteem is Morris Rosenberg (1965). Self-esteem has been described by Rosenberg as the favourable or unfavourable attitude toward the self (Rosenberg, 1965). He contends that every individual has attitudes towards a multitude of objects in the world, and one of these objects, probably the most important, is the attitude toward the self. Self-esteem is believed to play an integral role in the understanding of normal and abnormal behaviour (Roland and Foxx, 2003; Van Zyl, Cronje & Payze, 2006). This association of self-esteem to mental health asserts that self-esteem is related to positive mental health. It is believed that higher levels of self-esteem can be associated with variables

such as internal control, autonomy and high ego function. Conversely, it is suggested that lower levels of self-esteem can be associated with negative outcomes, including certain mental disorders (Roland and Fox, 2003).

With regards to HIV and AIDS, research has shown that people who are HIV positive often develop internalised stigma due to personal beliefs around the diagnosis. People who are HIV positive may therefore base their self concept on the internal stigma of being HIV positive. On the contrary, individuals who can turn the experience of HIV-related stigma into a positive experience may be able to build their self concept in relation to their physical well-being based on these positive evaluations. Roberts et al., (2001) contend that low self-esteem can be a risk factor for conditions such as depression and the possibility of suicide. Improvement of self-esteem can therefore be a valuable tool in addressing problems such as depression and suicide brought about by the daily demands society brings (Van Zyl, et al., 2006).

Nicholson William and Long Bonita (1990) examined the relationship between self esteem, social support , internalized homophobia and coping strategies amongst HIV positive The results indicated that greater homophobia and less self esteem predicted avoidant behavior, while less homophobia and less time since diagnosis predicted proactive coping. Greater time since diagnosis, less avoidant coping, less homophobia and greater self esteem predicted a better mood state.

Klein H and Elifon W (2002) conducted a study and examined the role played by self esteem and HIV risk taking behaviour. The results indicated that self esteem is associated with a variety of risky practices including the number of sex partners that people had, the number of different illegal drugs they used, their condom use self efficacy, likelihood of having multiple sex partners. The analysis showed that the factors that impacted the PLWHAs level of self esteem yielded sis factors: educational attainment, coming from a family of origin whose members get along

well, the extent of alcohol problems, the extent of experiencing symptoms of post traumatic stress disorders.

3.12.4. Factors associated with HIV-related stigma that impact on the self-esteem of people who are HIV positive:

Personality Organisation:

The sub-theme personality organisation was used to classify personal characteristics

that contribute to the responses that individuals who are HIV positive have towards stigmatising experiences from society. Personality organisation encompass internal resources that contribute to a person's level of resiliency against internally threatening facets of life and hence are important factors to understand the self-esteem of people who are HIV positive.

Levels of accessed social support as a determinant of changes in the self-esteem:

Self belief depends on a considerable level of social support. In order

for a person to overcome the stresses his or her life path takes, he or she requires social support to give meaning and worth to what they do **(**Bandura , 1986 & 1989).

HIV positive individual's reactions to stigma are not only pre-determined by a specific personality organisation but that adequate social support serves as a strong sustaining factor as to how a person's personality organisation can uphold an individual who is HIV positive's self evaluation.

Social Identity:

Social identity is that part of an individual's self-concept which derives from his or her knowledge of his or her membership in a social group, together with the value and emotional significance attached to that group membership. (Tajfel, 1981, p 255 in Katz et al.,2002).

3.13. QUALITY OF LIFE:

World Health Organisation (WHO) has defined quality of life as 'individual's perception of their position in life in the context of the cultural and value systems in which they live and in relation to their goals, expectations, standards and concerns. Quality of life is often regarded as a concept that is too nebulous to be measured reliably with a structured questionnaire and is subjected to too much variability across cultures and individuals to have any useful validity. Perception of Quality of Life varies according to culture, personal view, habits and career advancements. The age at which most infected persons show the first signs and symptoms of AIDS, falls during the period in which they, and many of those caring for them are demonstrating their status as adults through financial and emotional independence from their family of origin, as well as consolidating career or new family plans. The appearance of symptoms and the need for care requires changes in the role of partners or friends, or a return to dependence on their family of origin. It thus results in modification in aims, resources and life habits which affect the quality of life of both the person infected and his natural caregiver. The multiple losses associated with AIDS reduces the amplitude of plans, aims and life projects of both the infected person and his care giver. The threats and issues are thus stressful because they are undesirable and involve psychological change. The QOL of an individual depends greatly on the adoption of behaviour which is appropriate to the accomplishment of his goal and his day to day projects. According to Brown, Renwick and Negler the interest in QOL stems from trends towards greater appreciation of the personal needs and wishes of the individual within the health and social services. Although the concept has been and is used frequently there is no exact definition or thorough conceptualization of QOL. It is described in terms of positive subjective feeling of experiencing a good life.

According to Franchi and Wenzel (1998), the definition of QOL in a clinical setting the definition of QOL is directly affected by the health state and is often referred to HRQOL.

Another approach to QOL is characterized by the focus on the individual's subjective evaluation of well-being independent of health status. Just as severe disease does not necessarily cause illness studies show that despite a severe disease people are able to maintain a feeling of well-being and satisfaction with life. QOL is viewed as being socially constructed and multidimensional. There can be no absolute value of QOL as there are many different values and expectations on what constitutes QOL. Ross and Ryan cite an example of male gay culture. Since sexuality has such a central place in construction of the HIV disease, sexuality is a central component of QOL. Contrary to this in Nilson Schonnesson's study of QOL among gay men with HIV sexuality was not included as an aspect of their subjective perception of QOL. On the other hand, the importance of intimacy appears to be higher valued than having sex with respect to QOL.

The multidimensional character of QOL is reflected the variety of aspects in instruments measuring QOL. The traditionally constructed scales designed to measure QOL focused on measuring the impact of a given disease on physical functioning and to a lesser extent on psychological well-being. It has been observed that current researchers underscore the importance of not only physical but also psychological, social, cognitive functions as well as intimacy or sexual functioning, community and spiritual domains. It has been suggested that as HIV evokes extensile concerns, they ought to be acknowledge when assessing QOL. HIV-treatment advances and increased life expectancy have contributed to a growing concern about the QOL among people living with HIV. Empirical research is still sparse and most of it is so far related to QOL incorporated as an outcome measure in clinical trials for medication. Several generic instruments have been used (eg. quality of well-being)

but also generic instruments that are adapted to people with HIV.A common assumption by lay people is that people with HIV/ AIDS experience an impoverished QOL. QOL may even be increased when people get seriously ill with their HIV infection.

Gulen and Mc Donald (2001) et. al conducted a study with an objective to study the Quality of Life among women living with HIV. The paper described the relationship between psychosocial factors and health-related Quality of Life .The study measured the physical functioning, mental health and overall QOL. The psychosocial factors under study were a history of child sexual abuse and adult abuse, social support and health promoting self-care behaviours. The average age of women was 33 years and they had known their HIV positive status for 41 months. The major findings of the study were that more than half of them i.e 55% had a history of injecting drug use and more than 60% had reported physical or a sexual assault at least once as an adult. The study revealed that women with larger social support networks reported better mental health and QOL. Women who practiced more self-care behaviour (healthy diets, adequate sleep and exercise) reported better physical and mental health and overall QOL. The study concluded that the high prevalence of physical abuse and child sexual abuse reported by this sample underscores the importance of screening for domestic violence when providing services to HIV positive women. It can thus be said that factors like social support and self-care behaviour are strongly associated with HRQOL.

A study was conducted by Guy Morineau, Mean Chi Vun and Hubert Barenes et. al. (2009) to study the survival and its related Quality of Life on HIV Positive people on antiretroviral therapy in Cambodia in 2004.HRQOL was assessed using the Medical Outcome followed up at 3 months, 6 months and each consecutive 6 months thereafter. The study was conducted from March 2005 to January 2008.Incidence of mortality was 9.1 per 100 person- years which is comparable to initiating ART. The

mean of overall HRQOL score from 63.0 at baseline to 81.1 at 1 year and 89.9 at 30 months of follow-up increased from 48.8 % to 95.7% The conclusion lies in the fact that the rapid scaling up of ART delivery in a resource poor Asian setting dramatically improved lives within the community.

Osowieck Diana. M et.al. (2000) studied the impact of neurocognitive and emotional distress and immune system dysfunction on QOL in women with HIV. They administered Profile of Mood States (POMS), Quality of Life Questionnaire for persons with HIV and cognitive functions on 36 HIV women. The results indicated that independent of severity of emotional distress, neurocognitive deficits on measures of executive control and speed of information processing were associated with QOL together with neurocognitive performance accounted for most of the variance associated with QOL. It can thus be concluded that QOL among women who were infected with HIV is strongly influenced by both neurocognitive and emotional status as women with the greatest neurocognitive impairment and emotional distress report the poorest QOL.

Franchi and Wenzel (1998) in their review of HRQOL conclude that HRQOL scores do not always correlate with disease stage or health indices and that symptoms have significant impact on HRQOL. Whereas Clary et.al (1993) found that both physical health status and psychological functioning status correlated with and predicted life satisfaction. Other studies suggest that degree of physical impairment is not related to life satisfaction. Holmes et al. (1997) studies the effect of AXIS 1 psychiatric disorders on psychological well-being and QOL. Their findings indicate that the presence of AXIS 1 psychiatric disorders in the previous six months is associated with diminished scores in multiple areas of functioning and well-being, independent of HIV related disease progression. Holmes et.al thus conclude that AXIS 1 disorders therefore appear to impact QOL. Rubin et.al (1991) reported that

those who developed depressive symptoms over a six month period showed a decline in their QOL of well-being scores.

Coping and social support may influence QOL, just as does psychological functioning. Renwich and Friedland (1996) conducted a study on coping, social support and QOL in persons with HIV. Due to the multidimensional character of QOL three different types of measurements were used; behavioural aspects of QOL (eg. Job satisfaction, personal growth, health related QOL (different aspects of life that have been affected by HIV) and life satisfaction. The participants scored lower on overall QOL, physical well-being, material well-being and partner relationship than the norm groups. Findings indicate that health status is not a useful indicator for assessment of QOL. Further, data showed that different types of social support and coping strategies influenced different aspects of QOL. Problem-oriented coping, lack of denial, and emotional, social support influenced behavioural dimensions of QOL. Emotional social support in combination with the absence of practical support and perception oriented coping (eg. positive reappraisal of one's situation) positively affected HRQOL.

The dimension of QOL was also studied by Kimberlin et.al (2000) in 118 HIV+ adults in Carasa Venezuela. The study focused on the relationships of Quality of Life (QOL), social support and diseases related factors in HIV positive. Tools used in this study were Medical Outcomes Study Short form (SF-36) and a symptom Inventory. Multiple regression analysis was used to model 5F-36 sub scales scores as a function of symptoms social support HIV-status and use of antiretroviral drugs the study showed that AIDS symtomatology was significantly related to all the Health Related Quality of Life. (HRQOL) domains except social functioning and role emotional scores. Social support was significantly associated all HRQOL domains except physiological functioning and bodily pain. The use of antiretroviral drugs was significantly associated social functioning of social support to the QOL of HIV

infected individuals in the culture. Anxiety, depression and distress in PLWHA was studied by Chen and Hoffman with a sample of 101 patients using the Hospital Anxiety and Depression Scale in 2002. The study demonstrated a high prevalence of distress anxiety and depression among PLWHA. The study further revealed that there was no significant difference amongst PLWHA of different ethnicities. Patients who had low CD4 count or high viral load were significantly more distressed than patients than high CD4 count. Another significant finding of the study was that patients screened also exhibited a high prevalence of distress, anxiety and depression due to high prevalence of psychiatric disorders in the patient population. The analysis showed that majority of the respondents i.e 72.3% showed distress and nearing it were those who showed anxiety i.e 70.3%. It is noteworthy that depression was observed be significant only in less than 50% i.e 45.5%.

Sherbourne D and Hays D (2000) conducted a study on the impact of co-morbid psychiatric symptoms on the Health Related Quality of Life (HRQOL) symptoms in PLWHA. The study was conducted on a mixed sample of urban and rural population. The results indicated that the respondent with a probable mood disorder had lower scores on HRQOL. From this study it can be thus concluded that optimization of Health Related Quality of Life is important now as HIV is chronic with a long term survival. Co-morbid psychiatric conditions may severe as makers for impaired functioning and well-being in PLWHAs

Das Mukerjee .et al (2009) conducted a study to assess the Quality of Life (QOL) and Psychosocial problems of HIV infected children. The study was a cross sectional survey. QOL of the enrolled children was assessed by using a Paediatric Quality of Life Inventory (Pedsql) and Paediatric Symptom Checklist (PSC) was used to assess the psychosocial problems in the enrolled children. Forty one HIV infected and 30 children with cystic fibrosis were enrolled. According to child self-report in the Pedsql ^{tm} 4.0 the difference of perceived physical health status between the two

study groups was statistically significant where HIV infected children demonstrated a better QOL in this domain. A significantly greater number of children who suffered from cystic fibrosis had greater psychosocial problems as compared to HIV children. The quality of life and psychosocial functioning is reasonably good in children with HIV infection. Thus, we should strive to maintain and optimize the overall quality of life of these children so that they can have a productive and meaningful future.

Another study was undertaken to study the QOL of HIV infected persons in south India by Solomon S. and Batavia A (2000). Data was collected on 136 individuals receiving clinical care at Y. R. Gaitonde Centre for AIDS Research and Education at Chennai, South India. The QOL questionnaire was administered to participants at baseline, 6 months follows-up, and 12 month follow-up. Study findings shows that QOL scores significantly improved between participants baseline visit, second interview, and third interviews, we conclude that a multidisciplinary approach to managing HIV infection can enhance patients QOL, independent of antiretroviral therapy.

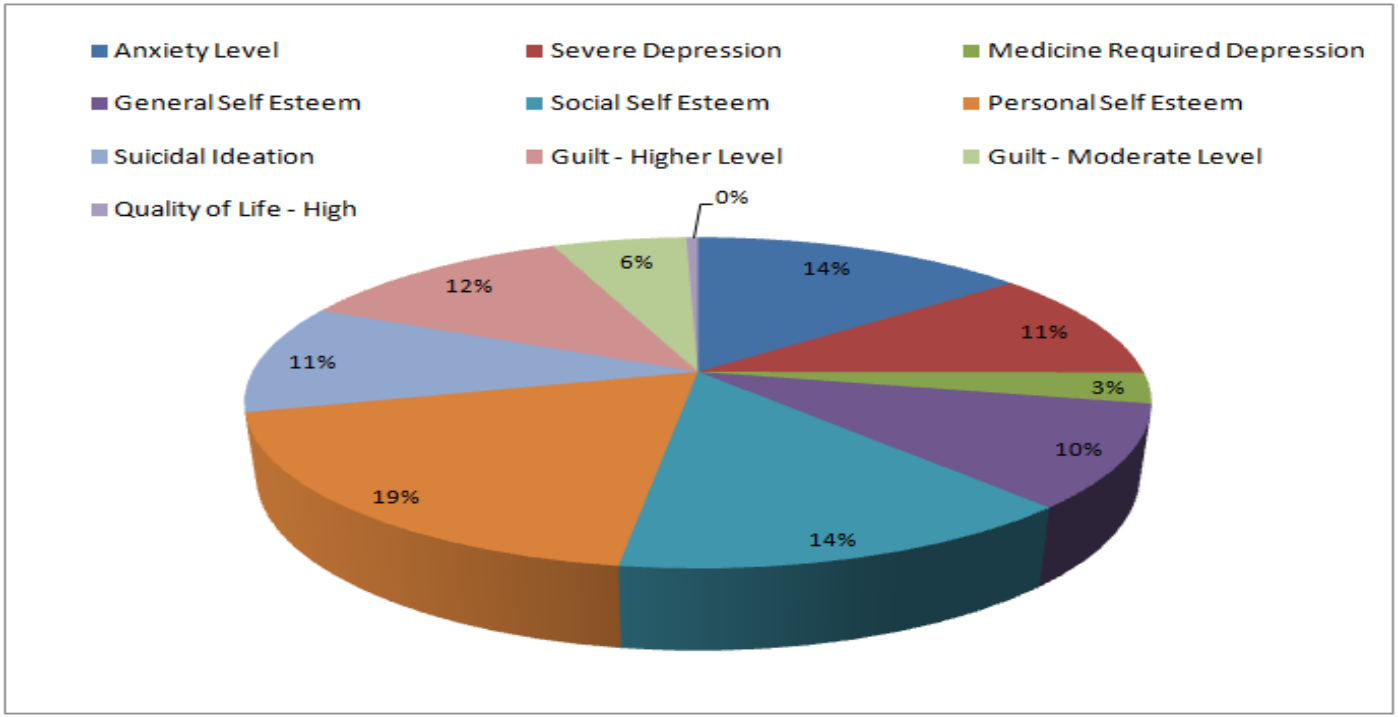
Chandra P. S and Satyanarayan V.A. et al. (2009) conducted a study at the Department of Psychiatry, NIMHANS, Bangalore. The study examined gender differences in Quality of Life (QOL) among people where HIV/AIDS in South India using the locally validated version of the WHO Quality of Life instrument for HIV (WHOQOL-HIV120). Of the 29 facets of QOL, men reported significantly higher QOL, in the following facts – positive feelings, sexual activity, financial resources and transport, while women reported significantly higher QOL on the forgiveness and blame facet. Of the six domains of QOL, men reported better quality of life in the environmental domain, while women had higher scores on the spiritually/religion and personal beliefs domain. Understanding these gender differences may provide potentially useful information for tailoring interventions to enhance QOL among people infected with HIV/AIDS.

Health related quality of life was studied by Nojomi M et.al (2008). The study was cross-sectional and was conducted using a convenience sampling method on 139 patients living with HIV or suffering from AIDS. The main measured outcome in this study was QOL and some related demographic and clinical variables. The results indicated that gender, marital status, level of education, CD4+ count and clinical stage of disease had a significant effect on the quality of life of the patients. The most important predictor of the quality of life was clinical stage of the disease. The most important factors, association with decreased quality of life of the patients were being female, separated or divorced, having less CD4+ count, and being at severe stage of the disease.

3.14.1. GENDER AND PSYCHIATRIC ILLNESSES:

A decade ago, women and children seemed to be on the periphery of the AIDS epidemic. Today women and children are at the centre of our concern. AIDS has not spared them. On the contrary, the epidemic wave has affected millions of women and their children, and millions more are threatened. Dr.Michael Merson, Executive Director, WHO Global Programmes on AIDS, (1993) had said, “Women of every age, ethnic background, class and sexual orientation have contracted HIV. All over the world AIDS is becoming a leading cause of death among women. In many societies in many cultures, being a woman is a significant risk factor for HIV acquisition. As more and more women become infected with HIV an ever increasing number of children will be born infected with this virus. Women are central to the concept of family: to nurturing, protection and caring. They have complex relationships and structures in their daily lives and sophisticated and subtle responsibilities and commitments. Their demise, consequent to HIV disease, will increasingly rock the stability of communities in every country where AIDS exists.” (The Impact of AIDS on People and Societies- 2006 Report on the Global AIDS Epidemic. Women and AIDS: Confronting the Crises- A Joint Report by UNAIDS/UNFPA/UNIFEM.)

Level of Psychiatric Illness



Action oriented research and programmes developed involving women infected and affected by the epidemic and aimed at enhancing the responses of families and communities to the HIV epidemic combined with efforts to sensitize and engage decision makers are the first steps to countering the potentially devastating psychological and economic impact on women of HIV in developing countries.

Elizabeth Kubler Ross has stated, "We are solely responsible for our choices and we have to accept the consequences of every deed, word and thought throughout our lifetime". Whereas women with HIV infection are clearly living with the consequences. HIV infection has been prevalent in women from the onset of the epidemic. Yet attention has been focused on women only in the second decade of the epidemic. Earlier studies targeted pregnant women and understanding of disease in women generally was overlooked until recently. Such delays have hindered the assessment of viral expression and transmission in women, disease course, opportunistic infection ramifications and prognosis and treatment issues. Similarly psychosocial understanding lags behind and treatment maybe misdirected or inappropriate. Such neglect may enhance the risks to vulnerable women who may be concentrated in the very groups which are abandoned by the society. Such groups are also jeopardized by their lack of power and their weak voices in the arenas of politics and policy. Any program to provide for the psychosocial needs of women with HIV infection or at risk of acquiring HIV infection must involve an understanding of the psychosocial functioning of such women.

3.14.2. RISK FACTORS AND FEMALE VULNERABILITIES:

As a group women are more vulnerable to get infected with HIV than are men for a variety of reasons which are as follows:

Gender differences:

Few studies have been conducted specifically to examine gender differences. For some women their major (and only) risk factors are associated with the behaviour of their male partner rather than their own behaviour. For some women the element of choice in sexual relationships is limited, and they may be unwilling or unable to implement and sustain changes in these relationships. The notion of choices implies a freedom that may not be available to many women who are dependent on men for social and economic support. Countless studies report on how women lack power. Studies have shown that how women are less likely than men to abandon an HIV positive partner. They are less likely to withhold knowledge of their own status but more likely to be kept in ignorance about partner's status. They will often put the care of their partner or their children before their own care. Such behavioural patterns may not simply reflect lack of power but may reflect alternative lifestyles and a philosophy that should be admired. Studies often look at change of women as a solution but an educational effort geared towards men would be helpful. Kamenga (1991) found that pregnancy was more common when the male partner was HIV positive rather than the female partner. This finding is rarely highlighted and is not transformed into policy framework in worldwide prenatal clinics that treat women rather than men.

Women with HIV may not be identified if symptoms are misinterpreted, if they are involved in care giving to the detriment of their own health care needs or if HIV is not considered as a possible diagnosis. Many women are identified at routine screening rather than as a result of medical care. Hankins noted that women with AIDS were twice as likely as men to present initially with opportunistic infections. Informing partners may be difficult for women who fear rejection and abandonment. Such fears are greatest when dependence is high.

Ryder et.al (1991) found that 97% of their sample of HIV positive women in Kinshasa, Zaire were unwilling to inform their sexual partners of HIV. Major reasons for this include fear of divorce, physical harm or public rejection.

Mental health needs of women:

The natural history of HIV infection in women has only recently been studied. Clear documentation of mental health impact of AIDS on women is also sparse. The majority of studies focus on homosexual men and thus the information about this group is quite comprehensive. Women differ from homosexual men in the nature of their social support, their roles in the family, their childbearing and child rearing situation, their possible role within sexual relationships and their life opportunities and aspirations.

In the mental health literature women are recorded as suffering from greater levels of mental health problems than men. The simple reason is that women are more likely to report emotional trauma than men although it is experienced equally by both. The differences may be real and may reflect the fact that female lifestyles are more susceptible to emotional burden with the demands of childbearing and homemaking.

Mental health considerations extend from early in the disease process at the time of HIV testing through disease progression, illness and death.

Emotional trauma experienced by HIV positive women*:*

Sherr et. al. (1991) explored the emotional trauma in women referred to a specialist HIV psychiatric service in London. They noted late attendance, the low rate at which outpatients availed themselves of the services provision of emotional support and high levels suicide attempts and rape. These resulted in a heavy emotional burden on the patients. Psychological crises were high. Four women out of an initial group of

33 female clients reported rapes. For 3 of them this was their only risk factor and probably accounted for their HIV infection.

Another HIV positive woman had been raped and suffered grave trauma and guilt at the thought of infecting her assailant. Two women had attempted suicide. Rape is always traumatic for women and poses enormous adjustment problems. Psychological trauma is associated with symptoms directly linked with rape (such as fears and phobias, obsessive thoughts sleep disturbances, nightmares, psychosexual barriers, fear of pregnancy and STDs) and with the aftermath of rape. There are feelings of guilt, self-blame, hopelessness and a loss of control after a rape incident. A rape that has resulted in HIV transmission is all the more difficult. Subsequent sexual experiences can never be resumed in the same way as they were prior to the attack. Where rape signifies HIV infection the woman has to cope with unprecedented emotional burden too. Some women report post-traumatic stress like symptoms when they constantly remember the events leading up to rape, wishfully questioning how they might have behaved in order to avoid the incident.

Incest and childhood sexual abuse are other potential traumatic situations in which HIV infection can occur. The very nature of HIV infection results in a concentration of infection among the poorest and most deprived groups and the female population. Mental health resources often take second place to medical resources.

***Anxiety among HIV positive women*:**

Women experience emotional trauma typified by anxiety and depression in a way similar to others with HIV or AIDS. Many of the physical symptoms of anxiety can be confused with AIDS related symptoms that may feed the cycle of anxiety. Fear of rejection often makes women reluctant to divulge their status to people who may well provide support. Women who lose their employment due to HIV infection or

associated illness may suddenly face traumas of livelihood, of providing for their dependent children, of maintaining housing and a standard of living and the heavy costs of health care.

Depression among HIV positive women:

Depressive symptoms lead to mild or severe behavioural manifestations such as social withdrawal, mood swings and isolation. These give rise to reactions where social support is alienated, relationships are strained and individuals become isolated from possible avenues of benefit. These situations may be more acute for women if they have limited social outlets. The advent of an HIV diagnosis can herald many triggers for depression. Women are faced with the possibility of a curtailed life span, of never having children or never seeing their children grow up. With AIDS many women have physical manifestations that may mar their self-image eg. severe weight loss, Kaposis Sarcoma lesions in visible places or hair loss associated with treatments. HIV infection may necessitate dramatic changes in their sexual behaviour. Some women may cease sexual intercourse or alter their feelings about sexual expression.

Valverde et.al (2007) conducted a study to examine the correlates of depression among HIV positive men and women. The results indicated that approximately one third of women reported more depressive symptoms than men. Correlates linked with depression were functional limitations, low self esteem, low social support, greater negative feeling regarding condom use and lower sense of empowerment.

Bereavement among HIV positive women:

With AIDS, bereavement is often multiple in nature. Bereavement is enhanced when the mode of bereavement is the same as the personal health care. A woman bereaved by the loss of a loved one to AIDS loses both her relationship and the person whom she relied for care when she was ill. If she has cared for her partner during the

terminal phase of illness, she may have fears about her own death or about abandonment. This issue is more complicated if there are children to consider. Due to the age distribution of HIV infection, such children tend to be young. Women are bereaved by losing a shared future with children and by the additional burden of knowingly leaving orphaned children. For some women with HIV infection associated with childlessness for which much grief may be experienced.

A study was conducted in the area of bereavement by Alita Damar (2011) with an aim to understand the coping mechanisms AIDS bereaved women used. The study found that each woman experienced at least three traumatic experiences. The most challenging experience was learning that they had contracted a disease which they regarded associated with prostitution. Secondly, the concerns about protecting their children were found all the more challenging. Specific counselling programmes for women affected by IDS are needed, but emphasis should first be placed on improving their well being and their perception of stigma.

Suicide among HIV positive women:

Sherr and Smith et.al (1998) note high levels of female suicide attempts. In one of the studies conducted by them there was no suicidal history prior to HIV diagnosis and hence suicide attempts were not seen as the behaviour of unbalanced individual but rather as a research of despair or crises. Suicidal risk is higher if an individual has clearly thought out plans rather than vague emotions, if they have limited social support and if there are triggering events, such as an HIV diagnosis. Studies in suicide and AIDS have shown an increased risk initially among women on HIV diagnosis and a risk at the end stages of illness.

Guilt among HIV positive women:

Another key emotion affecting the mental health of women with HIV infection is guilt. This may surround their own mode of infection, their feelings about possibly

infected loved ones such as partner or children, and their emotional trauma associated with their limited ability to provide care and attain a lifestyle that they may have aspired to. This may be further compounded by the problems of self-esteem that may be induced when HIV infection and allied opportunistic infections restrict the physical, career, relationship and social aspects of one's life. They may feel guilty about their past behaviour in an effort to understand their HIV infection, focusing especially on behaviour that is directly linked to possible infection, such as sexual behaviour, drug use, infidelity or they may see their infection as punishment.

Education level of Women:

The link between education of women and health has been documented quite clearly. The lack of educational and economic opportunities for young girls acts and encourages early partnership formation and early sexual activity and affects child mortality rates in their children. (World Bank,1993).Education strengthens women's ability to perform their vital role in creating healthy households. Demographic and health surveys in 25 developing countries have shown that even 1 to 3 years of maternal schooling reduces child mortality by about 15% and when mothers have 7 or more years of schooling child mortality risk are reduced nearly 75%. Education increases the chance that they will make good use of health services, increases their access to income, and enables them to make healthier choices. Improving the access of girls and women to formal education, not only helps to equalize the age of partnership formation which can reduce the risk of HIV but it also increases women's competitiveness in urban economies which could positively affect the unequal gender mix seen in many cities. A study by Over and Piot (1992) revealed a strong co-relation between female to male school enrolment ratios at the secondary school level and HIV prevalence in the general adult population. The results suggest that significant decrease in sero-prevelance could be achieved if the secondary school sex ratio could move steadily toward parity. Investing in women through improved

education is not simply a desirable end in itself, it is a key not only to reduce HIV transmission but also to higher productivity and growth for developing countries and economies in the long run.

3.15. WOMEN AND AIDS IN INDIA.

3.15.1. *Historical Position of Indian Women.*

The subordinate position of Indian women has its roots in historical tradition. Under the Harappan or Indus Valley Civilization women had been accorded equality with men and liberal attitude towards women in society were evident. The earliest reference of decline in women's status occurred with the arrival of the Aryans in India around 1750 B.C. Prior to this time, ancient India was ruled by the Dravidians-who were agriculturalists. Nomadic pastoralists, the Aryans had the basis of their social life, the patriarchal family-the oldest male member was the absolute head. It was during the development of the Hindu Aryan India that attitudes towards women began to decline. Role expectations, role status and inadequate support for Indian women cause them to be at greater risk for HIV infection.

3.15.2. *Women's health in India:*

Social and cultural determinants relating to women's position in society directly affect their ability to care for health. This is especially so in regard to HIV/AIDS. Women's dependency and their lower level of education limit the access to resources. Due to their subordinate role, middle, lower class and especially village women are sexually vulnerable. Women's social standing and the inequality between men and women directly affect their health interventions. This is clearly reflected in the low female life expectancy especially in northern India. The Indian sub-continent has the dubious distinction as being one of the few places in the world where females have lower life expectancy than males. Further more women are vulnerable to the risk of contracting AIDS than men. Basically women have a larger internal surface in their

reproductive tract which makes them more susceptible. Socio-cultural factors exacerbate women's risk. Low economic status and social inequality make it difficult for women to take preventive measures regarding safe sex. Also women's negotiating position with sexual partners is very much undermined by economic dependency.

Bangerner C and Marchand G (2000) studied HIV positive status of African and European women with an objective of comparing psychosocial and practical aspects of both. They used a semi structured interview schedule which assessed variables like Personal history, family relationships, preoccupation child learning and concern about HIV infection its prognosis. The study revealed significant differences between the psychological and psychosocial factors of African and European HIV positive women. The Important findings were based on the disclosure of HIV+ status to friends and family and more Europeans women disclosing to friends and fly, while the desire to have children was greater in African women. The differences emphasised in the study require a greater need to adopt medical and psychosocial care to gender and to the ethnic cultural background of the person.

Another study was undertaken by Kwalomba M (2002) to study the mental health of pregnant woman who were diagnosed as HIV positive in Lusaka, Zambia. The sample consisted of women who knew their HIV positive status prior to their pregnancy or came to know about it during the course of their pregnancy. Results revealed that majority of respondents i.e (85%) showed symptoms of major depressive episodes along with suicidal ideations. More than 50% women whose who were diagnosed positive status before pregnancy did not show severe depressive symptoms but showed anxiety about positive status of their babies.

With reference to disclosure followed by discrimination British investigators Jarman, Walse and DeLacy conducted study in (2005) and interviewed six women being HIV positive for the purpose of exploring how these women experienced their

intimate partner relationships. The central theme was the psychological protection which was an underlying tension for these women. The study revealed that the tension could be reduced if HIV positive women shared their sero status with their partners. The study highlights the fact that the exploration of issue of psychological protection may be helpful for women experiencing difficulties in relation to disclosure. It could be useful to consider the pros and cons of disclosure in terms of psychological protection especially in the context of partner relationships where the long term costs of non disclosure may outweigh the short term gains. Thus the study suggests the importance of offering support to individuals and couples in relation to helping them adjust to the impact of during HIV infection and help them find ways to frame the problem as a shared problem.

Epele Maria and Esther (2002) proposed that gender-inequality promotes directly or indirectly vulnerability to HIV as a consequence of a multidimensional violence (structural, symbolic and physical) experienced by injection drug-users (IDU). Given the female subordinated position stipulated by the street ideology, they have analysed how drug dependence afforded by precarious strategies of subsistence places IDU women under multiple dangers and threats. In this way setting unequal gender relations are a part of a complex system of transactions in the street economy and a way to reduce or increase the everyday violence. Facing multiple dangers and risks, some women adopt a subordinated position, some try to negotiate the conditions of the exchange and others resist the exploitation. Finally, everyday violence under conditions of gender inequality and security of resources imposes a logic defined by the challenge of survival under the threat of immediate dangers which transform HIV into secondary risk.

Campbell T and Kelly M (1995) examined the psychosocial factors associated with HIV transmission, focusing on the social factors that contribute to the high risk status of women in Zambia. It is suggested that women’s socio-economic status

beliefs about sexuality and lack of access to health education will continue significantly to worsen the AIDS crises in Zambia. Intervention strategies must consider the complex inter-relation of these factors for women.

Littlewood B (1994 in her paper argues that much of what is known about AIDS excludes women's distinctive experiences, which can be illuminated by a feminist perspective. In this paper the researcher has obtained data through interviews and informal group discussions with HIV positive Scottish women about their personal relationships, their experiences of health care and their hopes for future. Safe sex and disclosure of status pose particular problems for women attempting to negotiate responsible risk reduction behaviour in relationships marked by imbalances of power. Single sex support groups are an important source of solidarity for those who are often isolated and stigmatized by their HIV status.

The study conducted by Simoni J examining the trauma and coping mechanisms related to HIV/AIDS emphasised that recent trauma was co related to childhood abuse. The study stressed that better implications were required for better functioning of women. Coping strategies were also studied by Kathleen J. et al. In contrast to the study by Simoni J. this study stressed on childhood abuse which resulted into greater trauma, this study emphasised that loss of a near one is one of the factor of being HIV positive.

3.16. The Researcher's reflections on the reviewed literature:

The review of the past studies suggests that origin of an HIV positive person plays a vital role in obtaining the level of social support. The benefits of social support are particularly important for people with HIV/AIDS because of the concomitant stigma and social isolation accompanying the disease. As with other illnesses emotional support might be crucial in the lives of PLWHA. AIDS is characterized by interminent periods of sickness and debilitation. Those in the

advanced stages of the disease often experience serious opportunistic infections and cognitive impairment that can cause visual problems, ambulatory difficulties and dementia.

Further when faced with a life threatening illness individuals strive to find Meaning in their lives, gain a sense of control and restore their self-esteem. Significant others may play key role in these processes by offering emotional support, validating one's experiences and providing practical help and advice. Social support has been positively associated to psychosocial adjustment to HIV disease including positive coping styles. The stigma and fear associated with HIV/AIDS may impede support.

Certain studies conceptualize social support as a coping assistance. Studies show that higher levels of perceived social support and avoidance coping to less social support. Social support helps an individual to have a better psychological adjustment and acts as a buffer against stress. It is believed that when distress reaches a level that is unacceptable an individual tries to find social support. Social support can act adversely i.e negative social support in terms of insensitivity, disconnecting, forced optimism and blame.

The nature of the disease and its social construction produce similar challenges and issues for men and women, since it poses serious threats to physical and emotional well-being. However, as with most social phenomenon gender matters. Differences in social status, resources, roles and responsibilities produce distinctive experiences and needs. Similar to HIV positive men, women with HIV/AIDS men, women with HIV are faced with physiological effects of the virus, functional decline, demanding regimes, disclosure decisions, stigma and discrimination and financial insecurity. Fear of rejection and abandonment often curtails the women's social involvement. Women's domestic burdens also contribute to HIV related stressors

such as poverty, physical impairment and psychological distress. On the other hand, given the centrality of caring in women's lives, the inability to continue nurturing, due to sickness or other circumstances may negatively affect self-esteem and facilitate biographical disruption. Women's powerlessness in sexual relationships make disclosure of seropositivity to a partner particularly traumatic. This fact is emphasised in the study undertaken by Jarman et al. (2005) which reveals that disclosure tension could be reduced if HIV positive women shared their positive status with their partners. The gender inequality embedded in many cultures directly promotes HIV vulnerability. This fact is studied by Epele, Maria Esther et al. Psychological and psychosocial factors used as coping mechanisms differ from people to people. Studies have brought forward the fact that the coping strategies used by African and European women pertaining to their disclosure of HIV status are different. More European women disclosed their HIV positive status while greater number of African women desired to have children. Women who are diagnosed with HIV during pregnancy showed suicidal tendencies and were anxious about their child being HIV positive.

Rape has been considered as one of the leading causes of HIV infection amongst women. Rape not only has made many women HIV positive but also has led them to guilt and trauma. Post-traumatic stress disorder is another off shoot of rape resulted HIV infection. Followed by HIV infection women definitely suffer with anxiety, bereavement and grief. Research has shown that many women tend to commit suicide because of their HIV positive status. This is also because of being HIV they tend to lose the social support post HIV diagnosis. Suicidal ideations are more reported amongst women at the time of diagnosis and at a later stage.

Guilt is another emotion that has captured attention of the researchers. Studies point out that women develop a guilt behaviour which focuses on their sexual practices and infidelity. Stigma and discrimination are other areas where studies are undertaken and the results suggest that isolation is one type of punishment whereby

the PLWHAs can be punished. In response to this, it was often observed that PLWHAs don't furnish themselves with HIV/AIDS information. Studies conducted in African nations like Brazil and Botswana have brought forth the fact that stigma is deeply woven in places where ART is easily available. Further, due to the fear of stigma women in these regions do not feed their babies with formula which itself is a means of preventing mother to child transmission of HIV. Though women are infected by their husbands they are faced with greater stigmatizing attitudes than do their husbands. The study conducted on Haitian women by Marie Anne et.al reveals five major categories of long-term effects of AIDS stigmatization. The women face a strong rejection by the dominant society, effect on self esteem, effect on the relationship with the significant others and self doubt. In a country like India where women occupy a subordinate position studies show that sharing their HIV positive status with their husbands was more common rather than sharing with any other family member. Sharing of their HIV positive status led to divorce, separation and discrimination. Discrimination was more observed by PLWHA who were younger in age than their older counterparts.

Anxiety is a very common psychiatric problem prevalent amongst the PLWHA. This could be because PLWHA develop feelings of helplessness, loss and dependency. Research in this respect suggests that high levels of anxiety are responsible for quick progression of HIV. High prevalence of an anxiety, mood disorders, lifetime prevalence of depressive and substance disorders are observed in PLWHA. The study conducted by Brown et.al suggests a high level of sexual dysfunction. In connection to anxiety another important psychiatric problem that is studied is suicide. Suicide is considered to be deeply connected with depression. Studies have shown that there exists a deep connection between suicide, depression and emotional distress. The intensity of suicidal ideation is largely dependent on age. A noteworthy finding in one of the study was that though PLWHAs nurtured thoughts

of suicide, they actually did not say that they would like to kill themselves. Amazingly disclosure to friends about HIV positive status was a factor that contributed greatly to suicide ideations. Suicidal ideations were also due to the lower levels of psychological adaptation of HIV infection and severity of HIV infection.

In India suicidal tendency amongst PLWHAs was studied by Chandra Prabha et.al. It was observed that suicidal ideation was less due to the HIV positive status, but was greater due to presence of pain, lack of family support and alcohol abuse. The spouse's HIV positive status was a reason leading to suicidal ideation. To conclude it can be said that depressive symptoms, stigma, discrimination, poor social and family support, past history of suicidal behaviour, injecting drug use etc are leading causes of suicidal ideations.

Depression as stated earlier has its connections with HIV positive status, anxiety, helplessness, suicide, guilt and rejection. Studies have shown that women are more prone to depression after being diagnosed HIV positive as compared to men. The reason could be higher caregiver burden, negligence towards their own health, proneness to social stigma etc. Research points that depression level is high amongst PLWHAs in the initial stages of the infection and secondly depression is also observed due to AIDS related deaths. Depression when studied in co relation to stigma and discrimination showed that feelings of guilt, dirt and shame are an off shoot of depression. Interestingly stigma and discrimination are two factors which are directly or indirectly related to depression, anxiety etc. It is due to the stigmatizing attitudes and discrimination faced by PLWHAs in the society, feelings of rejection, helplessness, loss of friends take place. This further leads to psychological problems. These psychological problems call for urgent social reformation and need for proper intervention strategies.

Quality of Life is another dimension that has been studied in the present study. The review of the past studies under consideration has brought forward certain important and noteworthy fact which can lead us to understand the Quality of Life of PLWHAs' in a better way. Studies have contradicted a layman's assumption that people with HIV experience an impoverished lifestyle. On the contrary their Quality of Life may even be increased when people get seriously ill due to HIV infection. Quality of life is also affected by incidences of child abuse and physical abuse. For such individuals it is important to have greater social support and greater self care behaviour.

Studies conducted to study the Health Related Quality of Life (HRQOL) of PLWHA suggest that HRQOL should be optimized because with the introduction of Antiretroviral therapy (ART) HIV has become chronic with long term survival.

A study conducted to assess the QOL and psychosocial problems of HIV infected children, showed better QOL of HIV infected children. Thus we need to strive to maintain the overall QOL of HIV infected children. With regard to gender differences and QOL, it is observed that men experience an overall better QOL as compared to women. This can be considered as an important finding as we can target interventions which can help enhance QOL amongst women who are HIV positive.

Lastly studies have put forward certain important factors which to a very high degree are responsible for the diminishing QOL .Few factors which need a mention are being female, clinical stage of illness, separation and divorce and low CD4 counts.

In the Indian context many factors that supplement the burden of HIV infection are poverty, low education level, prostitution, polygamy, unemployment and lack of resources.

CHAPTER IV

RESULTS AND INTERPRETATION

The following chapter deals with the final tables of results and their interpretation. This chapter is divided in four sections. The first section deals with the preliminary information about the location of the four districts and subjects taken into consideration. There are in all seven tables in this section in which data is presented in a frequency distribution manner which shows us a summarized grouping of data being divided into exclusive classes.

Section two deals with the tables which give us information pertaining to the overall quality of life and its sub items like sex life, finance, medical care and guilt. In the same section tables 13 to 16 represent the overall level of the four dependent variables viz; anxiety, self esteem depression

and suicide ideation.

Section three deals with bivariate tables and their interpretation. Chi square is computed from these bivairate tables. They are so called because they display the scores of cases on two different variables at the same time. Bivariate tables are used to ascertain if there is a significant relationship between two variables.

The last section deals with tables representing the correlation between all the dependent variables like anxiety, depression, suicide ideation, self esteem and guilt.

4.1.FREQUENCY TABLES

Table .1.Locations

City wise Distribution of respondents	City	Frequency	Proportionate distribution in the population	Percent
	Ahmedabad	111	32.0	37.9
	Rajkot	55	17.0	18.8
	Surat	62	34.0	21.2
	Vadodara	65	17.0	22.2
	Total	293	100.0	100.0

Respondents distribution was earlier decided to be 32%, 17% 34% and 17% for Ahmedabad, Rajkot, Surat and Vadodara respectively. But due to technical reasons the percentage that is taken into consideration from is 37.9% for Ahmedabad, 18.8% for Rajkot, 21.2% for Surat and 22.2% for Vadodara. The total sample that has been derived is 293.

Table .2. Demographic Profile of Respondents

Age of respondents		**Frequency**	**Percent**
	10-19 Yrs.	13	4.4
	20-29 Yrs.	61	20.8
	30-39 Yrs.	129	44.0
	40-49 Yrs.	71	24.2
	>=50 Yrs.	19	6.5
	Total	293	100.0
Gender of respondents		**Frequency**	**Percent**
	Male	177	60.4
	Female	116	39.6
	Total	293	100.0
Religion of respondents		**Frequency**	**Percent**
	Hindu	254	86.7
	Muslim	31	10.6
	Christian	8	2.7
	Total	293	100.0
Marital status of respondents		**Frequency**	**Percent**
	Unmarried	10	3.4
	Married	279	95.2
	Widow	2	.7
	Divorce	1	.3
	Separated	1	.3
	Total	293	100.0

Locations (Table 1)

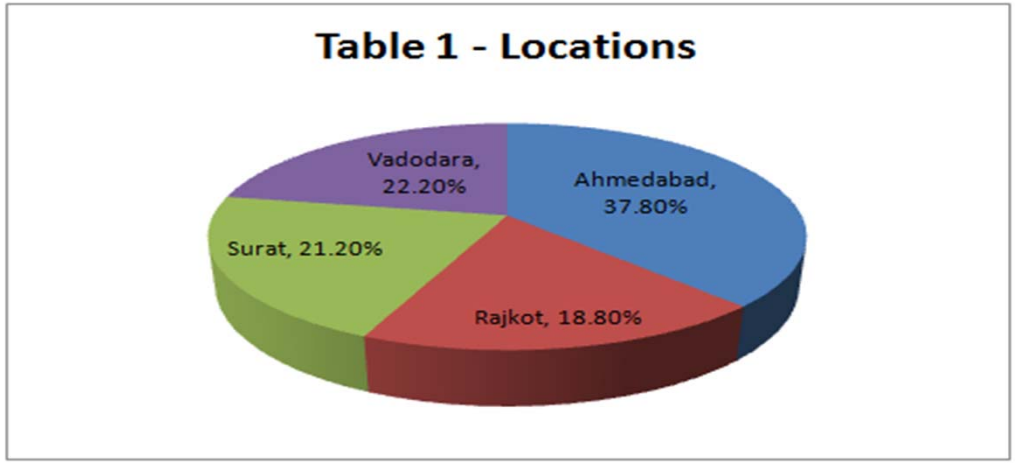


Table 1 - Locations	
City	%
Ahmedabad	37.80%
Rajkot	18.80%
Surat	21.20%
Vadodara	22.20%
	100.00%

Educational qualification of respondents		**Frequency**	**Percent**
	Illiterate	40	13.7
	1-7 std.	80	27.3
	8-9 std.	46	15.7
	10th pass	76	25.9
	11-12 std.	36	12.3
	>12th std.	15	5.1
	Total	293	100.0
Occupation of the respondent		**Frequency**	**Percent**
	Business	12	4.1
	Service	39	13.3
	Skilled Laborer	20	6.8
	Farming	17	5.8
	Unemployed	6	2.0
	Self Employed	13	4.4
	House wife	116	39.6
	Driver	32	10.9
	Other	38	13.0
	Total	293	100.0
Occupation of spouse of respondents		**Frequency**	**Percent**
	Business	9	3.1
	Service	43	14.7
	Skilled laborer	10	3.4
	Farming	17	5.8
	Unemployed	4	1.4
	Self Employed	16	5.5
	House wife	130	44.4
	Domestic Maid	33	11.3
	Other	31	10.6
	Total	293	100.0
Living arrangements of respondents	**Living with whom?**	**Frequency**	**Percent**
	With family	263	89.8
	Alone	27	9.2
	Paying guest	3	1.0
	Total	293	100.0
Family size of the respondents		**Frequency**	**Percent**
	1-4 members	173	59.0
	5-7 members	105	35.8
	>=8 members	15	5.1
	Total	293	100.0
Monthly family income of respondents		**Frequency**	**Percent**
	<=Rs.2,000	59	20.1
	Rs.2,001-5,000	151	51.5
	Rs.5,001-10,000	55	18.8
	>=Rs.10,001	16	5.5
	No response	12	4.1
	Total	293	100.0

Respondent's monthly income		**Frequency**	**Percent**
	<=Rs.2,000	58	19.8
	Rs.2,001-5,000	56	19.1
	Rs.5,001-10,000	26	8.9
	>=Rs.10,001	6	2.0
	No response	22	7.5
	Not applicable	125	42.7
	Total	293	100.0
Main person responsible as a bread earner in the family		**Frequency**	**Percent**
	Self	190	64.8
	Other	95	32.4
	No response	8	2.7
	Total	293	100.0
Habitat of respondents		**Frequency**	**Percent**
	Urban	163	55.6
	Rural	130	44.4
	Total	293	100.0
Type of family of respondents		**Frequency**	**Percent**
	Nuclear	172	58.7
	Joint	121	41.3
	Total	293	100.0

Out of 293 respondent majority i.e.129 respondents belonged to the age group of 30 to 39 years. Followed by this were 71 respondents i.e. 24.2% belonging to 42 to 49 years. Sixty one respondents i.e. 20.8% belonged to 20 to29 years. This was followed by 19 respondents i.e., 6.5% and 13 respondents i.e. 4.4% belonged to the age group of less than 50 years and 10 to 20 years respectively.

Out of total sample of 293 respondents 177 i.e. 64.4% are males and 116 i.e., 39.6% are females which shows that more males consented to give responses.

Out of 293 respondent majority i.e. 254 (86.7%) were Hindus followed by Muslims i.e. 31 respondents (10.6%), followed by 8 Christian respondents i.e. 2.7% .

Pertaining to the marital status of the respondents, majority i.e., 279 i.e.95.2% were married, 10 were un-married i.e., 3.4% and 0.7%, 0.3% and 0.3% were widowed, divorced and separated respectively.

The educational qualification of the respondents was as follows. Majority of them i.e. 80 respondents i.e. 27.3% were educated at least till 7^{th} grade. This was followed by 76 respondents i.e. 25.9% who had completed their 10^{th} grade, 46

respondents i.e. nearly 16% were educated above 7th grade but less than 10th grade, 40 respondents i.e. 13.7% were illiterate. This was followed by 36 respondents i.e. 12.3% were educated above 10th grade, only 15 respondents i.e. 5.1% were educated above 12th grade.

With respect to occupation of the respondents 116, were housewives' i.e. 40.6% followed by 39 respondents i.e. 13.3% belonging to the service class. Thirty eight respondents i.e., 13% belonged to other occupations, 32 respondents i.e. almost 11% were drivers followed by 20 respondents i.e. 6.8% being skilled laborers followed by the farming category comprising of 17 respondents i.e. only 5.8%. Thirteen of them i.e. 4% were self-employed 12 respondents i.e. 4% had business of their own and only 3 respondents were un-employed.

Out of total respondents majority i.e. 130 respondents' spouses' were housewives. Forty three of them belonged to the service sector. The remaining belonged to other categories such as skilled laborers, domestic maids, farmers and businessmen. Only 4 respondent's spouses' were unemployed.

More than half the respondents i.e. 263 (90%) lived with their family. Twenty seven respondents (9%) lived alone and only 3 respondents lived as paying guest.

Nearly 59% i.e. 173 respondents lived in a small family, less than 35.8% of them i.e. 105 respondents lived in a large family and only 5.1% of them i.e. 15 respondents lived in an extended family.

Majority of respondents i.e., 210 had a family income ranging from rupees 2000 to 5000 per month. This was followed by 55 respondents i.e., 19% having a family income of rupees 5000 to 10000 .Sixteen respondents family monthly income was greater than rupees 10000. Twelve respondents did not respond to this question.

Monthly income of the respondent alone was also taken into account. Fifty eight respondents i.e. almost 20% earned less than or equal to rupees. 2000 per month This was followed by 56 respondents earning rupees. 2000 to 5000 per month. Less

than 30 respondents earned between rupees. 5001 to10000 per month, only 6 respondents earned more than rupees. 10000 per month. Twenty two respondents did not respond to this question, 42.7% respondents were not earning hence they had no monthly income.

With reference to the main person who is responsible financially within the 190 respondents i.e. 65% were responsible themselves. Ninety five of them i.e. less than 50% were dependent on others for their financial support and 8 of them did not respond on this question.

With respect to the habitat of respondents nearly 56% i.e. 163 respondents belonged to urban society and 130 respondents belonged to the rural society.

Almost 60% i.e. 172 respondents lived in nuclear family followed by only 121 (41.3%) of them living in a joint family.

To summarize, majority of respondents are young less than 40 years, male, married, living in nuclear families and are bread earners with a monthly income of less than 10,000. Educationally most of them are matriculate or less than that and almost 40% respondents who are HIV positive are housewives. A relatively higher percentage belonged to urban areas.

Table .3. Source of referral

Visit to the hospital		**Frequency**	**Percent**
	Referred	260	88.7
	On their own	33	11.3
	Total	293	100.0
Sources of referral		**Frequency**	**Percent**
	Doctor	187	63.8
	NGO	50	17.1
	Husband	4	1.4
	Family	6	2.0
	Relatives	3	1.0
	Friend	5	1.7
	Other	5	1.7
	NA	33	11.3
	Total	293	100.0

It was observed that above ¾ of the total respondents i.e. 260 respondents (88.7%) were referred to the hospital while only 33 respondents came to the hospital on their own.

A major proportion of the sample i.e. 187 respondents (64%) were referred by a doctor followed by 50 respondent i.e. only 17% were referred by NGOs', other sources of referral included husband, family, relatives and friends. As indicated in the above table 33 respondents visited the hospital on their own.

Table .4. History of development of HIV Status

Medical / Physical complaints presented by respondents	**Medical symptoms history**	**Frequency**	**Percent**
	Yes	272	92.8
	No	21	7.2
	Total	293	100.0
If yes, complaints N-293		**Frequency**	**Percent**
	Continuous fever	105	57.0
	Weight loss	73	2.0
	Cough	50	2.0
	Diarrhea	56	4.1
	Skin problems	32	13.3
	Any Other	15	1.0
	Not applicable	21	28.0
	Multiple response		
Past medical history of respondents N-293		**Frequency**	**Percent**
	Sexually transmitted diseases	39	13.3
	Tuberculosis	98	33.4
	Hypertension	7	2.4
	Diabetes	28	9.6
	Psychiatric illness	11	3.8
	Opportunistic infection	35	11.9
	Any Other	16	5.5
	No past history	45	15.4
	No response	26	8.9
	Multiple response		
Type of addiction in respondents		**Frequency**	**Percent**
	Alcohol	4	1.4
	Bidi/Cigarette	3	1.0
	Padiki/Tobacco	7	2.4
	No response	20	6.8
	Not applicable	262	89.4
	Total	293	100.0
Duration of HIV positive status of respondents		**Frequency**	**Percent**
	<=1 Yr.	143	48.8
	1-2 Yrs.	76	25.9
	2-3 Yrs.	22	7.5
	3-4 Yrs.	16	5.5
	4-5 Yrs.	11	3.8
	>=5 Yrs.	25	8.5
	Total	293	100.0

HIV status of respondents spouse		**Frequency**	**Percent**
	HIV positive	45	15.4
	HIV negative	104	35.5
	Don't know	135	46.1
	Not applicable	9	3.1
	Total	293	100.0
Information about blood transfusion		**Frequency**	**Percent**
	Yes	82	28.0
	No	203	69.3
	No response	8	2.7
	Total	293	100.0
Time of blood transfusion		**Frequency**	**Percent**
	<=6 months	2	.6
	7-24 months	10	3.4
	>=35 months	70	23.9
	Not applicable	211	72.1
	Total	293	100.0
Blood testing before transfusion	**Blood tested for HIV**	**Frequency**	**Percent**
	Yes	50	17.1
	No	14	4.8
	Don't know	18	6.1
	Not applicable	211	72.0
	Total	293	100.0

Out of 293 respondents medical symptoms history was observed in 272 respondents (93%). It was observed that respondents faced symptoms like continuous fever, weight loss, cough and diarrhea. Continuous fever was a prominent symptom which was observed in 105 respondents (57%), 73 of them complained of weight loss. This was followed by respondents suffering from diarrhea. i.e. 56 respondents. Fifty respondents complained of cough and 32 respondents had skin problems, 21 respondents did not respond and 15 of them had other symptoms.

Out of 293 respondents past history of other disease was observed in 222 respondents. Thirty nine respondents suffered from STD and 98 from tuberculosis. Eleven had psychiatric illness. 45 respondents did not have any past history. Researches have revealed that there is association between HIV/AIDS and TB, STD and opportunistic infection.

Four respondents were addicted to alcohol, 3 to bidi and cigarette and 2 to padiki and tobacco.

Out of 293 respondents majority of them i.e. 143 respondents were HIV positive since more than 1 year this was followed by 76 respondents i.e, (26%) being HIV positive for nearly 2 years. 25 respondents were HIV positive for nearly 5 year, 22 respondents i.e. (7.5%) were HIV positive for 3 years. 52 (17.8%) respondents are HIV positive for more than 3 years.

With regards to HIV status of the spouse, 135 respondents did not know the status. One hundred and four respondents' spouses' were HIV negative and only 45 said the spouses were HIV positive.

With regards to receiving blood in the past 203 respondents did not receive blood while, 82 respondents did receive blood.

Majority of the respondents i.e.24% had received blood just before 35 months, 10 respondents had received blood somewhere between 7 to 24 months only 2 respondents received blood before 6 months.

Out of 82 respondents who have received blood, 50 respondents said that the blood was tested for HIV. Eighteen respondents did not know and14 said that the blood was not tested for HIV.

To summarize 93% patients have been experiencing some or the other physical complaints which are common. A small percentage had blood transfusion, which indicates that most of the respondents have acquired this infection through sexual transmission. Surprisingly 46% spouse's status is not known though it is desirable to have test done to prevent and control HIV infection.

Table.5. Sexual History of Respondents

History of unprotected premarital/extramarital sex		**Frequency**	**Percent**
	Yes	106	36.2
	No	143	48.8
	No response	44	15.0
	Total	293	100.0
Sexual history with the same partner		**Frequency**	**Percent**
	Yes	140	47.8
	No	131	44.7
	No response	22	7.5
	Total	293	100.0
No of sexual partners of respondents		**Frequency**	**Percent**
	1 person	140	47.8
	2 persons	100	34.1
	3 persons	31	10.6
	Not applicable	22	7.5
	Total	293	100.0
History of anal sex of respondents		**Frequency**	**Percent**
	Yes	73	24.9
	No	102	34.8
	No response	118	40.3
	Total	293	100.0
Frequency of anal sex		**Frequency**	**Percent**
	Once	33	11.3
	Twice	36	12.3
	Thrice	4	1.4
	Not applicable	220	75.1
	Total	293	100.0
History of unprotected sex with commercial sex worker		**Frequency**	**Percent**
	Yes	52	17.7
	No	156	53.2
	No response	85	29.0
	Total	293	100.0
No. of times sexual relation with commercial sex workers by respondent	**If yes then no of times within a week**	**Frequency**	**Percent**
	Once	6	2.0
	Twice	15	5.1
	Thrice	3	1.0
	More than 3 times	5	1.7
	No response	23	7.8
	Not applicable	240	81.9
	Total	293	100.0
Sexual relations after HIV positive status by respondents		**Frequency**	**Percent**
	Yes	190	64.8
	No	54	18.4
	No response	49	16.7
	Total	293	100.0

Person with whom respondents had sex after HIV positive status	**Persons**	**Frequency**	**Percent**
	Spouse	143	48.8
	Sex worker	15	5.1
	Any other	26	8.9
	No response	6	2.0
	Not applicable	103	35.2
	Total	293	100.0
Use of contraceptives by respondents	**Use of contraception after HIV positive status**	**Frequency**	**Percent**
	Yes	136	46.4
	No	109	37.2
	No response	48	16.4
	Total	293	100.0
Type of contraceptive used by respondents		**Frequency**	**Percent**
	Condom	58	19.8
	IUD	3	1.0
	No response	75	25.6
	Not applicable	157	53.6
	Total	293	100.0
Homosexual relation by the respondent		**Frequency**	**Percent**
	Yes	14	4.8
	No	225	76.8
	No response	54	18.4
	Total	293	100.0
Use of injectable medicines by respondents		**Frequency**	**Percent**
	Yes	29	9.9
	No	180	61.4
	No response	84	28.7
	Total	293	100.0
Age at which injectable medicines were used for the first time by respondents	**Years**	**Frequency**	**Percent**
	20	4	1.4
	25	1	.3
	29	1	.3
	37	1	.3
	No response	22	7.5
	Not applicable	264	90.1
	Total	293	100.0

Majority of the respondents i.e. 143 (49%) said they did not have any history of unprotected sex, 106 respondents i.e. 36% only said they did have unprotected sex in the past. Forty four respondents did not respond.

1One hundred and forty respondents i.e. 48% said they did have sex with same partner continuously, 131 respondents i.e. 45% refused to have sex with the same partner. Twenty two respondents did not respond.

Out of 131 respondents who confessed sexual relations with more than one partner nearly hundred had with two sexual partners and 31 had 3 partners.

Seventy three respondents i.e. 25% agreed to have anal intercourse, 102 respondents refused to have anal intercourse while majority i.e.118 (40.3%) refused to have anal intercourse.

With reference to the frequency of anal intercourse 36 respondents i.e. 12.3% had twice, 33 respondents had it once while only 4 respondents had thrice.

Out of 293 respondents majority of the respondents i.e. 156 (53%) did not have unprotected sex with a sex worker, 52 of them agreed to have sexual relation with a commercial sex worker and 85 respondents did not respond.

Fifteen respondents had unprotected sex twice a week, 6 of them had once a week and only a few had it four to five times a week. Only 1 respondent had unprotected sex eight times a week. Twenty three respondents did not respond to this question.

Majority of respondents i.e., 190 almost 68% had sexual relations even after being HIV positive. Fifty four respondents did not have sexual relation after being diagnosed as HIV positive. Forty nine respondents did not respond to this question.

One hundred and forty three respondents i.e. 49% had sexual relations with their spouse, 26 respondents had sexual relations with someone else. This was followed by 15 respondents who had sexual relations with a commercial sex worker. Six respondents did not respond. These who continued to have sex with spouse / others / commercial sex worker, 7 of them had relation with them more than once.

One hundred and thirty six respondents agreed to use contraception after being HIV positive. 109 did not use any contraceptive measure after being HIV positive, 48 respondents did not respond to this question. Unprotected sex was practiced by 37.2% respondents.

Fifty eight respondents i.e. 20% used a condom, 3 respondents i.e. 1 % used IUD. Majority of the respondents did not respond to the question.

Majority of the respondents 225 i.e. 77% did not have sexual relation with a person belonging to their own sex. Fifty four respondents did not respond to this question. Only 14 respondents agreed to be homosexual even after being detected as HIV positive.

Majority of the respondents i.e. 108 (61.4%) did not use injectable medicines only 29 respondents agreed to have used injectable medicines. Eighty four respondents i.e. almost 29% refused to answer.

Out of 29 respondents who used injectable medicines, 22 did not mention the age at which they used it for the first time, 4 of them used it when they were 20 years of age and 3 of them used it when they were 25, 29 and 37 years of age respectively. The frequency of injectable drugs was very less hardly once or twice.

An overview of the above mentioned data suggests need for more counseling and regular follow-up as only 49% are observing safe sex practices and 45% are still having sex with different partners and only 19.8% are using contraceptives especially condom. Sex with commercial sex workers and anal sex is also reported by respondents.

Table .6. Stigma and Disclosure

Stigma faced after disclosure of HIV status by respondents	**Stigma faced at which of the following level**	**Frequency**	**Percent**
	Family	142	48.5
	Society	67	22.9
	At your job place	26	8.9
	Hospital	21	7.2
	HIV status not disclosed to any one	54	18.4
	Any Other	19	6.5
	No response	20	6.8
	Multiple Response	349	
HIV positive status of family members of respondents	**Any of the family member was HIV positive?**	**Frequency**	**Percent**
	Yes	63	21.5
	No	126	43.0
	No response	104	35.5
	Total	293	100.0
Relationship of respondents with the family who suffered from AIDS	**Relationship with respondents**	**Frequency**	**Percent**
	Sibling	2	.7
	Child	5	1.7
	Spouse and child	5	1.7
	Parents	3	1.0
	spouse	32	10.9
	No response	9	3.1
	Not applicable	230	78.5
	Total	293	100.0
Disclosure of HIV status by respondents		**Frequency**	**Percent**
	Yes	70	23.9
	No	129	44.0
	NR	94	32.1
	Total	293	100.0
Person with whom HIV status was shared by the respondents		**Frequency**	**Percent**
	Treating Doctor	3	1.0
	Family	4	1.4
	Spouse	3	1.0
	Other	1	.3
	No response	59	20.1
	Not applicable	223	76.1
	Total	293	100.0

Spouse's knowledge about respondents HIV status		**Frequency**	**Percent**
	Yes	118	40.3
	No	150	51.2
	Don't know	19	6.5
	Not applicable	6	2.0
	Total	293	100.0
Reaction of spouse towards HIV status	**Reaction of spouse towards HIV status**	**Frequency**	**Percent**
	Caring	40	13.7
	Change in behavior	30	10.2
	Uncaring	13	4.4
	Neglecting	5	1.7
	Other	5	1.7
	No response	25	8.5
	Not applicable	175	59.7
	Total	294	
Family members knowledge about HIV status of respondent		**Frequency**	**Percent**
	Yes	188	64.2
	No	88	30.0
	No response	17	5.8
	Total	293	100.0
Reactions of family members towards respondents		**Frequency**	**Percent**
	Caring	157	53.6
	Change in behavior	24	8.2
	Uncaring	4	1.4
	Neglecting	3	1.0
	Not applicable	105	35.8
	Total	293	
Attending of social meetings by the respondent after HIV disclosure		**Frequency**	**Percent**
	Yes	166	56.7
	No	111	37.9
	No response	16	5.5
	Total	293	100.0
Respondent's job prior to disclosure of HIV status	**Type of job before your HIV status known**	**Frequency**	**Percent**
	No response	247	84.3
	Business	2	.7
	Driver	4	1.4
	Farming	2	.7
	House Wife	5	1.6
	Service	20	6.7
	Self-Employed	1	.3
	Other	12	4.0
	Total	293	100.0

Reactions of senior colleague, at work place if HIV status disclosed	**Reactions**	**Frequency**	**Percent**
	Helpful	51	17.4
	Did not come close	12	4.1
	Dismissed from job	3	1.0
	Not applicable	227	77.5
	Total	293	100.0
Treatment given by Doctors & other para medical staff after knowing HIV status of respondents		**Frequency**	**Percent**
	Neglected	50	17.1
	Attended properly	221	75.4
	No response	22	7.5
	Total	293	100.0

With reference to stigma experienced by HIV positive individuals' majority of them 142 respondents experienced a problem at the family level, this was followed by those experiencing a problem at the society level. Almost 67 respondents faced a problem in society, (23%) 54 respondents did not disclose their HIV status and hence did not experience a problem at any level. Twenty six respondents i.e., 8.9% faced a problem at their job level and 21 respondents faced a problem in the hospital. Twenty respondents did not respond while 19 respondents faced a problem at some other place.

One hundred and twenty six respondents did not have any family member suffering from HIV, 63 respondents agreed to have family members who suffered with HIV/AIDS. One hundred and four respondents did not respond to this question.

Out of 63 respondents who agreed to have family members who lived with HIV/AIDS majority i.e. 32 (11%) of them said their spouse had HIV. This was followed by 10 members who had their spouse and child both living with HIV. Nine members did not respond to this question.

When asked if the respondents had disclosed their HIV positive status to someone, 129 (44%) said they did not disclose their HIV positive to anyone. Ninety four members did not respond to this question and only 70 respondents agreed to have disclosed their being HIV positive to someone.

Majority of respondents i.e., 59 respondents did not mention as with whom they shared their HIV positive status. Only a few of them shared their positive status with family, spouse, treating doctor or with anyone else.

Surprisingly out of 293, 118 (40.3%) respondents said their positive status was known to their spouse. 150 respondents said their spouse did not know about HIV positive status.

Forty respondents reported that their spouse had developed a caring attitude towards them. 30 respondents reported that their spouse's behavior had changed. 25 did not respond to this question. Rest of them reported that their spouses behavior was uncaring, neglecting and was different.

Majority of the respondents i.e. 188 (64.2%) said that their family members had known about their HIV positive status, 88 respondents said their family members did not know about their HIV positive status, 17 respondents did not respond to this question.

One hundred and fifty seven respondents said their family members had a caring attitude towards them. Twenty four of them mentioned a change in their family member's behavior. Only 7 respondents said their family member's attitude was changed and they were neglected.

Maximum respondents i.e. 166 of them agreed to have attended social functions even after their HIV positive status disclosure. Quite a good number of them refused to have attended a social function after their HIV positive status disclosure. Sixteen respondents did not respond. Reasons for not attending were given by only 55 respondents. Only 2 felt guilty while 11 said that they have no time and 42 respondents said that was not required.

Surprisingly out of 293, 247 respondents i.e. 84% did not respond to the question of disclosure to their senior colleague. Twenty respondents belonged to the service class. Only 13 respondents were either driver, farmers or self-employed before being HIV

positive. Twelve of them did not belong to any of these categories. Only 8 respondents admitted that their job got changed and the reason was their HIV positive status and they themselves felt very weak.

Out of 66 respondents whose seniors had known their HIV positive status 51 (17%) said the seniors were helpful to them. Three of them were dismissed form their job while 12 reported that they were kept at a distance.

Maximum respondents i.e. 221 (75%) said they were not neglected by any doctor or any staff member due to their HIV positive status. Only 50 respondents said they were neglected.

Though researches indicate and general observations reveal that HIV positive status of patients may bring issues of disclosure and which may result in being stigmatized. Data in this study has given a different picture i.e 64% respondents have disclosed their status and a large majority found family members to be caring, while their own spouses reacted differently, only 40 spouses were caring out of 118 who knew their status. Stigma is faced by respondents at all levels but more at family level contrary to some observations, disclosure and other paramedical staff attend these patients properly as reported by 75.4.percent.

Table. 7. Knowledge about HIV / AIDS

Source of information about HIV / AIDS to the respondents		**Frequency**	**Percent**
	TV	163	55.6
	Radio	73	24.9
	Newspaper	29	9.9
	Health worker	129	44.0
	Other	22	7.5
	Multiple response		
Awareness about the difference between HIV and AIDS		**Frequency**	**Percent**
	Know the difference.	200	68.3
	Do not know	92	31.4
	No response	1	.3
	Total	293	100.0
How does HIV infection weaken a person?	**How HIV weakens a person?**	**Frequency**	**Percent**
	Reduces immunity	234	79.9
	Other	15	5.1
	Do not Know	44	15.0
	Total	293	100.0
Where should an HIV infected person be kept?		**Frequency**	**Percent**
	At Home	226	77.1
	Isolated	13	4.4
	Should be driven out	5	1.7
	Do not Know	36	12.3
	Hospital	14	4.8
	Other	3	1.0
	Multiple response		
How can HIV infection spread?		**Frequency**	**Percent**
	Sex	262	89.4
	Blood	181	67.8
	Needle	144	49.1
	Mother to child	168	57.3
	Touch	5	1.7
	Eating from same utensil	1	0.3
	No response	21	7.2
	Multiple Response		
Can we prevent the spread of HIV?		**Frequency**	**Percent**
	Yes	18	6.1
	No	3	1.0
	No response	272	92.8
	Total	293	100.0

Can we cure AIDS?		**Frequency**	**Percent**
	Yes	172	58.7
	No	79	27.0
	No response	42	14.3
	Total	293	100.0
Knowledge about cure of AIDS?		**Frequency**	**Percent**
	A.R.V.	167	57.0
	Ayurvedic medicine	6	2.0
	Homeopathic medicine	6	2.0
	Yoga	12	4.1
	Other	39	12.3
	Do not know	3	1.0
	Not applicable	82	28.0
	Multiple Response		

When asked as to how did the respondents derive knowledge about HIV media was noted to have a very prominent role i.e. 236 respondents said it was through television and radio they had known about HIV. This was followed by the role of the health worker One hundred and twenty nine respondents said they had known about HIV through a health worker. Others derived knowledge through newspaper and other sources.

Majority of the respondents had known the difference between HIV and AIDS. The significant number was 200 i.e.68%. This was followed by 92 of them who did not know the difference between HIV and AIDS. One respondent did not respond to this question.

To the above question majority of them i.e. 234 knew how HIV reduces immunity and thereby weakens the body of a person. Forty four of them i.e. 15% did not know, while 15 of them said they were unaware as to how HIV can weaken a person.

A significant number of respondents i.e. 226 (77%) said an HIV patient should be kept at home. This was followed by those who did not know where an HIV positive patient should be kept (36 respondents, 12%). Other respondents mentioned

that either HIV positive respondents should be isolated, thrown out, hospitalized or at any other place.

With reference to the spread of HIV, majority of the respondents i.e., 262 i.e (89.4) said it spreads through a sexual relation. This was followed by those who said it was spread by blood i.e., 181 respondents (67.8%), 144 respondents stated it was due to using same needle (49.1%), 168 respondents knew it could pass on form the mother to child i.e., (57.3%). Twenty one respondents said they did not know the mode of its spread only 6 respondents mentioned that it was either due to the touch or due to eating in the same vessel.

This is an important finding as majority of the respondents knew as to what were different modes of HIV transmission.

Two hundred and seventy two i.e. (92.8%) did not respond to the question of HIV/AIDS can be prevented. Eighteen of them said they could prevent the spread of HIV, while only 3 of them said HIV could not be prevented.

When asked if AIDS could be cured 172 (59%) agreed that AIDS can be cured. Seventy nine i.e., 27% of the respondents refused that AIDS can be cured. Forty two respondents did not respond to this question.

To question, majority of the respondents i.e., 167 (57%) said Antiretroviral therapy was the cure of AIDS. Thirty Nine of them (12.3%) did not know as to how AIDS can be cured. This was followed by responses like Ayurvedic medicine, Homeopathic medicine, yoga and other remedies.

To summarize, there is greater awareness among respondents about HIV/AIDS and its mode of transmission. They understand the difference between HIV and AIDS and also its implications on the body but very few are aware that it can be prevented. So is true about its cure. More efforts are needed for prevention and control of this infection.

Section II

4.2.Quality of life of Respondents

Following tables present data on the quality of life of respondents. WHOQOL (World Health Organization Quality of Life) tool was administrated. Sex life, finance, guilt and medical care are the sub items covered in this tool and over all quality of life level as perceived by respondents is presented in these tables.

Frequency Tables

Table .8.

SexLife			
		Frequency	Percent
Valid	Dissatisfied	19	6.5
	Neither satisfied nor dissatisfied	214	73.0
	Satisfied	60	20.5
	Total	293	100.0

Table .9.

Finance			
		Frequency	Percent
Valid	A little	22	7.5
	A moderate amount	147	50.2
	Very much	124	42.3
	Total	293	100.0

Sex Life (Table 8)

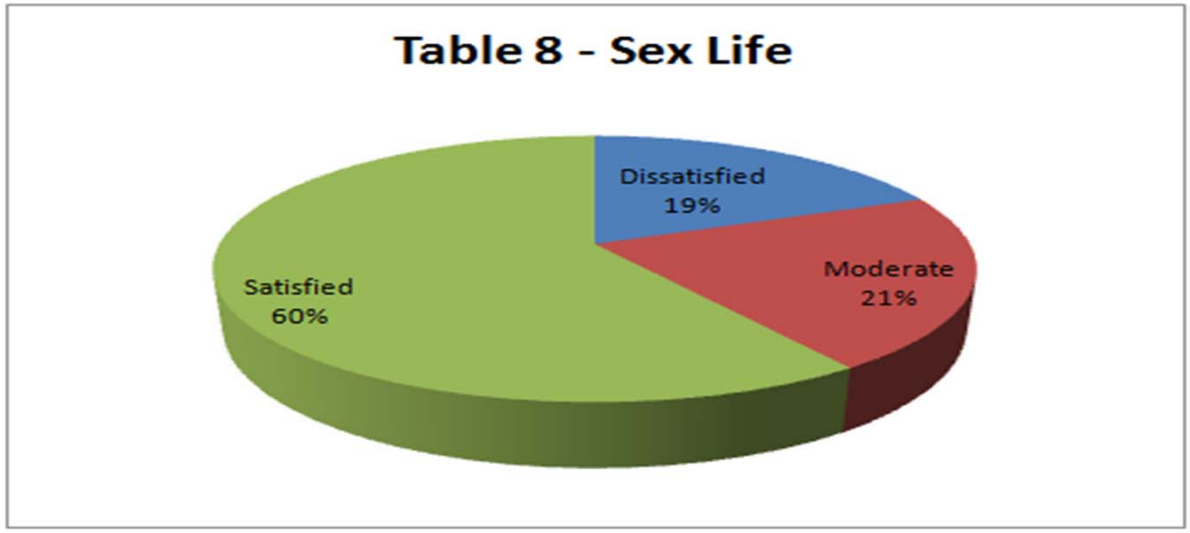


Table 8 - Sex Life	
Sex Life	**%**
Dissatisfied	6.50%
Moderate	7.30%
Satisfied	20.50%

Table 10.

Guilt			
		Frequency	Percent
Valid	A little	40	13.7
	A moderate amount	82	28.0
	Very much	171	58.4
	Total	293	100.0

Table.11.

Medical Care			
		Frequency	Percent
Valid	A little	1	.3
	A moderate amount	5	1.7
	Very much	287	98.0
	Total	293	100.0

Table 12.

Quality of Life			
		Frequency	Percent
Valid	A little	68	23.2
	A moderate amount	218	74.4
	Very much	7	2.4
	Total	293	100.0

The overall quality of life score revealed that only 2.4 percent have a high score on quality of life, while the rest were either in moderate or low categories. Looking in the sub-items of quality of life i.e sex life only 20% are satisfied, only

7.5% respondents worry very little about their financial condition. While remaining 83% have moderate to high. level of anxiety about financial matters. With regards to guilt 58.4% respondents are at the higher score and 28% are at the moderate level. With reference to medical care almost all worried about their health conditions and medical care.

Table.13. Suicide Ideation in respondents

Suicide Ideation			
		Frequency	Percent
Valid	Very rarely	140	47.8
	Some of the time	112	38.2
	A good part of the time	41	14.0
	Total	293	100.0

Almost 52 percent of the respondents had suicide ideation some of the time or a good part of the time which also calls for suitable interventions. The study done at NIMHANS, Bangalore in 1996 by Chandraprabha also showed that in PLWHA who were recently diagnosed as HIV positive, less than 14% had serious suicide ideation.

Table.14.

Anxiety			
		Frequency	Percent
Valid	Mild Anxiety	3	1.0
	Moderate anxiety	86	29.4
	Severe anxiety	204	69.6
	Total	293	100.0

Suicide Ideation (Table 13)

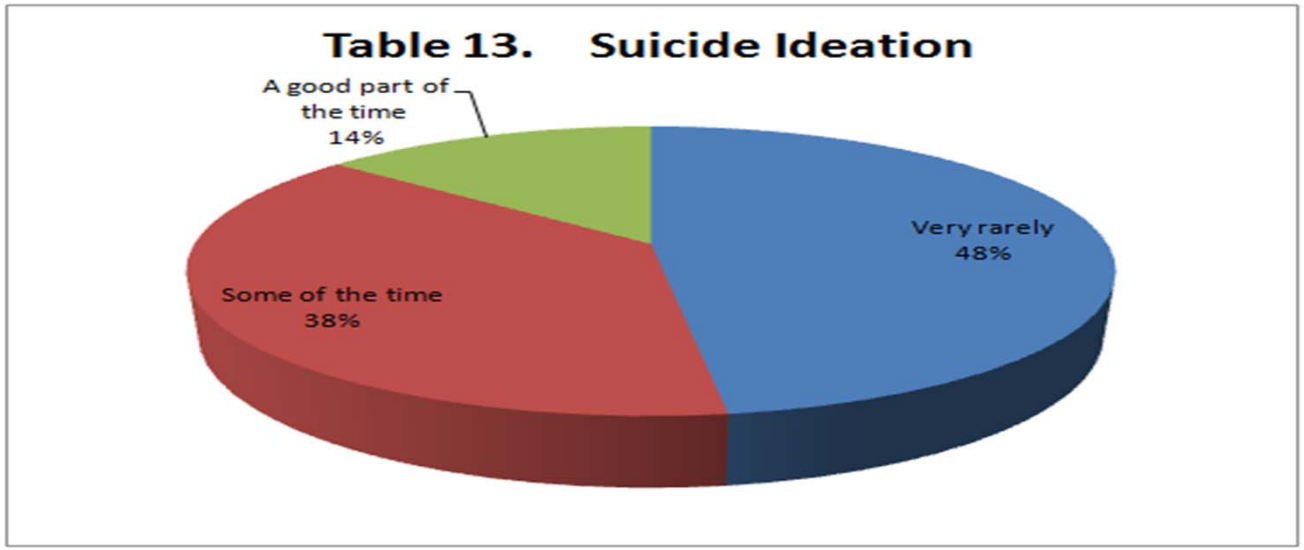


Table 13. Suicide Ideation	
Very rarely	47.80%
Some of the time	38.20%
A good part of the time	14%
	100.00%

Anxiety (Table 14)

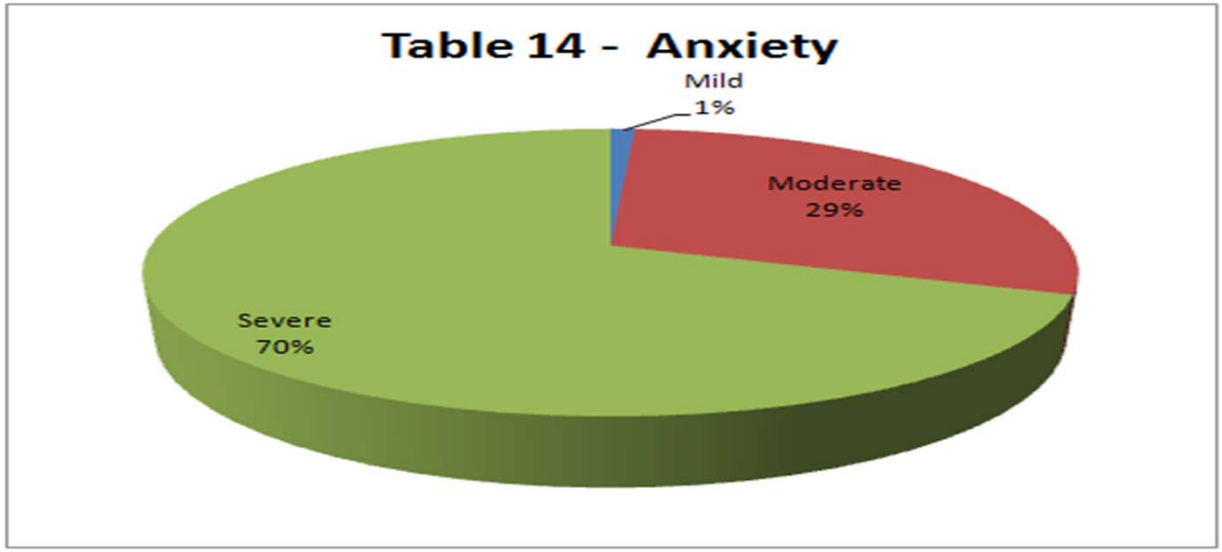


Table 14 - Anxiety	
Mild	1%
Moderate	29.40%
Severe	69.60%

The clinical anxiety score of the respondents is comparatively high according to which 69.6% fall in the category of severe anxiety. The study done by Mary Ann Cohen (2002) found out similar data 70.3% of their respondents on HADS scale were having high score of anxiety.

Table.15.

Depression			
		Frequency	Percent
Valid	No depression	9	3.1
	Borderline depression	7	2.4
	Mild depression	8	2.7
	Mild to moderate depression	11	3.8
	Moderate depression	62	21.2
	Severe depression	153	52.2
	Medicine needed	43	14.7
	Total	293	100.0

Similarly with regards to depression 52.2% i.e. 153 respondents are in the category of severe depression while 14.7% of the respondents i.e 43 of them needed medicine for depression. This finding is alarming. The data on prevalence of high depression in South Africa collected by Myer, Smith and Parker also reveal similar findings.

Table.16. Self Esteem in respondents

In the following tables, data on level of self esteem of respondents is presented. It has four sub-items namely general, social, personal and lie items.

An overview of the data shows that only 20% respondents are satisfied with their sex life, approximately. Seventy percent have high level of anxiety, only 10%

Depression (Table 15)

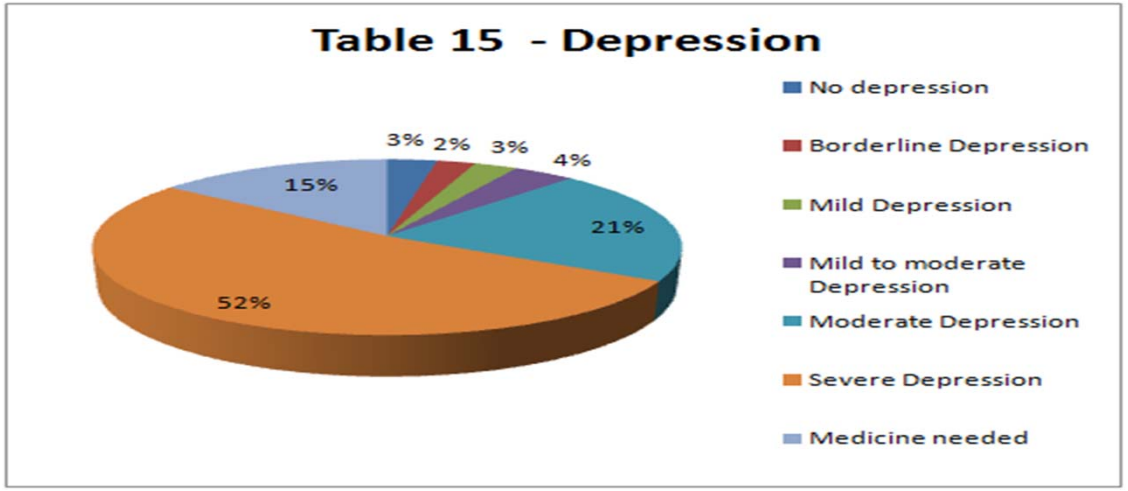


Table 15 - Depression	
No depression	3.10%
Borderline Depression	2.40%
Mild Depression	2.70%
Mild to moderate Depression	3.80%
Moderate Depression	21.20%
Severe Depression	52.20%
Medicine needed	14.70%
	100.10%

respondents have no or mild depression; a high percentage have severe depression (52.2%) and 14.7% respondents require medicine. The overall quality of life score at higher level is found in only 2.4% respondents. Surprisingly, self-esteem scores are high in a large number of respondents.

Self Esteem (General)			
		Frequency	Percent
Valid	Very Low	6	2.0
	Low	15	5.1
	Intermediate	84	28.7
	High	45	15.4
	Very high	143	48.8
	Total	293	100.0

Table.17.

Self Esteem (Social)			
		Frequency	Percent
Valid	Very Low	5	1.7
	Low	36	12.3
	Intermediate	30	10.2
	High	19	6.5
	Very high	203	69.3
	Total	293	100.0

Table 18.

Self Esteem (Personal)			
		Frequency	Percent
Valid	Low	13	4.4
	Intermediate	9	3.1
	High	3	1.0
	Very high	268	91.5
	Total	293	100.0

Table.19.

Self Esteem (Lie)			
		Frequency	Percent
Valid	Intermediate	131	44.7
	High	153	52.2
	Very high	9	3.1
	Total	293	100.0

Contrary to the previous data 143 respondents (48.8%) had a very high general self esteem. 69.3% i.e 203 respondents had a very high social self-esteem, 268 respondents i.e 91.5% respondents had a very high personal self-esteem and only of (3.1%) respondents have a very high self esteem in life matters. Researches have revealed that respondents who have high self esteem can address their depression and suicidal ideation, as low self esteem can be a risk factor. (Roberts' 2001).

Section III

4.3.Bivariate Tables :

A deeper analysis of the data is being done further and the association between Quality of Life and its sub items, Anxiety, Depression, Suicidal ideation with demographic variables such as age, gender, marital status, habitat and city is explored through statistical measurements. Relationships between the dependents variables is also worked out to understand whether these variables contribute in the presence of any psychoactive morbidity in respondents and also if two variables are related.

Sex Life * Age

Table 20.

Crosstab								
			Age of Respondent					Total
			10-19 Yrs.	20-29 Yrs.	30-39 Yrs.	40-49 Yrs.	>=50 Yrs.	
Sex life	Dissatisfied	Count	1	4	8	4	2	19
		% within Sex life	5.3%	21.1%	42.1%	21.1%	10.5%	100.0%
		% within Age of Respondent	7.7%	6.6%	6.2%	5.6%	10.5%	6.5%
	Neither satisfied nor dissatisfied	Count	8	45	92	56	13	214
		% within Sex life	3.7%	21.0%	43.0%	26.2%	6.1%	100.0%
		% within Age of Respondent	61.5%	73.8%	71.3%	78.9%	68.4%	73.0%
	Satisfied	Count	4	12	29	11	4	60
		% within Sex life	6.7%	20.0%	48.3%	18.3%	6.7%	100.0%
		% within Age of Respondent	30.8%	19.7%	22.5%	15.5%	21.1%	20.5%
Total		Count	13	61	129	71	19	293
		% within Sex life	4.4%	20.8%	44.0%	24.2%	6.5%	100.0%
		% within Age of Respondent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=3.091, df=8 and P-Value=0.929								

Maximum respondents (214 out of 293) were neither satisfied nor dissatisfied pertaining to their sex life and they belonged to the age group of 30 to 39 years The chi square value is insignificant which means there is no association between sex life and age of the respondent.

Sex life * Gender

Table .21.

Crosstab					
			Gender		Total
			Male	Female	
Sex life	Dissatisfied	Count	12	7	19
		% within Sex life	63.2%	36.8%	100.0%
		% within Gender	6.8%	6.0%	6.5%
	Neither satisfied nor dissatisfied	Count	127	87	214
		% within Sex life	59.3%	40.7%	100.0%
		% within Gender	71.8%	75.0%	73.0%
	Satisfied	Count	38	22	60
		% within Sex life	63.3%	36.7%	100.0%
		% within Gender	21.5%	19.0%	20.5%
Total		Count	177	116	293
		% within Sex life	60.4%	39.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
Pearson Chi-Square=.376, df=2 and P-Value=.829					

Maximum respondents were neither satisfied nor dissatisfied pertaining to the sex life. (127 out of 214) The chi square value is insignificant which means there is no association between gender and sex life of the respondent.

Sex life – Gender (Table 21)

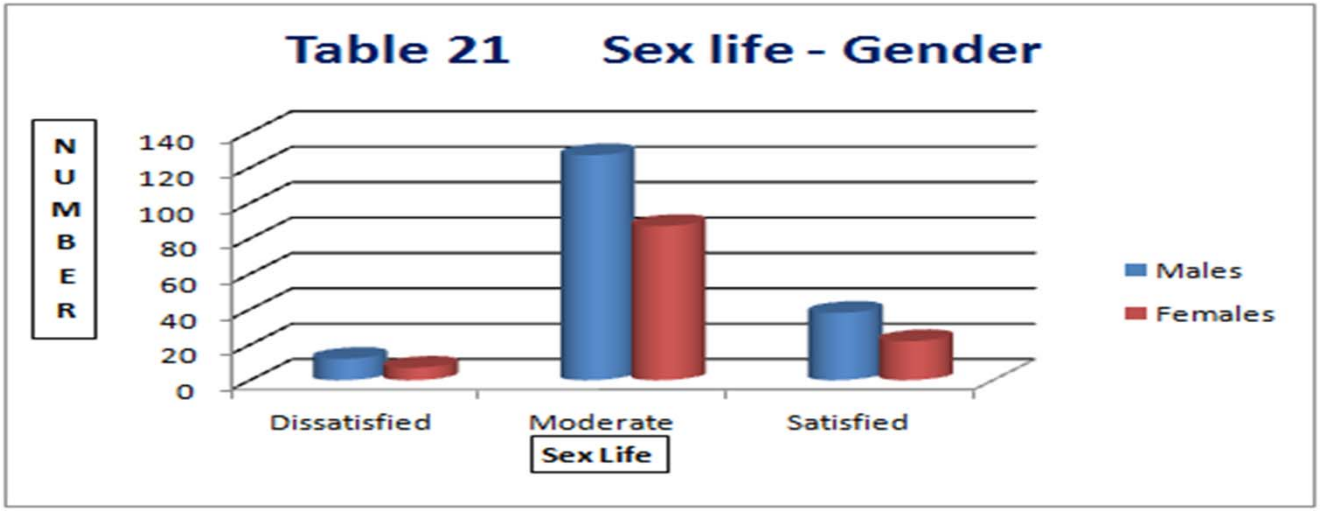


Table 21 Sex life - Gender		
Sex Life	**Males**	**Females**
Dissatisfied	12	7
Moderate	127	87
Satisfied	38	22
Total	177	116

Sex life * Marital Status

Table .22.

Crosstab								
			Marital Status					Total
			Unmarried	Married	Widow/Widower	Divorce	Alone	
Sex life	Dissatisfied	Count	1	18	0	0	0	19
		% within Sex life	5.3%	94.7%	.0%	.0%	.0%	100.0%
		% within Marital Status	10.0%	6.5%	.0%	.0%	.0%	6.5%
	Neither satisfied nor dissatisfied	Count	7	204	1	1	1	214
		% within Sex life	3.3%	95.3%	.5%	.5%	.5%	100.0%
		% within Marital Status	70.0%	73.1%	50.0%	100.0%	100.0%	73.0%
	Satisfied	Count	2	57	1	0	0	60
		% within Sex life	3.3%	95.0%	1.7%	.0%	.0%	100.0%
		% within Marital Status	20.0%	20.4%	50.0%	.0%	.0%	20.5%
Total		Count	10	279	2	1	1	293
		% within Sex life	3.4%	95.2%	.7%	.3%	.3%	100.0%
		% within Marital Status	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=2.070, df=8 and P-Value=.979								

Majority of the respondents were married and gave a neutral response pertaining to their sexual life. The chi square value is insignificant which means there is no association between sex life and marital status of the respondent.

Sex life * Educational Qualification

Table. 23.

Crosstab							
			Educational Qualification				Total
			Illiterate	Below SSC	<=HSC	College or more	
Sex life	Dissatisfied	Count	1	10	8	0	19
		% within Sex life	5.3%	52.6%	42.1%	.0%	100.0%
		% within Educational Qualification	2.5%	7.9%	7.1%	.0%	6.5%
	Neither satisfied nor dissatisfied	Count	35	85	85	9	214
		% within Sex life	16.4%	39.7%	39.7%	4.2%	100.0%
		% within Educational Qualification	87.5%	67.5%	75.9%	60.0%	73.0%
	Satisfied	Count	4	31	19	6	60
		% within Sex life	6.7%	51.7%	31.7%	10.0%	100.0%
		% within Educational Qualification	10.0%	24.6%	17.0%	40.0%	20.5%
Total		Count	40	126	112	15	293
		% within Sex life	13.7%	43.0%	38.2%	5.1%	100.0%
		% within Educational Qualification	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=11.251, df=6 and P-Value=.081							

Data analysis reveals that 85 respondents who were educated till SSC level and 85 respondents who were educated till or less than HSC level were neutral pertaining to their sexual life. The chi square value insignificant which means there is no association between educational level and sex life.

Sex life * Occupation

Table.24.

Crosstab												
			Occupation of respondent									
			Business	Service	Skilled Laborer	Farming	Unemployed	Self Employed	House wife	Driver	Other	Total
Sex life	Dissatisfied	Count	0	1	0	2	0	1	10	2	3	19
		% within Sex life	.0%	5.3%	.0%	10.5%	.0%	5.3%	52.6%	10.5%	15.8%	100.0%
		% within Occupation of respondent	.0%	2.6%	.0%	11.8%	.0%	7.7%	8.4%	6.3%	7.9%	6.5%
	Neither satisfied nor dissatisfied	Count	8	23	20	13	3	12	88	22	25	214
		% within Sex life	3.7%	10.7%	9.3%	6.1%	1.4%	5.6%	41.1%	10.3%	11.7%	100.0%
		% within Occupation of respondent	66.7%	59.0%	100.0%	76.5%	100.0%	92.3%	73.9%	68.8%	65.8%	73.0%
	Satisfied	Count	4	15	0	2	0	0	21	8	10	60
		% within Sex life	6.7%	25.0%	.0%	3.3%	.0%	.0%	35.0%	13.3%	16.7%	100.0%
		% within Occupation of respondent	33.3%	38.5%	.0%	11.8%	.0%	.0%	17.6%	25.0%	26.3%	20.5%
Total		Count	12	39	20	17	3	13	119	32	38	293
		% within Sex life	4.1%	13.3%	6.8%	5.8%	1.0%	4.4%	40.6%	10.9%	13.0%	100.0%
		% within Occupation of respondent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=25.765, df=16 and P-Value=.057												

The above data reveals that majority of the housewives were neutral in terms of sexual satisfaction. The chi square value is in significant which means there is no association between occupation and sex life.

Sex life * Habitat

Table .25.

Crosstab					
			Habitat		Total
			Urban	Rural	
Sex life	Dissatisfied	Count	9	10	19
		% within Sex life	47.4%	52.6%	100.0%
		% within Habitat	5.5%	7.7%	6.5%
	Neither satisfied nor dissatisfied	Count	114	100	214
		% within Sex life	53.3%	46.7%	100.0%
		% within Habitat	69.9%	76.9%	73.0%
	Satisfied	Count	40	20	60
		% within Sex life	66.7%	33.3%	100.0%
		% within Habitat	24.5%	15.4%	20.5%
Total		Count	163	130	293
		% within Sex life	55.6%	44.4%	100.0%
		% within Habitat	100.0%	100.0%	100.0%
Pearson Chi-Square=3.969, df=8 2 and P-Value=.137					

Respondents who belong to urban habitat fell in the moderate category, similarly 100 respondents belonging to the rural habitat also fell in the same category. The chi square value is insignificant which means there is no association between sex life and habitat of the respondent.

Sex life * City

Table.26.

Crosstab							
			City				Total
			Ahmedabad	Rajkot	Surat	Vadodara	
Sex life	Dissatisfied	Count	2	9	3	5	19
		% within Sex life	10.5%	47.4%	15.8%	26.3%	100.0%
		% within City	1.8%	16.4%	4.8%	7.7%	6.5%
	Neither satisfied nor dissatisfied	Count	82	38	47	47	214
		% within Sex life	38.3%	17.8%	22.0%	22.0%	100.0%
		% within City	73.9%	69.1%	75.8%	72.3%	73.0%
	Satisfied	Count	27	8	12	13	60
		% within Sex life	45.0%	13.3%	20.0%	21.7%	100.0%
		% within City	24.3%	14.5%	19.4%	20.0%	20.5%
Total		Count	111	55	62	65	293
		% within Sex life	37.9%	18.8%	21.2%	22.2%	100.0%
		% within City	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=14.427, df=6 and P-Value=.025							

Majority of the respondents (ie.82) fell in the moderate category and belonged to Ahmedabad. The chi square value is significant which means there is an association between sex life and city of residence of the respondent.

Guilt * Age

Table.27.

Crosstab								
			Age of Respondent					Total
			10-19 Yrs.	20-29 Yrs.	30-39 Yrs.	40-49 Yrs.	>=50 Yrs.	
Guilt	A little	Count	2	5	29	3	1	40
		% within Guilt	5.0%	12.5%	72.5%	7.5%	2.5%	100.0%
		% within Age of Respondent	15.4%	8.2%	22.5%	4.2%	5.3%	13.7%
	A moderate amount	Count	2	17	34	22	7	82
		% within Guilt	2.4%	20.7%	41.5%	26.8%	8.5%	100.0%
		% within Age of Respondent	15.4%	27.9%	26.4%	31.0%	36.8%	28.0%
	Very much	Count	9	39	66	46	11	171
		% within Guilt	5.3%	22.8%	38.6%	26.9%	6.4%	100.0%
		% within Age of Respondent	69.2%	63.9%	51.2%	64.8%	57.9%	58.4%
Total		Count	13	61	129	71	19	293
		% within Guilt	4.4%	20.8%	44.0%	24.2%	6.5%	100.0%
		% within Age of Respondent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=18.182, df=8 and P-Value=.020								

Majority of the respondents had a very high level of guilt amongst themselves and they belonged to the productive age group of 30-39 years. The chi square value is significant which means there is an association between guilt and age of the respondent.

Guilt * Gender

Table.28.

Crosstab					
			Gender		Total
			Male	Female	
Guilt	A little	Count	24	16	40
		% within Guilt	60.0%	40.0%	100.0%
		% within Gender	13.6%	13.8%	13.7%
	A moderate amount	Count	53	29	82
		% within Guilt	64.6%	35.4%	100.0%
		% within Gender	29.9%	25.0%	28.0%
	Very much	Count	100	71	171
		% within Guilt	58.5%	41.5%	100.0%
		% within Gender	56.5%	61.2%	58.4%
Total		Count	177	116	293
		% within Guilt	60.4%	39.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
Pearson Chi-Square=.881, df=2and P-Value=.644					

With respect to gender majority males ie 100 (58.5%) had a greater guilt feeling as compared to their female counterparts. The chi square value is insignificant which means there is no association between guilt and gender.

Guilt * Marital Status

Table.29.

Crosstab								
			Marital Status					Total
			Unmarried	Married	Widow/Widower	Divorce	Alone	
Guilt	A little	Count	3	37	0	0	0	40
		% within Guilt	7.5%	92.5%	.0%	.0%	.0%	100.0%
		% within Marital Status	30.0%	13.3%	.0%	.0%	.0%	13.7%
	A moderate amount	Count	2	78	2	0	0	82
		% within Guilt	2.4%	95.1%	2.4%	.0%	.0%	100.0%
		% within Marital Status	20.0%	28.0%	100.0%	.0%	.0%	28.0%
	Very much	Count	5	164	0	1	1	171
		% within Guilt	2.9%	95.9%	.0%	.6%	.6%	100.0%
		% within Marital Status	50.0%	58.8%	.0%	100.0%	100.0%	58.4%
Total		Count	10	279	2	1	1	293
		% within Guilt	3.4%	95.2%	.7%	.3%	.3%	100.0%
		% within Marital Status	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=8.918,df =8 and P-Value=.349								

With regards to guilt and marital status majority of the respondents i.e. 164 were married and had a high level of guilt. The chi square value is insignificant which means there is no association between guilt and marital status of the respondents.

Guilt * Educational Qualification

Table.30.

Crosstab							
			Educational Qualification				Total
			Illiterate	Below SSC	<=HSC	College or more	
Guilt	A little	Count	6	19	13	2	40
		% within Guilt	15.0%	47.5%	32.5%	5.0%	100.0%
		% within Educational Qualification	15.0%	15.1%	11.6%	13.3%	13.7%
	A moderate amount	Count	11	33	35	3	82
		% within Guilt	13.4%	40.2%	42.7%	3.7%	100.0%
		% within Educational Qualification	27.5%	26.2%	31.3%	20.0%	28.0%
	Very much	Count	23	74	64	10	171
		% within Guilt	13.5%	43.3%	37.4%	5.8%	100.0%
		% within Educational Qualification	57.5%	58.7%	57.1%	66.7%	58.4%
Total		Count	40	126	112	15	293
		% within Guilt	13.7%	43.0%	38.2%	5.1%	100.0%
		% within Educational Qualification	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=1.716, df=6 and P-Value=.944							

While considering guilt feeling in terms of educational qualifications respondents whose educational level was below SSC had a higher level of guilt. The chi square value is insignificant which means there is no association between guilt and educational qualification. of the respondent.

Guilt * Occupation

Table.31.

Crosstab												
			Occupation of respondent									
			Business	Service	Skilled Labourer	Farming	Unemployed	Self Employed	Housewife	Driver	Other	Total
Guilt	A little	Count	1	5	3	1	1	2	18	3	6	40
		% within Guilt	2.5%	12.5%	7.5%	2.5%	2.5%	5.0%	45.0%	7.5%	15.0%	100.0%
		% within Occupation of respondent	8.3%	12.8%	15.0%	5.9%	33.3%	15.4%	15.1%	9.4%	15.8%	13.7%
	A moderate amount	Count	4	9	8	7	2	4	30	14	4	82
		% within Guilt	4.9%	11.0%	9.8%	8.5%	2.4%	4.9%	36.6%	17.1%	4.9%	100.0%
		% within Occupation of respondent	33.3%	23.1%	40.0%	41.2%	66.7%	30.8%	25.2%	43.8%	10.5%	28.0%
	Very much	Count	7	25	9	9	0	7	71	15	28	171
		% within Guilt	4.1%	14.6%	5.3%	5.3%	.0%	4.1%	41.5%	8.8%	16.4%	100.0%
		% within Occupation of respondent	58.3%	64.1%	45.0%	52.9%	.0%	53.8%	59.7%	46.9%	73.7%	58.4%
Total		Count	12	39	20	17	3	13	119	32	38	293
		% within Guilt	4.1%	13.3%	6.8%	5.8%	1.0%	4.4%	40.6%	10.9%	13.0%	100.0%
		% within Occupation of respondent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=19.167, df=16 and P-Value=.260												

With respect to guilt and the occupation of the respondents 71 respondents who were housewives had the highest level of guilt. This was followed by respondents who belonged to other sectors, followed by those belonging to the service sector. The chi square value is insignificant which means there is no association between guilt and occupation of the respondent.

Guilt * Habitat

Table.32.

Crosstab					
			Habitat		
			Urban	Rural	Total
Guilt	A little	Count	22	18	40
		% within Guilt	55.0%	45.0%	100.0%
		% within Habitat	13.5%	13.8%	13.7%
	A moderate amount	Count	43	39	82
		% within Guilt	52.4%	47.6%	100.0%
		% within Habitat	26.4%	30.0%	28.0%
	Very much	Count	98	73	171
		% within Guilt	57.3%	42.7%	100.0%
		% within Habitat	60.1%	56.2%	58.4%
Total		Count	163	130	293
		% within Guilt	55.6%	44.4%	100.0%
		% within Habitat	100.0%	100.0%	100.0%
Pearson Chi-Square=.540, df=2 and P-Value=.763					

With respect to guilt and habitat of the respondents 98 respondents who belonged to the urban habitat had a higher level of guilt. The chi square value is insignificant which means there is no association between habitat and guilt level of the respondent.

Guilt * City

Table.33.

Crosstab							
			City				Total
			Ahmedabad	Rajkot	Surat	Vadodara	
Guilt	A little	Count	24	2	8	6	40
		% within Guilt	60.0%	5.0%	20.0%	15.0%	100.0%
		% within City	21.6%	3.6%	12.9%	9.2%	13.7%
	A moderate amount	Count	25	19	18	20	82
		% within Guilt	30.5%	23.2%	22.0%	24.4%	100.0%
		% within City	22.5%	34.5%	29.0%	30.8%	28.0%
	Very much	Count	62	34	36	39	171
		% within Guilt	36.3%	19.9%	21.1%	22.8%	100.0%
		% within City	55.9%	61.8%	58.1%	60.0%	58.4%
Total		Count	111	55	62	65	293
		% within Guilt	37.9%	18.8%	21.2%	22.2%	100.0%
		% within City	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=12.658, df=6nd P-Value=.049							

Respondents belonging to Ahmedabad had the highest level of guilt. The chi square value is insignificant which means there is no association between guilt and city of residence of the respondent.

Quality of Life * Age

Table.34.

Crosstab								
			Age of Respondent					Total
			10-19 Yrs.	20-29 Yrs.	30-39 Yrs.	40-49 Yrs.	>=50 Yrs.	
Quality of Life	A little	Count	4	9	37	13	5	68
		% within Quality of Life	5.9%	13.2%	54.4%	19.1%	7.4%	100.0%
		% within Age of Respondent	30.8%	14.8%	28.7%	18.3%	26.3%	23.2%
	A moderate amount	Count	8	50	90	56	14	218
		% within Quality of Life	3.7%	22.9%	41.3%	25.7%	6.4%	100.0%
		% within Age of Respondent	61.5%	82.0%	69.8%	78.9%	73.7%	74.4%
	Very much	Count	1	2	2	2	0	7
		% within Quality of Life	14.3%	28.6%	28.6%	28.6%	.0%	100.0%
		% within Age of Respondent	7.7%	3.3%	1.6%	2.8%	.0%	2.4%
Total		Count	13	61	129	71	19	293
		% within Quality of Life	4.4%	20.8%	44.0%	24.2%	6.5%	100.0%
		% within Age of Respondent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=8.621, df=8 and P-Value=.375								

It is observed that respondents belonging to the age group of 30 to 39 years, experienced moderate level quality of life, followed by those belonging to the age group of 40 to 49 years and 20 to 29 years respectively. The chi square value is insignificant which means there is no association between quality of life and age of the respondent.

Quality of Life * Gender

Table.35.

Crosstab					
			Gender		
			Male	Female	Total
Quality of Life	A little	Count	43	25	68
		% within Quality of Life	63.2%	36.8%	100.0%
		% within Gender	24.3%	21.6%	23.2%
	A moderate amount	Count	130	88	218
		% within Quality of Life	59.6%	40.4%	100.0%
		% within Gender	73.4%	75.9%	74.4%
	Very much	Count	4	3	7
		% within Quality of Life	57.1%	42.9%	100.0%
		% within Gender	2.3%	2.6%	2.4%
Total		Count	177	116	293
		% within Quality of Life	60.4%	39.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
Pearson Chi-Square=.313, df=2 and P-Value=.855					

In terms of gender wise experience of quality of life majority males i.e. 130 experienced a moderate level of quality of life. The chi square value is insignificant which means there is no association between quality of life and gender of the respondent.

Quality of Life * Marital Status

Table .36.

Crosstab								
			Marital Status					
			Unmarried	Married	Widow/Widower	Divorce	Alone	Total
Quality of Life	A little	Count	5	62	1	0	0	68
		% within Quality of Life	7.4%	91.2%	1.5%	.0%	.0%	100.0%
		% within Marital Status	50.0%	22.2%	50.0%	.0%	.0%	23.2%
	A moderate amount	Count	5	210	1	1	1	218
		% within Quality of Life	2.3%	96.3%	.5%	.5%	.5%	100.0%
		% within Marital Status	50.0%	75.3%	50.0%	100.0%	100.0%	74.4%
	Very much	Count	0	7	0	0	0	7
		% within Quality of Life	.0%	100.0%	.0%	.0%	.0%	100.0%
		% within Marital Status	.0%	2.5%	.0%	.0%	.0%	2.4%
Total		Count	10	279	2	1	1	293
		% within Quality of Life	3.4%	95.2%	.7%	.3%	.3%	100.0%
		% within Marital Status	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=5.808, df=8 and P-Value=.669								

It is seen that majority of the respondents i.e. 210 who are married experienced a moderate level of quality of life. The chi square value is insignificant which means there is no association between quality of life and marital status of the respondent

Quality of Life * Educational Qualification

Table.37.

Crosstab							
			Educational Qualification				
			Illiterate	Below SSC	<=HSC	College or more	Total
Quality of Life	A little	Count	12	24	29	3	68
		% within Quality of Life	17.6%	35.3%	42.6%	4.4%	100.0%
		% within Educational Qualification	30.0%	19.0%	25.9%	20.0%	23.2%
	A moderate amount	Count	28	97	82	11	218
		% within Quality of Life	12.8%	44.5%	37.6%	5.0%	100.0%
		% within Educational Qualification	70.0%	77.0%	73.2%	73.3%	74.4%
	Very much	Count	0	5	1	1	7
		% within Quality of Life	.0%	71.4%	14.3%	14.3%	100.0%
		% within Educational Qualification	.0%	4.0%	.9%	6.7%	2.4%
Total		Count	40	126	112	15	293
		% within Quality of Life	13.7%	43.0%	38.2%	5.1%	100.0%
		% within Educational Qualification	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=6.859, df=6 and P-Value=.334							

The above analysis reveals that respondents having an educational level below SSC experienced moderate level of quality of life, followed by those who were educated till HSC level and those were illiterate. The chi square value is insignificant which means there is no association between quality of life and education level of the respondent.

Quality of Life * Occupation

Table.38.

Crosstab											
			Occupation of respondent								
			Business	Service	Skilled Labourer	Farming	Unemployed	Self Employed	Housewife	Driver	Other	Total
Quality of Life	A little	Count	4	12	6	5	1	2	26	6	6	68
		% within Quality of Life	5.9%	17.6%	8.8%	7.4%	1.5%	2.9%	38.2%	8.8%	8.8%	100.0%
		% within Occupation of respondent	33.3%	30.8%	30.0%	29.4%	33.3%	15.4%	21.8%	18.8%	15.8%	23.2%
	A moderate amount	Count	7	26	14	10	2	11	90	26	32	218
		% within Quality of Life	3.2%	11.9%	6.4%	4.6%	.9%	5.0%	41.3%	11.9%	14.7%	100.0%
		% within Occupation of respondent	58.3%	66.7%	70.0%	58.8%	66.7%	84.6%	75.6%	81.3%	84.2%	74.4%
	Very much	Count	1	1	0	2	0	0	3	0	0	7
		% within Quality of Life	14.3%	14.3%	.0%	28.6%	.0%	.0%	42.9%	.0%	.0%	100.0%
		% within Occupation of respondent	8.3%	2.6%	.0%	11.8%	.0%	.0%	2.5%	.0%	.0%	2.4%
Total		Count	12	39	20	17	3	13	119	32	38	293
		% within Quality of Life	4.1%	13.3%	6.8%	5.8%	1.0%	4.4%	40.6%	10.9%	13.0%	100.0%
		% within Occupation of respondent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=16.752, df=16 and P-Value=.402												

The respondents who were housewives experienced a moderate quality of life. This was followed by respondents who were engaged in the other sectors. The chi square value is insignificant which means there is no association between quality of life and occupation of the respondent.

Quality of Life * Habitat

Table.39.

Crosstab					
			Habitat		Total
			Urban	Rural	
Quality of Life	A little	Count	36	32	68
		% within Quality of Life	52.9%	47.1%	100.0%
		% within Habitat	22.1%	24.6%	23.2%
	A moderate amount	Count	122	96	218
		% within Quality of Life	56.0%	44.0%	100.0%
		% within Habitat	74.8%	73.8%	74.4%
	Very much	Count	5	2	7
		% within Quality of Life	71.4%	28.6%	100.0%
		% within Habitat	3.1%	1.5%	2.4%
Total		Count	163	130	293
		% within Quality of Life	55.6%	44.4%	100.0%
		% within Habitat	100.0%	100.0%	100.0%
Pearson Chi-Square=.917, df=2 and P-Value=.632					

With regard to quality of life and habitat, respondents belonging to the urban habitat experienced a moderate level of quality of life followed by only 96 respondents belonging to the rural habitat. The chi square value is insignificant which means there is no association between quality of life and habitat of the respondents.

Quality of Life * City

Table.40.

Crosstab							
			City				Total
			Ahmedabad	Rajkot	Surat	Vadodara	
Quality of Life	A little	Count	29	7	18	14	68
		% within Quality of Life	42.6%	10.3%	26.5%	20.6%	100.0%
		% within City	26.1%	12.7%	29.0%	21.5%	23.2%
	A moderate amount	Count	78	47	44	49	218
		% within Quality of Life	35.8%	21.6%	20.2%	22.5%	100.0%
		% within City	70.3%	85.5%	71.0%	75.4%	74.4%
	Very much	Count	4	1	0	2	7
		% within Quality of Life	57.1%	14.3%	.0%	28.6%	100.0%
		% within City	3.6%	1.8%	.0%	3.1%	2.4%
Total		Count	111	55	62	65	293
		% within Quality of Life	37.9%	18.8%	21.2%	22.2%	100.0%
		% within City	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=7.629, df=6 and P-Value=.267							

Pertaining to quality of life majority of the respondents belonging to Ahmedabad experience a moderate level of quality of life followed by Vadodara, Rajkot and Surat respectively. The chi square value is insignificant which means there is no association between city of residence and quality of life of the respondents.

Suicidal Ideation * Age

Table.41.

Crosstab								
			Age of Respondent					Total
			10-19 Yrs.	20-29 Yrs.	30-39 Yrs.	40-49 Yrs.	>=50 Yrs.	
Suicide ideation	Very rarely	Count	5	27	62	36	10	140
		% within suicide ideation	3.6%	19.3%	44.3%	25.7%	7.1%	100.0%
		% within Age of Respondent	38.5%	44.3%	48.1%	50.7%	52.6%	47.8%
	Some of the time	Count	8	26	45	27	6	112
		% within suicide ideation	7.1%	23.2%	40.2%	24.1%	5.4%	100.0%
		% within Age of Respondent	61.5%	42.6%	34.9%	38.0%	31.6%	38.2%
	A good part of the time	Count	0	8	22	8	3	41
		% within suicide ideation n	.0%	19.5%	53.7%	19.5%	7.3%	100.0%
		% within Age of Respondent	.0%	13.1%	17.1%	11.3%	15.8%	14.0%
Total		Count	13	61	129	71	19	293
		% within suicide ideation	4.4%	20.8%	44.0%	24.2%	6.5%	100.0%
		% within Age of Respondent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=6.508, df=8 and P-Value=.590								

While determining the suicidal ideation with age of the respondent it was found that maximum respondents experienced suicidal ideation very rarely and that they belonged to the age group of 30 to 39 years. The chi square value is insignificant which means that there no association between age and suicidal ideation.

Suicidal Ideation * Gender

Table.42.

Crosstab					
			Gender		Total
			Male	Female	
Suicide ideation	Very rarely	Count	87	53	140
		% within Suicide ideation	62.1%	37.9%	100.0%
		% within Gender	49.2%	45.7%	47.8%
	Some of the time	Count	65	47	112
		% within Suicide ideation	58.0%	42.0%	100.0%
		% within Gender	36.7%	40.5%	38.2%
	A good part of the time	Count	25	16	41
		% within Suicide ideation	61.0%	39.0%	100.0%
		% within Gender	14.1%	13.8%	14.0%
Total		Count	177	116	293
		% within Suicide ideation	60.4%	39.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
Pearson Chi-Square=.445, df=2 and P-Value=.800					

While considering suicidal ideas with gender 87 males i.e 62%experienced such an ideation very rarely while only 53 women had a suicidal ideation rarely. The chi square value is insignificant which means there is no association between suicidal ideation and gender.

Suicidal Ideation * Marital Status

Table.43.

Crosstab								
			Marital Status					Total
			Unmarried	Married	Widow/Widower	Divorce	Alone	
Suicide ideation	Very rarely	Count	4	134	1	0	1	140
		% within Suicide ideation	2.9%	95.7%	.7%	.0%	.7%	100.0%
		% within Marital Status	40.0%	48.0%	50.0%	.0%	100.0%	47.8%
	Some of the time	Count	5	105	1	1	0	112
		% within Suicide ideation	4.5%	93.8%	.9%	.9%	.0%	100.0%
		% within Marital Status	50.0%	37.6%	50.0%	100.0%	.0%	38.2%
	A good part of the time	Count	1	40	0	0	0	41
		% within Suicide ideation	2.4%	97.6%	.0%	.0%	.0%	100.0%
		% within Marital Status	10.0%	14.3%	.0%	.0%	.0%	14.0%
Total		Count	10	279	2	1	1	293
		% within Suicide ideation	3.4%	95.2%	.7%	.3%	.3%	100.0%
		% within Marital Status	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=3.719, df=8 and P-Value=.882								

With respect to suicidal ideation and marital status it was observed that married respondents experienced suicidal ideation very rarely. This was followed by married respondents who had suicidal ideation sometimes. The chi square value is insignificant which means that there is no association between marital status and suicidal tendency.

Suicidal Ideation* Educational Qualification

Table.44.

Crosstab							
			Educational Qualification				Total
			Illiterate	Below SSC	<=HSC	College or more	
Suicidal ideation	Very rarely	Count	17	67	48	8	140
		% within Suicidal ideation	12.1%	47.9%	34.3%	5.7%	100.0%
		% within Educational Qualification	42.5%	53.2%	42.9%	53.3%	47.8%
	Some of the time	Count	15	44	47	6	112
		% within Suicidal ideation	13.4%	39.3%	42.0%	5.4%	100.0%
		% within Educational Qualification	37.5%	34.9%	42.0%	40.0%	38.2%
	A good part of the time	Count	8	15	17	1	41
		% within Suicidal ideation	19.5%	36.6%	41.5%	2.4%	100.0%
		% within Educational Qualification	20.0%	11.9%	15.2%	6.7%	14.0%
Total		Count	40	126	112	15	293
		% within Suicidal ideation	13.7%	43.0%	38.2%	5.1%	100.0%
		% within Educational Qualification	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=4.565, df=6 and P-Value=.601							

With regards to suicidal ideation and educational qualification respondents who were educated less than SSC level experienced suicidal ideation very rarely. The chi square value here is insignificant which means there is no association between suicidal ideation and education level of respondents.

Suicidal Ideation * Occupation

Table .45.

Crosstab											
			Occupation of respondent								
			Business	Service	Skilled Labourer	Farming	Unemployed	Self Employed	Housewife	Driver	Other	Total
Suicide Ideation	Very rarely	Count	6	13	11	6	1	4	66	15	18	140
		% within Suicidal ideation	4.3%	9.3%	7.9%	4.3%	.7%	2.9%	47.1%	10.7%	12.9%	100.0%
		% within Occupation of respondent	50.0%	33.3%	55.0%	35.3%	33.3%	30.8%	55.5%	46.9%	47.4%	47.8%
	Some of the time	Count	4	24	6	6	2	5	35	14	16	112
		% within Suicide ideation	3.6%	21.4%	5.4%	5.4%	1.8%	4.5%	31.3%	12.5%	14.3%	100.0%
		% within Occupation of respondent	33.3%	61.5%	30.0%	35.3%	66.7%	38.5%	29.4%	43.8%	42.1%	38.2%
	A good part of the time	Count	2	2	3	5	0	4	18	3	4	41
		% within Suicide ideation	4.9%	4.9%	7.3%	12.2%	.0%	9.8%	43.9%	7.3%	9.8%	100.0%
		% within Occupation of respondent	16.7%	5.1%	15.0%	29.4%	.0%	30.8%	15.1%	9.4%	10.5%	14.0%
Total		Count	12	39	20	17	3	13	119	32	38	293
		% within Suicide ideation	4.1%	13.3%	6.8%	5.8%	1.0%	4.4%	40.6%	10.9%	13.0%	100.0%
		% within Occupation of respondent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=23.267, df=16nd P-Value=.102												

It seems that majority of the respondents who were house wives experienced suicidal ideation very rarely. The chi square value is insignificant which means that there is no association between suicidal ideation and occupation of the respondents.

Suicidal Ideation * Habitat

Table .46.

Crosstab					
			Habitat		
			Urban	Rural	Total
Suicide Ideation	Very rarely	Count	80	60	140
		% within Suicide Ideation	57.1%	42.9%	100.0%
		% within Habitat	49.1%	46.2%	47.8%
	Some of the time	Count	56	56	112
		% within Suicide Ideation	50.0%	50.0%	100.0%
		% within Habitat	34.4%	43.1%	38.2%
	A good part of the time	Count	27	14	41
		% within Suicide Ideation	65.9%	34.1%	100.0%
		% within Habitat	16.6%	10.8%	14.0%
Total		Count	163	130	293
		% within Suicide Ideation	55.6%	44.4%	100.0%
		% within Habitat	100.0%	100.0%	100.0%
Pearson Chi-Square=3.304, df=2 and P-Value=.192					

With reference to suicidal ideation and habitat respondents belonging to an urban habitat rarely experienced suicidal ideation. Equal number of respondents in urban and rural habitat experienced suicidal ideation some of the time. The chi square value is insignificant which means there is no association between suicidal ideation and habitat of the respondent.

Suicidal Ideation * City

Table.47.

Crosstab							
			City				Total
			Ahmedabad	Rajkot	Surat	Vadodara	
Suicidel Ideation	Very rarely	Count	57	30	21	32	140
		% within Suicide Ideation	40.7%	21.4%	15.0%	22.9%	100.0%
		% within City	51.4%	54.5%	33.9%	49.2%	47.8%
	Some of the time	Count	39	22	31	20	112
		% within Suicide Ideation	34.8%	19.6%	27.7%	17.9%	100.0%
		% within City	35.1%	40.0%	50.0%	30.8%	38.2%
	A good part of the time	Count	15	3	10	13	41
		% within SuicideIdeation	36.6%	7.3%	24.4%	31.7%	100.0%
		% within City	13.5%	5.5%	16.1%	20.0%	14.0%
Total		Count	111	55	62	65	293
		% within Suicide Ideation	37.9%	18.8%	21.2%	22.2%	100.0%
		% within City	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=11.641, df=6 and P-Value=.070							

With respect to suicide ideation and city it was seen that majority of the respondents from Ahmedabad rarely experienced suicidal ideation followed by Vadodara, Rajkot and Surat. The chi square value is insignificant which means that there is no association between suicidal ideation and city of the respondent.

Anxiety * Age

Table.48.

Crosstab								
			Age of Respondent					Total
			10-19 Yrs.	20-29 Yrs.	30-39 Yrs.	40-49 Yrs.	>=50 Yrs.	
Anxiety	Mild Anxiety	Count	0	1	2	0	0	3
		% within Anxiety	.0%	33.3%	66.7%	.0%	.0%	100.0%
		% within Age of Respondent	.0%	1.6%	1.6%	.0%	.0%	1.0%
	Moderate anxiety	Count	3	22	29	24	8	86
		% within Anxiety	3.5%	25.6%	33.7%	27.9%	9.3%	100.0%
		% within Age of Respondent	23.1%	36.1%	22.5%	33.8%	42.1%	29.4%
	Severe anxiety	Count	10	38	98	47	11	204
		% within Anxiety	4.9%	18.6%	48.0%	23.0%	5.4%	100.0%
		% within Age of Respondent	76.9%	62.3%	76.0%	66.2%	57.9%	69.6%
Total		Count	13	61	129	71	19	293
		% within Anxiety	4.4%	20.8%	44.0%	24.2%	6.5%	100.0%
		% within Age of Respondent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=8.159, df=8 and P-Value=.418								

With respect to anxiety and age of the respondent it was observed that severe anxiety was observed by respondents who belonged to the age group of 30 to 39 years. This was followed by respondents belonging to the age group of 40 to 49 years. The chi square value is insignificant which means there is no association between anxiety and age of the respondent.

Anxiety * Gender

Table.49.

Crosstab					
			Gender		Total
			Male	Female	
Anxiety	Mild Anxiety	Count	0	3	3
		% within Anxiety	.0%	100.0%	100.0%
		% within Gender	.0%	2.6%	1.0%
	Moderate anxiety	Count	55	31	86
		% within Anxiety	64.0%	36.0%	100.0%
		% within Gender	31.1%	26.7%	29.4%
	Severe anxiety	Count	122	82	204
		% within Anxiety	59.8%	40.2%	100.0%
		% within Gender	68.9%	70.7%	69.6%
Total		Count	177	116	293
		% within Anxiety	60.4%	39.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
Pearson Chi-Square=5.060, df=2and P-Value=.080					

With reference to anxiety and gender, it was observed that severe anxiety was experienced by 122 males. The chi square value is insignificant which means that there is no association between anxiety and gender of the respondent.

Anxiety * Marital Status

Table.50.

Crosstab								
			Marital Status					Total
			Unmarried	Married	Widow/Widower	Divorce	Alone	
Anxiety	Mild Anxiety	Count	0	3	0	0	0	3
		% within Anxiety	.0%	100.0%	.0%	.0%	.0%	100.0%
		% within Marital Status	.0%	1.1%	.0%	.0%	.0%	1.0%
	Moderate anxiety	Count	2	82	1	0	1	86
		% within Anxiety	2.3%	95.3%	1.2%	.0%	1.2%	100.0%
		% within Marital Status	20.0%	29.4%	50.0%	.0%	100.0%	29.4%
	Severe anxiety	Count	8	194	1	1	0	204
		% within Anxiety	3.9%	95.1%	.5%	.5%	.0%	100.0%
		% within Marital Status	80.0%	69.5%	50.0%	100.0%	.0%	69.6%
Total		Count	10	279	2	1	1	293
		% within Anxiety	3.4%	95.2%	.7%	.3%	.3%	100.0%
		% within Marital Status	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=3.827, df=8 and P-Value=.872								

With respect to anxiety and marital status it was observed that moderate level of anxiety was experienced by married females. The chi square value is insignificant which means there is no association between anxiety and marital status of the respondent.

Anxiety * Educational Qualification

Table.51.

Crosstab							
			Educational Qualification				Total
			Illiterate	Below SSC	<=HSC	College or more	
Anxiety	Mild Anxiety	Count	0	2	1	0	3
		% within Anxiety	.0%	66.7%	33.3%	.0%	100.0%
		% within Educational Qualification	.0%	1.6%	.9%	.0%	1.0%
	Moderate anxiety	Count	12	39	31	4	86
		% within Anxiety	14.0%	45.3%	36.0%	4.7%	100.0%
		% within Educational Qualification	30.0%	31.0%	27.7%	26.7%	29.4%
	Severe anxiety	Count	28	85	80	11	204
		% within Anxiety	13.7%	41.7%	39.2%	5.4%	100.0%
		% within Educational Qualification	70.0%	67.5%	71.4%	73.3%	69.6%
Total		Count	40	126	112	15	293
		% within Anxiety	13.7%	43.0%	38.2%	5.1%	100.0%
		% within Educational Qualification	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=1.399, df=6 and P-Value=.966							

With reference to anxiety and education qualification severe anxiety was observed by 85 respondents whose education level was below SSC. The chi square value is insignificant which means that there is no association between anxiety and education level of the respondent.

Anxiety * Occupation

Table .52.

Crosstab												
			Occupation of respondent									
			Business	Service	Skilled Labourer	Farming	Unemployed	Self Employed	House wife	Driver	Other	Total
Anxiety	Mild Anxiety	Count	0	0	0	0	0	1	2	0	0	3
		% within Anxiety	.0%	.0%	.0%	.0%	.0%	33.3%	66.7%	.0%	.0%	100.0%
		% within Occupation of respondent	.0%	.0%	.0%	.0%	.0%	7.7%	1.7%	.0%	.0%	1.0%
	Moderate anxiety	Count	6	10	4	6	0	4	37	9	10	86
		% within Anxiety	7.0%	11.6%	4.7%	7.0%	.0%	4.7%	43.0%	10.5%	11.6%	100.0%
		% within Occupation of respondent	50.0%	25.6%	20.0%	35.3%	.0%	30.8%	31.1%	28.1%	26.3%	29.4%
	Severe anxiety	Count	6	29	16	11	3	8	80	23	28	204
		% within Anxiety	2.9%	14.2%	7.8%	5.4%	1.5%	3.9%	39.2%	11.3%	13.7%	100.0%
		% within Occupation of respondent	50.0%	74.4%	80.0%	64.7%	100.0%	61.5%	67.2%	71.9%	73.7%	69.6%
Total		Count	12	39	20	17	3	13	119	32	38	293
		% within Anxiety	4.1%	13.3%	6.8%	5.8%	1.0%	4.4%	40.6%	10.9%	13.0%	100.0%
		% within Occupation of respondent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=13.559, df=16 and P-Value=.632												

With reference to anxiety and occupation of respondents, it is seen that severe anxiety was observed by 80 respondents who were housewives. The chi square value is insignificant which means that there is no association between anxiety and occupation of respondent.

Anxiety * Habitat

Table .53.

Crosstab					
			Habitat		
			Urban	Rural	Total
Anxiety	Mild Anxiety	Count	2	1	3
		% within Anxiety	66.7%	33.3%	100.0%
		% within Habitat	1.2%	.8%	1.0%
	Moderate anxiety	Count	47	39	86
		% within Anxiety	54.7%	45.3%	100.0%
		% within Habitat	28.8%	30.0%	29.4%
	Severe anxiety	Count	114	90	204
		% within Anxiety	55.9%	44.1%	100.0%
		% within Habitat	69.9%	69.2%	69.6%
Total		Count	163	130	293
		% within Anxiety	55.6%	44.4%	100.0%
		% within Habitat	100.0%	100.0%	100.0%
Pearson Chi-Square=1.187, df=2 and P-Value=.911					

With respect to anxiety level and habitat of the respondent, it was observed that severe anxiety was observed by 114 respondents who belonged to the urban habitat. It is seen that the chi square value is insignificant which means there is no association between the anxiety level and habitat of the respondents.

Anxiety * City

Table.54.

Crosstab							
			City				Total
			Ahmedabad	Rajkot	Surat	Vadodara	
Anxiety	Mild Anxiety	Count	0	2	0	1	3
		% within Anxiety	.0%	66.7%	.0%	33.3%	100.0%
		% within City	.0%	3.6%	.0%	1.5%	1.0%
	Moderate anxiety	Count	31	12	21	22	86
		% within Anxiety	36.0%	14.0%	24.4%	25.6%	100.0%
		% within City	27.9%	21.8%	33.9%	33.8%	29.4%
	Severe anxiety	Count	80	41	41	42	204
		% within Anxiety	39.2%	20.1%	20.1%	20.6%	100.0%
		% within City	72.1%	74.5%	66.1%	64.6%	69.6%
Total		Count	111	55	62	65	293
		% within Anxiety	37.9%	18.8%	21.2%	22.2%	100.0%
		% within City	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=8.254,df=6 and P-Value=.220							

With reference to anxiety and city of residence, severe anxiety was experienced by 80 respondents belonging to Ahmedabad followed by Vadodara, Rajkot and Surat. The chi square value is insignificant which means there is no association between anxiety and city of residence.

Depression * Age

Table .55.

Crosstab								
			Age of Respondent					Total
			10-19 Yrs.	20-29 Yrs.	30-39 Yrs.	40-49 Yrs.	>=50 Yrs.	
Depression	No depression	Count	0	1	7	1	0	9
		% within Depression	.0%	11.1%	77.8%	11.1%	.0%	100.0%
		% within Age of Respondent	.0%	1.6%	5.4%	1.4%	.0%	3.1%
	Borderline depression	Count	0	0	4	2	1	7
		% within Depression	.0%	.0%	57.1%	28.6%	14.3%	100.0%
		% within Age of Respondent	.0%	.0%	3.1%	2.8%	5.3%	2.4%
	Mild depression	Count	0	1	4	3	0	8
		% within Depression	.0%	12.5%	50.0%	37.5%	.0%	100.0%
		% within Age of Respondent	.0%	1.6%	3.1%	4.2%	.0%	2.7%
	Mild to moderate depression	Count	0	3	8	0	0	11
		% within Depression	.0%	27.3%	72.7%	.0%	.0%	100.0%
		% within Age of Respondent	.0%	4.9%	6.2%	.0%	.0%	3.8%
	Moderate depression	Count	4	14	26	13	5	62
		% within Depression	6.5%	22.6%	41.9%	21.0%	8.1%	100.0%
		% within Age of Respondent	30.8%	23.0%	20.2%	18.3%	26.3%	21.2%
	Severe depression	Count	8	30	66	42	7	153
		% within Depression	5.2%	19.6%	43.1%	27.5%	4.6%	100.0%
		% within Age of Respondent	61.5%	49.2%	51.2%	59.2%	36.8%	52.2%
	Medicine needed	Count	1	12	14	10	6	43
		% within Depression	2.3%	27.9%	32.6%	23.3%	14.0%	100.0%
		% within Age of Respondent	7.7%	19.7%	10.9%	14.1%	31.6%	14.7%
Total		Count	13	61	129	71	19	293
		% within Depression	4.4%	20.8%	44.0%	24.2%	6.5%	100.0%
		% within Age of Respondent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=24.610, df=24 P-Value=.427								

With respect to depression and age of the respondent it is seen that severe depression was experienced by respondents belonging to the age group of 30 to 39years, followed by those belonging to the age group to 40 to 49 years. The chi square value is insignificant which means that there is no association between age of the respondent and depression.

Depression * Gender

Table .56.

Crosstab					
			Gender		
			Male	Female	Total
Depression	No depression	Count	4	5	9
		% within Depression	44.4%	55.6%	100.0%
		% within Gender	2.3%	4.3%	3.1%
	Borderline depression	Count	5	2	7
		% within Depression	71.4%	28.6%	100.0%
		% within Gender	2.8%	1.7%	2.4%
	Mild depression	Count	4	4	8
		% within Depression	50.0%	50.0%	100.0%
		% within Gender	2.3%	3.4%	2.7%
	Mild to moderate depression	Count	9	2	11
		% within Depression	81.8%	18.2%	100.0%
		% within Gender	5.1%	1.7%	3.8%
	Moderate depression	Count	39	23	62
		% within Depression	62.9%	37.1%	100.0%
		% within Gender	22.0%	19.8%	21.2%
	Severe depression	Count	91	62	153
		% within Depression	59.5%	40.5%	100.0%
		% within Gender	51.4%	53.4%	52.2%
	Medicine needed	Count	25	18	43
		% within Depression	58.1%	41.9%	100.0%
		% within Gender	14.1%	15.5%	14.7%
Total		Count	177	116	293
		% within Depression	60.4%	39.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
Pearson Chi-Square=4.094, df=6 and P-Value=.664					

With respect to depression and gender of the respondent it was observed that depression was experienced by 91 respondents and 62 female respondents. The chi square value is insignificant and this shows that there is no association between depression and gender.

Depression * Marital Status

Table.57.

Crosstab								
			Marital Status					Total
			Unmarried	Married	Widow/Widower	Divorce	Alone	
Depression	No depression	Count	0	9	0	0	0	9
		% within Depression	.0%	100.0%	.0%	.0%	.0%	100.0%
		% within Marital Status	.0%	3.2%	.0%	.0%	.0%	3.1%
	Borderline depression	Count	0	7	0	0	0	7
		% within Depression	.0%	100.0%	.0%	.0%	.0%	100.0%
		% within Marital Status	.0%	2.5%	.0%	.0%	.0%	2.4%
	Mild depression	Count	0	8	0	0	0	8
		% within Depression	.0%	100.0%	.0%	.0%	.0%	100.0%
		% within Marital Status	.0%	2.9%	.0%	.0%	.0%	2.7%
	Mild to moderate depression	Count	0	11	0	0	0	11
		% within Depression	.0%	100.0%	.0%	.0%	.0%	100.0%
		% within Marital Status	.0%	3.9%	.0%	.0%	.0%	3.8%
	Moderate depression	Count	4	57	1	0	0	62
		% within Depression	6.5%	91.9%	1.6%	.0%	.0%	100.0%
		% within Marital Status	40.0%	20.4%	50.0%	.0%	.0%	21.2%
	Severe depression	Count	5	146	1	0	1	153
		% within Depression	3.3%	95.4%	.7%	.0%	.7%	100.0%
		% within Marital Status	50.0%	52.3%	50.0%	.0%	100.0%	52.2%
	Medicine needed	Count	1	41	0	1	0	43
		% within Depression	2.3%	95.3%	.0%	2.3%	.0%	100.0%
		% within Marital Status	10.0%	14.7%	.0%	100.0%	.0%	14.7%
Total		Count	10	279	2	1	1	293
		% within Depression	3.4%	95.2%	.7%	.3%	.3%	100.0%
		% within Marital Status	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=11.235, df=24 and P-Value=.987								

With reference to depression and marital status of the respondents, it is observed that majority of the respondents fall in the category of severe depression and amongst it severe depression was experienced by married respondent. The chi square value is insignificant which means there is no association between depression and marital status of the respondent

Depression * Educational Qualification

Table .58.

Crosstab							
			Educational Qualification				
			Illiterate	Below SSC	<=HSC	College or more	Total
Depression	No depression	Count	2	5	2	0	9
		% within Depression	22.2%	55.6%	22.2%	.0%	100.0%
		% within Educational Qualification	5.0%	4.0%	1.8%	.0%	3.1%
	Borderline depression	Count	1	3	2	1	7
		% within Depression	14.3%	42.9%	28.6%	14.3%	100.0%
		% within Educational Qualification	2.5%	2.4%	1.8%	6.7%	2.4%
	Mild depression	Count	1	1	5	1	8
		% within Depression	12.5%	12.5%	62.5%	12.5%	100.0%
		% within Educational Qualification	2.5%	.8%	4.5%	6.7%	2.7%
	Mild to moderate depression	Count	1	6	4	0	11
		% within Depression	9.1%	54.5%	36.4%	.0%	100.0%
		% within Educational Qualification	2.5%	4.8%	3.6%	.0%	3.8%
	Moderate depression	Count	7	31	17	7	62
		% within Depression	11.3%	50.0%	27.4%	11.3%	100.0%
		% within Educational Qualification	17.5%	24.6%	15.2%	46.7%	21.2%
	Severe depression	Count	21	62	65	5	153
		% within Depression	13.7%	40.5%	42.5%	3.3%	100.0%
		% within Educational Qualification	52.5%	49.2%	58.0%	33.3%	52.2%
	Medicine needed	Count	7	18	17	1	43
		% within Depression	16.3%	41.9%	39.5%	2.3%	100.0%
		% within Educational Qualification	17.5%	14.3%	15.2%	6.7%	14.7%
Total		Count	40	126	112	15	293
		% within Depression	13.7%	43.0%	38.2%	5.1%	100.0%
		% within Educational Qualification	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=18.444, df=18 and P-Value=.427							

With reference to depression and educational qualification of respondents, it was observed that severe depression was experienced by respondents whose education level was less than or equal to HSC level. The chi square value is insignificant which means that there is no association between depression and education level.

Depression * Occupation

Table.59.

Crosstab												
			Occupation of respondent									
			Business	Service	Skilled Labourer	Farming	Unemployed	Self Employed	House wife	Driver	Other	Total
Depression	No depression	Count	1	0	0	1	1	1	5	0	0	9
		% within Depression	11.1%	.0%	.0%	11.1%	11.1%	11.1%	55.6%	.0%	.0%	100.0%
		% within Occupation of respondent	8.3%	.0%	.0%	5.9%	33.3%	7.7%	4.2%	.0%	.0%	3.1%
	Borderline depression	Count	1	2	0	0	0	0	1	1	2	7
		% within Depression	14.3%	28.6%	.0%	.0%	.0%	.0%	14.3%	14.3%	28.6%	100.0%
		% within Occupation of respondent	8.3%	5.1%	.0%	.0%	.0%	.0%	.8%	3.1%	5.3%	2.4%
	Mild depression	Count	0	1	0	1	0	0	6	0	0	8
		% within Depression	.0%	12.5%	.0%	12.5%	.0%	.0%	75.0%	.0%	.0%	100.0%
		% within Occupation of respondent	.0%	2.6%	.0%	5.9%	.0%	.0%	5.0%	.0%	.0%	2.7%
	Mild to moderate depression	Count	0	1	1	0	0	0	4	3	2	11
		% within Depression	.0%	9.1%	9.1%	.0%	.0%	.0%	36.4%	27.3%	18.2%	100.0%
		% within Occupation of respondent	.0%	2.6%	5.0%	.0%	.0%	.0%	3.4%	9.4%	5.3%	3.8%
	Moderate depression	Count	3	6	5	2	1	5	26	7	7	62
		% within Depression	4.8%	9.7%	8.1%	3.2%	1.6%	8.1%	41.9%	11.3%	11.3%	100.0%
		% within Occupation of respondent	25.0%	15.4%	25.0%	11.8%	33.3%	38.5%	21.8%	21.9%	18.4%	21.2%
	Severe depression	Count	5	21	11	8	1	6	60	16	25	153
		% within Depression	3.3%	13.7%	7.2%	5.2%	.7%	3.9%	39.2%	10.5%	16.3%	100.0%
		% within Occupation of respondent	41.7%	53.8%	55.0%	47.1%	33.3%	46.2%	50.4%	50.0%	65.8%	52.2%
	Medicine needed	Count	2	8	3	5	0	1	17	5	2	43
		% within Depression	4.7%	18.6%	7.0%	11.6%	.0%	2.3%	39.5%	11.6%	4.7%	100.0%
		% within Occupation of respondent	16.7%	20.5%	15.0%	29.4%	.0%	7.7%	14.3%	15.6%	5.3%	14.7%
Total		Count	12	39	20	17	3	13	119	32	38	293
		% within Depression	4.1%	13.3%	6.8%	5.8%	1.0%	4.4%	40.6%	10.9%	13.0%	100.0%
		% within Occupation of respondent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=46.286, df=48 and P-Value=.543												

With respect to depression and occupation of the respondent it was observed that 60 respondents who were housewives experienced severe depression. The chi square value is insignificant and thus there is no association between occupation of the respondent and depression.

Depression * Habitat

Table.60.

Crosstab					
			Habitat		
			Urban	Rural	Total
Depression	No depression	Count	6	3	9
		% within Depression	66.7%	33.3%	100.0%
		% within Habitat	3.7%	2.3%	3.1%
	Borderline depression	Count	6	1	7
		% within Depression	85.7%	14.3%	100.0%
		% within Habitat	3.7%	.8%	2.4%
	Mild depression	Count	6	2	8
		% within Depression	75.0%	25.0%	100.0%
		% within Habitat	3.7%	1.5%	2.7%
	Mild to moderate depression	Count	8	3	11
		% within Depression	72.7%	27.3%	100.0%
		% within Habitat	4.9%	2.3%	3.8%
	Moderate depression	Count	29	33	62
		% within Depression	46.8%	53.2%	100.0%
		% within Habitat	17.8%	25.4%	21.2%
	Severe depression	Count	83	70	153
		% within Depression	54.2%	45.8%	100.0%
		% within Habitat	50.9%	53.8%	52.2%
	Medicine needed	Count	25	18	43
		% within Depression	58.1%	41.9%	100.0%
		% within Habitat	15.3%	13.8%	14.7%
Total		Count	163	130	293
		% within Depression	55.6%	44.4%	100.0%
		% within Habitat	100.0%	100.0%	100.0%
Pearson Chi-Square=7.728, df=6 and P-Value=.259					

With respect to depression and habitat of the respondents it was observed that severe depression was experienced by 83 respondents belonging to urban habitat. The chi square value is insignificant which means there is no association between habitat and level of depression of the respondent.

Depression * City

Table.61.

Crosstab							
			City				Total
			Ahmedabad	Rajkot	Surat	Vadodara	
Depression	No depression	Count	8	1	0	0	9
		% within Depression	88.9%	11.1%	.0%	.0%	100.0%
		% within City	7.2%	1.8%	.0%	.0%	3.1%
	Borderline depression	Count	6	0	0	1	7
		% within Depression	85.7%	.0%	.0%	14.3%	100.0%
		% within City	5.4%	.0%	.0%	1.5%	2.4%
	Mild depression	Count	5	1	0	2	8
		% within Depression	62.5%	12.5%	.0%	25.0%	100.0%
		% within City	4.5%	1.8%	.0%	3.1%	2.7%
	Mild to moderate depression	Count	6	2	0	3	11
		% within Depression	54.5%	18.2%	.0%	27.3%	100.0%
		% within City	5.4%	3.6%	.0%	4.6%	3.8%
	Moderate depression	Count	29	12	13	8	62
		% within Depression	46.8%	19.4%	21.0%	12.9%	100.0%
		% within City	26.1%	21.8%	21.0%	12.3%	21.2%
	Severe depression	Count	49	33	37	34	153
		% within Depression	32.0%	21.6%	24.2%	22.2%	100.0%
		% within City	44.1%	60.0%	59.7%	52.3%	52.2%
	Medicine needed	Count	8	6	12	17	43
		% within Depression	18.6%	14.0%	27.9%	39.5%	100.0%
		% within City	7.2%	10.9%	19.4%	26.2%	14.7%
Total		Count	111	55	62	65	293
		% within Depression	37.9%	18.8%	21.2%	22.2%	100.0%
		% within City	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=41.923, df=18 and P-Value=.001							

With respect to depression and city of the respondents it is seen that majority respondents belonging to Ahmedabad experienced severe depression. The chi square value is significant which means there is an association between city of residence and level of depression of the respondent.

Self Esteem (General) * Age

Table.62.

Crosstab								
			Age of Respondent					Total
			10-19 Yrs.	20-29 Yrs.	30-39 Yrs.	40-49 Yrs.	>=50 Yrs.	
Self Esteem General	Very Low	Count	0	0	3	1	2	6
		% within Self Esteem General	.0%	.0%	50.0%	16.7%	33.3%	100.0%
		% within Age of Respondent	.0%	.0%	2.3%	1.4%	10.5%	2.0%
	Low	Count	0	4	7	2	2	15
		% within Self Esteem General	.0%	26.7%	46.7%	13.3%	13.3%	100.0%
		% within Age of Respondent	.0%	6.6%	5.4%	2.8%	10.5%	5.1%
	Intermediate	Count	4	19	41	18	2	84
		% within Self Esteem General	4.8%	22.6%	48.8%	21.4%	2.4%	100.0%
		% within Age of Respondent	30.8%	31.1%	31.8%	25.4%	10.5%	28.7%
	High	Count	0	11	19	12	3	45
		% within Self Esteem General	.0%	24.4%	42.2%	26.7%	6.7%	100.0%
		% within Age of Respondent	.0%	18.0%	14.7%	16.9%	15.8%	15.4%
	Very high	Count	9	27	59	38	10	143
		% within Self Esteem General	6.3%	18.9%	41.3%	26.6%	7.0%	100.0%
		% within Age of Respondent	69.2%	44.3%	45.7%	53.5%	52.6%	48.8%
Total		Count	13	61	129	71	19	293
		% within Self Esteem General	4.4%	20.8%	44.0%	24.2%	6.5%	100.0%
		% within Age of Respondent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=18.597, df=16 and P-Value=.290								

With respect to general self esteem of the respondents and their age, it is seen that respondents belonging to the age group of 30 to 39 years had a very high general self esteem. The chi square value is insignificant which means there is no association between general self esteem and age of the respondent.

Self Esteem (General) * Gender

Table.63.

Crosstab					
			Gender		
			Male	Female	Total
Self Esteem General	Very Low	Count	4	2	6
		% within Self Esteem General	66.7%	33.3%	100.0%
		% within Gender	2.3%	1.7%	2.0%
	Low	Count	10	5	15
		% within Self Esteem General	66.7%	33.3%	100.0%
		% within Gender	5.6%	4.3%	5.1%
	Intermediate	Count	53	31	84
		% within Self Esteem General	63.1%	36.9%	100.0%
		% within Gender	29.9%	26.7%	28.7%
	High	Count	22	23	45
		% within Self Esteem General	48.9%	51.1%	100.0%
		% within Gender	12.4%	19.8%	15.4%
	Very high	Count	88	55	143
		% within Self Esteem General	61.5%	38.5%	100.0%
		% within Gender	49.7%	47.4%	48.8%
		Count	177	116	293
		% within Self Esteem General	60.4%	39.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
Pearson Chi-Square=3.171, df=4 and P-Value=.530					

It is observed that majority of the males had a very low general self esteem. Fifty three males had an intermediate level of general self esteem compared to women. The chi square value is insignificant which means there is no association between gender and level of general self esteem.

Self Esteem (General) * Marital Status

Table.64.

Crosstab								
			Marital Status					Total
			Unmarried	Married	Widow/Widower	Divorce	Alone	
Self Esteem General	Very Low	Count	0	5	0	1	0	6
		% within Self Esteem General	.0%	83.3%	.0%	16.7%	.0%	100.0%
		% within Marital Status	.0%	1.8%	.0%	100.0%	.0%	2.0%
	Low	Count	2	12	1	0	0	15
		% within Self Esteem General	13.3%	80.0%	6.7%	.0%	.0%	100.0%
		% within Marital Status	20.0%	4.3%	50.0%	.0%	.0%	5.1%
	Intermediate	Count	3	81	0	0	0	84
		% within Self Esteem General	3.6%	96.4%	.0%	.0%	.0%	100.0%
		% within Marital Status	30.0%	29.0%	.0%	.0%	.0%	28.7%
	High	Count	0	44	1	0	0	45
		% within Self Esteem General	.0%	97.8%	2.2%	.0%	.0%	100.0%
		% within Marital Status	.0%	15.8%	50.0%	.0%	.0%	15.4%
	Very high	Count	5	137	0	0	1	143
		% within Self Esteem General	3.5%	95.8%	.0%	.0%	.7%	100.0%
		% within Marital Status	50.0%	49.1%	.0%	.0%	100.0%	48.8%
Total		Count	10	279	2	1	1	293
		% within Self Esteem General	3.4%	95.2%	.7%	.3%	.3%	100.0%
		% within Marital Status	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=66.482, df=16and P-Value=.000								

With reference to general self esteem and marital status majority of the respondents i.e 37 were married and fell in the category of having very high self esteem The chi square value is significant which means there is an association between marital status and self esteem.

Self Esteem (General) * Educational Qualification

Table.65.

Crosstab							
			Educational Qualification				Total
			Illiterate	Below SSC	<=HSC	College or more	
Self Esteem General	Very Low	Count	0	2	2	2	6
		% within Self Esteem General	.0%	33.3%	33.3%	33.3%	100.0%
		% within Educational Qualification	.0%	1.6%	1.8%	13.3%	2.0%
	Low	Count	2	6	7	0	15
		% within Self Esteem General	13.3%	40.0%	46.7%	.0%	100.0%
		% within Educational Qualification	5.0%	4.8%	6.3%	.0%	5.1%
	Intermediate	Count	10	36	35	3	84
		% within Self Esteem General	11.9%	42.9%	41.7%	3.6%	100.0%
		% within Educational Qualification	25.0%	28.6%	31.3%	20.0%	28.7%
	High	Count	6	23	14	2	45
		% within Self Esteem General	13.3%	51.1%	31.1%	4.4%	100.0%
		% within Educational Qualification	15.0%	18.3%	12.5%	13.3%	15.4%
	Very high	Count	22	59	54	8	143
		% within Self Esteem General	15.4%	41.3%	37.8%	5.6%	100.0%
		% within Educational Qualification	55.0%	46.8%	48.2%	53.3%	48.8%
Total		Count	40	126	112	15	293
		% within Self Esteem General	13.7%	43.0%	38.2%	5.1%	100.0%
		% within Educational Qualification	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=14.052, df=12 and P-Value=.297							

With reference to general self esteem and educational qualification it is seen that respondents whose educational level is below SSC had a very high self esteem. The chi square value is insignificant which means there is no association between general self esteem and education level of the respondent

Self Esteem (General) * Occupation

Table .66.

Crosstab												
			Occupation of respondent									
			Business	Service	Skilled Labourer	Farming	Unemployed	Self Employed	Housewife	Driver	Other	Total
Self Esteem General	Very Low	Count	1	2	1	1	0	0	1	0	0	6
		% within Self Esteem General	16.7%	33.3%	16.7%	16.7%	.0%	.0%	16.7%	.0%	.0%	100.0%
		% within Occupation of respondent	8.3%	5.1%	5.0%	5.9%	.0%	.0%	.8%	.0%	.0%	2.0%
	Low	Count	0	0	4	1	0	0	4	3	3	15
		% within Self Esteem General	.0%	.0%	26.7%	6.7%	.0%	.0%	26.7%	20.0%	20.0%	100.0%
		% within Occupation of respondent	.0%	.0%	20.0%	5.9%	.0%	.0%	3.4%	9.4%	7.9%	5.1%
	Intermediate	Count	3	14	7	3	2	3	35	10	7	84
		% within Self Esteem General	3.6%	16.7%	8.3%	3.6%	2.4%	3.6%	41.7%	11.9%	8.3%	100.0%
		% within Occupation of respondent	25.0%	35.9%	35.0%	17.6%	66.7%	23.1%	29.4%	31.3%	18.4%	28.7%
	High	Count	1	8	2	2	0	1	21	6	4	45
		% within Self Esteem (General)	2.2%	17.8%	4.4%	4.4%	.0%	2.2%	46.7%	13.3%	8.9%	100.0%
		% within Occupation of respondent	8.3%	20.5%	10.0%	11.8%	.0%	7.7%	17.6%	18.8%	10.5%	15.4%
	Very high	Count	7	15	6	10	1	9	58	13	24	143
		% within Self Esteem (General)	4.9%	10.5%	4.2%	7.0%	.7%	6.3%	40.6%	9.1%	16.8%	100.0%
		% within Occupation of respondent	58.3%	38.5%	30.0%	58.8%	33.3%	69.2%	48.7%	40.6%	63.2%	48.8%
Total		Count	12	39	20	17	3	13	119	32	38	293
		% within Self Esteem (General)	4.1%	13.3%	6.8%	5.8%	1.0%	4.4%	40.6%	10.9%	13.0%	100.0%
		% within Occupation of respondent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=38.170, df=32 and P-Value=.209												

With respect to self esteem and occupation it was seen that housewives had the highest level of self esteem. The chi square value is insignificant which means there is no association between occupation and general self esteem**.**

Self Esteem (General) * Habitat

Table.67.

Crosstab					
			Habitat		Total
			Urban	Rural	
Self Esteem General	Very Low	Count	5	1	6
		% within Self Esteem General	83.3%	16.7%	100.0%
		% within Habitat	3.1%	.8%	2.0%
	Low	Count	9	6	15
		% within Self Esteem General	60.0%	40.0%	100.0%
		% within Habitat	5.5%	4.6%	5.1%
	Intermediate	Count	39	45	84
		% within Self Esteem General	46.4%	53.6%	100.0%
		% within Habitat	23.9%	34.6%	28.7%
	High	Count	22	23	45
		% within Self Esteem General	48.9%	51.1%	100.0%
		% within Habitat	13.5%	17.7%	15.4%
	Very high	Count	88	55	143
		% within Self Esteem General	61.5%	38.5%	100.0%
		% within Habitat	54.0%	42.3%	48.8%
Total		Count	163	130	293
		% within Self Esteem General	55.6%	44.4%	100.0%
		% within Habitat	100.0%	100.0%	100.0%
Pearson Chi-Square=7.714, df=4 and P-Value=.103					

With reference to general self esteem and habitat it is seen that majority respondents i.e 88 belonging to urban experienced very high self esteem. The chi square value is insignificant which means there is no association between general self esteem and habitat of the respondent.

Self Esteem (General) * City

Table.68.

Crosstab							
			City				Total
			Ahmedabad	Rajkot	Surat	Vadodara	
Self Esteem General	Very Low	Count	1	0	1	4	6
		% within Self Esteem General	16.7%	.0%	16.7%	66.7%	100.0%
		% within City	.9%	.0%	1.6%	6.2%	2.0%
	Low	Count	0	3	7	5	15
		% within Self Esteem General	.0%	20.0%	46.7%	33.3%	100.0%
		% within City	.0%	5.5%	11.3%	7.7%	5.1%
	Intermediate	Count	36	29	9	10	84
		% within Self Esteem General	42.9%	34.5%	10.7%	11.9%	100.0%
		% within City	32.4%	52.7%	14.5%	15.4%	28.7%
	High	Count	18	16	5	6	45
		% within Self Esteem General	40.0%	35.6%	11.1%	13.3%	100.0%
		% within City	16.2%	29.1%	8.1%	9.2%	15.4%
	Very high	Count	56	7	40	40	143
		% within Self Esteem General	39.2%	4.9%	28.0%	28.0%	100.0%
		% within City	50.5%	12.7%	64.5%	61.5%	48.8%
Total		Count	111	55	62	65	293
		% within Self Esteem General	37.9%	18.8%	21.2%	22.2%	100.0%
		% within City	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=68.948, df=12 and P-Value=.000							

With regard to general self esteem and city of the respondent it was observed that respondents belonging to Surat and Vadodara had very high general self esteem .The chi square value is significant which means there is an association between the general self esteem and city.

Self Esteem (Social) * Age

Table.69.

Crosstab								
			Age of Respondent					Total
			10-19 Yrs.	20-29 Yrs.	30-39 Yrs.	40-49 Yrs.	>=50 Yrs.	
Self Esteem Social	Very Low	Count	1	1	0	3	0	5
		% within Self Esteem Social	20.0%	20.0%	.0%	60.0%	.0%	100.0%
		% within Age of Respondent	7.7%	1.6%	.0%	4.2%	.0%	1.7%
	Low	Count	2	6	18	8	2	36
		% within Self Esteem Social	5.6%	16.7%	50.0%	22.2%	5.6%	100.0%
		% within Age of Respondent	15.4%	9.8%	14.0%	11.3%	10.5%	12.3%
	Intermediate	Count	1	6	17	6	0	30
		% within Self Esteem Social	3.3%	20.0%	56.7%	20.0%	.0%	100.0%
		% within Age of Respondent	7.7%	9.8%	13.2%	8.5%	.0%	10.2%
	High	Count	2	7	4	5	1	19
		% within Self Esteem Social	10.5%	36.8%	21.1%	26.3%	5.3%	100.0%
		% within Age of Respondent	15.4%	11.5%	3.1%	7.0%	5.3%	6.5%
	Very high	Count	7	41	90	49	16	203
		% within Self Esteem Social	3.4%	20.2%	44.3%	24.1%	7.9%	100.0%
		% within Age of Respondent	53.8%	67.2%	69.8%	69.0%	84.2%	69.3%
Total		Count	13	61	129	71	19	293
		% within Self Esteem Social	4.4%	20.8%	44.0%	24.2%	6.5%	100.0%
		% within Age of Respondent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=19.431, df=16 and P-Value=.247								

With regard to social self esteem and age of the respondent, it was observed that respondents belonging to the age group of 30 to 39 years had a very high social self esteem. The chi square value is insignificant which means there is no association between age of the respondent and social self esteem

Self Esteem (Social) * Gender

Table.70.

Crosstab					
			Gender		
			Male	Female	Total
Self Esteem Social	Very Low	Count	4	1	5
		% within Self Esteem Social	80.0%	20.0%	100.0%
		% within Gender	2.3%	.9%	1.7%
	Low	Count	19	17	36
		% within Self Esteem Social	52.8%	47.2%	100.0%
		% within Gender	10.7%	14.7%	12.3%
	Intermediate	Count	20	10	30
		% within Self Esteem Social	66.7%	33.3%	100.0%
		% within Gender	11.3%	8.6%	10.2%
	High	Count	12	7	19
		% within Self Esteem Social	63.2%	36.8%	100.0%
		% within Gender	6.8%	6.0%	6.5%
	Very high	Count	122	81	203
		% within Self Esteem Social	60.1%	39.9%	100.0%
		% within Gender	68.9%	69.8%	69.3%
Total		Count	177	116	293
		% within Self Esteem Social	60.4%	39.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
Pearson Chi-Square=2.238, df=4and P-Value=.692					

With reference to social self esteem and gender it was seen that majority of the respondents were males having a very high social self esteem. The chi square value is insignificant which means there is no association between social self esteem and gender of the respondents.

Self Esteem (Social) * Marital Status

Table.71.

Crosstab								
			Marital Status					
			Unmarried	Married	Widow/Widower	Divorce	Alone	Total
Self Esteem Social	Very Low	Count	0	5	0	0	0	5
		% within Self Esteem Social	.0%	100.0%	.0%	.0%	.0%	100.0%
		% within Marital Status	.0%	1.8%	.0%	.0%	.0%	1.7%
	Low	Count	1	34	0	0	1	36
		% within Self Esteem Social	2.8%	94.4%	.0%	.0%	2.8%	100.0%
		% within Marital Status	10.0%	12.2%	.0%	.0%	100.0%	12.3%
	Intermediate	Count	1	29	0	0	0	30
		% within Self Esteem Social	3.3%	96.7%	.0%	.0%	.0%	100.0%
		% within Marital Status	10.0%	10.4%	.0%	.0%	.0%	10.2%
	High	Count	1	16	1	1	0	19
		% within Self Esteem Social	5.3%	84.2%	5.3%	5.3%	.0%	100.0%
		% within Marital Status	10.0%	5.7%	50.0%	100.0%	.0%	6.5%
	Very high	Count	7	195	1	0	0	203
		% within Self Esteem Social	3.4%	96.1%	.5%	.0%	.0%	100.0%
		% within Marital Status	70.0%	69.9%	50.0%	.0%	.0%	69.3%
Total		Count	10	279	2	1	1	293
		% within Self Esteem Social	3.4%	95.2%	.7%	.3%	.3%	100.0%
		% within Marital Status	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=28.675, df=16 and P-Value=.026								

With regard to social self esteem and marital status, it is observed that majority respondents i.e 195 who were married had a very high social self esteem. The chi square value is significant which means there is association between marital status and social self esteem.

Self Esteem (Social) * Educational Qualification

Table.72.

Crosstab							
			Educational Qualification				Total
			Illiterate	Below SSC	<=HSC	College or more	
Self Esteem Social	Very Low	Count	0	4	1	0	5
		% within Self Esteem Social	.0%	80.0%	20.0%	.0%	100.0%
		% within Educational Qualification	.0%	3.2%	.9%	.0%	1.7%
	Low	Count	8	14	11	3	36
		% within Self Esteem Social	22.2%	38.9%	30.6%	8.3%	100.0%
		% within Educational Qualification	20.0%	11.1%	9.8%	20.0%	12.3%
	Intermediate	Count	1	13	15	1	30
		% within Self Esteem Social	3.3%	43.3%	50.0%	3.3%	100.0%
		% within Educational Qualification	2.5%	10.3%	13.4%	6.7%	10.2%
	High	Count	1	8	8	2	19
		% within Self Esteem Social	5.3%	42.1%	42.1%	10.5%	100.0%
		% within Educational Qualification	2.5%	6.3%	7.1%	13.3%	6.5%
	Very high	Count	30	87	77	9	203
		% within Self Esteem Social	14.8%	42.9%	37.9%	4.4%	100.0%
		% within Educational Qualification	75.0%	69.0%	68.8%	60.0%	69.3%
Total		Count	40	126	112	15	293
		% within Self Esteem Social	13.7%	43.0%	38.2%	5.1%	100.0%
		% within Educational Qualification	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=12.463, df=12and P-Value=.409							

With reference to social self esteem an it was observed that majority of the respondents i.e 87 whose education level was below SSC had a very high social self esteem. The chi square value is insignificant which means there is no association between social self esteem and education level of the respondents.

Self Esteem (Social) * Occupation

Table.73.

Crosstab												
			Occupation of respondent									
			Business	Service	Skilled Labourer	Farming	Unemployed	Self Employed	House wife	Driver	Other	Total
Self Esteem Social	Very Low	Count	0	1	0	0	0	0	3	1	0	5
		% within Self Esteem Social	.0%	20.0%	.0%	.0%	.0%	.0%	60.0%	20.0%	.0%	100.0%
		% within Occupation of respondent	.0%	2.6%	.0%	.0%	.0%	.0%	2.5%	3.1%	.0%	1.7%
	Low	Count	1	3	3	1	0	3	16	3	6	36
		% within Self Esteem Social	2.8%	8.3%	8.3%	2.8%	.0%	8.3%	44.4%	8.3%	16.7%	100.0%
		% within Occupation of respondent	8.3%	7.7%	15.0%	5.9%	.0%	23.1%	13.4%	9.4%	15.8%	12.3%
	Intermediate	Count	4	9	1	1	0	0	12	1	2	30
		% within Self Esteem Social	13.3%	30.0%	3.3%	3.3%	.0%	.0%	40.0%	3.3%	6.7%	100.0%
		% within Occupation of respondent	33.3%	23.1%	5.0%	5.9%	.0%	.0%	10.1%	3.1%	5.3%	10.2%
	High	Count	1	3	1	1	0	2	7	2	2	19
		% within Self Esteem Social	5.3%	15.8%	5.3%	5.3%	.0%	10.5%	36.8%	10.5%	10.5%	100.0%
		% within Occupation of respondent	8.3%	7.7%	5.0%	5.9%	.0%	15.4%	5.9%	6.3%	5.3%	6.5%
	Very high	Count	6	23	15	14	3	8	81	25	28	203
		% within Self Esteem (Social)	3.0%	11.3%	7.4%	6.9%	1.5%	3.9%	39.9%	12.3%	13.8%	100.0%
		% within Occupation of respondent	50.0%	59.0%	75.0%	82.4%	100.0%	61.5%	68.1%	78.1%	73.7%	69.3%
Total		Count	12	39	20	17	3	13	119	32	38	293
		% within Self Esteem Social	4.1%	13.3%	6.8%	5.8%	1.0%	4.4%	40.6%	10.9%	13.0%	100.0%
		% within Occupation of respondent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=29.065, df=32 and P-Value=.616												

With respect to social self esteem and occupation of the respondent it is observed that respondents who were house wives had a very high social self esteem. The chi square value is insignificant which means there is no association between social self esteem and occupation.

Self Esteem (Social) * Habitat

Table.74.

Crosstab					
			Habitat		
			Urban	Rural	Total
Self Esteem Social	Very Low	Count	4	1	5
		% within Self Esteem Social	80.0%	20.0%	100.0%
		% within Habitat	2.5%	.8%	1.7%
	Low	Count	19	17	36
		% within Self Esteem Social	52.8%	47.2%	100.0%
		% within Habitat	11.7%	13.1%	12.3%
	Intermediate	Count	23	7	30
		% within Self Esteem Social	76.7%	23.3%	100.0%
		% within Habitat	14.1%	5.4%	10.2%
	High	Count	11	8	19
		% within Self Esteem (Social)	57.9%	42.1%	100.0%
		% within Habitat	6.7%	6.2%	6.5%
	Very high	Count	106	97	203
		% within Self Esteem Social	52.2%	47.8%	100.0%
		% within Habitat	65.0%	74.6%	69.3%
Total		Count	163	130	293
		% within Self Esteem Social	55.6%	44.4%	100.0%
		% within Habitat	100.0%	100.0%	100.0%
Pearson Chi-Square=7.698,df=4 and P-Value=.103					

With respect to social self esteem and habitat it was observed that respondents belonging to urban habitat i.e 106 of them had a very high social self esteem. The chi square value is insignificant which means there is no association between social self esteem and habitat.

Self Esteem (Social) * City

Table.75.

Crosstab							
			City				Total
			Ahmedabad	Rajkot	Surat	Vadodara	
Self Esteem Social	Very Low	Count	3	2	0	0	5
		% within Self Esteem Social	60.0%	40.0%	.0%	.0%	100.0%
		% within City	2.7%	3.6%	.0%	.0%	1.7%
	Low	Count	15	4	10	7	36
		% within Self Esteem Social	41.7%	11.1%	27.8%	19.4%	100.0%
		% within City	13.5%	7.3%	16.1%	10.8%	12.3%
	Intermediate	Count	18	1	3	8	30
		% within Self Esteem Social	60.0%	3.3%	10.0%	26.7%	100.0%
		% within City	16.2%	1.8%	4.8%	12.3%	10.2%
	High	Count	5	8	2	4	19
		% within Self Esteem Social	26.3%	42.1%	10.5%	21.1%	100.0%
		% within City	4.5%	14.5%	3.2%	6.2%	6.5%
	Very high	Count	70	40	47	46	203
		% within Self Esteem Social	34.5%	19.7%	23.2%	22.7%	100.0%
		% within City	63.1%	72.7%	75.8%	70.8%	69.3%
Total		Count	111	55	62	65	293
		% within Self Esteem Social	37.9%	18.8%	21.2%	22.2%	100.0%
		% within City	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=24.185, df=12 and P-Value=.019							

With respect to social self esteem and city it is seen that respondents residing in Ahmedabad had a very high social self esteem followed by Surat, Vadodara and Rajkot. The chi square value is significant which means there is an association between city of residence and social self esteem.

Self Esteem (Personal) * Age

Table.76.

Crosstab								
			Age of Respondent					Total
			10-19 Yrs.	20-29 Yrs.	30-39 Yrs.	40-49 Yrs.	>=50 Yrs.	
Self Esteem Personal	Low	Count	2	1	6	3	1	13
		% within Self Esteem Personal	15.4%	7.7%	46.2%	23.1%	7.7%	100.0%
		% within Age of Respondent	15.4%	1.6%	4.7%	4.2%	5.3%	4.4%
	Intermediate	Count	1	2	4	2	0	9
		% within Self Esteem Personal	11.1%	22.2%	44.4%	22.2%	.0%	100.0%
		% within Age of Respondent	7.7%	3.3%	3.1%	2.8%	.0%	3.1%
	High	Count	0	0	1	1	1	3
		% within Self Esteem Personal	.0%	.0%	33.3%	33.3%	33.3%	100.0%
		% within Age of Respondent	.0%	.0%	.8%	1.4%	5.3%	1.0%
	Very high	Count	10	58	118	65	17	268
		% within Self Esteem Personal	3.7%	21.6%	44.0%	24.3%	6.3%	100.0%
		% within Age of Respondent	76.9%	95.1%	91.5%	91.5%	89.5%	91.5%
Total		Count	13	61	129	71	19	293
		% within Self Esteem Personal	4.4%	20.8%	44.0%	24.2%	6.5%	100.0%
		% within Age of Respondent	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=10.818, df=12 and P-Value=.545								

With reference to personal self esteem and age , it was observed that respondents belonging to the age group of 30 to 39 years had a very high personal self-esteem. The chi square value is insignificant which means there is no association between personal self esteem and age of the respondent.

Self Esteem (Personal)* Gender

Table.77.

Crosstab					
			Gender		Total
			Male	Female	
Self Esteem Personal	Low	Count	7	6	13
		% within Self Esteem Personal	53.8%	46.2%	100.0%
		% within Gender	4.0%	5.2%	4.4%
	Intermediate	Count	5	4	9
		% within Self Esteem Personal	55.6%	44.4%	100.0%
		% within Gender	2.8%	3.4%	3.1%
	High	Count	2	1	3
		% within Self Esteem Personal	66.7%	33.3%	100.0%
		% within Gender	1.1%	.9%	1.0%
	Very high	Count	163	105	268
		% within Self Esteem Personal	60.8%	39.2%	100.0%
		% within Gender	92.1%	90.5%	91.5%
Total		Count	177	116	293
		% within Self Esteem Personal	60.4%	39.6%	100.0%
		% within Gender	100.0%	100.0%	100.0%
Pearson Chi-Square=.391, df=3 and P-Value=.942					

With respect to personal self esteem and gender it was observed that majority of the male members had a very high personal self esteem. The chi square value is insignificant which means there is no association between personal self esteem and gender of the respondent.

Self Esteem (Personal) * Marital Status

Table.78.

Crosstab								
			Marital Status					Total
			Unmarried	Married	Widow/Widower	Divorce	Alone	
Self Esteem Personal	Low	Count	1	12	0	0	0	13
		% within Self Esteem Personal	7.7%	92.3%	.0%	.0%	.0%	100.0%
		% within Marital Status	10.0%	4.3%	.0%	.0%	.0%	4.4%
	Intermediate	Count	0	9	0	0	0	9
		% within Self Esteem Personal	.0%	100.0%	.0%	.0%	.0%	100.0%
		% within Marital Status	.0%	3.2%	.0%	.0%	.0%	3.1%
	High	Count	0	3	0	0	0	3
		% within Self Esteem Personal	.0%	100.0%	.0%	.0%	.0%	100.0%
		% within Marital Status	.0%	1.1%	.0%	.0%	.0%	1.0%
	Very high	Count	9	255	2	1	1	268
		% within Self Esteem Personal	3.4%	95.1%	.7%	.4%	.4%	100.0%
		% within Marital Status	90.0%	91.4%	100.0%	100.0%	100.0%	91.5%
Total		Count	10	279	2	1	1	293
		% within Self Esteem Personal	3.4%	95.2%	.7%	.3%	.3%	100.0%
		% within Marital Status	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=1.523, df=12and P-Value=1.000								

With reference to personal self esteem and marital status of the respondent it was observed that married respondents had a very high personal self-esteem. The chi square value is insignificant which means there is no association between personal self esteem and marital status of the respondent.

Self Esteem (Personal) * Educational Qualification

Table.79.

Crosstab							
			Educational Qualification				Total
			Illiterate	Below SSC	<=HSC	College or more	
Self Esteem Personal	Low	Count	1	6	4	2	13
		% within Self Esteem Personal	7.7%	46.2%	30.8%	15.4%	100.0%
		% within Educational Qualification	2.5%	4.8%	3.6%	13.3%	4.4%
	Intermediate	Count	1	5	2	1	9
		% within Self Esteem Personal	11.1%	55.6%	22.2%	11.1%	100.0%
		% within Educational Qualification	2.5%	4.0%	1.8%	6.7%	3.1%
	High	Count	1	1	1	0	3
		% within Self Esteem Personal	33.3%	33.3%	33.3%	.0%	100.0%
		% within Educational Qualification	2.5%	.8%	.9%	.0%	1.0%
	Very high	Count	37	114	105	12	268
		% within Self Esteem Personal	13.8%	42.5%	39.2%	4.5%	100.0%
		% within Educational Qualification	92.5%	90.5%	93.8%	80.0%	91.5%
Total		Count	40	126	112	15	293
		% within Self Esteem Personal	13.7%	43.0%	38.2%	5.1%	100.0%
		% within Educational Qualification	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=6.226, df=9 and P-Value=.717							

With reference to personal self esteem and educational qualification of the respondent it was observed that respondents whose education level was below SSC level had a very high personal self esteem. The chi square value is insignificant which means there is no association between personal self esteem and educational level of the respondent.

Self Esteem (Personal) * Occupation

Table.80.

Crosstab												
			Occupation of respondent									
			Business	Service	Skilled Labourer	Farming	Unemployed	Self Employed	House wife	Driver	Other	Total
Self Esteem Personal	Low	Count	0	2	1	0	0	0	8	2	0	13
		% within Self Esteem Personal	.0%	15.4%	7.7%	.0%	.0%	.0%	61.5%	15.4%	.0%	100.0 %
		% within Occupation of respondent	.0%	5.1%	5.0%	.0%	.0%	.0%	6.7%	6.3%	.0%	4.4%
	Intermediate	Count	1	1	0	1	1	1	3	0	1	9
		% within Self Esteem Personal	11.1%	11.1%	.0%	11.1%	11.1%	11.1%	33.3%	.0%	11.1%	100.0 %
		% within Occupation of respondent	8.3%	2.6%	.0%	5.9%	33.3%	7.7%	2.5%	.0%	2.6%	3.1%
	High	Count	0	0	0	1	0	0	2	0	0	3
		% within Self Esteem Personal	.0%	.0%	.0%	33.3%	.0%	.0%	66.7%	.0%	.0%	100.0 %
		% within Occupation of respondent	.0%	.0%	.0%	5.9%	.0%	.0%	1.7%	.0%	.0%	1.0%
	Very high	Count	11	36	19	15	2	12	106	30	37	268
		% within Self Esteem Personal	4.1%	13.4%	7.1%	5.6%	.7%	4.5%	39.6%	11.2%	13.8%	100.0 %
		% within Occupation of respondent	91.7%	92.3%	95.0%	88.2%	66.7%	92.3%	89.1%	93.8%	97.4%	91.5%
Total		Count	12	39	20	17	3	13	119	32	38	293
		% within Self Esteem Personal	4.1%	13.3%	6.8%	5.8%	1.0%	4.4%	40.6%	10.9%	13.0%	100.0 %
		% within Occupation of respondent	100.0 %	100.0 %	100.0%	100.0%	100.0%	100.0%	100.0 %	100.0 %	100.0 %	100.0 %
Pearson Chi-Square=25.033, df=24 and P-Value=.404												

With reference to personal self esteem and occupation of the respondent it was observed that majority respondents who were housewives had a very high personal self esteem. The chi square value is insignificant which means there is no association between personal self esteem and occupation of the respondent.

Self Esteem (Personal) * Habitat

Table.81.

Crosstab					
			Habitat		Total
			Urban	Rural	
Self Esteem Personal	Low	Count	6	7	13
		% within Self Esteem Personal	46.2%	53.8%	100.0%
		% within Habitat	3.7%	5.4%	4.4%
	Intermediate	Count	5	4	9
		% within Self Esteem Personal	55.6%	44.4%	100.0%
		% within Habitat	3.1%	3.1%	3.1%
	High	Count	3	0	3
		% within Self Esteem Personal	100.0%	.0%	100.0%
		% within Habitat	1.8%	.0%	1.0%
	Very high	Count	149	119	268
		% within Self Esteem Personal	55.6%	44.4%	100.0%
		% within Habitat	91.4%	91.5%	91.5%
Total		Count	163	130	293
		% within Self Esteem Personal	55.6%	44.4%	100.0%
		% within Habitat	100.0%	100.0%	100.0%
Pearson Chi-Square=2.866, df=3 and P-Value=.413					

With reference to personal self esteem and habitat of the respondent it was observed that respondents who belonged to an urban habitat had a very high personal self esteem. The chi square value is insignificant which means there is no association between personal self esteem and habitat of the respondent.

Self Esteem (Personal)* City

Table.82.

Crosstab							
			City				Total
			Ahmedabad	Rajkot	Surat	Vadodara	
Self Esteem Personal	Low	Count	11	1	0	1	13
		% within Self Esteem Personal	84.6%	7.7%	.0%	7.7%	100.0%
		% within City	9.9%	1.8%	.0%	1.5%	4.4%
	Intermediate	Count	4	1	2	2	9
		% within Self Esteem Personal	44.4%	11.1%	22.2%	22.2%	100.0%
		% within City	3.6%	1.8%	3.2%	3.1%	3.1%
	High	Count	0	1	0	2	3
		% within Self Esteem Personal	.0%	33.3%	.0%	66.7%	100.0%
		% within City	.0%	1.8%	.0%	3.1%	1.0%
	Very high	Count	96	52	60	60	268
		% within Self Esteem Personal	35.8%	19.4%	22.4%	22.4%	100.0%
		% within City	86.5%	94.5%	96.8%	92.3%	91.5%
Total		Count	111	55	62	65	293
		% within Self Esteem Personal	37.9%	18.8%	21.2%	22.2%	100.0%
		% within City	100.0%	100.0%	100.0%	100.0%	100.0%
Pearson Chi-Square=18.054, df=9 and P-Value=.035							

With respect to personal self esteem and city of residence it was observed that respondents belonging to Ahmedabad had a very high personal self esteem. The chi square value is significant which means there is an association between personal self esteem and city of residence of the respondent.

Section IV

4.4. Correlation tables:

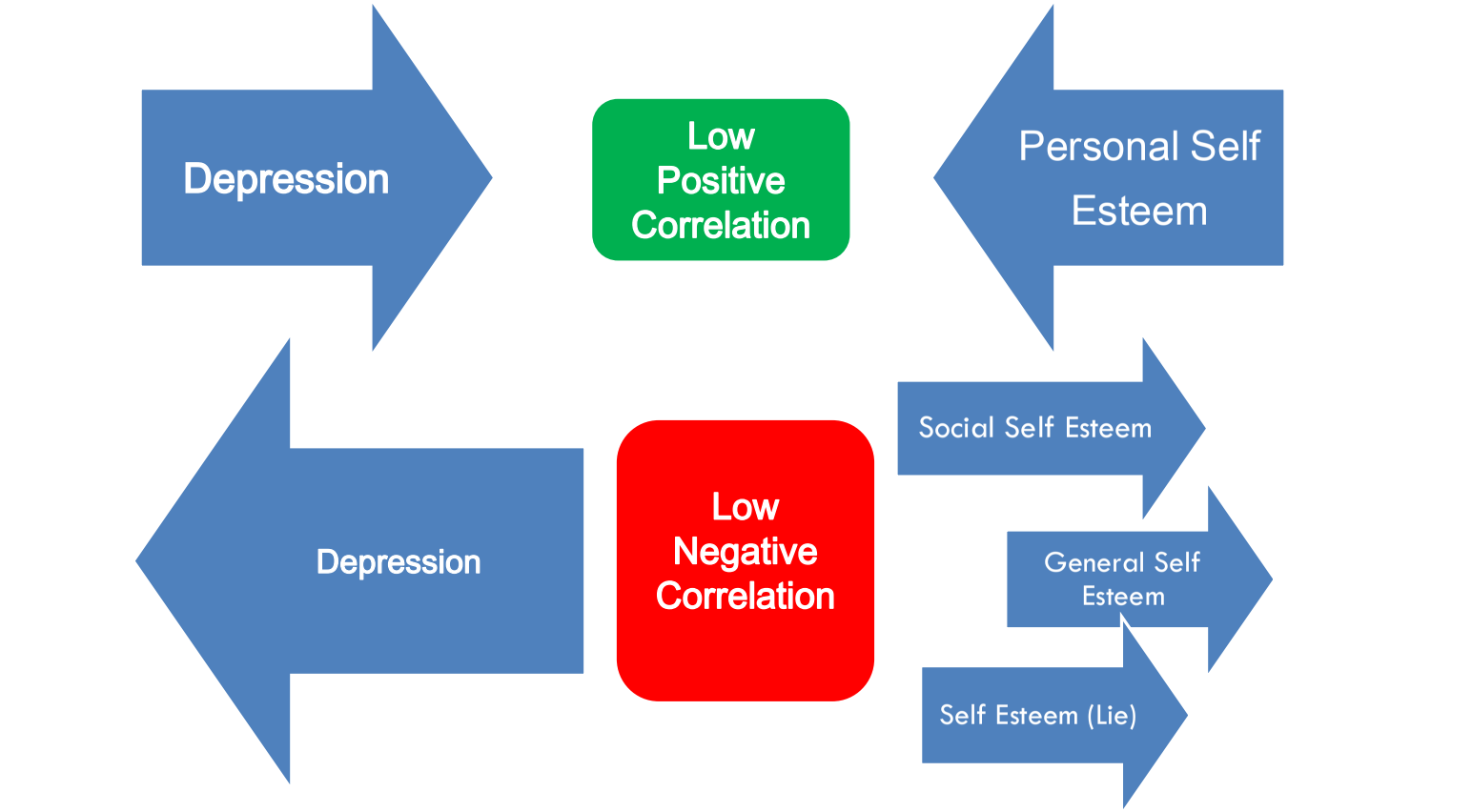
Correlation between Depression and Self esteem

Table.83.

Correlations						
		Depression	Self Esteem (General)	Self Esteem (Social)	Self Esteem (Personal)	Self (Lie)
Depression	Pearson Correlation	1	-.046	-.040	.074	-.055
	Sig. (2-tailed)		.434	.500	.206	.351
	N	293	293	293	293	293
Self Esteem (General)	Pearson Correlation	-.046	1	-.134*	-.026	.055
	Sig. (2-tailed)	.434		.022	.658	.348
	N	293	293	293	293	293
Self Esteem (Social)	Pearson Correlation	-.040	-.134*	1	.162**	-.059
	Sig. (2-tailed)	.500	.022		.006	.310
	N	293	293	293	293	293
Self Esteem (Personal)	Pearson Correlation	.074	-.026	.162**	1	.009
	Sig. (2-tailed)	.206	.658	.006		.878
	N	293	293	293	293	293
Self Esteem (Lie)	Pearson Correlation	-.055	.055	-.059	.009	1
	Sig. (2-tailed)	.351	.348	.310	.878	
	N	293	293	293	293	293
*. Correlation is significant at the 0.05 level (2-tailed).						
**. Correlation is significant at the 0.01 level (2-tailed).						

Depression has low positive correlation with Self Esteem (Personal) (r=0.074 and p_value=.206), where as low negative correlation with Self Esteem(General) (r=-0.046, p_value=.434), Self Esteem(Social) (r=-0.040 and p_value=.500) and Self Esteem (Lie) (r=-0.055, p_value=0.351).

Correlation between Depression & Self Esteem



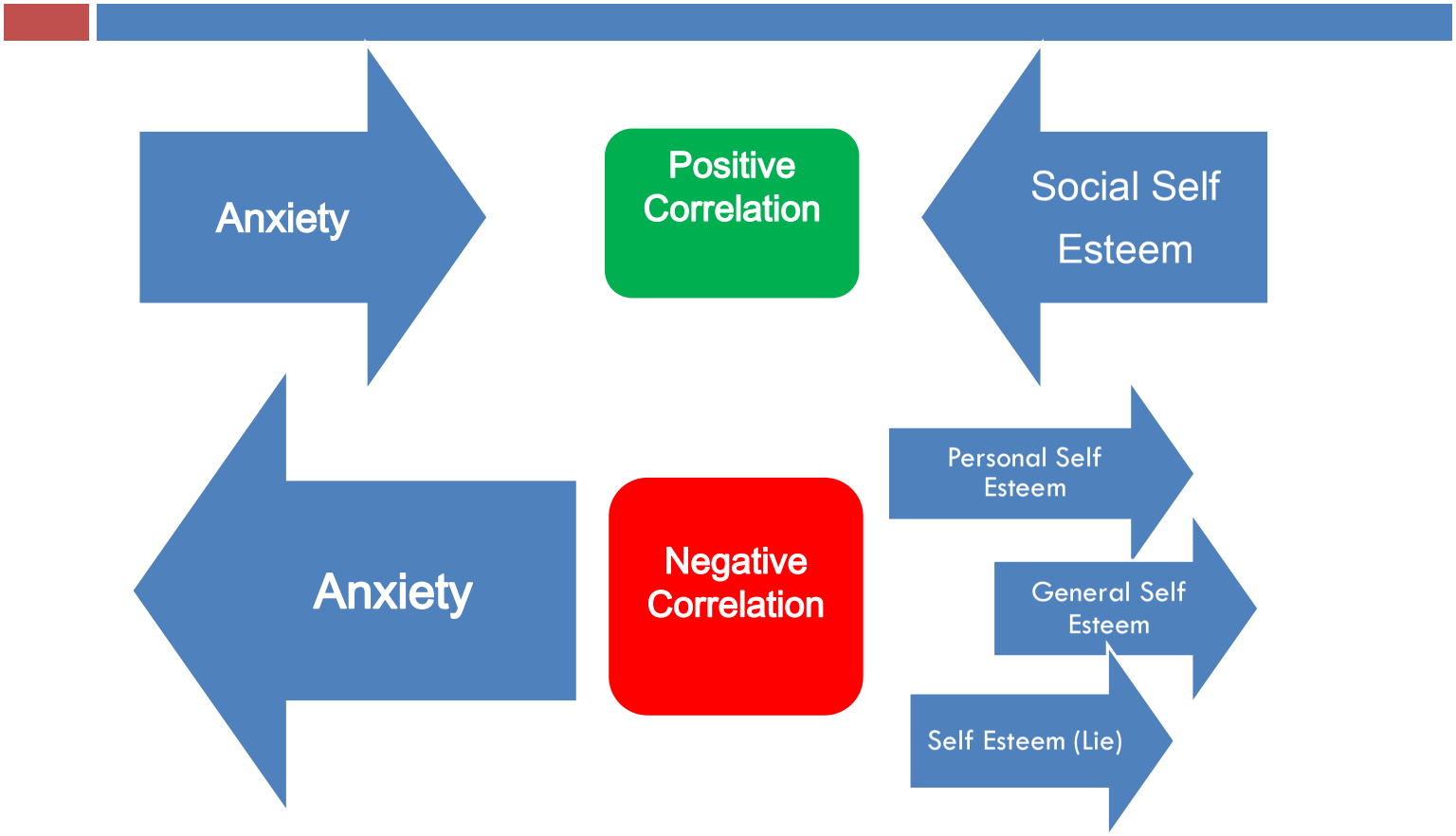
Correlation between Anxiety and Self esteem

Table.84.

Correlations						
		Self Esteem (General)	Self Esteem (Social)	Self Esteem (Personal)	Self (_Lie)	Anxiety
Self Esteem (General)	Pearson Correlation	1	-.134*	-.026	.055	-.056
	Sig. (2-tailed)		.022	.658	.348	.342
	N	293	293	293	293	293
Self Esteem (Social)	Pearson Correlation	-.134*	1	.162**	-.059	.018
	Sig. (2-tailed)	.022		.006	.310	.757
	N	293	293	293	293	293
Self Esteem (Personal)	Pearson Correlation	-.026	.162**	1	.009	-.008
	Sig. (2-tailed)	.658	.006		.878	.886
	N	293	293	293	293	293
Self Estee (Lie)	Pearson Correlation	.055	-.059	.009	1	-.131*
	Sig. (2-tailed)	.348	.310	.878		.025
	N	293	293	293	293	293
Anxiety	Pearson Correlation	-.056	.018	-.008	-.131*	1
	Sig. (2-tailed)	.342	.757	.886	.025	
	N	293	293	293	293	293
*. Correlation is significant at the 0.05 level (2-tailed).						
**. Correlation is significant at the 0.01 level (2-tailed).						

Anxiety has positive correlation with Self Esteem (Social) (r=0.018, p_value=.757), while it has a negative correlation with Self Esteem (General), Self Esteem (Personal) and Self Esteem (Lie).

Correlation between Anxiety & Self Esteem



Correlation between Depression and Suicide Ideation

Table.85.

Correlations			
		Suicide Ideation	Depression
Suicide Ideation	Pearson Correlation	1	-.025
	Sig. (2-tailed)		.675
	N	293	293
Depression	Pearson Correlation	-.025	1
	Sig. (2-tailed)	.675	
	N	293	293

Negative correlation has been observed for Suicidal Ideation and Depression(r=-0.025, p_value=0.675).

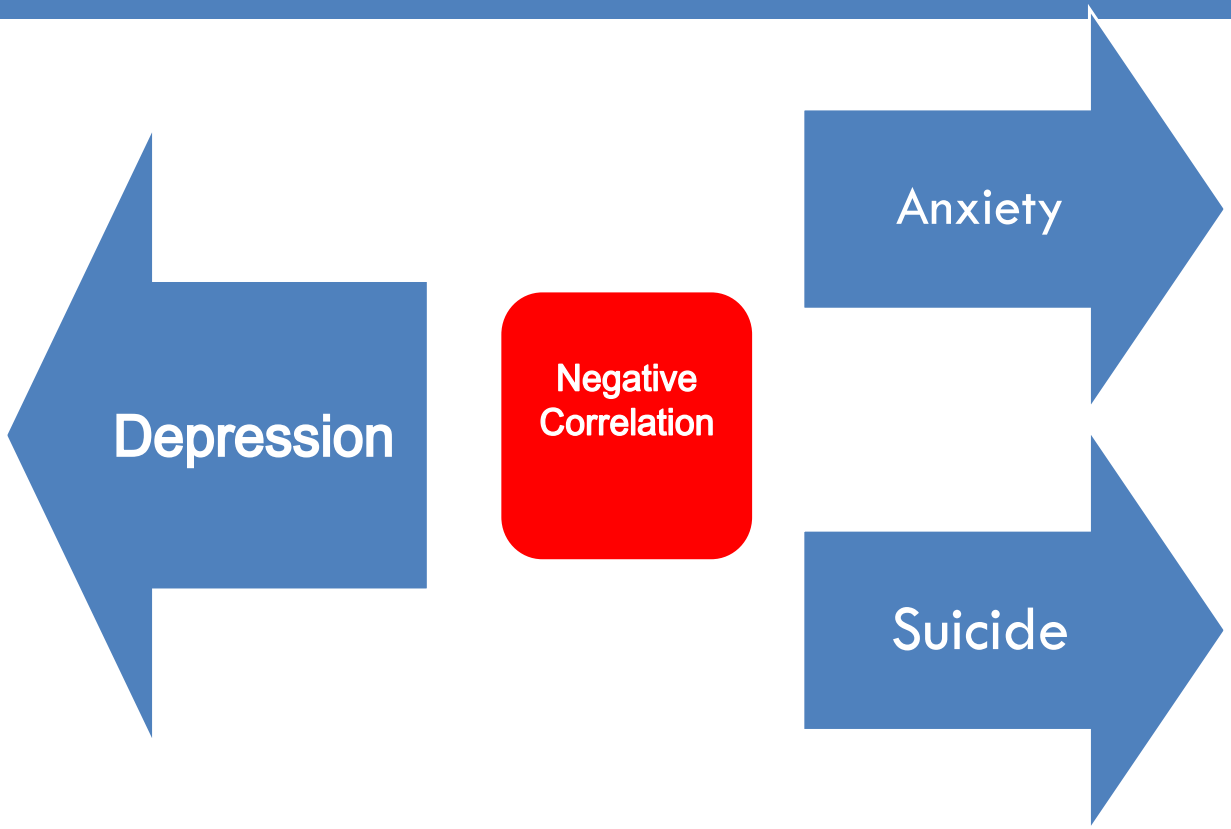
Correlation between Anxiety, Depression and Suicide Ideation.

Table.86.

Correlations				
		Suicide Ideation	Depression	Anxiety
Suicide Ideation	Pearson Correlation	1	-.025	-.130*
	Sig. (2-tailed)		.675	.027
	N	293	293	293
Depression	Pearson Correlation	-.025	1	-.132*
	Sig. (2-tailed)	.675		.024
	N	293	293	293
l Anxiety	Pearson Correlation	-.130*	-.132*	1
	Sig. (2-tailed)	.027	.024	
	N	293	293	293
*. Correlation is significant at the 0.05 level (2-tailed).				

There exists a negative correlation between depression and anxiety. (r=0.132, p_value=0.024)

Correlation between Depression, Anxiety & Suicide



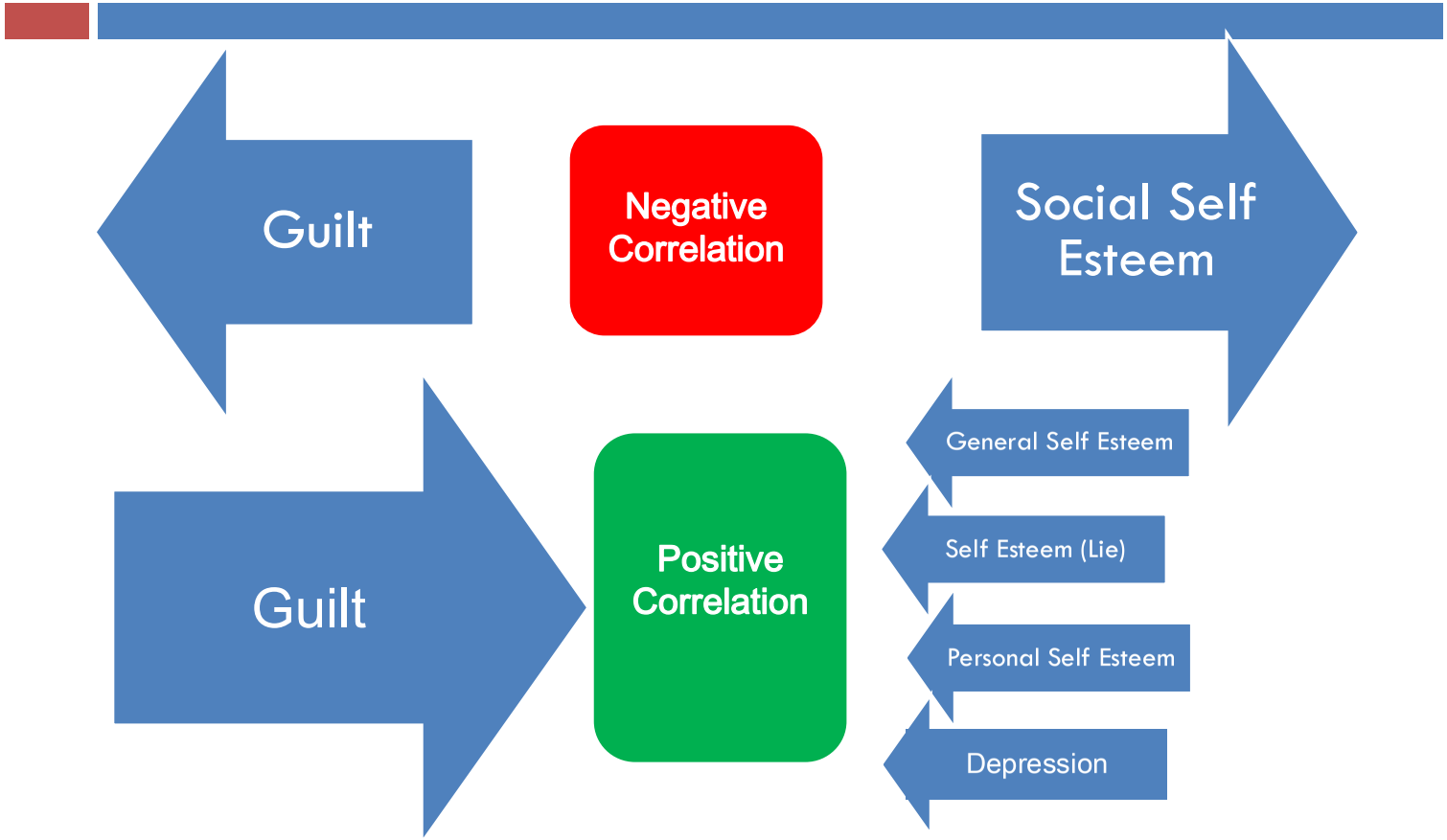
Correlation between Guilt, Self Esteem and Depression

Table.87.

Correlations							
		Guilt	Self Esteem (General)	Self Esteem (Social)	Self Esteem(Personal)	Self Esteem (Li)e	Depression
Guilt	Pearson Correlation	1	.071	-.022	.053	.022	.086
	Sig. (2-tailed)		.228	.706	.367	.710	.140
	N	293	293	293	293	293	293
Self Esteem (General)	Pearson Correlation	.071	1	-.134*	-.026	.055	-.046
	Sig. (2-tailed)	.228		.022	.658	.348	.434
	N	293	293	293	293	293	293
Self Esteem (Social)	Pearson Correlation	-.022	-.134*	1	.162**	-.059	-.040
	Sig. (2-tailed)	.706	.022		.006	.310	.500
	N	293	293	293	293	293	293
Self Esteem (Personal)	Pearson Correlation	.053	-.026	.162**	1	.009	.074
	Sig. (2-tailed)	.367	.658	.006		.878	.206
	N	293	293	293	293	293	293
Self Esteem(Lie)	Pearson Correlation	.022	.055	-.059	.009	1	-.055
	Sig. (2-tailed)	.710	.348	.310	.878		.351
	N	293	293	293	293	293	293
Depression	Pearson Correlation	.086	-.046	-.040	.074	-.055	1
	Sig. (2-tailed)	.140	.434	.500	.206	.351	
	N	293	293	293	293	293	293
*. Correlation is significant at the 0.05 level (2-tailed).							
**. Correlation is significant at the 0.01 level (2-tailed).							

Guilt has a negative correlation with Self Esteem (Social). While there is a positive correlation between guilt and Self Esteem(general), ,Self Esteem Personal, Self Esteem(Lie) and depression .

Correlation between Depression, Self Esteem & Guilt



CHAPTER V

SUMMARY AND CONCLUSIONS

5.1. **Preliminary information**:

In the present study it was found that more male respondents agreed to participate in the study as compared to their women counterparts. It was observed that though the informed consent form being made to fill and the true purpose and nature of research was explained to the respondents many women were hesitant because they feared their identity would be disclosed or they might receive any document through post further complicating their lives and hence they chose to say they were housewives hence with regards to the occupation of the female respondents the researcher observed some degree of ambiguity. Most of the respondents belonged to the age bracket of 30 to 39 years of age, followed by 40 to 49 years. Very few of them fell in the age range of 10 to19 years. Most of the respondents were married and had completed their primary education. Most of the respondents lived with their families and the family size was small.

With respect to family's total monthly income, it is seen that financially they were not quite stable and the majority of them had a total family income between rupees 2000 to 5000 only. It can thus be concluded that due to low family income the overall standard of living might not have been very high, which in turn can deprive an individual exposure to good health and healthy lifestyle. Due to unstable financial condition educational facilities may also have been limited and hence the data collected revealed that most of the respondents were educated only till SSC level or even less than that. Very few were educated till HSC or college level.

Knowledge about any disease or infection is attained when a person is capable to read and seek relevant information. In this study it seems due to limited education the respondents could not attain the important and necessary information that could

safeguard them against HIV infection. Most of the respondents were referred to the hospital by their treating doctor and very few of them visited the hospital for HIV testing on their own. This reflects lack of self care attitude and also inadequacy pertaining to HIV signs and symptoms. Had they been well equipped they would have got HIV tests on their own.

Medical symptoms suggestive of HIV infection were observed in majority of the respondents and the prominent among them being continuous fever followed by weight loss. Quite of them did not respond to this question. Apart from medical symptoms pertaining to HIV infection past medical history of the respondents was also probed into. Past history of other disease was observed in almost more than half the respondents. Thirty five respondents suffered from sexually transmitted diseases and very few complained of psychiatric illness. Ninety eight respondents suffered from tuberculosis which is regarded as a close associate of HIV. There exists ambiguity in response to certain questions. Few to mention are those related to addiction, blood transfusion and sexual relations. Pertaining to addiction very few confessed that they were addicted. Receiving blood was uncommon practice and only eighty two respondents said they did receive blood in the past and fewer still said that blood was tested for HIV infection. Majority respondents were HIV positive for more than a year. Amazingly one hundred and thirty five respondents were unaware of their partner's HIV status (whether their spouse was HIV positive or negative).

With a view to have a better insight pertaining to sexual practices of the respondents certain questions regarding their pre and extramarital sexual relations, homosexuality, and sexual relations with a commercial sex worker were asked. Majority respondents did not have unprotected sex either before or after marriage. At the same time it may also be noted this being a sensitive question many did not respond to it. Most of the respondents preferred having sex with the same partner although it is also observed that many of them chose to have sex with multiple

partners. Anal sex is also a common mode of transmission of HIV infection. Maximum respondents did not answer to this question. Having sex with a commercial sex worker was also a common practice and data revealed that quite a few had unprotected sexual relations with commercial sex workers and continued this practice even after having known their HIV positive status. This clearly indicates that HIV positive individuals themselves did not take precautionary measures to curtail the spread of HIV virus. When asked if they used IV medicines, majority respondents said they did not use it, and only a few who used IV medicines said they used it by the age of 20 years.

Stigma is a major impediment in reducing the self-esteem and self-confidence of an individual. Family is regarded an institution which ensure security and bonding to an individual in times of crises. Amazingly maximum respondents experienced stigma within their own families. An interesting example that can be cited here is about the children seeking shelter at the NAAZ foundation, Delhi which takes care of children who are orphaned due to HIV and are abandoned by their families due to their HIV positive status. It works for their overall development and also takes care of their daily need and renders them the required psychological support. Fortunately stigma was not very commonly experienced by the respondents at the job level or at the hospital. Maybe because these institutions are more economic in their activities while family is more social in nature and the individual identifies himself/herself with his/her family. Hence familial warmth and support can fetch better results in developing confidence. Associated with this finding another noteworthy finding that comes to light is that majority of the respondents did not disclose their HIV positive status as they feared they would face stigma. Only seventy respondents agreed to have shared their HIV status and when asked as to with whom they shared their HIV positive status, they did not respond Majority of them did not have any family member who was HIV positive. A large number of respondents knew their spouse

was HIV positive status but quite a few did not know about their spouse's HIV status. Surprisingly only 40% spouses' showed a caring attitude towards their HIV positive husband/wife. Majority of the respondents' family had known their HIV positive status. May be they had known through another source and not by the respondent himself and also that the family was caring towards them. Here the researcher observed complex and contradictory responses given by the respondents. Earlier the respondents said that they experience stigma within the family and now they said the family was caring. What can be presumed out of these contradicting responses? Is it that respondents were not clear enough in voicing their experiences or was it that they too were confused? One conclusion that can be arrived at can be that maybe it is the extended family was unsupportive and stigmatized the HIV positive individual and the immediate family members were caring enough. Majority of the respondents did not hesitate in attending any social gathering or a family function after having known their HIV positive status.

A great deal of printed literature is circulated within the HIV positive community as well as huge posters and hoardings are seen in government hospitals and public places. Mass media also contributes greatly in creating an impact and understanding about a particular agenda. The most prominent part in spreading knowledge is done by television. Out of the total respondents majority of them said that they derived knowledge about HIV through the messages and flickers shown on the television. Second in the list is the job done by health care workers'. Unfortunately newspaper did not prove to be an important medium of spreading awareness about HIV.

Majority of the respondents had a sound knowledge pertaining to the difference between HIV/AIDS. Almost 80% respondents knew that HIV/AIDS weakens the body as it reduces one's immunity. Most of them said that an HIV infected individual should be kept at home instead of being driven away or being kept

isolated. Respondents were quite aware about the modes of transmission and spread of HIV infection and most of them considered sexual relation as the main mode of transmission followed by blood transfusion and use of the same needles. Pertaining to the prevention of HIV infection majority of the respondents did not respond and less than 10% agreed that HIV infection can be prevented. With regards to cure of AIDS, above 50% said it can be cured and pertaining to the knowledge of cure of AIDS majority of the respondents said ARV helps in curing HIV/AIDS.

5.2. Summary of Quality of Life and its sub items.

Considering the overall quality of life and its sub items it can be said that most of the respondents were moderately satisfied with their sex life. Only less than 10% respondents were dissatisfied. Regarding their financial position majority fell in the moderate category followed by those who were highly satisfied by their financial position.

Medical care was given due importance which is reflected in the fact that 90% respondents were concerned about their health. Maximum respondents were guilty in their lives. Though majority of the respondents experienced suicidal ideation rarely, it is noteworthy that considerable number of respondents experienced suicidal ideation sometimes, while suicidal ideation was quite frequent in less than 15% respondents. In contrast to this it is seen that depression and anxiety were severely experienced by majority of the respondents.

Another important fact that needs to be highlighted is that inspite of high levels of anxiety and depression being experienced by the respondents the overall self esteem which includes general self esteem, personal self esteem and social self esteem is relatively high among the respondents.

5.3.Summary of Bivariate tables

It is observed that majority of the male respondents who were married were moderately satisfied with their sex life. Overall satisfaction with their sexual life was less observed amongst the respondents. This finding is alarming because not being sexually satisfied in their married life leads a person to find satisfaction outside marriage and this gives rise to other problems such as extramarital relationships or other pleasure seeking sources. It is often believed that marriage can bring about changes in the lifestyle of an individual, but this is not always true. Dissatisfaction in marital life can make life all the more challenging. Education cannot guarantee satisfaction from every aspect of life. In the current study also it is found that respondents who were educated below SSC level and those who were educated above HSC level did not show any difference in the degree of sexual satisfaction. Both the groups were moderately satisfied with their sexual lives. In contrast to this respondents who were illiterate were totally satisfied with their sex life. Thus we can say there is no association between education level and sexual satisfaction and sexual satisfaction and marital status. Both are independent of each other. Respondents who were neither satisfied nor dissatisfied in their sex life. A conclusion can be drawn from this finding that respondents being housewives may have been incapable of having a say or making a choice in sexual issues and may have been unable to openly express their desires or may have been suppressed by their male counterparts in terms of sexual gratification. Respondents belonging to a rural habitat showed greater dissatisfaction in their sexual life as compared to those belonging to an urban habitat. In the total sample under study respondents belonging to Ahmedabad were satisfied to the fullest in their sex lives, while those belonging to Surat and Vadodara were neutral in this respect. The chi square value is significant which means there is an association between the city of residence and sexual satisfaction.

Guilt due to HIV status was another parameter that was measured by the researcher. When guilt was measured keeping the age of the respondent in mind it

was observed that majority of the respondents having a deeper guilt feeling belonged to the age group of 30 to 39 years, followed by those belonging to 40 to 49 years. This finding leads us to conclude that the younger generation was more guilty conscious as compared to the older generation Married males were intensely guilty as compared to women. This is surprising because it is often believed that women are more emotionally bound as compared to men. Respondents who were educated till SSC level were guiltier as compared to those who were illiterate or were educated above HSC level. When comparing different professions in their level of guilt housewives had the highest guilt conscious. However respondents who belonged to the service sector also showed some level of guilt. Very few respondents belonging to Rajkot had a sense of guilt. The finding shows that there is a significant relationship between city of residence and the level of guilt experienced by the respondents.

With respect to the Quality of Life of the respondents it is seen that respondents belonging to all the four age groups i.e. 10 to 19 years, 20 to 29 years, 30 to 39 years and 40 to 49 years did not experience a very high quality of life. However moderate level of quality of life was experienced by the respondents belonging to the age group of 30 to 39 years. Married males experienced a high level of quality of life. Considering quality of life with occupation it is seen that a total of all the occupations only seven respondents experienced a high level of quality of life. Respondents belonging to the business class did not experience a high level quality of life As expected by the researcher, respondents belonging to urban habitat experienced a high level of quality of life. Amongst the four districts under study it is seen that though Surat is a district where diamond and textile industries flourish and economically also it is considered to be quite sound respondents here did not experience a very high or even a moderate level of quality of life. On the contrary it is Ahmedabad which had a few respondents experiencing a high level of quality of life.

Suicidal tendency was another area of investigation in the current study. Very few respondents who were fifty years and above experienced suicide ideation quite a number of times. Majority of the respondents belonging to the age group of 30 to 39 years experienced suicidal ideation very rarely. Majority of married females experienced suicidal ideation very rarely. It is seen that respondents whose education level was above HSC experienced suicidal ideation quite frequently, while those who were educated below SSC or HSC level experienced suicidal ideation very rarely. Out of the total respondents majority of them i.e. 140 had suicidal ideations very rarely. Respondents belonging to both urban and rural habitat experienced suicidal ideation only some times. Amongst all the four districts Ahmedabad led forward in respect to respondents experiencing suicidal ideation.

Anxiety related to death and HIV/AIDS was also measured using the Clinical Anxiety Scale. It is seen that severe anxiety was experienced by respondents belonging to the age group of 30 to 39 years. Married respondents were severely anxious. The reason could be fear of death, leaving their family without any secure financial support etc. Amongst all the occupations respondents who were housewives experienced severe anxiety. This could be due to loneliness, lack of support groups, in accessibility to knowledge pertaining to HIV/AIDS, fear of leaving their orphaned etc. Also lack of ventilation and letting out the pent up feelings that are deposited in one's mind could be a cause of increased level of anxiety. Respondents residing in rural habitat experienced less anxiety as compared to residing in an urban habitat. Equal number of respondents in Surat and Rajkot experienced severe anxiety.

Out of the total 293 respondents only 9 respondents had no depression at all. Severe depression was experienced by more than half of the total sample under study. Majority amongst them were married males. Most of the respondents who experienced severe depression were educationally sound and were educated till the HSC level or above that. Amongst all the four districts Rajkot had the least number of

depressive respondents. The chi square results indicate that there is an association between place of residence and severity or level of depression.

Self esteem is an important trait which influences the overall personality of an individual. In the current study three components of self esteem were measured viz personal self esteem, social self esteem and general self esteem.HIV/AIDS is often associated with feelings of guilt and shame in the Indian context. But it is surprising to see that PLWHA had a very high self esteem. Depression and anxiety are very high in the age group of 30 to 39 years but at the same time self esteem was also high in the same age group. Self esteem was low in married women and respondents belonging to rural habitat. High self esteem was observed in respondents who were educated below SSC level. There was not much difference observed in the general self esteem level of the respondents belonging to Surat and Vadodara. Social self esteem was found to be high amongst respondents belonging to Ahmedabad.

5.4.Summary of Corrleation Tables

Personal self esteem and depression are positively correlated, while depression is negatively correlated to general self esteem and social self esteem. Positive correlation indicates a direct relationship between two variables and that both the variables move in tandem which means that if one variable increases the other also increases or in other words it can be said that if the explanatory variable increases the response variable also increases.

Social self esteem is positively correlated with anxiety, while personal self esteem and general self esteem are negatively correlated. Depression and suicidal ideation are negatively correlated and at the same time suicidal ideation is also negatively correlated with anxiety and depression. This means all three variables are independent of each other and the existence of one does not interfere with the other.

When guilt was correlated with self esteem and depression, it was found that it was negatively correlated with social self esteem while it was positively correlated with depression, general self esteem and personal self esteem. To put it in a nutshell it can be said that if a person is guilty, he can be depressed and can also have a low personal self esteem and low general self esteem.

5.5.IMPORTANT FINDINGS:

1. The clinical anxiety score of the respondents is comparatively high according to which 69.9% fall in the category of severe anxiety.
2. Similarly with regards to depression 52.2% i.e. 153 respondents are in the category of severe depression while 14.7% of the respondents i.e. 43 of them need medicine for depression. This finding is alarming.
3. Contrary to the previous data 143 respondents (48.8%) had a high general self esteem. 69.3% i.e. 203 respondents had a very high social self-esteem, 268 respondents i.e. 91.5% had a high personal self-esteem.
4. Almost 52 percent of the respondents had suicide ideation some of the time or a good part of the time which also calls for suitable interventions.
5. The overall quality of life score revealed that only 2.4 percent have a high score on quality of life, while the rest were either in moderate or low categories. Looking in the sub-items of Quality of Life i.e. sex life only 20% are satisfied, only 7.5% respondents worry very little about their financial condition while remaining 83% have moderate to high level of anxiety about financial matters. With regards to guilt 58.4% respondents are at the higher score and 28% are at the moderate level.
6. With reference to medical care almost all worried about their health conditions and medical care
7. Amongst the four districts which are taken as sample by the researcher, it is observed that Ahmedabad has the highest number of HIV/AIDS patients. The

reason can be the available business possibilities there. Surat, which stands third was expected to have the highest number of HIV positive cases due to its proximity to Mumbai, more migrant population and large number of workers due to the textile and diamond cutting industries.

8. Majority of the respondents i.e. 129 belonged to the age group of 30 to39 years. This age is the most productive age in an individual's life time. Being HIV infected at this age makes it difficult to be socially, economically and reproductively successful.
9. HIV is often considered to be affecting only the marginalised groups of the society, but in this study it was found that even the business class was infected by it.
10. It is often assumed that people being infected with HIV live alone and lack familial support and due to loneliness they indulge in high risk behaviour, but this piece of research revealed that maximum respondents lived with their family and still were HIV positive.
11. Many respondents were found having Tuberculosis which is said to be a supplement of HIV due to the weakened immune system.
12. Barrier contraceptive methods were used by majority respondents and condom was most widely used.
13. In view of stigma, majority of the respondents faced a problem at the family level which is quite strange, because family is an institution which should give the necessary support and care to individual in terms of crises.
14. Majority of the respondents attended social gatherings and functions after discovering they are HIV positive. This indicates that their social life was not disturbed much after HIV infection. This finding further reflects the lack of guilt conscious among the respondents.

15. With regards to the spread and knowledge of HIV infection, media is said to have a very prominent role. Majority facts related to HIV infection were known to the respondents through media like television. Second important source was the health care provider.
16. With reference to the spread of HIV information was adequate but with reference to prevention respondents were not very sure of.
17. Lastly, respondents were also aware of the most recent development about the Antiretroviral Therapy which can help cure AIDS to some extent.

5.6.Conclusions:

The preliminary analysis of data revealed higher levels of guilt, suicide ideation and depression. In HIV positive respondents which requires to be addressed from social work perspective. The NACP III focuses on the care and support of HIV positive group. The objective of NACP III namely care and support to the HIV positive person as well as their families can be very well linked with social work intervention.

Age at which majority respondents are HIV infected is 30 to 39 years which is sensitive from both social as well as economic point of view. Suicide ideation is less as compared to anxiety and depression. Overall quality of life as experienced by the respondents is moderate.

Psychiatric morbidities like anxiety, depression and suicidal ideation are found to be higher in respondents belonging to the urban habitat. Media and health care workers have played a significant role in spreading awareness about HIV/AIDS. Respondents revealed less self care attitude. Though very few respondents had a past history of psychiatric illness, it can be presumed that many more could have history of psychiatric illness which probably must have gone unnoticed or undiagnosed.

From the responses derived it can be said that HIV infection is not yet treated as a serious health issue .People who get infected feel that as the virus has entered their body they have a feeling that once they are HIV infected they cannot get rid of it and hence they often adopt an indifferent attitude leading the remaining life as it is. Despite experiencing anxiety, depression and suicide ideation the overall self esteem is high among the respondents. It is quite positive on part of the hospital and the paramedical staff to treat the PLWHA with dignity and being supportive to them. But they need help in handling their anxiety, guilt and depression.

CHAPTER VI

DISCUSSION AND RECOMMENDATIONS:

6.1. INTRODUCTION:

The data collected thus reveals various eye opening facts which we as laymen are unaware of. It was assumed that amongst all the four districts Surat would have the maximum number of HIV positive cases, due to its proximity with Bombay and the penetration of migrant population coming from other parts of the country, but the data available from Gujarat Aids Control Society (GSACS) showed that it was Ahmedabad which had the highest number of HIV positive cases followed by Rajkot, Vadodara and Surat.

The data suggests that maximum number of respondents belonged to the age group of 25 to 40 years. This age is considered productive in all respects i.e. when an individual aspires to be financially stable, reproductively functional and educationally sound. If at this age an individual is infected with HIV, his future is definitely challenged which in turn is a great loss to the nation as a whole. Not only this, but through the entire course of data collection, the researcher observed that most of the HIV infected people were married and had children who were also infected and belonged to urban areas. But the medical facilities were easily available and accessible.

According to the data collected it was observed that respondents primarily complained of continuous cough, fever and weakness. Due to the stigma attached to HIV infection, disclosure to one's spouse was not very common as there exists a fear of separation, abandonment and divorce. In view of the present measures that can help combat HIV infection, informing the spouse or knowing the HIV positive status of one's spouse proves to be effective and helpful. In contrast to the earlier mention where most of the individuals were unaware of their spouse's HIV status, data reveals

that when the HIV positive status was known to the family members they were sympathetic and caring towards the respondents. Surprisingly, though it was assumed that the respondents would have faced problem in their interaction with the paramedical staff, the findings suggests that they were treated with courtesy and support. After knowing their HIV status, many individuals did not attend any social functions.

On one hand, media had a great impact in creating awareness and spreading knowledge about HIV among the masses, but on the other, the role of the health care providers and the paramedical staff like the social workers and the service providers is not well defined and understood in our country. Majority of the respondents either did not know or were unwilling to answer the question whether HIV could be prevented or not. This is an alarming fact brought to light as it suggests the unsafe sexual practices are being observed by the respondents.

The data also suggests that the sample under study, exhibited certain psychiatric complications. Majority of the PLWHA experienced severe anxiety and depression which was high enough to be treated. Findings from studies examining the relationship between social support and well-being amongst PLWHA suggest that support is a key predictor of quality of life, positive coping, higher levels of life satisfaction and positive self esteem. In this study very few respondents had a high level of quality of life. Health and medical care were a matter of concern to the respondents.

In terms of general psychiatric management patients with AIDS who are most severely ill pose perplexing problems. The problems though severe, very few are familiar to mental health professionals. For instance, a prominent psychiatric problem is depression. This depression is not simply normal grief response to having a fatal illness, but rather a pathological process characterized by alienation, irrational guilt,

diminished self-esteem and at times pronounced suicidal ideations. These symptoms are related to conscious and unconscious conflicts about the way in which the disease was acquired and what it means to the particular patient. Psychotherapy, antidepressant medication and precautions to prevent suicide may all be necessary.

The psychiatric interventions for patients suffering from dementia are similar to those for the general management of mental disorders. We, as social workers can help these patients establish structure in their daily living, set limits appropriate to the patients current capacities reduce self destructive or impulsive acts and help the patient with financial matters. Some AIDS patients may remain unreasonably hopeful about recovery despite of the presence of their fatal illness. At times the denial becomes so extreme that it interferes with the patients receiving palliative care and often refuses to practice risk-reducing behaviour. In such cases denial must be confronted and treatment be instituted.

It was observed throughout the course of data-collection that psychological problems (coping with death in a young adult, disfigurement, physical weakness and pain) posed by HIV infection are off shoots of psychosocial stressors that are more particular due to AIDS epidemic. These include ostracism by family and friends etc, unsupportive social network, paucity of facilities, funding and health care providers. In addition most of these people realize they are not only infected but also infectious.These realistic concerns about transmitting the virus to others, places an enormous burden on an individual who is already profoundly concerned about his or her own health.

As trained social workers in mental health field with a basic knowledge of HIV/AIDS, we can provide the support, counselling to treat the anxiety, grief, depression, alienation and avoidance behaviour experienced by these patients.

Though cost-efficient self-help and government funding is available, it has not reached at all places and also it is not applicable for all. Some individuals have unique problems or are too concerned about confidentiality to participate into a group process. Moreover in certain places public and private organizations are often sluggish in responding to the psychosocial needs of these individuals.

The efficacy and cost-effectiveness of various psychosocial interventions should be assessed for seropositive and seronegative population, for those with pscho-pathological reactions to having AIDS and for those who are not in high risk groups (eg. family, friends, caretakers, and the general public).

Educational material should be developed for use with those psychosocially stressed by AIDS related disorders.

The impact of psychosocial intervention risk individuals should be measured to determine which groups are preferable targets of effort to limit the spread of HIV.

Psychiatric staff must be enabled to assess patient's mental status.

Additional funding should be provided for sufficient chronic care facilities, partial hospitalization outpatient units and home care to meet the psychosocial requirements of those with HIV related disorders and to provide the additional staffing and support in existing facilities because of the unique psychosocial requirements of patients with HIV related disorders.

5.2. INTEREVENTION MODALITIES:

The philosophy underlying a particular program may be clearly articulated or may simply be stated as the way we do things. While working with HIV positive people, a clearly articulated intervention philosophy is needed. Such intervention requires a multidisciplinary team that includes physicians, psychologists, social workers and health educators. Providing care for PLWHAs is quite complex because

Intervention Modalities

as a group they are diverse. Psychologically, they may manifest severe mental illness, including suicidal ideations and psychosis. Socially, they present with different sexual orientations and with different degrees of dependency.

The researcher has developed four types of intervention models which can help the health care providers, social workers and service providers to help PLWHAs' lead a better and a normal life. The first model deals with the entire intervention process while the subsequent three have been developed to curtail the impact of diminishing self esteem, widespread stigma and the five 'C' model which can help the PLWHA to fight the traumatic experiences encountered by them.

Model 1

(A) INITIAL INTERVENTION:

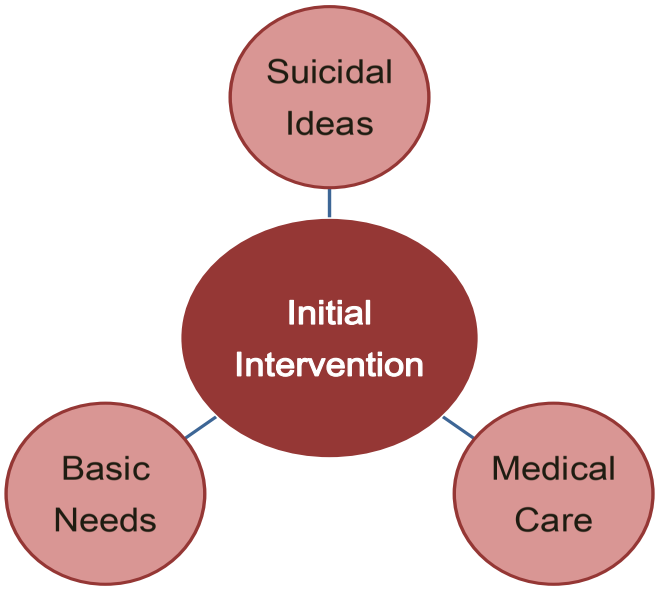
Basic Needs:

Initial intervention should focus on basic needs and desires of the PLWHAs. If the professional tells them what the PLWHAs need rather than responding to the needs they identify, it is difficult to establish a trusting relationship. Professionals need to help them decide as to how and when to tell that they are HIV positive.

Suicidal Ideations:

Suicidal PLWHA need immediate attention and evaluation. The assessment must determine whether the person has a suicide plan, how detailed that plan is. In such case, it is critical that the service provider remains in constant contact with the PLWHA in an effort to develop a sense of trust and to diminish the person's feelings of isolation and abandonment.

Intervention Model



Medical Care:

Medical referrals become essential part of the initial intervention. It is better that the PLWHA be connected with the physician who is experienced in treating PLWHA and who is familiar with psychiatric issues related to PLWHA. A regular follow up should be done in case of any defaulters. If they are attached with physician, he becomes closer to patients in his/her local area.

(B) LONG TERM INTERVENTION:

Emotional support:

HIV positive people need long term emotional support. Often HIV infected people have no support groups. Offering support through extensive case management helps bond the PLWHA to the caregiver and increases compliance in taking medications and reducing high-risk behaviour. Attempts should be made to expand support systems by connecting PLWHAs to other agencies and getting them involved in support groups. Service providers should also focus on individualized plans for developing support systems.

Substance abuse:

Use of drugs may impair judgement and thus increase the likelihood of high-risk behaviour. Drug abuse counselling is imperative if other social problems are to be addressed. These social problems include prostitution, increasing condom use and maximizing use of support services.

Psychological needs:

The psychological state of the PLWHA must be monitored constantly. The primary care-giver, social worker or physician should be trained in crises intervention techniques and should have experience with dysfunctional families. Professionals

must be watchful for the need for additional psychological counselling for psychiatric medication and make referrals when necessary. Depression in PLWHA may be manifested in a variety of ways: withdrawal, acting out, increase sexual activity or non-compliance with treatment.

Risk Reduction Counselling:

All HIV people need counselling on reducing the risk of HIV transmission to others. As social workers and service providers, we need to educate the PLWHA and their families and caregivers that HIV cannot be transmitted through casual contact. Information about how HIV is transmitted and fallacies that oral sex is safe and that men cannot get infected from women must be dispelled.

Confidentiality and Disclosure:

Confidentiality and disclosure issues permeate intervention with HIV infected individuals. Disclosure is an extremely difficult issue for HIV positive people. PLWHA should be encouraged to identify at least one person in whom they can confide. Such efforts help the person to identify people whom he or she trusts and from whom he or she can obtain support. Disclosure to sexual partners or potential partners is an extremely difficult task. They expect total rejection, and often their worst fears are realized. Service providers should be often present during the disclosure sessions.

The HIV individual like other people in general needs love, affection and good relationships. An HIV diagnosis can damage an individual's self esteem. Service providers must supply frank and appropriate information, provide supportive counselling and encourage healthy and responsible relationships and behaviour. It can only within the context of responsible relationships that service providers can resolve the tasks and issues of PLWHAs competently and sensibly confront their lives as HIV positive adults.

MODEL TO REDUCE STIGMA:

HIV-related stigma remains a concerning factor to addressing the impacts of HIV and AIDS. It therefore seems obvious that intervention strategies should aim at addressing the self-esteem of the individual with HIV and should involve the empowerment of individuals who are HIV positive in an attempt to eliminate HIV-related stigma and discrimination experienced by HIV positive individuals.

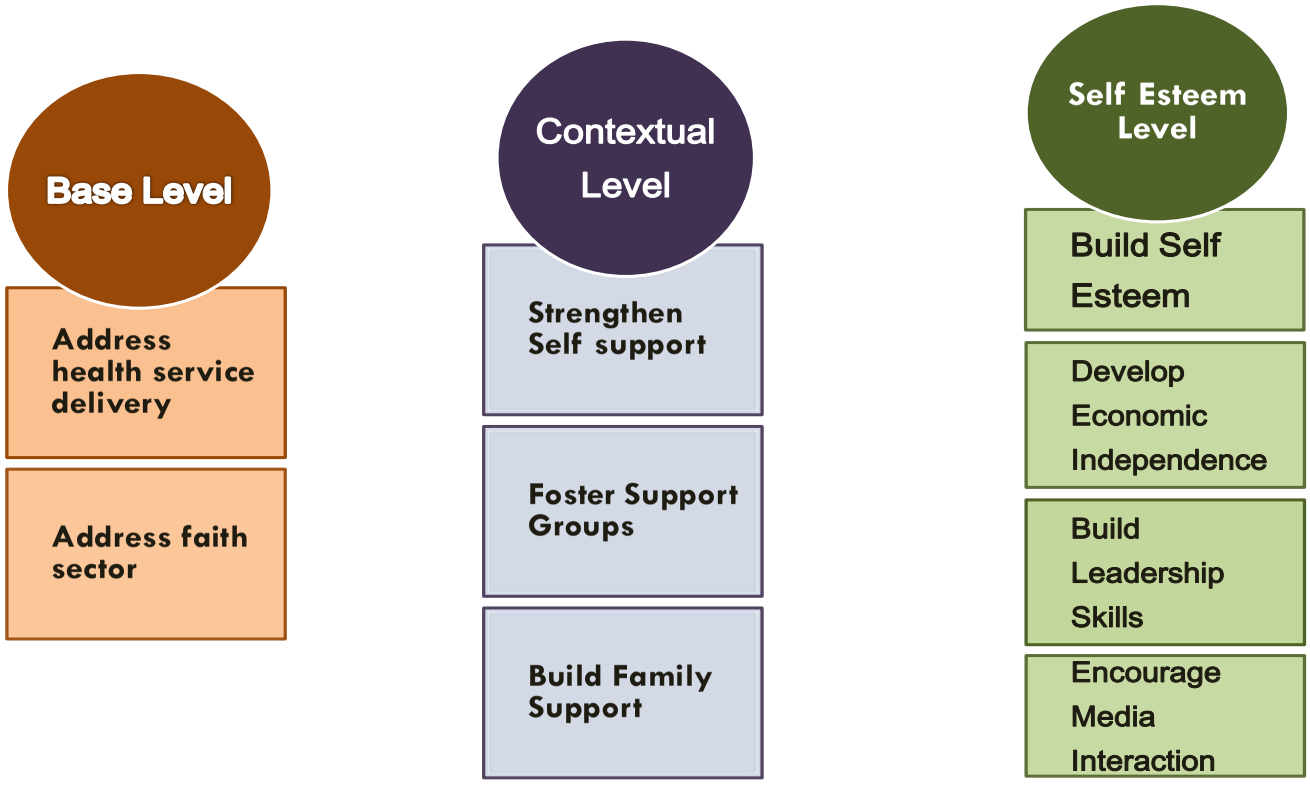
Working with cultural institutions:

Cultural organizations, schools, traditional leaders and healers, community leaders, and others all play a role in shaping attitudes and values regarding HIV, gender, sexual orientation, and those who are in any way seen as different. It is vital to use interventions that assist community-based role players in clarifying their values, debunking myths, acquiring new information, and actively supporting the development of a positive self image in people living with HIV. Communities whose resources are stretched need support on ARVs and vaccine initiatives to minimize the negative impact of HIV on development.

Addressing health service delivery:

Healthcare workers need assistance and clarifying their values and attitudes so that they can create safe and stigma-free spaces in healthcare settings. Health worker attitudes may be driven by genuine and reasonable fears of infection which could be addressed by providing information about and supplies to use universal precautions. In addition to working directly with healthcare workers, system-wide approaches with interventions at every level (e.g., from management to administration, and revision

Stigma Reduction Model



and development of protocols and procedures)—are needed to support an overall, non- stigmatizing healthcare setting.

Addressing the faith sector:

Faith organizations develop good policies, train leaders on HIV and stigma, build strategic community partnerships, and develop interventions to mitigate stigma. These include involving people living with HIV (including HIV-positive clergy) in faith programs, thereby promoting a sense of worth in those congregants who are HIV-positive; and developing prevention messages that do not stigmatize. For example, messages that emphasize abstinence and faithfulness—while within the domain of faith organizations are considered important strategies for preventing HIV— inadvertently may stigmatize or marginalize those who are HIV positive. While abstinence and faithfulness messages remain valid, it is important to deliver them in ways that do not stigmatize and marginalize people living with HIV. This can be achieved by working with people living with HIV on message delivery, as well as by having open and frank discussions relating to this issue.

At the Contextual Level

Strengthening self-support groups for people living with HIV:

Support groups, that are facilitated by HIV positive people themselves, send a clear message of competence and independence to group members and their communities. One of the consequences of stigma is a withdrawal from social and health services, so these support groups can provide a safe space for support, exploration, growth and in turn, people living with HIV can achieve the confidence to assert their rights in various settings.

Fostering support groups:

Support groups (both formal and informal) can be helpful to overcome the emotional upheaval of the unwell and help them to start living positively. Many people living with HIV believe that it would be very useful for people who are themselves living with HIV to provide pre- and post-test counseling. Support groups for those experiencing "courtesy" stigma also are important interventions to assist those close to people living with HIV in processing the internal stigma they may be experiencing.

Building family support:

Families need assistance to process their thoughts and feelings about their HIV-positive family members. This may include family counseling and support group work. It also should involve information-giving, demystifying beliefs, clarifying values, and accessing resources to lessen the burden on the family.

Model 3

At the Self Level to Increase / Promote Self Esteem

Building self-esteem:

Counseling and support groups help with personal growth, self-esteem, and self worth. Support groups facilitate a sharing of experiences, convey information, and give practical advice on a range of HIV wellness and treatment options. They assist with social confidence, improve individuals' social capital by helping them to be a part of organizations, feel a sense of connection to their community, believe that they can influence social processes, and develop a sense of trust in social institutions and authorities.

Developing economic independence:

Economic independence can engender a sense of self worth in a person living with HIV. Reduced reliance on partners and families can reduce the economic burden that may have come from caring for someone living with HIV or AIDS. This, in turn, can diminish potential hostility toward the person living with HIV, positively affect stigma, and thus reduce internal stigma. The provision of ARVs is a critical aspect of this: treatment promotes wellness and an ability to work and contribute to household income. On a broader level, increased economic stability among the general population of a country will have an impact on diminishing HIV-related stigma.

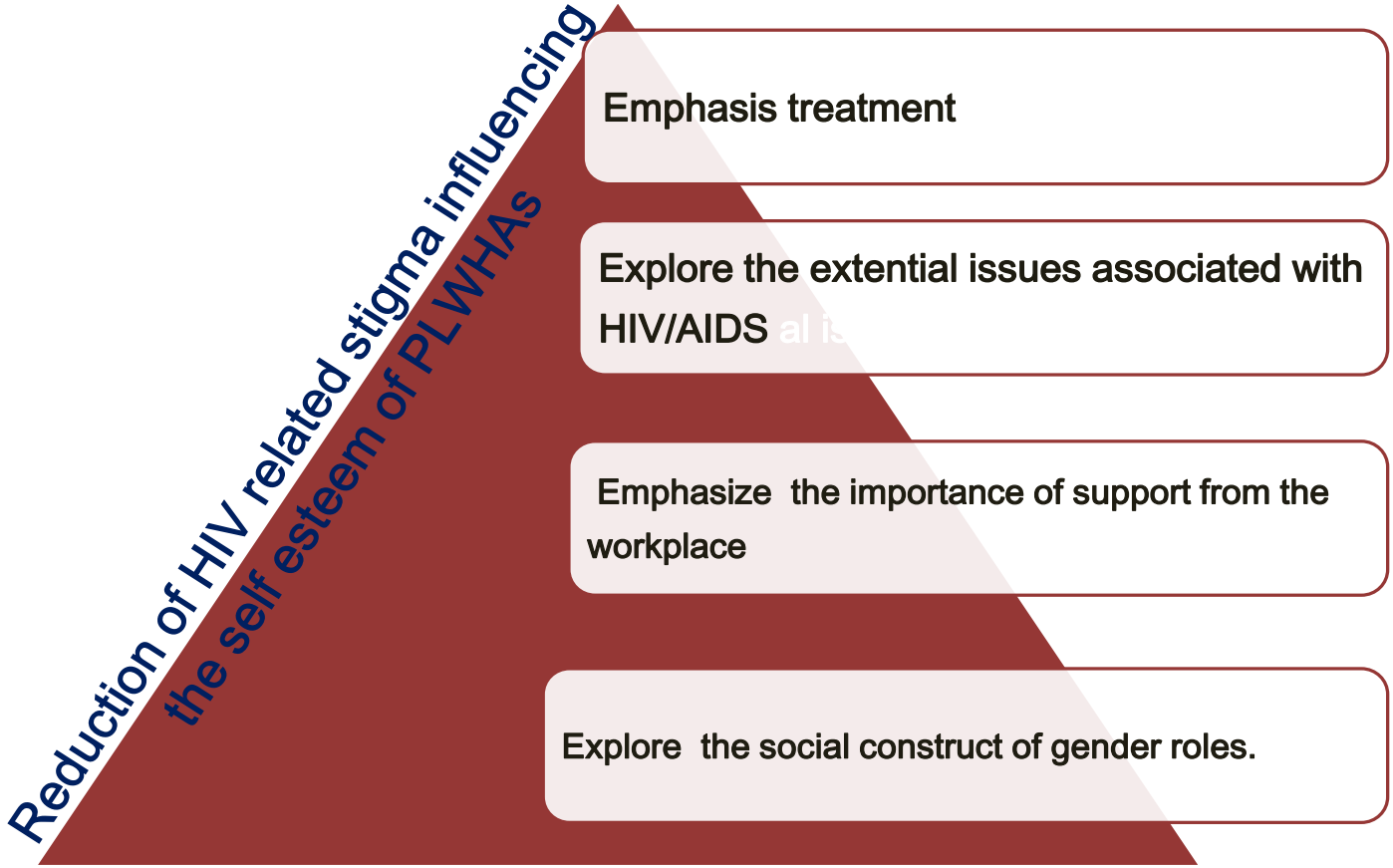
Building leadership skills:

People living with HIV who are given opportunities for self development can learn to overcome internal stigma. Many community-based organizations train their members in leadership skills so that they can get involved in community development.

Empowering people living with HIV to interact with the media:

Media plays a vital part in shaping perceptions and attitudes towards people living with HIV. They can develop confidence by working with the media. Research has shown when trained to face the media PLWHAs' had dealt with disclosure issues, confronted their own internal stigma; they prepared well for media interviews; they established a strong personal support base; they knew in advance what kind of message they wished to convey; they actively sought to develop skills in working with media; and they shared their skills and successes with other people living with HIV.

Model to Reduce HIV related stigma influencing the self esteem of PLWHAs



Counseling:

Many people living with HIV need to be to assisted to process stigma through individual counseling and in support groups so that they can be good role models for others and be able to stand up to stigma when they experience it.

RECOMMENDATIONS FOR INTERVENTIONS AIMED AT REDUCING HIV RELATED STIGMA INFLUENCING THE SELF-ESTEEM OF PEOPLE WHO ARE HIV POSITIVE

Exploration of the existential issues associated with HIV and AIDS:

The above-mentioned theme relates to the relationship between mortality and the stigma associated with HIV and AIDS. The relationship between stigma associated with the mortality of an individual who is HIV positive and the self-esteem is a prominent factor.

Emphasis of treatment strategies:

The above mentioned theme has been elicited as participants indicated that emphasis on treatment strategies may have an indirect positive effect on the self-esteem of individuals who are HIV positive. Participants indicated that there is a positive relationship between physical wellness and mental wellness. In other words participant transcriptions have shown a positive association between health behaviours and a positive self evaluation.

Stronger emphasis on the importance of support from the workplace:

It is important to voice HIV programmes at the workplace as a means of addressing HIV-related stigma at the workplace as well as in society at large. Although this has received strong attention, such programmes are often not

adequately implemented in reality. Adequate implementation of workplace programmes to address HIV-related stigma at the workplace would make a phenomenal contribution to combating HIV-related stigma at the workplace. This in turn would influence the individual with HIV's evaluation of him or herself as positive evaluation at the workplace plays an important role in the development of a healthy self-esteem.

Exploring the social constructions of gender roles:

Responses regarding the difference between HIV-related stigma experienced by men and women differ and how this stigma has an impact on the self-esteem of men and women also varies.

Acknowledgement of individual differences in synergy in HIV and AIDS programmes:

The acknowledgement of individual differences in synergy with HIV and AIDS programmes addressing the impact of HIV-related stigma on the self-esteem of individuals who are HIV positive relate to programmes that seek to extend beyond merely distributing messages but instead focusing on engaging with various meanings of events and circumstances in the lives of people who are HIV. This would mean interaction with the values, beliefs, traditions and social structures in which people live.

Model 4

THE FIVE Cs MODEL:

The Five Cs model helps clients organize their lives in the wake of traumatic experiences and thus clear the grieving process.

Control: To have control is to have a degree of personal power or influence over ones environment. Clients should be encouraged to identify that which is within their control or influence and let go of that which they are unable to control.

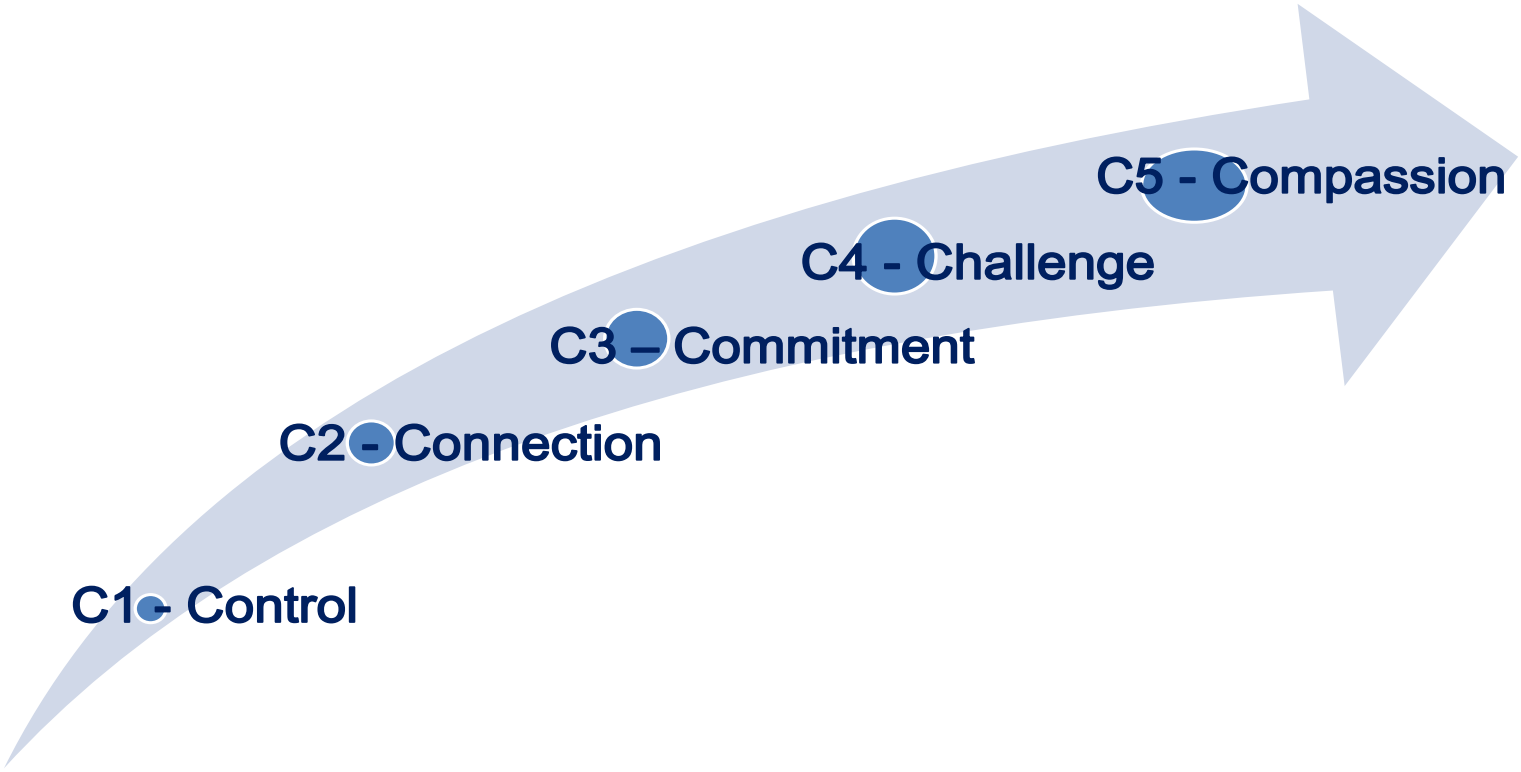
Connection: Connection can help clients identify values that they respect in others and incorporate such values in their own relationships. The primary effort here is to develop social support that buffers the client's isolation as a result of traumatic experiences. There are various aspects of social support that are positively associated with mental health. As social workers we can provide good social support and help promote healthiness that offers protection from illness. We can also develop a positive association between social support and psychological resources which can help the individuals to cope with illness.

Commitment: Commitment addresses existential issues and changes in cognitive functioning by new ways of thinking about the meaning of purpose of their life.

Challenge: It speaks to the opportunity inherent in any life experience. It involves optimistic cognitive appraisal, highlighting the self-knowledge that might be acquired from facing a traumatic experience. As social workers we can help clients to realize and identify the capacities and resources and help them to exploit them to the fullest.

Compassion: It focuses on the disillusionment and collapse of the heart, mind, body and spirit from the experience of multiple, traumatic losses. Clients should be encouraged to evaluate how they care for themselves and to care for their deficiencies. They should be encouraged to think how others can help them with self-care. Such work addresses both the intrapersonal and interpersonal dimensions of grief. Each HIV positive individual eventually begins to accept the reality of HIV infection. As

Skill Building Model – 5 Cs'



social workers we need to make the process of cognitive and role adjustments easy. We can help them deal with unresolved tensions in relationships, unrealistic hopes and dreams, unattainable goals and unpleasant personality dimensions.

6.3. SCOPE OF FUTURE RESEARCH:

Other areas that can serve as a base for future in the same field can be areas of social network,

- Study of the psychosocial impact of HIV/AIDS, service utilization by PLWHAs' and behavioural impact.
- In the areas of social network, research can be conducted on the impact of AIDS on the social networks, the impact of social support system on coping with HIV infection.
- Psychological impact can be studied in terms of bereavement and AIDS, impact of stress on development of AIDS among asymptomatic HIV seropositive individuals, psychological impact of AIDS, on caregivers and families, stress and burnout among health care providers.
- Research can also be undertaken in the area of service utilization i.e. quality of care that is expected by the PLWHAs and the utilization of services by them.
- Behavioral impact and change can be studied in terms of sexual practices, i.e variations in sexual practices, rate of acquiring new sexual partners, frequency of sexual contacts, normative beliefs and behaviours that govern the community etc.

To conclude, I would like to say as researcher that the urgency of the AIDS crises demands, aggressive, nationwide behavioural and psychosocial research efforts to guide the content and strategies of prevention programs to achieve effective HIV risk reduction.

Integration of research practice is essential to improve the quality of clinical practice in the fields of HIV/AIDS. Practice centered research is also responsive to the mounting demands for service and program accountability.

LIST OF ABBREVIATIONS

AIDS - Acquired Immunodeficiency Syndrome

ANC - Antenatal care

ARC - AIDS Related Complex

ARCON - AIDS Research and Control

ART - Antiretroviral Therapy

AUDIT - Alcohol Use Disorders Identification Test

BDI- Beck Depression Inventory

BIY - Behaviourally Infected Youth

BHS- Beck Hopelessness Scale

BSS- Behaviour Surveillance Survey

BSI - Brief Symptom Inventory

CDC - Centre for Disease Control

CES-D - Centre for Epidemiology Studies-depression Scale

CIA - Central Intelligence Agency

CMIC - Computerised Management Information System

CNS - Central nervous System

CSF- Cerebral Spinal Fluid

DIFD - Department for International Development

DIS - Diagnostic Interview Schedule

DSM- Diagnostic Statistical Manual

ELISA- Enzyme Linked Immuno Sorbent Assay

GAF- Global Assessment of Functioning

HAD -HIV Associated Dementia

HARS - Hamilton Anxiety Rating Scale

HAART- Highly Active Antiretroviral Therapy

HDRS- Hamilton Depression rating Scale

HRQOL- Health Related Quality of Life

HTQ- Harvard Trauma Scale ICD International Classification of Disease

IDU- Injecting Drug Users

ICMR -Indian Council of Medical Research

ICTC- Integrated Counselling and Testing Centres

KS - Kaposis Sarcoma

MARPs - Most At Risk Populations.

MCD - Minor Cognitive Disorder

MINI- Mini International Neuropsychiatric Interview)

MSM - Men having Sex with Men

NACO - National AIDS Control Organization

NACP - National AIDS Control Programmes

NFHS- National Family Health Survey

NIDA- National Institute on Drug Abuse)

NORD - Norwegian Agency for Development Co-operation

PEDsql- Paediatric Quality of Life

PIY - Perinatally Infected Youth

PLWHA- People Living With HIV/AIDS

PSE- Present State Examination

PSS- Perceived Stress Scale

PTSD - Post Traumatic Stress Disorder

PPTCT - Prevention of Parent to Child Transmission

POMS - Profile of Mood States

RNA - Ribonucleic acid

SCID- Structured Clinical Interview for DSM

SCL-90-R - Symptom Checklist-90- Revised

SDS - Sheehan Disability Scale

SES - Self Esteem Scale

SIV - Simian Immunodeficiency Virus

STI - State Trait Inventory

UNGASS -United Nations General Assembly Special Session

WHO- World health Organisation

WHO QOL - World health Organization Quality of Life Instrument

BIBLIOGRAPHY

BOOKS:

1. Ahluwalia. V.K. and Ahluwalia M. (2009) *HIV/AIDS Transmission, Prevention and Alternative Therapies.*
2. Bairstow. S. *The Social Worker's Role- Suicide Prevention*
3. Berer.M. *Women and HIV/AIDS-An International Resource Book*, Pandora Press-an Imprint of Harper Collins Publishers, London, 1993.
4. Ciambrone.D. Women's Experience With HIV/AIDS-Mending Fractured Selves,The Haworth Press,2003
5. Cohen.M.A and Gorman.J.M. (ed) *Comprehensive Textbook of AIDS Psychiatry*, Oxford University Press, 2008
6. Cottrell.R. and Mckenzie .J. *Health Promotion and Education Research Methods*, Jones and Bartlett Publishers, Boston, 2005.
7. Conner. R.F Hung Fan, and Villarreal. L, *AIDS.* Jones and Bartlett Publishers, Boston,1996.
8. Cusack.L. and Singh. S. *HIV and AIDS Care Practical Approaches*, Chapman and Hall, London,1994
9. Catalan.J, Sherr.L and Hedge.B. *The Impact of AIDS -Psychological and Social Aspects of HIV Infection*, Harwood Academic Publishers, The Netherlands,1997.
10. Dainess. B. Gask. L. and Howe. A. (2007) *Medical and Psychiatric Issues for Counsellors*. Sae Publication N.Delhi.
11. Dehovitz. J. A, Duerr. A and Minkoff. H (eds) *HIV Infection in Women.* Raven Press, New York,1995.
12. Johnson.M.A., Johnstone.F.D, (eds) *HIV Infection in Women*, Churchill Livingstone, London,1993
13. Land.H.A (ed) Complete Guide to Psychosocial Intervention.
14. Lewis.A.(ed) *Nursing care of the Person With AIDS/ARC,* An Aspen Publication, United States of America,1988
15. Miller. D. *Living with AIDs and HIV.* The Macmillian Press Ltd, London,1987
16. Ostraw, D.G , *Behavioural Aspects of AIDS,* Plenum Medical Book Company, New York,1990
17. Paine, L (ed) *AIDS: Psychiatric And Psychosocial Perspectives.* Croom Helm Publishers, London, 1988
18. Pratt, R. *HIV and AIDS.* (Fourth Edition) Edward Arnold, a division of Hodder Headline PLC, Great Britain,1995
19. Ravichandaran.N. (2004) *Living Life with HIV/AIDS- Striving towards Basic Rights Pentagon Press N. Delhi.*
20. Robinson, C and Edmundson, W, *Indian Women and AIDS.*
21. Schonnesson,L and Ross,M., *Coping with HIV Infection Psychological and Extential Responses in Gay Men* Kluwer Academic Publishers, New York, 1999.
21. Singh,A.K. *Tests, Measurements and Research Methods in Behavioural Sciences.*
22. Shaughnessy,J.J, *Research Methods in Psychology.*
23. Veeraghavan, V and Singh, S.(ed). *HIV and AIDS: An Interdisciplinary Approach to Prevention and Management,* Mosaic Books , New Delhi, 1999.

24. Worth.D. *Women at Risk of HIV Infection-Behavioral, Prevention and Intervention Aspects,* in Dehovitz. J. A, Duerr. A and Minkoff. H (eds) HIV Infection in Women. Raven Press, New York,1995.
25. *Confronting AIDS-Direction for Public Health Care and Research,* National Academy Press, Washington D.C.1986
26. The Impact of AIDS on People and Societies- 2006 Report on the Global AIDS Epidemic. Women and AIDS: Confronting the Crises- A Joint Report by UNAIDS/UNFPA/UNIFEM, 2004.
27. Women and AIDS; confronting the Crises-A Joint Report by UNAIDS/UNFPA/UNIFEM.
28. World Health Organization –Report by the Secretrait, November 2008.
29. AIDS in Asia-Facing the Facts- A Comprehensive analysis of the AIDS Epidemics in Asia-2004.
30. Nagendra Shilaja – AIDS in India, (2008) A B D Publication, Jaipur, India.
31. Dixit A. P. – Global HIV/AIDS Trends (2005) Vista International Publication House, Delhi.
32. Varma Sudhir – Gender, HIV & Social Work (2010) Rawat Publication, Jaipur & N. Delhi.
33. Naraini Jai P. – AIDS in Asia (2004) The Challenge Ahead, Sage Publication N. Delhi.

WEBSITES:

1. http://www.dbsalliance.org/site
2. http://www.healthyminds.org
3. http://www.nacoonline.org
4. http://www.gasacsonline.org
5. http://www.avert.org/aidsindia.htm

JOURNALS

1. Atkinson.J, Grant.I , "Natural History of Neuropsychiatric Manifestations of HIV Disease", *Psychiatric Clinics of North America*, Volume 17, Issue 1, March 1994, pages 17 -33

2. Ambramowtiz.S, Linda.J, Chandwani.S , et al," Characterizing Social Support: Global and Specific Social Support -Experiences in HIV-Infected Individuals", *AIDS Patient Care and STDs*, Volume 23, Issue 5 May 2009.

3. Baillargeon.J, Ducate.S, Pulvino.J , "The Association of Psychiatric Disorders and HIV infection in the Correctional Setting", *Annals of Epidemiology,* Volume 13, Issue 9, Pages 606-612.

4. Bangener.C, Marchand.G, "African and European HIV-Positive Women: Psychological and Psychosocial Differences", *AIDS Care*, Volume 12, Issue 5, October 2000, pages 541-548.

5. Banerjee.T. Behavioral Disorders in Human Immunodefeciency Virus(HIV) Infected Adolescents in the age Group 12-16 years in India. Paper presented at XVI International AIDS Conference; 13-18 August, 2006; Ontario; Toronto, Canada.

6. Barness.D, Alforque.B , et al, “Like I Just Got a Death Sentence”: Conditions Affecting women’s Reactions to Being Told Their HIV Antibody Test Results and the Impact on Access To Care”, Research in the Sociology of Health Care, 2000, Issue 18, pages 3-33.

7. Basterdo.Y.M, Kimberlin.C, “ Relationship between Quality of Life Social Support and Disease-Related Factors in HIV-infected Persons in Venezuela”, *AIDS Care*, Volume 12, Issue 5, October 2005, pages 673-684.

8. Becker, James. T. et al, “Prevalence of Cognitive Disorders as a Function of Age in HIV virus Infection”, *AIDS*, Volume18, Pages 11-18, January 2004.

9. Brims D. et al, “Perspectives from HIV/AIDS Patients Regarding Euthanasia”, *International Conference on AIDS*. July 2002.

10. Chandra. P.S, “HIV and Psychiatric Disorders”, *Indian Journal of Medical Research*, April 2005, Volume 121, pages 451-467.

11. Danko, Streltzer J. and George. P, “Assisted Suicide and AIDS Patients - A survey of Physicians’ Attitude”, *Psychosomatics* Volume 39, Pages18-23, February 1998.

12. Das.S, Mukerjee.A Lodha.R and Vasta.M, “Quality of Life and Psychosocial Functioning in HIV Infected Children” , *Indian Journal of Pediatrics*, Volume 77, Issue 6, , June 2010, pages 633-637.

13. Day.J, Grant.I, Atkinson J.H, Hesselink.J et al ,“Incidence of AIDS Dementia in a two year follow up of AIDS and ARC patients on an initial phase II AZT placebo-controlled study: San Diego cohort,” *Journal of Acquired Immune deficiency Syndromes and Human Retrovirology*, Volume 11, Issue 1, January 1996, pages 39-44.

14. Donnenberg.A, McNeil.G, Brundage.J et al, “ Suicide and HIV infection,” *The Journal of the American Medical Association*, Volume 276, Issue 21, December 1996, pages 1743-1746.

15. Dean.G, Douglas, Steven, Petitto.J, Gettes.D, “Association of Major Depression with Increased Natural killer cell activity Among HIV- Seropositive Women,” *American Journal of Psychiatry*, Volume 162, Issue 11. November 2005, pages 2125-2130.

16. Farber E. W, Mirasalimi H, Williams. K and Daniel. J, “Meaning of Illness and Psychological Adjustments to HIV/AIDS”, *Psychomatics*, Volume 44, pages 485-441, December 2003.

17. Epele, Maria Esther, “Gender, Violence and HIV: Women’s survival in the streets”, *Culture, Medicine and Psychiatry*, March 2002, Volume 26, Issue 1, pages 33-54.

18. Gallego L, Gordillo V and Catalan, J, “Psychiatric and Psychological Disorders associated to HIV Infection,” *AIDS Review*, 2000, Volume 2 Pages 48-60

19. Golding. M, Perkins. D, “Personality Disorder in HIV Infection”, *International Review of Psychiatry*, Volume 8, Issue 2&3 1996, pages 253-258.

20. Heckman T, Kalichman C , Carlson B, et al, "Thoughts of Suicide Among HIV-Infected Rural Persons Enrolled in a Telephone-Delivered Mental Health Intervention", *Annals of Behavioral Medicine,* Volume 24, Issue 2, May 2002.

21. HIV/AIDS Information Gateway: February 2011.

22. Imasiku Mwiya, "A comparative study of anxiety among HIV Seropositive Individuals, Cancer Patients and individuals from the Normative Population," *Medical Journal of Zambia,* Volume 35, Issue 2.

23. Kalichman S, Sikkema K, "Psychological sequel of HIV infection and AIDS, Review of Empirical Findings", *Clinical Psychological Review,* Volume 14, Issue 7, August 2002, pages 611-632.

24. Kalichman.S, Sikkema.K and Hoofman.R, "Coping strategies and Emotional Wellbeing Among HIV-infected Men and Women Experiencing AIDS Related Bereavement," *AIDS Care,* Volume 12, Issue 5 October 2000, pages 613-624.

25. Kantin.S, Kolb.M, Hudzik.G, "Psychiatric Disorders in Patients with HIV Infection," *International Conference on AIDS,* 1998.

26. Kelly.B, Raphael.B et al. Suicidal Ideation, "Suicide Attempts and HIV Infection", *Psychosomatics,* Volume 39: October 1998, Pages 405 -415.

27. Koopman, Cheryl, Marou.F, "Relationship of Perceived Stress to Coping, Attachment and Social Support among HIV-Positive Persons", AIDS Care, Volume 12, Issue 5, October 2000, pages 663-672.

28. Littlewood.B," Life, Love and HIV: The Women's Symposium on HIV and AIDS", *Critical Social Policy*, 1994, Volume 14 Pages 5-23.

29. Kwalomba.M, "The effect of pregnancy in HIV-infected Women", *AIDS Care*, Volume 14, Issue 3, June 2002, pages 431-433.

Laxminarayan.K. ad Sammod Vardhana .M, " Depression in Patients with HIV/AIDS", *Kuwait Medical Journal* ,Volume 39, Issue 3, pages 227-230.

30. Leickness.C, Kalichman.S , Strebela.A et al, "Internalized Stigma, Discrimination and Depression Among men and Women with HIV/AIDS in Cape Town, South Africa", *American Journal of Psychiatry*, February 2000, Volume 157 pages 248-254.

31. Mc Donnell, K.A, Gulen, A.C, et.al, "Quality of Life among Women Living with HIV: The importance of Violence, Social Support, and Self Care Behaviors", *Social Science and Medicine,* Volume 52, Issue 2, Jan 2001, pages 315 -322.

32. Mario Maj and Rolf Riedel, Who Neuropsychiatric AIDS Study, Cross Sectional Phase *Archives of General Psychiatry,* 1994, Volume 51, pages 39-49.

33. Morineau.G, Barennes.H and Cameron.R, "Survival and Quality of Life Among HIV-Positive People on Antiretroviral Therapy in Cambodia", *AIDS Patient Care and STDs,* Volume 23, Issue 8, August 2009.

34. Mayer.L, Smit.J, Parker.S, "Common Mental Disorders among HIV-Infected Individuals in Predictors, and Validation of Brief Psychiatric Rating Scales" *AIDS Patient Care and STDs,"* Volume 22, Issue 2, February 2008.

35. M.S.Usha, “Women and AIDS in India”, *Womens Link* April-June 2001.

36. Nojomi.M, Anbary.K and Ranjbar.M, “Health- related Quality of Life in Patients with HIV/AIDS” Achieves of Iranian Medicine, Volume 11, Issue 6, November 2008, pages 608-612

37. Olatunji.B, and Matthew.J, “A review of Treatment Studies of Depression in HIV”, *Topics in HIV Medicine*, Volume 14, Issue 3, August/September 2006.

38. Olley.B. et.al “Post Traumatic Stress Disorders Among Recently Diagnosed Patients with HIV/AIDS in South Africa”, *AIDS Care*, Volume 17, Issue 5, July 2005 pages 550- 557.

39. Rabkin.J. Mood and Substance Use Disorders in Older Adults with HIV/AIDS: *Psychosomatics* Volume 41, August 2000, pages 294-300.

40. Rabkin.J, Prevalence of Psychiatric disorders in HIV illness,” *International Review of Psychiatry*, 1996, Volume 8, pages 157-166.

41. Singh.R, “Behavioural Changes in the Family and Community of HIV-Infected People- A case Study of Mumbai”, *Social Change,* Volume 37, Issue.2,June 2007.

42. Sactor S.N, Bacellar H, Hoover D, et al, “Psychomotor slowing in HIV infection- A predictor of Dementia, AIDS and death”, *Journal of Neurovirology*, Volume 2, Issue 6, December 1996, pages 404-410.

43. Sactor.N, Wong M.H, Nakasujja.N. et al, “Frequency and Risk factors for HIV Dementia in an HIV clinic in Sub-Saharan Africa”, *AIDS*, Volume 14, Issue 10, July 2000, pages 1327-1332.

44. Sachdev.P, “AIDS/HIV and Social Work students in Delhi, India; an exploratory study of knowledge, beliefs, attitudes and behaviors”, International Social Work, Volume 41, pages 293-310.

45. Simoni Jane M. and Ng, M.T, “Trauma, Coping and Depression among Women with HIV/AIDS in New York City,” *AIDS Care* Volume 12, issue 5, October 2000, pages 567-580.

46. Serovich, Julianne M, Brucker, P.S and Kimberly, J.A, “ barriers to Social Support for Persons Living with HIV/AIDS”, AIDS Care, Volume 12, issue 5, October 2000, pages 651-662.

47. Solomon.S, Batavia.A, Venkatesh K.K et al, “A Longitudinal Quality of- Life Study of HIV-Infected Persons in South India: the case for comprehensive clinical care and support services,” *HIV/AIDS Newsletter*, Volume 4, Issue 1, pages 1-2, April 2011.

48. Susse. E, Colson. P, Fenning.S, “HIV infection Among Young Adults With Psychotic Disorders”, *American Journal of Psychiatry*, Volume 154, Issue 6, June 1997.

49. Santana, Marie-Ann, Dancy and Barbara.L, “The Stigma of Being named “AIDS carriers” on Haitian–American Women, *Healthcare for Women International*, April-May 2000, Issue 21, Volume 3, pages 161-171.

CONSENT FORM

I am a student of the Faculty of Social Work, M. S. University of Baroda. I am undertaking this research purely for an academic purpose. Prior permission has been obtained from Gujarat AIDS Control Society (GSACS). This research is not funded by any individual, organization or a funding agency. The responses given by the respondents, their name and address will be kept confidential. Participating in this research is voluntary. The respondents can leave any question unanswered if they do not wish to answer or can withdraw themselves at any point if they want to.

Thank You.

Respondent’s name

Address

Signature