Factors Associated with Anxiety and Depression among Elderly Living in Old Aged Homes in Kathmandu Valley

A Research Report

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ABSTRACT

The elderly people not only face physical problems as they are age, they also experience mental health related problems. The main objective of the study was to identify the level of anxiety and depression and the factors associated with them among elderly living in 10 old age homes in Kathmandu Valley of Nepal. The cross-sectional descriptive analytical study design along with case study was used among 173 respondents who were selected by purposive sampling. Interview was carried out using socio-demographic and other variables related tool, the partially adopted coping checklist, HAM-A tool and the GDS. The data analysis was done by using Epidata software and SPSS version 16. Descriptive statistics, and inferential statistics, viz., chi-square test and odds ratio were calculated. **Regarding anxiety,** the findings reveal that according to HAM-A Tool, 56 (32.4%) respondents had anxiety. Out of them, 36 (20.8%), 11 (6.4%) and 9 (5.2%) respondents had mild, moderate and severe anxiety respectively. Out of 45 male respondents, 10 (22.2%) had anxiety as compared to 45 (35.2%) out of 128 female respondents. The respondents who had chronic physical health problems (CPHP), worries, dissatisfaction with old aged homes and even those who used coping strategies like visiting different places, were found to have anxiety. **Regarding depression,** 126 (72.8%) respondents had depression. Out of them, according to GDS, 98 (56.6%) and 28 (16.2%) respondents had mild and severe depression respectively. This study also reveals that out of 45 male respondents, 28 (62.2%) had depression as compared to 98 (76.6%) out of 128 female respondents. The respondents who had CPHP; different types of worries like financial security, lack of social relation, lack of favorite activities, fear of future and dissatisfaction with environment of the elderly homes;

feeling of stress and even those who used coping strategies like self blame were found to have depression. Based on these findings, it can be suggested that new coping strategies as well as mind diversional activities should be sought for preventing depression among elderly living in old age homes.

Key Words: *Factors Associated with Elderly Anxiety and Depression*

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Rekha Timalsina

(Principal Investigator) &

Team Members

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LIST OF ACRONYMS

ACS	Avoidance Coping Strategies
AOR	Adjusted Odds Ratio
AGECAT	Automated Geriatric Examination for Computer Assisted Taxonomy
ANOVA	Analysis of Variance
BDI	Beck Depression Inventory
BAI	Beck Anxiety Inventory
CBS	Central Bureau of Statistics
CCL	Coping Check List
CI	Confidence Interval
CPHP	Chronic Physical Health Problems
DCR	Diagnostic Criteria for Research
DM	Diabetes Mellitus
EFCS	Emotion Focused Coping Strategies
GDS	Geriatric Depression Scale
GHQ	General Health Questionnaire
GI	Gastrointestinal
GMS	Geriatric Mental State Examination
HAM-A	Hamilton Rating Scale for Anxiety
HAM-D	Hamilton Rating Scale for Depression
HKL	Kwala Lumpur Hospital

HMSE	Hindi Mental State Examination
HTN	Hypertension
HUKM	Universiti Kebangsaang Malasia Hospital
ICD	International Classification of Disease
KR	Kuder Richardsan's Coefficient of Reliability
NHRC	Nepal Health Research Council
NIHS	Nepal Institute of Health Sciences
OPD	Out Patient Department
OR	Odds Ratio
PACS	Passive Avoidance Coping Strategies
RCS	Religious Coping Strategies
RM	Ringgit Malasia
SCID	Structured Interview for DSM Disorder
SCL	Symptoms Checklist
SPSS	Statistical Package for Social Sciences
SSSCS	Seeking Social Support Coping Strategies
UGC	University Grant Commission
WHO	World Health Organization

CHAPTER- I

INTRODUCTION

1.1 Background of the Study

Aging, a progressive development in the life span, is a marker of life's journey towards growth and maturity. The definition of old age varies from country to country and sometimes within a country and it does change over time. World Health Organization (WHO) defines senior citizens as people 60 years and above. The Senior Citizens Acts 2063, Nepal also defines the senior citizens as "people who are 60 years and above". According to the 2011 census of Nepal, there were 12, 78,880 elderly over 65 years old, which constitute 4.4 % of the total population in the country. Life expectancy in Nepal has increased from approximately 27 years in 1951 to 66.16 years in 2011 (CBS, 2011).

The overall current prevalence for all types of anxiety disorder was found to be 17.1% and the lifetime prevalence was found to be 18.6% (Kirmizioglu, Dogan, Kugu , & Akyuz, 2009).

A study in Surat city of India showed that the prevalence of depression was moderately high (39.04%) among the elderly population (Jariwala, Bansal, Patel & Tamakuwala, 2010).

Several studies in Nepal show that the long established culture and traditions of respecting elders are eroding day by day. Younger generations move away from their birthplace for employment opportunities elsewhere. Consequently, more elderly today are living alone and are vulnerable to mental problems like loneliness, depression and many other physical diseases (Dahal, 2007).

One of the studies conducted in outpatient department in Nepal showed that 53.2% of the samples were found to experience depressive illness according to Geriatric Depression Scale (GDS) which includes 34.2% of mild and 19% of severe depression (Khattri & Nepal, 2006). Another study also showed that there is very high prevalence of depression among hospitalized geriatric medical inpatients as compared to the healthy community dwellers in Nepal. Presence of this psychiatric morbidity can further exacerbate the physical illness, slowing down recovery and adversely affecting a wide range of outcomes (Kumar, Sharma, Timalsina, Giri, & Yadav, 2011). A study in lone elderly population showed that male gender, living in geriatric homes and age group 60 to 70 (Taha & Abdel, 2005) were found to have anxiety and depression. A case control study on elderly in Kwala Lumpur Hospital (HKL) and Universiti Kebangsaang Malasia Hospital (HUKM) (Salimah, Rahmah, Rosdinom & Shamsul, 2008) found that elderly with lower social support were eight times more at risk for developing depression according to GDS.

Studies in elderly females of Ludhiana City, India (Mehrotra & Batish, 2009) and elderly home residents in Iran (Etemadi & Ahmadi, 2009) showed that economic status, social relations, dissatisfaction with old age, lack of favorite activities, behavior of family members, stress and strain, loneliness and feeling of neglect were the significant factors for anxiety, depression or mixed anxiety and depression.

Elderly homes are places for the elderly to reside, rest, be taken care of and live. For the elderly, living at an elderly home should mean spending time with peers, being close to medical and health services and being away from loneliness and depression. In fact, these are only a few expectations from the elderly homes. However, whether and

how well elderly homes have met these needs and reduced loneliness and depression is the question now arising (Etemadi et al. 2009).

The studies conducted in Nepal for identifying the level of anxiety and depression and factors (socio-demographic, individual and contextual factors) associated to them among elderly living in old aged homes are limited and focused on ill patients which can be an overestimated result and cannot be generalized to elderly living in old age homes. Therefore, this study was aimed to identify the level of anxiety and depression and factors associated with them among elderly living in old age homes in Kathmandu valley.

1.2 Statement of the Problem

Global ageing is the success story of the 21st century. As a result of declining fertility, mortality as well as improved public health interventions, population ageing has been a world-wide phenomenon. People today are living longer and generally healthier lives. This represents the triumph of public health, medical advancement and economic development over disease and injury which have constrained human life expectancy for thousands of years. Even though, there has been a sharp rise in the relative and absolute size of the elderly population in the past four decades, many study shows that 10–16% of elderly people in the community have depression, rising to some 40% of older people in residential and nursing care homes. This is because older people are much more vulnerable to factors that lead to depression (www.mentalhealth.org.uk).

Elderly people report depressive symptoms when they are distressed, when they are ill or are worried about the implication of their symptoms. Stressful life events and inability to cope with psychosocial problems may also lead the elderly to mention such symptoms. Consequently, the difficulty in separating distress from depression becomes a

major issue (Heath, 1999). Depression is associated with morbidity as well as disability among the elderly (Cole & Dendukuri, 2003). Depression constitute a major public health problem worldwide and their prevalence rates range between 10 and 55% (Sherina, Rampal & Mustaqim, 2004; Chi et al. 2005; Tsai, Yeh & Tsai, 2005; Khattri et al. 2006; Kaneko, Motohashi, Sasaki & Yamaji, 2007). Older people are more vulnerable to many of the factors that are known to cause depression, including being widowed or divorced, being retired or unemployed, physically disabled or ill and lonely or isolated (www.mentalhealth.org.uk). Anxiety may affect twice as many older adults as depression (www.webmd.com/anxiety-panic/guide).

In Nepal, a majority of elders depend upon agriculture and are living under poverty. They suffer from deprivation, illiteracy, poor health and nutrition, low social status, discrimination and restriction on mobility. Because of poverty, they enter into old age in a poor state of health and without savings or material assets. They lack means to fulfill their basic needs such as food, clothes, shelter, health care and safe drinking water. Gender inequality and discrimination against women is a common social phenomenon that elderly widows suffer the most {Nepal Participatory Action Network (NEPAN), 2002)}. In Nepali tradition, sons are morally obligated to provide care and support to their parents. It is estimated that more than 80% of elderly in Nepal live with their children. Only 2.7% of the elderly in Nepal are living with their daughters which may be due to the cultural taboos that prevent parents from living with married daughters.

In today's competitive society, the individuals of productive age group are busy and they do not get time to look after and listen to the problems of the elderly. So, the elderly need to search a better option for their difficult life. In Nepalese society too, the

elderly would like to stay in old age homes for their better life. Old age homes are homes which provide residential care to the elderly who are destitute or homeless and for people who are not able to function independently in all aspects of their daily living. In Nepal, there is an old age home in the premises of temple Pashupati Nath (Pashupati Bridrashram) for the destitute elders. Ministry of Women, Children and Social Welfare operates the old age home that has the capacity for 230 elderly. This is the only one government supported old age home in Nepal which was established in 1976 BS as the first residential facility for elders. There are about 71 organizations spread all over Nepal that are registered with the government. These organizations vary in their organizational status, capacity, facilities and the services they provide. Most of them are charity based organizations. About 1,500 elders are living in these old age homes at present {Geriatric Center Nepal (GCN), 2010}. These private organizations are providing services to elderly and are run out of the individual initiatives. The services are determined with the consent of the individual founder's generosity. The services and care, virtually, do not include aspects that are essential to cater elderly in these homes. Despite these initiatives, the Government does not have any official records on how many old age destitute people are taking shelter and their mental health status in these old age homes (GCN, 2010).

Therefore, this study was conducted to identify the level of anxiety and depression and factors associated with them among elderly living in old age homes in Kathmandu valley.

1.3 Conceptual Framework

The conceptual framework of the study is based on the literature review as shown in figure no. 1. According to the conceptual framework, there are many possible factors which directly affect anxiety and depression among elderly living in old age homes which include socio-demographic factors, individual factors and contextual factors. In this study, socio-demographic factors consist of educational status**,** previous occupation, sex, ethnicity, marital status, religion, types of family and number of offspring; individual factors consists of presence of chronic illness, worries of the elderly, coping strategies, duration of stay and contextual factor including type of organization, caring system and mind diversional activities.

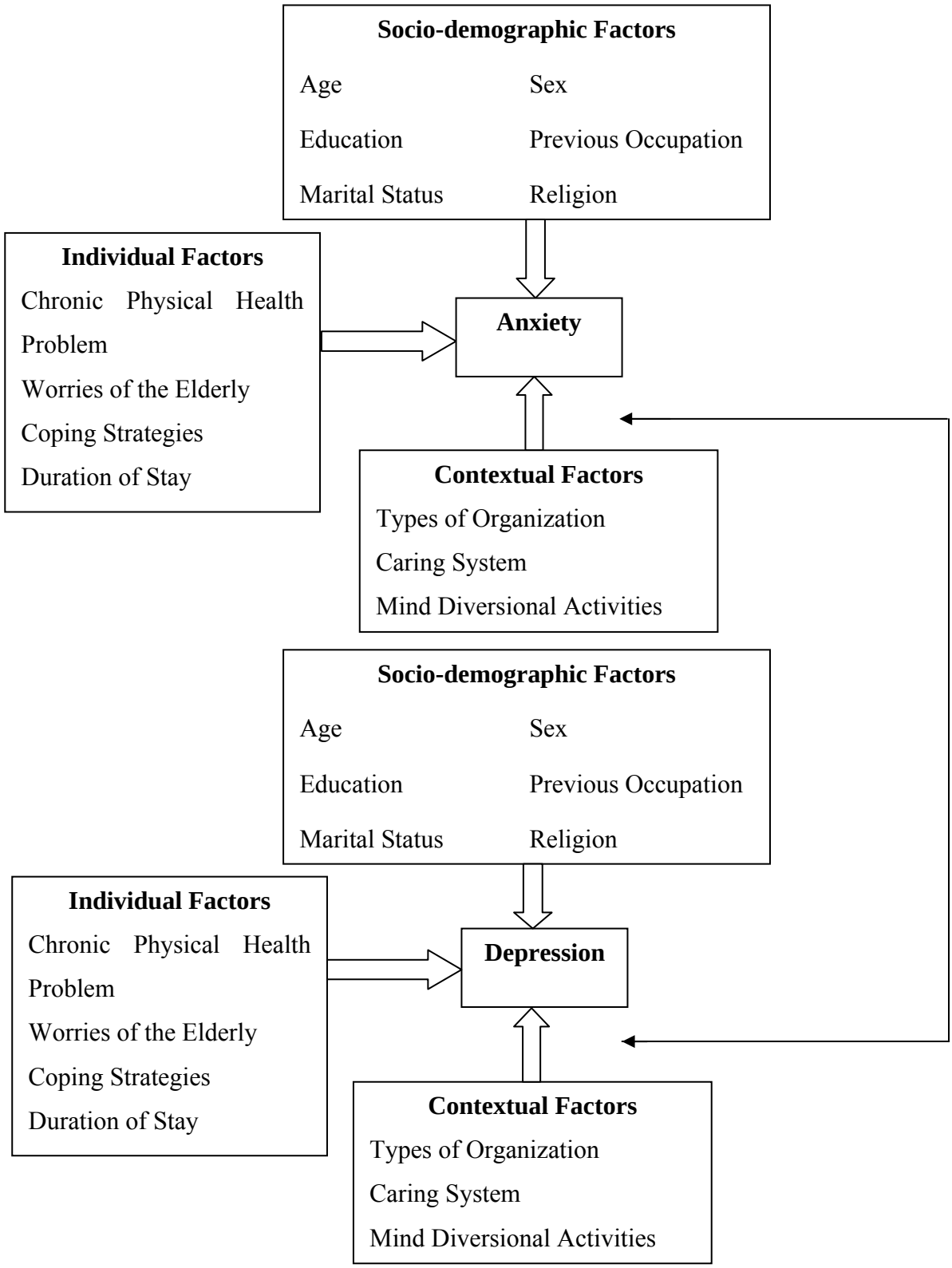

Figure No. 1: Conceptual Framework

1.4 Objectives of the Study

1.4.1 General Objective

To assess the level of anxiety and depression and factors associated with anxiety and depression among elderly living in old age homes in Kathmandu Valley.

1.4.2 Specific Objectives

1. To identify the socio-demographic factors, individual factors and contextual factors of elderly living in old age homes.
2. To identify problems using Hamilton Rating Scale for Anxiety (HAM-A)
3. To identify the level of anxiety among elderly living in old age homes using HAM-A Tool.
4. To explore the association between socio-demographic factors and anxiety among elderly living in old age homes.
5. To explore the association between individual factors and anxiety among elderly living in old age homes.
6. To explore the association between contextual factors and anxiety among elderly living in old age homes.
7. To identify the depressed answers using GDS.
8. To identify level of depression among elderly living in old aged homes using GDS.
9. To explore the association between socio-demographic factors and depression among elderly living in old age homes.
10. To explore the association between individual factors and depression among elderly living in old age homes.

11. To explore the association between contextual factors and depression among elderly living in old age homes.

1.5 Rationale of the Study

Though anxiety and depression are the commonest mental health problems in old age, very few community-based studies have been conducted in Nepal to understand the problem which showed the high prevalence of anxiety and depression among them. But, there is no evidence in Nepal indicating the anxiety and depression level among elderly living in old age homes. So, this study will assess the level of anxiety and depression and its factors associated with them.

1.6 Hypothesis of the Study

1. There is association between socio-demographic factors and anxiety among elderly living in old age homes.
2. There is association between socio-demographic factors and depression among elderly living in old age homes.
3. There is association between individual factors and anxiety among elderly living in old age homes.
4. There is association between individual factors and depression among elderly living in old age homes.
5. There is association between contextual factors and anxiety among elderly living in old age homes.
6. There is association between contextual factors and depression among elderly living in old age homes.

1.7 Expected Results, Application and Uses

There are few studies which have focused on anxiety and depression among elderly in general population which showed high prevalence of anxiety and depression among them. But, there are no studies which focus on the anxiety and depression among elderly living in old aged homes. Based on the findings of this study, more comprehensive nationwide study can be conducted by focusing on the problems and needs of the elderly and appropriate solutions can be generated. On the other hand, this study will be useful to the Ministry of Women, Children and Social welfare, mental health policy maker and related organizations for appropriate design of old age homes so as to address the needs of elderly and the factors associated with anxiety and depression. This study will be the guideline to Ministry of Education for curriculum review by addressing the geriatric problems and needs. Moreover, studying the association between the different independent variables on anxiety and depression will be helpful to the related organizations to improve the factors which directly affect the mental health of the elderly and to gain information for primary and secondary prevention of geriatric mental health problems. Finally, studying the anxiety and depression of the residents of elderly homes will be helpful to the researchers, counselors and psychologists to know more about this period, its problems and the counseling services they need.

1.8 Operational Definitions

Elderly: The individual who is 60 years.

Old Aged Homes: Old age homes are homes, which provide residential care for elderly in Kathmandu Valley

Anxiety: It refers to the symptoms such as anxious mood, tension, fears, insomnia, depressed mood; palpitations, breathing difficulties, sleep disturbances, restlessness and other physical symptoms among the elderly living in old aged homes will be assessed by using HAM-A which is the public domain (Hamilton, 1959).

Depression: It refers to not feeling satisfied with the life, dropping many activities and interests, feeling that the life was empty, feeling bored, not being in good spirits most of the time, not feeling happy most of the time, preferring to stay home rather than to go out and do new things, hopelessness, restlessness, helplessness and not feeling full of energy which is measured by Geriatric Depression Scale as a public domain screening tool among elderly living in old aged homes (Yesavage et.al, 1983).

Chronic Physical Health Problems (CPHP): In this study, Chronic Physical Health Problems refers to any chronic physical problems regarding different systems like musculo-skeletal problem, gastrointestinal problem, respiratory problems, endocrine problems, cardiovascular problems and other systems related problems.

Worries (of the Elderly): In this study, worries of the elderly refers to worries regarding financial security, lack of social relation, dissatisfaction with old age, lack of favorite activities, fear of future, fear of death, dissatisfaction with the environment of the elderly home and dissatisfaction with the treatment of the elderly home official. The response will be Yes or No.

Coping strategies: It refers the strategies of the elderly to cope with emotional and stressful situation by using coping mechanism such as going to different religious places, going to cinema, discussion about the problems with peers, reading paper, listening music etc.

Caring System: Caring system refers to twenty four hours availability of the nurses or trained staff to look after the elderly. The response will be the availability of caregivers yes or no.

Socio-demographic Factors: Age, education, previous occupation, sex, ethnicity, marital status, religion, types of family, number of offspring is the socio-demographic factors.

Individual Factors: Presence of Chronic Illness, Worries of the Elderly, Coping Strategies and Duration of Stay are the individual factors.

Contextual Factors: Types of Organization, Caring System and Mind Diversional Activities are the contextual factors.

CHAPTER-II

REVIEW OF LITERATURE

This chapter deals with the review of literature in order to find out problems regarding anxiety and depression of elderly and the factors associated with them. In this review, firstly the literature related to prevalence of anxiety and depression among elderly and then the factors associated with anxiety and depression have been reviewed. But very few concerned literature were found in the context of Nepal about anxiety and depression among elderly.

2.1 Theoretical Review on Anxiety and Depression

Feeling anxious or nervous is a common emotion for people of all ages and a normal reaction to stress. Feeling anxious can help us handle problems and strange situations, and even avoid danger. It is normal to feel anxious about illnesses, new social interactions, and frightening events. But when one feels anxious often and the anxiety is overwhelming and affects daily tasks, social life, and relationships, it may be an illness (www.gmhfonline.org)

Depression is not just a low mood, but a serious health condition which affects a person's biological functioning and well-being for a sustained period. People with depression find it hard to carry out their normal daily activities. Depression can seriously affect a person's physical and mental health. People with depression can experience a prolonged, uncharacteristic period of low mood, reduced interest in activities, tiredness,

disturbance of sleep and appetite, and negative thoughts and feelings (www.beyondblue.org.au).

The causes of anxiety and depression are illness and disability, loneliness and isolation, Feelings of purposelessness or loss of identity due to retirement or physical limitations on activities, fear of death or dying; anxiety over financial problems or health issues, the death of friends, family members, and the loss of a spouse or partner (www.helpguide.org).

2.2 Prevalence of Anxiety and Depression among Elderly

Singh, Kumar and Reddy (2012) concluded in their study on Psychiatric Morbidity in Geriatric Population in Old Age Homes and Community that depression was the most common psychiatric disorder in the general population (21.7%) and also in those living in old age homes (25%), followed by anxiety disorders (5.8%). This study emphasizes the importance of care that has to be given to the geriatric population.

Kumar et al. (2011) conducted a cross-sectional study on High Prevalence of Depression and Anxiety Symptoms among Hospitalized Geriatric Medical Inpatients with the aim to estimate the burden of these psychiatric morbidities in these setting. The respondents were 42 geriatric inpatients admitted to the Department of Internal Medicine of Tribhuvan University Teaching Hospital were studied for the prevalence of Depression and Anxiety using the Nepalese version of Beck Depression Inventory-II (BDI-II) and Beck Anxiety Inventory (BAI) respectively. Twenty-three healthy geriatric community dwellers from a senior citizen centre in Kathmandu were taken as the control group. Significant anxiety symptoms were present in 76.1% (n=32) of the hospitalized geriatric patients and significant depressive symptoms in 57.1% (n=24) as compared to 21.7%

(n=5) and 17.3% (n=4) of healthy community dwellers, respectively. This study also concluded that a high amount of psychiatric morbidity in this population needs to be addressed by appropriate mental health interventions.

Prina, Ferri, Guerra and Brayne (2011) conducted study on prevalence of anxiety and its correlates among older adults. Anxiety was measured by using the Geriatric Mental State Examination (GMS) and the Automated Geriatric Examination for Computer Assisted Taxonomy (AGECAT) diagnostic algorithm. The age- and gender-standardized prevalence of anxiety varied greatly across sites, ranging from 0.1% (95% CI 0.0– 0.3) in rural China to 9.6% (95% CI 6.2–13.1) in urban Peru. Urban centres had higher estimates of anxiety than their rural counterparts with adjusted (age, gender and site) odds ratios of 2.9 (95% CI 1.7–5.3).

Rashid, Manan and Rohana (2011) carried out a cross sectional study to determine the prevalence of depression among the elderly Malays living in rural Malaysia. Geriatric Depression Scale was used to screen for depression among the participants. This study found that the prevalence of depression was 30.1%.

Seby, Chaudhary and Chakraborty (2011) carried out the study on prevalence of psychiatric and physical morbidity in an Urban Geriatric Population with cross-sectional, epidemiological study design. All the consenting elderly persons in a municipal ward division (n=202) were enrolled after surveying a total adult population of 7239 people. General Health Questionnaire-12, Mini Mental State Examination, CAGE Questionnaire and Geriatric Depression Scale were used in the interview apart from consulting the available documents. Psychiatric illnesses were detected in 26.7% while physical illnesses were present in 69.8% of the population surveyed. Predominant psychiatric

diagnoses were depressive disorders, dementia, generalized anxiety disorder, alcohol dependence and bipolar disorder. This study also concluded that a higher rate of old age depression in elderly.

Jariwala et al. (2010) conducted a cross sectional study on a study of depression among aged in Surat City. A total of 105 elderly people were interviewed, comprising of 35 people each from the elderly living in the old age homes, those living in the affluent areas and those living in the slums of Surat city. This sample size was determined by probability sampling technique. The inclusion criteria comprised of all consenting subjects, aged ≥60 years, and who were permanent residents of Surat city. The prevalence of depression was moderately high (39.04%) among the elderly population.

Etemadi et al. (2009) conducted study on psychological disorders of elderly home residents of Teharan, Iran. In this study 120 old people who lived at governmental and private elderly homes in Tehran, Iran were randomly selected and studied using Symptoms Checklist (SCL)-90 and Beck Depression Inventory. This study showed that signs of depression were the most common ones among the elderly in elderly homes and the rate of psychological symptoms was more among women than men. The most frequent symptoms were seen; depression 32.5% and anxiety 18.3% according to SCL 90. Studying the prevalence of depression among the elderly living at nurseries showed that 38 (31.5%) had mild and 49 (41%) of them had severe depression, based on Beck Depression Inventory and anxiety 18.3%.

Kirmizioglu et al. (2009) carried out study on prevalence of anxiety disorders and the relationship between possible risk factors and anxiety disorders amongst 462 elderly people living in the Sivas province of Turkey using a socio-demographic data form and

the anxiety module of structured interview for DSM Disorders (SCID)-I. The current prevalence for all types of anxiety disorder was found to be 17.1% overall and the lifetime prevalence was found to be 18.6%. Anxiety disorders are more common among elderly people. Finally, this study recommended that in order to improve the delivery of health services, the further studies should be conducted among elderly people, both by applying standardized diagnostic tools, but also taking into account socio-economic factors and using convenient therapy methods developed specifically for this group.

Chowdhary and Rasania (2008) conducted a cross-sectional community based study among the 250 elderly living in Delhi to study the prevalence of psychiatric disorders by using the General Health Questionnaire (GHQ), the Hindi Mental State Examination (HMSE) after taking their socio-demographic profile. Based on those findings, Depression (23.6%), and Anxiety disorder (10.8%) were the most common disorders. The elderly population constitutes a high-risk group for developing mental illness. Finally, this study also concluded that the high prevalence of psychiatric disorders in this growing population of low-income elderly presents a challenge to the delivery of mental health service.

Salimah et al. (2008) conducted a case control study on factors that influence depression among the elderly in Kuala Lumpur Hospital and Universiti Kebangsaan Malaysia Hospital. This study involved 130 elderly patients diagnosed to have depressive illness from the psychiatric clinics of Kuala Lumpur Hospital (HKL) and Universiti Kebangsaan Malaysia Hospital (HUKM). Another group of 130 elderly patients with no history of depressive illness were recruited from the medical specialist clinics. Non-Malay elderly has three times risk {Adjusted odds Ratio (AOR) 2.537, 95% Confidence

Interval (CI) 1.439 - 4.471)} of suffering the depressive illness compared to the Malay elderly.

Sherina, Sidik, Aini and Norhidayati (2005) conducted cross-sectional study on the prevalence of depression and its associated factors among 316 elderly in an Urban Area of Selangor. The collection was done by using interview technique with 30-item Geriatric Depression Scale (GDS) questionnaire. The results showed that 6.3% of the elderly respondents were found to have depression.

Taha et al. (2005) carried a study on anxiety and depression in Lone Elderly to evaluate the prevalence of anxiety & depression at their own homes & going to geriatric clubs regularly or living at geriatric homes. In this study, 164 lone elderly participants from geriatric clubs (group I) and 168 lone elderly participants from geriatric homes (group II) were included. Hamilton Anxiety Scale & Hamilton Depression Rating Scale was used for detection of anxiety & depression respectively. This study revealed that the co-occurrence of anxiety and depression is 34.1% & 57.1% in group I and group II respectively, while depression is 22.0% & 23.8% and anxiety is 2.4% & 1.2% in group I & group II respectively ($p<0.001$).

Sheela, (2005) conducted study on socio-demographic profile and mental health status of elderly in old age homes "ASAKTHA POSHAKA SABHA". The descriptive study was conducted in 60 elderly (30 were male and 30 female) by using random sampling techniques. Tools used for data collection were Socio-demographic sheet, General Health Questionnaire (GHQ), Hamilton Rating scale for Depression (HAM-D) and Hamilton Rating Scale for Anxiety (HAM-A). This study showed that there is high

prevalence of psychological distress in the sample population, depression level was found to be moderate and the respondents were suffering from mild anxiety.

Wijeratne, Wijerathne, Wijesekara and Wijesingha (2000) conducted study to assess the prevalence of depression among institutionalized elders in the Colombo district. A descriptive cross sectional study involving 100 senior citizens aged 60 years and above institutionalized in five randomly selected "Homes for the Elderly" in the district of Colombo. A pre-tested, interviewer administered questionnaire in Sinhalese medium containing the Geriatric Depression Scale was used in the study. The prevalence of depression in the study population (n=100) was 56%, of which 23.2% had severe depression. Sixty percent of the female population (n=50) and 52% of the male population (n=50) were found to have depression.

2.3 Socio-demographic Factors and Anxiety and Depression

Pandit, Manna, Datta, Biswas, Baur and Mundle (2013) concluded that depression in old age is associated with genetic susceptibility, chronic disease and disability, pain, frustration with limitations in activities of daily living. 65.3% of the study population had depression (mild- 36.2%, severe-29.1%) and the association of this depression with age, gender, residence, marital status, education, occupation, family type and economic dependency, living condition was statistically significant.

Singh et al. (2012) concluded that psychiatric disorders were more prevalent in individuals aged >80 years, in females, and illiterates.

Prina et al. (2011) concluded that age, gender, socioeconomic status and comorbid physical illnesses were all associated with a GMS/AGECAT diagnosis of anxiety.

Rashid et al. (2011) concluded in the study that on being unmarried, unemployed, earning less than Ringgit Malaysia (RM) 600 and living alone were significantly associated with the risk of being depressed.

Seby et al. (2011) concluded that depression was associated with female sex, single/widowed/separated status, staying in nuclear families, economic dependence on others.

Mehrotra et al. (2009) conducted study on assessment of problems among elderly females of Ludhiana city with a random sample of 80 elderly women above the age of sixty years was carried out from two localities each i.e. BRS Nagar and Civil Lines area of Ludhiana city. The data were collected through personal interview. This study concluded that major economic problems were medical expenditure (85.0%) lack of freedom on spending (77.50%), reduced personal income (65.0%).

Salimah et al. (2008) concluded that risk factors identified were lower social support with eight times risk (AOR 7.949, 95% CI 2.588 - 24.417). Social support is not only important in encouraging the elderly to practice healthy life style but proven to influence the risk of getting depression among them. Hence, it is very crucial that the elderly is given total attention, respect and love from all parties to ensure prosperity and meaningfulness in life.

Sood, Singh and Gargi (2006) concluded that there were significant association between age and depression.

Sherina et al. (2005) concluded that gender (p value 0.015), ethnicity (pvalue 0.028), chronic illness (p value 0.028), functional disability (p value 0.000) and cognitive

impairment (p value 0.000) were found to be significantly associated with depression among the elderly respondents.

Taha et al. (2005) concluded that male gender is an independent risk factor for depression**.**

Sheela, (2005) concluded that mental health of the elderly is affected by gender, occupation, marital status and unemployed children. A positive correlation was also found between all the aspects of mental health studied.

Wijeratne et al. (2000) concluded that prevalence of depression was found to be significantly higher among those with family conflicts ($p<0.05$) and lack of psychological support ($p<0.05$).

Taqui, Ahmed, Waris and Zeeshan (2007) concluded that females were found to be 2.6 times more likely to suffer from depression compared to males. Married people were less likely to suffer from depression compared to those who did not marry or who were separated or widowed. The subjects living in a nuclear family system were more likely to suffer from depression than those living in a joint family system. Other factors that showed a significant association with depression in the subjects included being uneducated, living alone, being childless, and being unemployed.

NEPAN, (2002) explored that a majority of elders depend upon agriculture and are living under the poverty. They suffer from deprivation, illiteracy, poor health and nutrition, low social status, discrimination and restriction on mobility. Because of poverty, they enter into old age in a poor state of health and without saving or material assets. They lack means to fulfill their basic needs such as food, clothes, shelter, health

care, and safe drinking water. Gender inequality and discrimination against women is a common social phenomenon that elderly widows suffer the most.

Women are about twice as likely as men to suffer from depression. This two-to-one difference persists across racial, ethnic, and economic divides. There are a number of theories that attempt to explain the higher incidence of depression in women. Many factors have been implicated, including biological, psychological, and social factors. Regarding biological factors, Women may be at increased risk for depression during perimenopause, the stage leading to menopause when reproductive hormones rapidly fluctuate. Women with past histories of depression are at an increased risk of depression during menopause as well. Regarding psychosocial factors, women are more likely to ruminate when they are depressed. This includes crying to relieve emotional tension, trying to figure out why they're depressed, and talking to friends about their depression. Men, on the other hand, tend to distract themselves when they are depressed. Unlike rumination, distraction can reduce depression. Women produce more stress hormones than men do, and the female sex hormone progesterone prevents the stress hormone system from turning itself off as it does in men. Regarding social factors, financial problems, death of a loved one or other stressful life event that leaves the feeling of useless, helpless, alone, or profoundly sad provokes the female towards psychological problems. However, it is unclear why elderly women develop depression than male (www.helpguide.org).

2.4 Individual Factors and Anxiety and Depression

Seby et al. (2011) concluded that the most common physical illness was visual impairment, cardiovascular disease, rheumatic illnesses, pulmonary illnesses, hearing

impairment, genitourinary diseases and neurological disorders. Finally, this study concluded that depression was associated with co-morbid physical illnesses i.e. cardiovascular disorders and visual impairment.

Etemadi et al. (2009) concluded that the presence of psychological symptoms were more common in 52% of the respondents who did not have any physical disorders. These symptoms were also common in 41% of the respondents who had a kind of disability or chronic diseases.

Chandwani, Jivarajani and Jivarajani (2009) conducted study on health and social problems of geriatric population in an Urban Setting of Gujarat, India by adopting a cross-sectional study with 311 elderly men. Health problems such as hypertension, arthritis, diabetes, constipation were found on majority of the respondents.

Mehrotra et al. (2009) concluded that major physical problems faced by elderly females were reduced vision (81.25%), dental decay (77.50%), body weakness and pain (68.75%).

Salimah et al. (2008) concluded that the elderly with chronic health problems are more likely to be depressed compared to those who do not suffer from any chronic illness (p trend <0.001).

Prina et.,al (2011) concluded that comorbid physical illnesses were associated with a GMS/AGECAT diagnosis of anxiety.

Wijeratne et al. (2000) concluded that prevalence of depression was found to be significantly higher among those with chronic diseases ($p<0.01$).

Pargament, Smith and Koeing, (1996) concluded that a positive effect of religious coping in ameliorating the stress effect on individual life. The study further revealed that positive form of religious coping was highly correlated with stress-related growth.

Billings and Moos, (1981); Clements & Sawhney, (2000) concluded that studies of stressful life events show that problem-focused coping, religious coping, and reliance on social support are associated with better psychological adjustment, while emotion-focused coping strategies are related to higher levels of distress.

Psychosocial and environmental stressors are known risk factors for depression. Genetics research indicates that environmental stressors interact with depression vulnerability genes to increase the risk of developing depressive illness (www. psychcentral.com).

Positive coping responses are listening to music, laughing or crying, going out with a friend (shopping, movie, dining), praying or going to church, discussing situations with a spouse or close friend and negative coping responses are criticizing yourself (negative self-talk), smoking or chewing tobacco, drinking alcohol, and avoiding social contact (www.webmd.com).

2.5 Contextual factors and Anxiety and Depression

Prina et al. (2011) concluded that place of residence also played a major role for anxiety.

Etemadi et al. (2009) concluded that the most worrying issues for the elderly were economic status (55.8%), lack of social relations (55%), dissatisfaction with old age (45.8%), lack of favorite activities (45%), fear of future (30%),dissatisfaction with environment of the elderly home (24.2%) and dissatisfaction with the treatment of the

elderly home official (17%). Therefore, living at an elderly home means staying away from family support and that it is considered reproachable, attending to psychological and emotional needs of the elderly home residents is essential.

Mehrotra et al. (2009) revealed that stress and strain was the prominent problem (85%) followed by declining authority (77.50%), loneliness (72.50%) and feeling of neglect (65.0%) were in elderly.

Taha et al. (2005) concluded that living at geriatric homes were the independent risk factors for anxiety, depression or mixed anxiety and depression.

2.6 Issues regarding Elderly in Nepal

GCN (2009) explored that traditionally, family has been the key social institution that provided psychological, social and economic support to the individual at different stages of life. Elderly in the family enjoyed undisputed authority and power. They were considered as knowledge banks and ideal persons for the younger. However, the structure of family has undergone changes differently at different stages of social development in Nepal. One of the present needs in case of societies like that of Nepal is to strengthen the traditional value systems. Industrialization and urbanization have brought changes to family structure in Nepal to a great extent. The extended family that existed in the society has changed to a nuclear family. This has affected the position of the elderly in the family as well as the family's capacity to take care of the aged. The family's capacity to provide quality care to older people is decreasing with the reduction of the available kin support. Therefore, these findings revealed that this type of family structure may play a major role for causing many psychosocial problems of elderly.

Poudel, (2005) stated that elderly people also have to face economic and social difficulties. Because of modernization, the traditional joint family is slowly being replaced by nuclear family in urban areas. Therefore, the caring of elderly population is a major problem. The older members of family are being isolated because of this trend of nuclear family. Old people long for love, proper nourishment, happiness and relaxing conversations from other family members. This system of nuclear family and busy lifestyle of people have secluded them from other family associates. Therefore, these issues can cause many psychosocial problems in elderly.

From the above literature, it can be concluded that increasing life expectancy of people causes increase in the number of older people and they expect from their young children for more care, love and affection. If they do not get care, love and affection, they may suffer from many psychosocial problems in their life (Poudel, 2005). From the reviewed pertinent recent articles, depression and anxiety were more prevalent in the elderly population. Correct recognition, attention to underlying precipitating factors, and compassionate, supportive care can vastly improve the mental health status of elderly (Kumar et al. 2011). There is a growing need for interventions to ensure the health of this vulnerable group and to create a policy to meet the care and needs of the disabled elderly (Chandwani et al. 2009).

CHAPTER-III

RESEARCH METHODOLOGY

This chapter includes the details of methodology selected for the study. It includes the study design, study sites, study population, inclusion criteria, sample size, sampling techniques, variables, data collection tools, validity and reliability, data collection procedures, data processing, analysis and interpretation of the data and ethical consideration that was adopted in this study.

3.1 Study Design

The data was collected at one point of time with individual respondents. Therefore, the research design was cross-sectional. The objective of the study was to identify the level of anxiety and depression and the factors associated with them among elderly living in old aged homes in Kathmandu valley. The various independent factors were identified in this study and the associations between independent and dependent factors were tested for its significance. Therefore, the design of this study was descriptive analytical. To support the findings of this study, case studies of the elderly are also included in Annex section.

3.2 Study Sites & Study Population

Study Sites	Study Population
Samaj Kalyan Kendra Briddhashram, (Pashupati Bridhashram), Kathmandu	230
Nishahaya Sewa Sadan, Kathmandu	37

Old Age Management/ Social Welfare Trust (Amako Ghar), Kathmandu	37
Siddhi Smriti Bridhashram, Bhaktapur	34
Matatritha Bridhashram, Kathmandu	15
Tapasthali Old Aged Home, Kathmandu	15
Divya Sewa Niketan, Kathmandu	15
Dev Corner Bridhashram, Lalitpur	15
Sahara Care Centre, Bhaktapur	8
Senior Citizen Home, Lalitpur	6
Total	**412**

The study population was 412 elderly people.

3.3 Inclusion Criteria

1. The people aged 60 years and above
2. Those who were willing to participate in the study
3. Those who were able to listen and give response
4. Those who did not have severe psychiatric disorder
5. Those who had no severe sickness and disability in terms of having neurological problems

3.4 Sample Size

The total population of elderly living in old aged homes was 412. The respondents who did not meet the inclusion criteria were excluded. Therefore, the total sample size was 173 elderly people.

3.5 Sampling Technique

The actual sampling frames of the respondents were not available. Therefore, the non-probability purposive sampling was used.

3.6 Variables

3.6.1 Independent Variables

Age, educational status, previous occupation, sex, ethnicity, marital status, types of family, chronic physical health problems, worries of the elderly, coping strategies, duration of stay, types of organization, caregivers availability and mind diversional activities were the independent variables of the study.

3.6.2 Dependent Variable

The dependent variables were Anxiety and Depression.

3.7 Data Collection Tools

1. The interview schedule regarding socio-demographic and other variables related information was developed by the researcher.

2. The coping checklist was developed by Rao, Subbakrishna, and Prabhu (1989) in an Indian setting and aims to measure the type of coping used by a person in stressful situations. It is based on a cognitive model of stress and coping. The final version of the Coping Check List (CCL) comprises of 70 items, covering a broad range of behavioral, emotional and cognitive responses that may be used in handling stressful situations. Items are scored in terms of yes or no, indicative of the presence or absence of

a particular coping behavior. The test-retest reliability of the CCL is 0.74 and it has been validated in a community sample, with internal agreement of the validity being 0.92. Because there is socio-cultural similarity between the Nepalese and the Indian context, the CCL was partially adopted in the present study as a tool of measuring the coping strategies.

3. The Geriatric Depression Scale (GDS) was used for assessing depression. The GDS was first developed in 1982 by J.A. Yesavage and others. The GDS is a questionnaire which is widely used as a screening tool for depression in the elderly. The respondents was asked to respond to 30 questions by answering 'yes' or 'no' in reference to how they felt on the day the interview was taken. Scores of 0-9 indicated normal, 10-19 mild depression and 20-30 indicated severe depression. The GDS has excellent reliability and validity (test-retest reliability = 0.85, internal consistency = 0.94) (www.columbia.edu).

4. Hamilton Anxiety Scale (HAM-A) was used for screening Anxiety. HAM-A developed by Hamilton M, 1967 was used in this study. It is a scale used for detection of anxiety in addition to quantifying the severity of anxiety symptomatology. It consists of 14 items, each defined by a series of symptoms. Each item is rated on a 5-point scale, ranging from 0 (not present) to 4 (severe). The total score is 0 – 17 for normal individual, 18 – 24 for mild anxiety, 25 – 29 for moderate anxiety and ≥ 30 for severe anxiety. The HAM-A showed good internal consistency (Cronbach's alpha=0.893) (Kummer, A., Cardoso, F., Teixeira, A. L, 2010).

3.8 Validity and Reliability

For maintaining study validity, the valid and standard tools were translated and back translated and used in the study. For ensuring reliability, the tools were pretested in the context of Nepalese population to identify the time taken, the kind of questions to be asked to clarify the questions in the tools, to know the kind of responses and to be prepared for any problems as well as inconsistencies that may arise and to make necessary changes to create a tool comprehensive to the respondent. Pretesting was done on 10% of the total sample in similar population before finalizing the instrument. Cronbach alpha and KR-20 were tested for the translated instruments to ensure their reliability. Cronbach alpha was found to be 0.814 for anxiety scale and KR-20 was calculated to be 0.797 for depression scale.

3.9 Data Collection Procedure

In order to assure the quality of research, the quality in each research process was planned. The researcher visited the above mentioned old aged homes. Prior permission was taken from the authorities of the organization. In order to reduce the systematic error in quantitative study, the standardized instruments were used. The data were collected individually by interview technique using the socio-demographic and other independent variables related tool, GDS and HAM-A tool. All interview forms were reviewed daily for completeness by the enumerator and were checked for correctness and accuracy by the researcher. To support the findings of this study, two elderly, who were found to be anxious and depressed, were further interviewed and the report has been included in the Annexe section as a case study report.

3.10 Planned for Data Processing, Analysis and Interpretation

The interview schedules were checked for completeness and consistency. The different variables of the interview schedule were coded and double checked. Double data entry was done using Epi Data software. Data cleaning and analysis was done by using SPSS version 16. Descriptive statistics (frequency, percentage, mean, standard deviation) was used for analyzing data related to socio-demographic variables and other independent variables. Inferential statistics namely Chi-square test was used at 5% level of significance and Odds Ratio was calculated for exploring the association between independent variables on anxiety and depression among elderly living in old aged homes.

3.11 Ethical Consideration

A letter requesting permission to carry out this study was sent on behalf of the Campus Chief of Nepal Institute of Health Sciences, Boudha, Kathmandu to the administrative authority of old aged homes. Ethical approval was taken from Nepal Health Research Council after submitting the permission letter provided by different old aged homes. Every precaution was taken to protect the privacy and right of the respondents. Written as well as verbal permission was taken from the organizational authority. The respondent's rights were protected by taking informed consent from the respondents before data collection and keeping the collected information confidential.

CHAPTER –IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with the analysis and interpretation of findings. All data were primary and obtained from 173 respondents of 10 old aged homes mentioned above. After completion of data collection, data were checked for their accuracy and completeness. Then, data entry and double entry was done in Epi data software and data was analyzed using SPSS version 16 according to interview schedule and objectives of the study. Then, data were tabulated according to the socio-demographic characteristics and other independent variables. Levels of anxiety and depression were also presented on the tables. After that, descriptive statistics of anxiety and depression score with independent variables and association between independent and dependent variables were presented on the tables. But, extensive analyses of this study regarding association between socio-demographic profile and anxiety as well as depression are included in Annex Section.

4.1 Socio-demographic Variables

Socio-demographic Variables includes names and types of organization, Age, Sex, Education, Marital Status, Living with Spouse, Number of Offspring, Types of Family, Ethnic group, Religion and Address of the Respondents.

Table No. 1: Name of Organization and Types of Organization

n=173

Characteristics	Frequency	Percentage
Name of Organization (Bridhashram)		
Pashupati	83	48.0
Nishahaya Sewa Sadan*	21	12.1
Siddhi Saligram*	15	8.7
Dev Corner*	11	6.4
Divya Sewa Niketan*	11	6.4
Tapasthali*	11	6.4
Amako Ghar*	8	4.6
Matatirtha*	7	4.0
Sahara Care Centre*	4	2.3
Senior Citizen Home	2	1.2
Types of Organization		
Private	88	50.9
Government Supported	83	48.0
Cooperative	2	1.2

Source: Survey, 2012 *** Private Organization**

Above Table No. 1 shows that out of 173 respondents, majority of the respondents, 83 (48.0%), belong to Pashupati Bridhashram and minority, 2 (1.2%) respondents, belong to Senior Citizen Home. Regarding type of organization, majority, 88 (50.9%) respondents, were from private organization and minority, 2 (1.2%) respondents, were from cooperative organization

Table No. 2: Age, Sex, Education and Marital Status of Respondents

n=173

Characteristics	Frequency	Percentage (%)
Age of Respondents (In Years)		
60-69	30	17.3
70-79	70	40.5
80-89	62	35.8
90-99	11	6.4
Sex of Respondents		
Female	128	74.0
Male	45	26.0
Education		
Literate	46	26.6
Illiterate	127	73.4
Marital Status		
Married	42	24.3
Unmarried	23	13.3
Widow/Widower	108	62.4
Living with Spouse	12	6.9

Source: Survey, 2012

Above Table No. 2 represents that regarding age, majority 70 (40.5%) respondents were between 70-79 years age group and minority, 11 (6.4%) respondents were between 90-99 years age group. Majority of the respondents, 128 (74.0%), were female and remaining, 45 (26.0%) respondents, were male. This may be due to the fact that majority of old age homes provide shelter for elderly female only. Most of the respondents, i.e. 127 (73.4%) respondents, were illiterate and minority, 46 (26.6%)

respondents, was literate. Most of the respondents, 108 (62.4%), were widowed. Only, 12 (6.9%) respondents were living with their spouse.

Table No. 3: Offspring, Previous Family Type, Ethnicity and Religion of Respondents

n=173

Characteristics	Frequency	Percentage
Offspring (n=150)		
Yes	86	57.3
No	64	42.7
Previous Family Type		
Nuclear	30	17.3
Joint	49	28.3
Extended	21	12.1
Single	55	31.8
Living with Others	18	10.4
Ethnicity		
Bramhin	54	31.2
Chhetri	52	30.1
Newar	41	23.7
Others	26	15.0
Religion		
Hindu	160	92.5
Christian	8	4.6
Bouddist	5	2.9

Source: Survey, 2012

Above Table No. 3 displays that regarding their offspring, 86 (57.3%) respondents were found to have offspring, comprising the majority group and 64 (42.7%) respondents had no offspring, falling into the minority group. Regarding the type of previous family, majority of respondents, 55 (31.8%), had been staying alone before

staying at Bridhashram and minority, 18 (10.4%) respondents, had been staying with others rather than the family members. Most of the respondents, 54 (31.2%), were Bramhan and minority, 26 (15.0%) respondents, were Tamang, Gurung, Rai and Pariyar (i.e. others). Regarding religion, 160 (92.5%) respondents were Hindu and minority, 5 (2.9%), were Buddhist

Table No. 4: Previous Address of the Respondents

n=173

Address (Zonal Wise)	Frequency	Percentage (%)
Bagmati	117	67.6
Gandaki	14	8.1
Janakpur	13	7.5
Koshi	10	5.8
Narayani	6	3.5
Sagarmatha	6	3.5
Mechi	3	1.6
Dhaulagiri	2	1.2
Rapti	2	1.2

Source: Survey, 2012

Above Table No. 4 represents, majority 117 (67.6%) respondents were from Bagmati Zone and minority, 2 (1.2%) respondents, were from Rapti Zone.

Table No. 5: Previous Occupation of Respondents

n=173

Occupation	Frequency	Percentage (%)
Agriculture	67	38.7
Animal Husbandry	50	28.9
Housemaid	35	20.2
Laborer	18	10.4
Housewife	17	9.8
Others	45	26.0

Source: Survey, 2012 ***Answer by Multiple Response**

Above Table No. 5 reveals that out of 173 respondents, the respondents used to engage themselves in various work like agriculture, 67 (38.7%); animal husbandry, 50 (28.9%); housemaid, 35 (20.2%); laborer, 18 (10.4%); housewife, 17 (9.8%) and others (carpenter, service holder, business, pujari, unemployment etc.), 45 (26.0%).

4.2 Other Variables

Other variables include duration of stay, chronic physical health problems, worries, feeling of stress, coping strategies, caregiver's availability, type of caregivers and needs of caregivers and mind diversional activities.

Table No.: 6 Duration of Stay

n=173

Duration of Stay(In Years)	Frequency	Percentage
Less than 1	31	17.9
1-5	**77**	45.5
6-10	31	17.9
11-15	27	15.6
More than 15	**7**	4.0
Total	**173**	**100.0**

Source: Survey, 2012

Above Table No. 6 illustrates that majority, 77 (45.5%) and minority, 7 (4.0%), of the respondents had been staying in old aged homes since 1-5 years and >15 years respectively.

Table No. 7: Chronic Physical Health Problems (CPHP) of Respondents

n= 173

CPHP	Frequency	Percentage (%)
Yes	151	87.3
No	22	12.7
If Yes, (n=151)		
Gastrointestinal (GI)	72	47.7
Hypertension (HTN)	72	47.7
Respiratory	61	40.4
Musculoskeletal	56	37.1
Diabetes Mellitus(DM)	23	15.2
Others	33	21.9

Source: Survey, 2013 ***Answer by Multiple Response**

Above Table No. 7 shows that majority 151 (87.3%) of respondents had CPHP and 22 (12.7%) had no problems. Out of 151 respondents, 72 (47.7%), 72 (47.7%), 61 (40.4%), 56 (37.1%), 23 (15.2%) and 33 (21.9%) had GI problem, HTN, respiratory problem, musculoskeletal problem, DM and other physical health problems like defect in foot, blindness and hypotension respectively.

Table No. : 8 Worries of Respondents

n=173

Characteristics	Frequency	Percentage (%)
Worries		
Yes	151	87.3
No	22	12.7
If Yes, Worrying Issue* (n=151)		
Fear of Future	125	82.8
Dissatisfaction with Old Age	102	67.5
Lack of Favourite Activities	85	56.3
Financial Security	75	49.7
Lack of Social Relation	62	41.1
Dissatisfaction with Environment of Elderly Home	53	35.1
Dissatisfaction with Treatment of Elderly Home Official	48	31.8
Others	3	1.9

Source: Survey, 2012 ***Answer by Multiple Response**

Above Table No. 8 reveals that 151 (87.3%) of respondents had worries and 22 (12.7%) respondents had not any worries. Out of 151 respondents, majority 125 (82.8%), respondents had worries regarding fear of future and minority 3 (1.9%) had worries regarding others i.e. funeral service.

Table No.: 9 Stress and Coping Strategies

n=173

Characteristics	Frequency	Percentage (%)
Feeling of Stress		
Yes	145	83.8
No	28	16.2
If Yes, Coping Strategies*		
Pray to God	99	68.3
Listening to Religious Music	76	52.4
Self Blame	59	40.7
Go to Religious Places	57	39.3
Shares the Problems with Peers	43	29.7
Staying Alone	40	27.6
Crying Alone	30	20.7
Take Cigarettes	17	11.7
Visit in Different Places	12	8.3
Reading Religious Books	12	8.3
Others	4	2.8

Source: Survey, 2012 *** Answer by Multiple Response**

Above Table No. 9 represents that regarding stress, 145 (83.8%) respondents felt stress in their daily life whereas 28 (16.2%) respondents did not feel any stress at all. Out of 145 respondents, 99 (68.3%), 76 (52.4%), 57 (39.3%) and 12 (8.3%) respondents used religious coping strategies (RCS) as praying, listening to religious music, go to religious places and reading religious books respectively. Fifty-Nine (40.7%) and 43 (29.7%) respondents used passive avoidance coping strategy (PACS) like self blame and seeking social support coping strategy (SSCS) like sharing with peers respectively. Forty (27.6%) and 7 (11.7%) respondents used avoidance coping strategies (ACS) as staying alone and

smoking cigarettes respectively. Thirty (20.7%) of the respondents cried alone using emotion focused coping strategy (EFCS). Minority, 12 (8.3%) respondents, used coping strategy like visit to different places and 4 (2.8%) respondent could not cope easily (i.e. others)

Table No.: 10 Caregivers Availability and Need of Caregivers

n=173

Characteristics	Frequency	Percentage (%)
Caregivers Availability		
Yes	72	41.6
No	101	58.4
If Yes, Types of Caregivers		
Staffs	72	100.0
Need of Care Givers		
Yes	127	73.4
No	46	26.6

Source: Survey, 2012

Above Table No. 10 displays that regarding 24 hours caregivers' availability, 72 (41.6%) and 101 (80.8%) respondents responded as "yes" and "no" respectively. Out of 72 respondents, all the respondents felt the need of trained staff to look after them. Regarding the need of Caregivers, 127 (73.4%) respondents felt the need of caregivers to look after them and 46 (26.6%) respondents felt no need of caregivers

Table No. 11 Mind Diversional Activities

n=173

Characteristics	Frequency	Percentage (%)
Mind Diversional Activities (MDA)		
Yes	110	63.6
No	63	36.4
If Yes, Types of MDA* (n=110)		
Religious Activities	83	75.5
Prabachan	24	21.8
Others	32	29.1

Source: Survey, 2012 *** Answer by Multiple Response**

Above Table No. 11 illustrates that 110 (63.6%) respondents responded that they had different types of MDA and 63 (36.4%) respondents said that they had no mind diversional activities. Out of 110 respondents, majority, 83 (75.5%) respondents, said that they had religious activities like Bhajan Kirtan and religious storytelling and minority, 32 (29.1%) respondents, said that the organization arranged the different types of activities like visit to different places, picnics, celebration of the festivals, yoga, social gathering (i.e. others) etc. which helped to divert their mind.

4.3 Problems of Respondents according to HAM-A Tool for Anxiety

The problems regarding, somatic (muscular), insomnia, autonomic symptoms, somatic (sensory), depressed mood, GI symptoms, tension, respiratory symptoms, intellectual, anxious mood, cardiovascular symptoms, fears, genitourinary symptoms, and behavior at interview, were included in the table below.

Table No. 12 Problems of Respondents according to HAM-A Tool for Anxiety

n=173

Anxious Problem	Frequency (Present)	Percentage (%)
Somatic (Muscular)	**123**	71.1
Insomnia	121	69.9
Autonomic Symptoms	108	62.4
Somatic (Sensory)	102	59.0
Depressed Mood	97	56.1
Gastrointestinal Symptoms	92	53.2
Tension	83	48.0
Respiratory Symptoms	77	44.5
Intellectual	74	42.8
Anxious Mood	69	39.9
Cardiovascular Symptoms	62	35.8
Fears	46	26.6
Genitourinary Symptoms	**35**	20.2
Behavior at Interview (Looks Anxious)	**89**	51.4

Source: Survey, 2012

Above Table No. 12 shows that majority of respondents, 123 (71.1%) and 121 (69.9%), verbalized that they had somatic (muscular) and insomnia problems respectively and minority, 35 (20.2%) respondents, verbalized that they had genitourinary problems. Eighty nine respondents (51.4%) looked anxious while taking interview.

4.4 Level of Anxiety, Descriptive statistics of Anxiety Score with Different Variables

Table No. 13: Anxiety Level of Respondents

n=173

Anxiety Level	Frequency	Percentage (%)
Normal	117	67.6
Mild Anxiety	36	20.8
Moderate Anxiety	11	6.4
Severe Anxiety	9	5.2
Total	**173**	**100.0**

Source: Survey, 2012

Above Table No. 13 displays that 117 (67.6%) respondents had no anxiety and 56 (32.4%) respondents had anxiety. According to HAM-A tool, out of 56 respondents, 36 (20.8%), 11 (6.4%) and 9 (5.2%) respondents had mild, moderate and severe anxiety respectively. Out of 45 male respondents, 10 (22.2%) had anxiety as compared to 45 (35.2%) out of 128 female respondents. This results shows that female respondents had more anxiety than male respondents.

Table No. 14.1 Descriptive Statistics of Score regarding Anxiety Scale with Socio-demographic Factors

Characteristics	Mean	Standard Deviation	Minimum	Maximum
Age				
60-69 Years	**12.1**	6.9	0	24
70-79 Years	14.2	8.8	0	34
80-89 Years	15.2	8.3	0	38
90-99 Years	**15.5**	9.3	0	28
Sex				
Male	12.5	7.2	0	31
Female	14.9	8.7	0	38
Education				
Literate	13.4	8.3	0	32
Illiterate	14.6	8.4	0	38
Marital Status				
Married	**12.9**	8.3	0	34
Unmarried	12.8	6.9	0	28
Widow/Widower	**15.1**	8.6	0	38
Total	**14.3**	**8.4**	**0**	**38**

Source: Survey, 2012

Above Table No. 14.1 displays that regarding age, the score of anxiety was high i.e. 15.5±9.3 and low i.e. 12.1± 6.9 mean and S.D. in 90-99 years as well as 60-69 years age group respectively. Regarding sex of respondents, the score of anxiety was high i.e. 14.9±8.7 and low i.e. 12.5±7.2 mean and S.D. in female and male respectively. Regarding education, the score of anxiety was high i.e. 14.6±8.4 and low i.e.13.4±8.3 in illiterate and literate respectively. Regarding marital status, there was no difference in mean i.e. 12.9 and

12.8 in married and unmarried respondents respectively. The overall score of above mentioned variables were 14.3±8.4 mean and standard deviation respectively.

Table No. 14.2 Descriptive Statistics of Score regarding Anxiety Scale with Socio-demographic Factors

Characteristics	Mean	Standard Deviation	Minimum	Maximum
Previous Family Type				
Nuclear	**15.5**	9.1	0	38
Joint	14.1	7.3	0	31
Extended	14.6	9.1	0	32
Single	14.1	8.2	0	32
Living with Others	**12.6**	10.1	0	34
Ethnicity				
Bramhan	**15.9**	8.4	0	38
Chhetri	14.5	8.1	0	31
Newar	**12.6**	8.4	0	32
Others	12.9	8.4	0	30
Occupation				
Agriculture	**15.4**	8.6	0	38
Animal Husbandry	14.9	9.1	0	38
Housemaid	14.4	10.9	0	38
Laborer	14.9	7.7	2	26
Others	**13.1**	7.3	0	30
Total	**14.3**	**8.4**	**0**	**38**

Source: Survey, 2012

Above Table No. 14.2 shows that regarding previous family type, the score of anxiety was high i.e.15.5 ± 9.1 and low i.e. 12.6± 10.1 mean and S.D. in nuclear as well as living with others respectively. Regarding ethnicity, the score of anxiety was high i.e.

15.9±8.4 and low i.e. 12.6±8.4 mean and S.D. in Bramhan and Newar respectively. Regarding previous occupation, the score of anxiety was high i.e. 15.4 ±8.6 and low i.e.13.1±7.3 mean and S.D. in agriculture and others respectively. The overall score of above mentioned variables were 14.3±8.4 mean and standard deviation respectively.

Table No. 15 Descriptive Statistics of Score regarding Anxiety Scale with Individual Factors

Characteristics	Mean	Standard Deviation	Minimum	Maximum
Duration of Stay				
<1 Year	13.6	9.1	0	38
1-5Years	**13.4**	6.9	0	31
6-10 Years	14.3	8.9	0	32
11-15 Years	16.0	9.7	0	31
>15 Years	**19.9**	10.2	0	34
CPHP				
Present	15.2	8.3	0	38
Absent	8.1	5.7	0	18
Worries				
Present	15.5	7.8	0	38
Absent	5.5	6.3	0	24
Feeling Stress				
Present	15.1	8.5	0	38
Absent	10.4	6.7	0	24
Total	**14.3**	**8.4**	**0**	**38**

Source: Survey, 2012

Above No. 15 illustrates that regarding duration of stay, the score of anxiety was high i.e.19.9± 10.2 and low i.e. 13.4± 6.9 mean and S.D. in elderly living in old aged homes greater than 15 years as well as 1-5 years respectively. Regarding chronic physical

health problems, the score of anxiety was high i.e. 15.2±8.3 and low i.e. 8.1±5.7 mean and S.D. in respondents having and not having chronic physical health problems respectively. Regarding worries, the score of anxiety was high i.e. 15.5 ±7.8 and low i.e.5.5±6.3 mean and S.D. in respondents having and not having worries respectively. Regarding feeling of stress, the score of anxiety was high i.e. 15.1±8.5 and low i.e. 10.4± 6.7 mean and S.D. in respondents feeling and not feeling stress respectively. The overall score of above mentioned variables were 14.3±8.4 mean and standard deviation respectively.

Table No. 16 Descriptive Statistics of Score regarding Anxiety Scale with Contextual Factors

Characteristics	Mean	Standard Deviation	Minimum	Maximum
Types of Organization				
Government Supported	**14.7**	9.1	0	38
Private	13.8	7.7	0	32
Cooperative	**16.0**	5.7	12	20
Caregivers Availability				
Yes	13.2	7.8	0	32
No	**15.1**	8.7	0	38
MDA				
Yes	13.4	7.9	0	32
No	**15.8**	8.8	0	38
Total	**14.3**	**8.4**	**0**	**38**

Source: Survey, 2012

Above Table No. 16 reveals that regarding types of organization, the score of anxiety was high i.e.16.0± 5.7 and low i.e. 14.7± 9.1 mean and S.D. in elderly living in cooperative as well as government supported organization respectively. Regarding caregivers' availability, the score of anxiety was high i.e. 15.1±8.7 and low i.e. 13.2±7.8

mean and S.D. in response as "yes" and "no" respectively. Regarding mind diversional activities, the score of anxiety was high i.e. 15.8 ±8.8 and low i.e.13.4±7.9 mean and S.D. in response as "yes" and "no" respectively. The overall score of above mentioned variables were 14.3±8.4 mean and standard deviation respectively.

4.5 Association between Anxiety and Different Variables

The table below represents the association between anxiety and different factors (Socio-demographic, individual and contextual factors) which are presented on separate table.

Table No. 17 Association between Anxiety and Socio-demographic Factors

n=173

Characteristics	Anxiety		P Value	Odds Ratio	95% Confidence Interval
	Present No. (%)	Absent No. (%)			
Types of Organization					
Government Supported*	27 (32.5)	56(67.5)			
Private	29 (32.2)	61(67.8)	0.966	0.986	0.521-1.865
Sex					
Male*	11(24.4)	34(75.6)			
Female	45(35.2)	83(64.8)	0.186	1.676	0.775-3.622
Marital Status					
Married*	52 (34.7)	98 (65.3)			
Unmarried	4 (17.3)	19 (82.6)	0.099	0.397	0.128-1.228
Education					
Literate*	15 (32.6)	31 (67.4)			
Illiterate	41(32.2)	86 (67.8)	0.968	0.985	0.480-2.024

*: **Reference** **p< 0.05: Significant**

Above Table No. 17 displays that there was no association between anxiety and socio-demographic factors. But odd ratio showed that females were more at risk of

having anxiety (OR1.676 CI 0.775-3.622). The respondents who were from private organizations, unmarried and illiterate (OR 986 CI 0.521-1.865, OR 0.397 CI 0.128-1.228, 0.985 CI0.480-2.024) respectively had a lower chance of having anxiety.

Table No. 18.1 Association between Anxiety and Individual Factors

n=173

Characteristics	Anxiety		P Value	Odds Ratio (OR)	95% Confidence Interval
	Present No. (%)	Absent No. (%)			
CPHP	55 (36.4)	96 (63.6)	**0.003***	**12.031**	1.575-91.908
GI Problem	32(44.4)	40 (55.6)	0.050	1.948	0.995-3.814
Respiratory	26 (42.6)	35 (57.3)	0.192	1.563	0.797-3.063
Hypertension	31 (43.1)	41(56.9)	0.106	1.733	0.888-3.383
Diabetes Mellitus	11 (47.8)	12 (52.2)	0.217	1.750	0.715-4.286
Musculoskeletal	24 (42.9)	32 (57.1)	0.207	1.548	0.783-3.060
Others	12 (36.4)	21 (63.6)	0.994	0.997	0.447-2.230
Worries	55 (36.4)	96 (63.6)	**0.003***	**12.031**	1.575-91.908
Financial Security	33 (44.0)	42 (56.0)	0.055	1.929	0.983-3.782
Lack of Social Relation	25 (40.3)	37 (59.7)	0.406	1.329	0.679-2.600
Dissatisfaction with Old Age	39 (38.2)	63 (61.8)	0.505	1.277	0.623-2.619
Lack of Favourite Activities	36 (42.4)	49 (57.6)	0.086	1.817	0.916-3.605
Fear of Future	45(36)	80 (64)	0.812	0.900	0.377-2.149
Dissatisfaction with Old Aged Homes	25 (47.2)	28 (52.8)	**0.044***	**2.024**	1.016-4.033
Dissatisfaction with Officials	19 (39.6)	29 (60.4)	0.582	1.219	0.602-2.471

***p< 0.05: Significant**

Above Table No. 18.1 illustrates that there was association between anxiety and CPHP (p value 0.003, OR 12.03, CI 1.575–91.908) and anxiety and worries (p value

0.003, OR 12.03, CI 1.575–91.908). Regarding worrying issues, there was association between anxiety and dissatisfaction with elderly homes (p value 0.044, OR 2.024, CI 1.016–4.033) but there was no association between different CPHP and worrying issues. Hence, the OR showed that the respondents had 1.948, 1.750, 1.733, 1.563 and1.548 times risk of having anxiety in those having GI problems, DM, HTN, respiratory and musculoskeletal problems respectively. Elderly with other problems showed the low risk (OR 0.997) of having anxiety. OR of different worrying issues showed that the respondents had 1.929, 1.817, 1.329, 1.277, and1.219 times risk for having anxiety in those who worried regarding financial security, lack of favorite activities, lack of social relation, dissatisfaction with old age and dissatisfaction with elderly home officials respectively. The risk of anxiety was low (OR 0.900) in those having fear of future.

Table No. 18.2 Association between Anxiety and Individual Factors

n=173

Characteristics	**Anxiety**		**P Value**	**Odds Ratio**	**95% Confidence Interval**
	Present No. (%)	**Absent No. (%)**			
Feeling of Stress	51 (35.2)	94(64.8)	0.073	2.496	0.895-6.959
Coping Strategies					
Go to Religious Places	18 (31.6)	39 (68.4)	0.466	0.769	0.380-1.558
Listening to Religious Music	23 (30.3)	53 (69.7)	0.194	0.635	0.320-1.269
Shares the Problems with Peers	18 (41.9)	25 (58.1)	0.273	1.505	0.722-3.137
Visit in Different Places	10 (83.3)	2 (16.7)	**0.000***	**11.220**	2.353-53.507

Pray to God	35 (35.4)	64 (64.6)	0.947	1.025	0.492-2.135
Reading Religious Books	3 (25)	9 (75)	0.441	**0.590**	0.152-2.285
Crying Alone	14 (46.7)	16 (53.3)	0.139	1.845	0.815-4.176
Self Blame	25 (42.4)	34 (57.6)	0.133	1.697	0.850-3.389
Take Cigarettes	6 (35.3)	11 (64.7)	0.991	1.006	0.349-2.900
Staying Alone	18 (45.0)	22 (55.0)	0.126	1.785	0.846-3.767
Others	1(25.0)	3 (75.0)	0.666	0.607	0.061-5.987

***p< 0.05: Significant**

Above Table No. 18.2 displays that chi square test found no association between anxiety and feeling of stress. But the OR showed that the respondents with stress were 2.496 times at risk of having anxiety. Regarding different coping strategies used by respondents, there was association between anxiety and visit to different places to relieve stress (p value 0.000) but there was no association between anxiety and other coping strategies. Looking at the OR, concerning EFCS, the respondents who used coping strategies like visiting different places had 11.220 times risk and those who cried alone had 1.845 times risk of having anxiety. Concerning ACS, those who used staying alone had 1.785 times risk and those who took cigarettes had 1.006 times risk of having anxiety. Those who used self blame coping strategies (i.e. PACS) had 1.697 times risk of having anxiety, those who shared problems with peers (i.e. SSSCS) had 1.505 times risk and those who used praying (i.e. RCS) had 1.025 times risk of having anxiety. On the contrary, those who used other RCS like going to religious places, listening to religious music and reading religious books were found to have low risk of having anxiety (OR 0.769, 0.635 and 0.590 respectively). There was also low at risk to those who used other coping strategies with OR 0.607.

Table No. 19 Association between Anxiety and Contextual Factors

n=173

Characteristics	Anxiety		P Value	Odds Ratio	95% Confidence Interval
	Present No. (%)	Absent No. (%)			
Duration of Stay					
<1 Year*	10 (32.3)	21 (67.7)			
>1 Year	46 (32.4)	96 (67.6)	0.988	1.006	0.438-2.310
Caregivers Availability	20 (27.8)	52 (72.2)	0.276	0.694	0.360-1.340
MDA	31 (28.2)	79 (71.8)	0.120	0.596	0.310-1.340
Religious Activities	21 (25.3)	62 (74.7)	0.239	0.576	0.228-1.452
Prabachan	8 (33.3)	16 (66.7)	0.526	1.370	0.517-3.627
Others	11 (34.4)	21 (65.6)	0.355	1.519	0.624-3.696

***: Reference** **p< 0.05: Significant**

Above Table No. 19 reveals that there was no association between anxiety and duration of stay, anxiety and caregivers' availability, anxiety and mind diversional activities. But the OR showed that the respondents who stayed in old age homes for more than 1 year had 1.006 times risk of having anxiety than those who stayed for less than 1 year. The lack of caregivers' availability did not carry any risk for depression. The OR regarding availability of different MDAs revealed that the respondents who used other types of MDA and prabachan as their diversional activity had1.519 and 1.370 times risk of having anxiety respectively whereas those respondents who used religious activities as MDAs were at low risk of developing anxiety with OR 0.576.

4.6 Answers of Respondents according to GDS Tools

The GDS tools contain 30 questions. The table below represents the problem based on GDS tools.

Table No. 20.1 Answers of Respondents according to GDS Tools

n=173

Characteristics	Yes	No
	Frequency (%)	**Frequency (%)**
Satisfaction with Life	123 (71.1)	**50 (28.9) ***
Dropped many of the activities and interests	**107 (61.8) ***	66 (38.2)
Feel that the life is empty	**70 (40.5) ***	103 (59.5)
Often get bored	**95 (54.9) ***	78 (45.1)
Hopeful about the Future	57 (32.9)	**116 (67.1) ***
Bothered by thoughts that can't get out of head	**67 (38.7) ***	106 (61.3)
Good spirits most of the time	76 (43.9)	**97 (56.1)**
Afraid that something bad is going to happen	**73 (42.2) ***	100 (57.8)
Feel happy most of the time	67 (38.7)	**106 (61.3) ***
Often feel helpless	**82 (47.4) ***	91 (52.6)
Often get restless and fidgety	**51 (29.5) ***	122 (70.5)
Prefer to stay at home, rather than going out and doing new things	**44 (25.4) ***	129 (74.6)
Frequently worry about the future	**115 (66.5) ***	58 (33.5)
Feel that have more problems with memory than most	**48 (27.7) ***	125 (72.3)
Think that it is wonderful to be alive now	67 (38.7)	**106 (61.3) ***

Bold & *: Depressed Answer

Above Table No. 20.1 represents that out of 173 respondents, regarding **depressed answer;** majority 116 (67.1%) respondents gave response as "no" on question "Hopeful about the Future" and minority 44 (25.4%) respondents gave response as "yes" on questions "Prefer to Stay at home, rather than going out and doing things.

Table No. 20.2 Answers of Respondents according to GDS Tools

n=173

Characteristics	Yes	No
	Frequency (%)	**Frequency (%)**
Often feel downhearted and blue	**87 (50.3)** *	86 (49.7)
Feel pretty worthless the way that are now	**87 (50.3)** *	86 (49.7)
Worry a lot about the past	**90 (52.0)** *	83 (48.0)
Find life very exciting	85 (49.1)	**88 (50.9)** *
Hard to get started on new projects	**88 (50.9)** *	85 (49.1)
Feel full of energy	37 (21.4)	**136 (78.6)** *
Feel that the situation is hopeless	**78 (45.1)** *	95 (54.9)
Think that most people are better off than you are	**32 (18.5)** *	141 (81.5)
Frequently get upset over little things	**56 (32.4)** *	117 (67.6)
Frequently feel like crying	**52 (30.1)** *	121 (69.9)
Having trouble concentrating	**37 (21.4)** *	136 (78.6)
Enjoy getting up in the morning	82 (47.4)	**91 (52.6)** *
Prefer to avoid social gatherings	**25 (14.5)** *	148 (85.5)
Easy to make decisions	111 (64.2)	**62 (35.8)** *
Mind as clear as it used to be	61 (35.3)	**112 (64.7)** *

Bold & *: Depressed Answer

Above Table No. 20.2 displays that out of 173 respondents, regarding **depressed answer**; majority 136 (78.6%) respondents gave response as "no" on question "feel full of energy" and minority 25 (14.5%) respondents gave response as "yes" on question "prefer to avoid social gatherings".

4.7 Level of Depression, Descriptive Statistics of Score regarding Depression Scale with Different independent variables

Table No. 21: Depression Level of Respondents

n=173

Characteristics	Frequency	Percentage (%)
Normal	47	27.2
Mild	98	56.6
Severe	28	16.2
Total	**173**	**100.0**

Source: Survey, 2012

Above Table No. 21 displays that regarding their depression level, 47 (27.2%) respondents were normal and 126 (72.8%) had depression. Out of theses 126 respondents, 98 (56.6%) and 28 (16.2%) respondents had mild and severe depression respectively according to GDS. This study also reveals that out of 45 male respondents, 28 (62.2%) had depression as compared to 98 (76.6%) out of 128 female respondents. Thus, this study concludes that female respondents have more depression than male respondents.

Table No. 22.1: Descriptive Statistics of Score regarding Depression Scale with Socio-demographic Factors

Characteristics	Mean	Standard Deviation	Minimum	Maximum
Age				
60-69 Years	**11.4**	4.2	0	17
70-79 Years	14.3	5.9	2	28
80-89 Years	13.9	5.8	2	24
90-99 Years	**15.1**	5.7	6	24
Sex				
Male	12.4	5.5	4	23
Female	**14.2**	5.7	0	28
Education				
Literate	13.3	5.4	4	23
Illiterate	**13.9**	5.8	0	28
Marital Status				
Married	13.1	6.2	0	26
Unmarried	**12.9**	5.2	2	21
Widow/Widower	**14.1**	5.5	3	28
Total	**13.7**	**5.7**	**0**	**28**

Source: Survey, 2012

Above Table No. 22.1 displays that regarding age, the score of depression was high i.e. 15.1±5.7 and low i.e. 11.4± 4.2 mean and S.D. in 90-99 years as well as 60-69 years age group respectively. Regarding sex of respondents, the score of depression was high i.e. 14.2±5.7 and low i.e. 12.4±5.5 mean and S.D. in female and male respectively. Regarding education, the score of depression was slightly high i.e. 13.9±5.8 and slightly low i.e.13.3±5.4 mean and S.D. in illiterate and literate respectively. Regarding marital status, the depression score was high i.e. 14.1±5.5 and low i.e. 12.9±5.2 mean and S.D. in

widow/widower and unmarried respectively. The overall score of above mentioned variables were 13.7±5.7 mean and standard deviation respectively.

Table No. 22.2 Descriptive Statistics of Score regarding Depression Scale with Socio-demographic Factors

Characteristics	Mean	Standard Deviation	Minimum	Maximum
Previous Family Type				
Nuclear	13.3	5.4	4	24
Joint	14.5	5.3	5	28
Extended	**12.5**	6.2	0	24
Single	**13.8**	5.5	2	23
Living with Others	13.7	7.1	2	26
Ethnicity				
Bramhan	**14.3**	5.6	2	26
Chhetri	13.5	4.9	3	23
Newar	13.9	6.9	0	28
Others	**12.8**	5.3	2	24
Occupation				
Agriculture	13.8	5.6	5	24
Animal Husbandry	13.5	5.8	5	24
Housemaid	13.8	6.5	2	26
Laborer	13.6	5.1	6	23
Others	13.7	5.7	0	28
Total	**13.7**	**5.7**	**0**	**28**

Source: Survey, 2012

Above No. 22.2 shows that regarding previous family type, the score of depression was high i.e.13.8 ± 5.5 and low i.e. 12.5± 6.2 mean and S.D. in respondents previously living as single and extended respectively. Regarding ethnicity, the score of

depression was high i.e. 14.3±5.6 and low i.e. 12.8±5.3 mean and S.D. in Bramhan and thers respectively. Regarding previous occupation, the score of depression there was no differences in mean with respondents having different occupation previously. The overall score of above mentioned variables were 13.7±5.7 mean and standard deviation respectively.

Table No. 23 Descriptive Statistics of Score regarding Depression Scale and Individual Factors

Characteristics	Mean	Standard Deviation	Minimum	Maximum
Duration of Stay				
<1 Year	14.4	7.1	2	28
1-5 Years	**12.6**	5.1	0	24
6-10 Years	14.1	5.1	5	23
11-15 Years	15.1	5.9	8	24
>15 Years	**16.3**	6.1	8	26
CPHP				
Present	14.1	5.6	0	28
Absent	11.1	5.5	2	20
Worries				
Present	14.7	5.3	2	28
Absent	7.5	3.9	0	16
Feeling Stress				
Present	14.5	5.6	0	28
Absent	10.1	4.5	2	18
Total	**13.7**	**5.7**	**0**	**28**

Source: Survey, 2012

Above No. 23 illustrates that regarding duration of stay, the score of depression scale was high i.e.16.3± 6.1 and low i.e. 12.6± 5.1 mean and S.D. in elderly living in old

aged homes greater than 15 years as well as 1-5 years respectively. Regarding chronic physical health problems, the score was high i.e. 14.1±5.6 and low i.e. 11.1±5.5 mean and S.D. in respondents having and not having chronic physical health problems respectively. Regarding worries, the score was high i.e. 14.7 ±5.3 and low i.e.7.5±3.9 mean and S.D. in respondents having and not having worries respectively. Regarding feeling of stress, the score was high i.e. 14.5±5.6 and low i.e. 10.1±5.7 mean and S.D. in respondents feeling and not feeling stress respectively. The overall mean score of above mentioned variables were 13.7±5.7 mean and standard deviation respectively.

Table No. 24 Descriptive Statistics of Score regarding Depression Scale and Contextual Factors

Characteristics	**Mean**	**Standard Deviation**	**Minimum**	**Maximum**
Types of Organization				
Government Supported	14.5	5.7	0	38
Private	**12.9**	5.5	0	32
Cooperative	**20.0**	4.2	17	23
Caregivers Availability				
Yes	12.5	5.9	0	24
No	**14.7**	5.4	5	28
Mind Diversional Activities				
Yes	13.3	5.3	2	26
No	**14.5**	6.2	0	28
Total	**13.7**	**5.7**	**0**	**28**

Source: Survey, 2012

Above Table No. 24 reveals that regarding types of organization, the score on depression scale was high i.e.20.0± 4.2 and low i.e. 12.9± 5.5 mean and S.D. in elderly

living in cooperative as well as private organization respectively. Regarding caregivers' availability, the score was high i.e. 14.7±5.4 and low i.e. 12.5±5.9 mean and S.D. in response as "no" and "yes" respectively. Regarding mind diversional activities, the score was high i.e. 14.5±6.2 and low i.e.13.3±5.3 mean and S.D. in response as "no" and "yes" respectively. The overall mean score of above mentioned variables were 13.7±5.7 mean and standard deviation respectively.

4.8 Association between Depression and Different Independent Variables

The table below displays the association between and depression and different factors (socio-demographic, individual and contextual factors) which are presented on separate table.

Table No. 25 Association between Depression and Socio-demographic Factors

Characteristics	Depression		P Value	Odds Ratio	95% Confidence Interval
	Present No. (%)	Absent No. (%)			
Types of Organization					
Government Supported*	62 (74.7)	21 (25.3)			
Private	64 (71.1)	26 (28.9)	0.596	0.834	0.425-1.634
Sex					
Male*	28 (62.2)	17 (37.8)			
Female	98 (76.6)	30 (23.3)	0.063	1.612	0.989-2.627
Marital Status					
Married*	98 (65.3)	52 (34.7)			
Unmarried	19 (82.6)	4 (17.4)	0.099	0.397	0.128-1.228
Education					
Literate*	31 (67.4)	15 (32.6)			
Illiterate	86 (67.7)	41 (32.3)	0.968	0.985	0.480-2.024

***: Reference** **p< 0.05: Significant**

Above Table No. 25 displays that there was no association between depression and socio-demographic factors. But the odds ratio revealed that females had 1.612 times risk of having depression than males.

Table No. 26.1 Association between Depression and Individual Factors

Characteristics	Depression		P Value	Odds Ratio	95% Confidence Interval
	Present No. (%)	Absent No. (%)			
CPHP	115 (76.2)	36 (23.3)	**0.010***	**3.194**	1.278-7.9
GI Problem	57 (79.2)	15(20.8)	0.408	**1.376**	0.646-2.932
Respiratory	46 (75.4)	15 (24.6)	0.859	0.933	0.436-1.997
Hypertension	58 (80.6)	14 (19.4)	0.226	1.599	0.745-3.430
Diabetes Mellitus	20 (86.9)	3 (13.1)	0.187	2.316	0.646-8.300
Musculoskeletal	41 (73.2)	15 (26.8)	0.514	0.776	0.361-1.666
Others	21 (63.6)	12 (36.4)	0.056	**0.447**	0.745-3.430
Worries	120 (79.5)	31 (20.5)	**0.000***	**10.323**	3.730-28.568
Financial Security	66 (88.0)	9(12.0)	**0.010***	**2.988**	1.271-7.024
Lack of Social Relation	56 (90.3)	6 (9.7)	**0.006***	**3.646**	1.395-9.526
Dissatisfaction with Old Age	85 (83.3)	17 (16.7)	0.090	2.000	0.890-4.494
Lack of Favourite Activities	74 (87.1)	11(12.9)	**0.009***	**2.925**	1.285-6.658
Fear of Future	104 (83.2)	21 (16.8)	**0.013***	**3.095**	1.235-7.757
Dissatisfaction with Environment Old Aged Homes	50 (94.3)	3 (5.7)	**0.001***	**6.667**	1.920-23.147
Dissatisfaction with Officials	41 (85.4)	7 (14.6)	0.217	1.779	0.707-4.477

***p< 0.05: Significant**

Above Table No. 26.1 illustrates that there was association between depression and chronic physical health problems as well as depression and worries with p value 0.010 and 0.000 respectively. The odds ratio showed that the respondents who had chronic physical health problems had 3.194 times more risk and those having worries regarding different issues had 10.323 times more risk of having anxiety. On the other hand, when CPHP was taken separately, there was no association found between depression and GI, HTN, DM, musculoskeletal, respiratory and other problems. Yet, in the same case the OR revealed that the respondents who had DM, HTN and GI problems had 2.316, 1.599 and 1.376 times more risk of having depression respectively. The respondents who had respiratory, musculoskeletal and other problems exhibited no risk for depression, with OR 0.933, 0.776 and 0.447 respectively. Regarding different worrying issues, there was association between depression and financial security, lack of social relation, lack of favorite activities, fear of future and dissatisfaction with environment of the elderly homes with p value 0.010, 0.006, 0.009, 0.013 and 0.001 respectively. No association was found between depression and dissatisfaction with old age, dissatisfaction with elderly home officials and other worrying issue. The odds ratio signifies that the respondents had 6.667, 3.646, 3.095, 2.988, 2.925, 2.00 and 1.779 times risk for having depression in those who had worry regarding dissatisfaction with environment of the old aged homes, lack of social relation, fear of future, financial security, lack of favorite activities, dissatisfaction with old age and dissatisfaction with elderly home official respectively.

Table No. 26.2 Association between Depression and Individual Factors

Characteristics	Depression		P Value	Odds Ratio	95% Confidence Interval
	Present No. (%)	Absent No. (%)			
Feeling of Stress	110 (75.9)	35 (24.1)	**0.041***	**2.357**	1.018-5.458
Coping Strategies					
Go to Religious Places	43 (75.4)	14 (24.6)	0.924	0.963	0.443-2.094
Listening Religious Music	54 (71.1)	22 (28.9)	0.156	0.570	0.261-1.244
Shares the Problems with Peers	33 (76.7)	10 (23.3)	0.872	1.071	0.463-2.480
Visit in Different Places	11 (91.7)	1 (8.3)	0.182	3.778	0.470-30.356
Pray to God	76 (76.8)	23 (23.2)	0.709	1.166	0.521-2.613
Reading Religious Books	10 (83.3)	2 (16.7)	0.528	1.650	0.344-7.918
Crying Alone	23 (76.7)	7 (23.3)	0.908	1.057	0.410-2.727
Self Blame	51(86.4)	8 (11.7)	**0.014***	**2.917**	1.218-6.987
Take Cigarettes	15 (88.2)	2 (11.8)	0.204	2.605	0.565-12.003
Staying Alone	33 (82.5)	7 (17.5)	0.249	1.714	0.681-4.315
Others	1 (25.0)	3 (75.0)	**0.016***	**0.098**	0.010-0.0973

***p< 0.05: Significant**

Above Table No. 26.2 illustrates There was association between depression and feeling of stress with p value of 0.041. But the OR signifies that the respondents who felt stress had 2.357 times risk of having depression. Regarding different coping strategies used by respondents who felt stress, there was association between depression and self blame (p values 0.014), depression and others coping strategies (p value 0.016). But the respondents who used coping strategies like visiting different places were found to have 3.778 times risk of having depression, 2.917 times risk was found in those who used self

blame (i.e. PACS), 2.605 and 1.714 times risk in those who smoked and stayed alone (i.e. ACS), 1.057 time risk in those who cried alone (i.e. EFCS), 1.071 times risk in those who shared problems with peers (i.e. SSSCS), 1.650 and 1.166 times risk to those who read religious books and prayed (i.e. RCS). But, no risk was found in those who used other RCS like going to religious places (OR 0.963) and listening to religious music (OR 0.570) and to those who used others coping strategies with OR 0.098.

Table No. 27 Association between Depression and Contextual Factors

Characteristics	Depression		P Value	Odds Ratio	95% Confidence Interval
	Present No. (%)	Absent No. (%)			
Duration of Stay					
<1 Year*	21 (67.7)	10 (32.3)			
>1 Year	105 (73.9)	37 (26.1)	0.482	1.351	0.583-3.134
Caregivers Availability	47 (65.3)	25 (34.7)	0.059	0.524	0.266-1.031
MDA	78 (70.9)	32 (29.1)	0.452	0.762	0.374-1.551
Religious Activities	59 (71.1)	24 (28.9)	0.943	1.035	0.399-2.684
Prabachan	18 (75.0)	6 (25.0)	0.618	**1.300**	0.463-3.649
Others	18 (56.3)	14 (43.7)	**0.030**	**0.386**	0.161-0.925

***p< 0.05: Significant**

Above Table No. 27 displays that there was no association between depression and duration of stay, depression and caregivers' availability and depression and MDA. But, the respondents who stayed in old age homes for more than 1 year had 1.351 times risk of having depression than those staying less than 1 year. Concerning depression and

caregivers' availability, the respondents had no risk of getting depression (OR 0.524). Regarding availability of different MDA, the respondents had 1.300 and 1.035 times more risk of having depression in those who used prabachan and religious activities as coping strategies respectively. No risk was found in those who used other MDA (OR 0.386).

CHAPTER-V

FINDINGS, DISCUSSION, CONCLUSION AND RECOMMENDATION

The present study was carried out with the objective to assess the level of anxiety and depression and factors associated with Anxiety and Depression among elderly living in old aged homes in Kathmandu Valley. The study was cross-sectional and descriptive analytical in nature, with a sample size of 173. The tools used for the study were Hamilton Rating Scale for Anxiety and Geriatric Depression Scale. The data was analyzed using Descriptive and inferential statistics. The results were presented in the tables 1-27.

5.1 Findings and Discussions

5.1.1 Socio-demographic Variables

Majority of the respondents, 83 (48.0%), belong to Pashupati Bridhashram and minority, 2 (1.2%) respondents, belong to Senior Citizen Home. The majority living in Pashupati Bridhashram may be due to the fact that it has high capacity and is the only organization supported by the government. Regarding type of organization, majority, 88 (50.9%) respondents, were from private organization and minority, 2 (1.2%) respondents, were from cooperative organization **(Table No.1)**. Regarding age, majority, 70 (40.5%) respondents were between 70-79 years age group and minority, 11 (6.4%) respondents were between 90-99 years age group. Majority of the respondents, 128 (74.0%), were female and remaining, 45 (26.0%) respondents, were male. This may be due to the fact that majority of old age homes provide shelter for elderly female only. Most of the respondents, i.e. 127 (73.4%) respondents, were illiterate and minority, 46 (26.6%)

respondents, was literate. Most of the respondents, 108 (62.4%), were widowed. Only, 12 (6.9%) respondents were living with their spouse **(Table No.2)**. Eighty six (57.3%) respondents were found to have offspring, comprising the majority group and 64 (42.7%) respondents had no offspring, falling into the minority group. Regarding the type of previous family, majority of respondents, 55 (31.8%), had been staying alone before staying at Bridhashram and minority, 18 (10.4%) respondents, had been staying with others rather than the family members. Most of the respondents, 54 (31.2%), were Bramhan and minority, 26 (15.0%) respondents, were Tamang, Gurung, Rai and Pariyar (i.e. others). Regarding religion, 160 (92.5%) respondents were Hindu and minority, 5 (2.9%), were Buddhist **(Table No.3)**. Regarding their Address, majority, 117 (67.6%) respondents, were from Bagmati Zone and minority, 2 (1.2%) respondents, were from Rapti Zone. The respondents from Bagmati Zone were high maybe because of easy access to old aged homes in this area and the fact that most of the studies are carried out inside the valley only **(Table No. 4)**. The respondents used to engage themselves in various work like agriculture, 67 (38.7%); animal husbandry, 50 (28.9%); housemaid, 35 (20.2%); laborer, 18 (10.4%); housewife, 17 (9.8%) and others (carpenter, service holder, business, pujari, unemployment etc.), 45 (26.0%) **(Table No. 5)**.

5.1.2 Other Variables

Regarding their duration of stay, majority, 77 (45.5%) and minority, 7 (4.0%), of the respondents had been staying in old aged homes since 1-5 years and >15 years respectively **(Table No.6)**.

Regarding their CPHP, majority 151 (87.3%) of respondents had CPHP and 22 (12.7%) had no problems. Out of 151 respondents, 72 (47.7%), 72 (47.7%), 61 (40.4%),

56 (37.1%), 23 (15.2%) and 33 (21.9%) had GI problem, HTN, respiratory problem, musculoskeletal problem, DM and other physical health problems like defect in foot, blindness and hypotension respectively **(Table No. 7)**. A similar type of study revealed that out of 202 respondents, the most common physical illness was visual impairment, followed by cardiovascular disease, rheumatic illnesses and pulmonary illnesses, hearing impairment, genitourinary diseases and neurological disorders (Seby et., al, 2011).

Regarding their worries, 151 (87.3%) respondents had worries and 22 (12.7%) respondents had no worries. Out of 151 respondents, 125 (82.8%), 102 (67.5%), 85 (56.3%), 75 (49.7%), 62 (41.1%), 53 (35.1%) and 48 (31.8%) respondents had worries regarding fear of future, dissatisfaction with old age, lack of favorite activities, financial security, lack of social relationship, dissatisfaction with environment of old aged home and dissatisfaction with elderly home officials respectively **(Table No.8)**. Another similar type of study showed that out of 120 elderly people, the most worrying issues for the elderly were economic status (55.8%), lack of social relations (55%), dissatisfaction with old age (45.8%), lack of favorite activities (45%), fear of future (30%), dissatisfaction with environment of the elderly home (24.2%) and dissatisfaction with the treatment of the elderly home official (17%) (Etemadi et al. 2009).

Regarding stress, 145 (83.8%) respondents felt stress in their daily life whereas 28 (16.2%) respondents did not feel any stress at all. Out of 145 respondents, 99 (68.3%), 76 (52.4%), 57 (39.3%) and 12 (8.3%) respondents used RCS coping strategies as praying, listening to religious music, go to religious places and reading religious books respectively. Fifty-Nine (40.7%) and 43 (29.7%) respondents used PACS coping strategy like self blame and SSCS coping strategy like sharing with peers respectively. Forty

(27.6%) and 7 (11.7%) respondents used ACS coping strategies as staying alone and smoking cigarettes respectively. Thirty (20.7%) of the respondents cried alone using EFCS. Minority, 12 (8.3%) respondents, used coping strategy like visit to different places and 4 (2.8%) respondent could not cope easily (i.e. others) **(Table No.9)**.

Regarding 24 hours caregivers' availability, 72 (41.6%) and 101 (80.8%) respondents responded as "yes" and "no" respectively. Out of 72 respondents, all the respondents felt the need of trained staff to look after them. Regarding the need of Caregivers, 127 (73.4%) respondents felt the need of caregivers to look after them and 46 (26.6%) respondents felt no need of caregivers **(Table No.10)**.

Regarding their MDA, 110 (63.6%) respondents responded that they had different types of MDA and 63 (36.4%) respondents said that they had no mind diversional activities. Out of 110 respondents, majority, 83 (75.5%) respondents, said that they did religious activities like Bhajan Kirtan and religious storytelling and minority, 32 (29.1%) respondents, said that the organization arranged the different types of activities like visit to different places, picnics, celebration of the festivals, yoga, social gathering (i.e. others) etc which helped to divert their mind **(Table No.11)**.

5.1.3 Problems of Respondents according to HAM-A Tool for Anxiety

Majority of respondents, 123 (71.1%) and 121 (69.9%), verbalized that they had somatic (muscular) and insomnia problems respectively and minority, 35 (20.2%) respondents, verbalized that they had genitourinary problems. Eighty nine respondents (51.4%) looked anxious while taking interview **(Table No.12)**.

5.1.4 Level of Anxiety

Regarding their anxiety level, 117 (67.6%) respondents had no anxiety and 56 (32.4%) respondents had anxiety. According to HAM-A tool, out of 56 respondents, 36 (20.8%), 11 (6.4%) and 9 (5.2%) respondents had mild, moderate and severe anxiety respectively. Out of 45 male respondents, 10 (22.2%) had anxiety as compared to 45 (35.2%) out of 128 female respondents. This results shows that female respondents had more anxiety than male respondents **(Table No.13)**. Other studies revealed that out of 250 elderly, 10.8% of the respondents had anxiety (Chowdhary et al. 2008) and out of 120 elderly, the prevalence of anxiety was 18.3% (Etemadi et al. 2009). Yet another study revealed that 5.8% of the respondents had anxiety disorders (Singh et al. 2012) and the rates of anxiety disorders were found to be higher among females 15.3% as compared to males 5.3% (Chowdhary et al. 2008).

5.1.5 Descriptive Statistics of Score regarding Anxiety Scale with Different Independent Variables

The overall score of above mentioned variables were 14.3±8.4 mean and standard deviation respectively. The mean score of anxiety was high in 90-99 years age group, female, illiterate and there was no difference in mean of married and unmarried **(Table No. 14.1)**. The mean score of anxiety was high in respondents from nuclear family, Bramhan background, agricultural work **(Table No.14.2)**. The mean score of anxiety was high in elderly living in old aged homes for greater than 15 years, elderly having CPHP, worries and stress. **(Table No. 15)**. The mean score of anxiety was high in elderly living in

cooperative organizations, having responded as yes on caregivers' availability and presence of mind diversional activities **(Table 16).**

5.1.6 Association between Anxiety and Different Independent Variables

There was no association between anxiety and socio-demographic factors. But odd ratio showed that females were more at risk of having anxiety (OR1.676 CI 0.775-3.622). The respondents who were from private organizations, unmarried and illiterate (OR 986 CI 0.521-1.865, OR 0.397 CI 0.128-1.228, 0.985 CI0.480-2.024) respectively had a lower chance of having anxiety **(Table No.17)**. One similar study concluded that psychiatric disorders were more prevalent in individuals aged >80 years, in females and illiterates (Singh et al. 2012).

There was association between anxiety and CPHP (p value 0.003, OR 12.03, CI 1.575–91.908) and anxiety and worries (p value 0.003, OR 12.03, CI 1.575–91.908). Regarding worrying issues, there was association between anxiety and dissatisfaction with elderly homes (p value 0.044, OR 2.024, CI 1.016–4.033) but there was no association between different CPHP and worrying issues. Regarding different CPHP, the OR showed that the respondents had 1.948, 1.750, 1.733, 1.563 and1.548 times risk of having anxiety in those having GI problems, DM, HTN, respiratory and musculoskeletal problems respectively. Elderly with other problems showed the low risk (OR 0.997) of having anxiety. Regarding OR of different worrying issues, the respondents had 1.929, 1.817, 1.329, 1.277, and1.219 times risk for having anxiety in those who worried regarding financial security, lack of favorite activities, lack of social relation, dissatisfaction with old age and dissatisfaction with elderly home officials respectively. The risk of anxiety was low (OR 0.900) in those having fear of future **(Table No. 18.1)**.

Chi square test found no association between anxiety and feeling of stress. But the OR showed that the respondents with stress were 2.496 times at risk of having anxiety. Regarding different coping strategies used by respondents, there was association between anxiety and visit to different places to relieve stress (p value 0.000) but there was no association between anxiety and other coping strategies. Looking at the OR, concerning EFCS, the respondents who used coping strategies like visiting different places had 11.220 times risk and those who cried alone had 1.845 times risk of having anxiety. Concerning ACS, those who used staying alone had 1.785 times risk and those who took cigarettes had 1.006 times risk of having anxiety. Those who used self blame coping strategies (i.e. PACS) had 1.697 times risk of having anxiety, those who shared problems with peers (i.e. SSSCS) had 1.505 times risk and those who used praying (i.e. RCS) had 1.025 times risk of having anxiety. On the contrary, those who used other RCS like going to religious places, listening to religious music and reading religious books were found to have low risk of having anxiety (OR 0.769, 0.635 and 0.590 respectively). There was also low at risk to those who used other coping strategies with OR 0.607 **(Table No. 18.2)**.

There was no association between anxiety and duration of stay, anxiety and caregivers' availability, anxiety and mind diversional activities. But the OR showed that the respondents who stayed in old age homes for more than 1 year had 1.006 times risk of having anxiety than those who stayed for less than 1 year. The lack of caregivers' availability did not carry any risk for depression. The OR regarding availability of different MDAs revealed that the respondents who used prabachan as their diversional activity had 1.370 times risk of having anxiety whereas those respondents who used religious activities as MDAs were at low risk of developing anxiety with OR 0.576

(Table No.19). Therefore, it can be concluded that the respondents had anxiety even though they had different types of mind diversional activities in their organization. These activities seemed not enough to divert their mind and reduce their anxiety. Hence other needs should be explored to help the elderly accordingly.

5.1.7 Answers of Respondents according to GDS

Regarding **depressed answer;** majority of the respondents, 136 (78.6%), gave response as "no" on the question "Feel full of energy", 116 (67.1%) respondents gave response as "no" on the question "Hopeful about the future", 44 (25.4%) respondents gave response as "yes" on the question "Prefer to stay at home, rather than going out and doing things, 25 (14.5%) respondents gave response as "yes" on the question "Prefer to avoid social gatherings" **(Table No.20.1 & Table No. 20.2)**.

5.1.8 Level of Depression

Regarding level of depression, 47 (27.2%) respondents were normal and 126 (72.8%) had depression. Out of theses 126 respondents, 98 (56.6%) and 28 (16.2%) respondents had mild and severe depression respectively according to GDS. This study also reveals that out of 45 male respondents, 28 (62.2%) had depression as compared to 98 (76.6%) out of 128 female respondents. Thus, this study concludes that female respondents have more depression than male respondents **(Table No. 21)**. A similar research finding revealed that out of 100 senior citizens, the prevalence of depression in the study population was 56%, of which 23.2 % had severe depression according to GDS (Wijeratne et al. 2000). The prevalence of depression was found to be 30.1% according to GDS (Rashid et al. 2011) in one study whereas in another study it was 25% (Singh et al.

2012). Some other studies have varied results: out of 250 elderly, 23.6% had depression (Chowdhary et al. 2008) and out of 120 elderly people, 38 (31.5%) had mild and 49 (41%) had severe depression based on Beck Depression Inventory (Etemadi et al. 2009). The present study reveals that more females have depression. This may be because Nepal is a patriarchal society. In Nepalese society, females are dependent first on her father, then husband and finally on her son for each and every activity. When they need to live without male support, most of the women feel insecure and do not like sharing their feelings with anyone. Therefore, they suffer from loneliness, irritation, helplessness and insomnia, substandard health, lack of attention and neglect from family members; especially for women who are widowed. Status as a widowed person and the discrimination and exploitation of widows especially in Nepalese society may in itself contribute to their ill health and suffering from psychiatric problems.

5.1.9 Descriptive Statistics of Score regarding Depression Scale and Different Independent Variables

The overall score of above mentioned (independent) variables were 13.7±5.7 mean and standard deviation respectively. The mean score of depression was high in 90-99 years age group, female, illiterate and widow/widower (**Table No. 22.1**). The mean score of depression was high in Brahmin respondents and those previously living single. Previous occupation showed no differences in mean with respect to depression **(Table No. 22.2)**. The mean score of depression scale was high in elderly living in old aged homes for greater than 15 years, in respondents having CPHP, having worries and feeling stressed **(Table No.23).** The mean score on depression scale was high in elderly living in cooperative

organization and in those respondents, who responded to caregivers' availability as "no" **(Table No. 24)**.

5.10 Association between Depression and Different Independent Variables

There was no association between depression and socio-demographic factors. But the odds ratio revealed that females had 1.612 times risk of having depression than males **(Table No. 25)**. A similar study revealed that gender (p value 0.015) and ethnicity (p value 0.028) were found to be significantly associated with depression among the elderly respondents (Sherina et al. 2005); females were found to be 2.6 times more likely to suffer from depression as compared to males. Married people were less likely to suffer from depression as compared to unmarried or those who were separated or widowed. The subjects living in a nuclear family system were more likely to suffer from depression than those living in a joint family system. Other factors associated with risk for depression in the respondents were being uneducated (Taqui et al. 2007), being unmarried and living alone (Rashid et al. 2011).

There was association between depression and chronic physical health problems as well as depression and worries with p value 0.010 and 0.000 respectively. The odds ratio showed that the respondents who had chronic physical health problems had 3.194 times more risk and those having worries regarding different issues had 10.323 times more risk of having anxiety. On the other hand, when CPHP was taken separately, there was no association found between depression and GI, HTN, DM, musculoskeletal, respiratory and other problems. Yet, in the same case the OR revealed that the respondents who had DM, HTN and GI problems had 2.316, 1.599 and 1.376 times more risk of having depression respectively. The respondents who had respiratory,

musculoskeletal and other problems exhibited no risk for depression, with OR 0.933, 0.776 and 0.447 respectively **(Table No. 26.1)**. One such study showed that there was significant association between chronic diseases and depression (Wijeratne et al. 2000 & Sherina et al. 2005). Regarding different worrying issues, there was association between depression and financial security, lack of social relation, lack of favorite activities, fear of future and dissatisfaction with environment of the elderly homes with p value 0.010, 0.006, 0.009, 0.013 and 0.001 respectively. No association was found between depression and dissatisfaction with old age, dissatisfaction with elderly home officials and other worrying issue. The odds ratio signifies that the respondents had 6.667, 3.646, 3.095, 2.988, 2.925, 2.00 and 1.779 times risk for having depression in those who had worry regarding dissatisfaction with environment of the old aged homes, lack of social relation, fear of future, financial security, lack of favorite activities, dissatisfaction with old age and dissatisfaction with elderly home official respectively **(Table No. 26.1)**.

There was association between depression and feeling of stress with p value of 0.041. But the OR signifies that the respondents who felt stress had 2.357 times risk of having depression **(Table No. 26.2)**. The literature also revealed that psychosocial and environmental stressors are known risk factors for depression. Genetics research indicates that environmental stressors interact with depression vulnerability genes to increase the risk of developing depressive illness (www.psychcentral.com).

Regarding different coping strategies used by respondents who felt stress, there was association between depression and self blame (p values of 0.014), depression and other coping strategies (p value 0.016). But the respondents who used coping strategies like visiting different places were found to have 3.778 times risk of having depression,

2.917 times risk was found in those who used self blame (i.e. PACS), 2.605 and 1.714 times risk in those who smoked and stayed alone (i.e. ACS), 1.057 time risk in those who cried alone (i.e. EFCS), 1.071 times risk in those who shared problems with peers (i.e. SSSCS), 1.650 and 1.166 times risk to those who read religious books and prayed (i.e. RCS). But, no risk was found in those who used other RCS like going to religious places (OR 0.963) and listening to religious music (OR 0.570) **(Table No. 26.2)**. One similar study revealed a positive effect of religious coping in ameliorating the stress effect on individual life. The study further revealed that positive form of religious coping was highly correlated with stress-related growth (Pargament et al. 1996). Studies of stressful life events show that problem-focused coping, religious coping, and reliance on social support are associated with better psychological adjustment, while emotion-focused coping strategies are related to higher levels of distress (Billings et al. 1981; Clements et al. 2000). Therefore, it can be concluded that the elderly who used religious coping strategies had lower risk for depression. Another literature classified positive coping responses as listening to music, laughing or crying, going out with friends (shopping, movie, dining), praying or going to church, discussing situations with a spouse or close friend and negative coping responses as criticizing yourself (negative self-talk), smoking or chewing tobacco, drinking alcohol and avoiding social contact (www.webmd.com).

There was no association between depression and duration of stay, depression and caregivers' availability and depression and MDA. But, the respondents who stayed in old age homes for more than 1 year had 1.351 times risk of having depression than those staying less than 1 year. Concerning depression and caregivers' availability, the respondents had no risk of getting depression (OR 0.524). Regarding availability of

different MDA, the respondents had 1.300 and 1.035 times more risk of having depression in those who used prabachan and religious activities as coping strategies respectively. No risk was found in those who used other MDA (OR 0.386) **(Table No. 27)**.

Finally, it can be concluded from this study that the high prevalence of anxiety and depression among female elderly living in old age homes in Nepal may be due to the fact that most of the women at the elderly homes have chosen to live in these centers as their last resort when they were hopeless or they have been taken there unwillingly. Most of them are widows, without income and dissatisfied with their life at the elderly home. Another cause may be the use of screening tools used to identify depression for estimating the prevalence rather than using a diagnostic tool. Another factor for the cause may be that there is almost no counseling service that could help people ventilate their inner feelings and relax themselves. Such a high prevalence of anxiety and depression in Nepal could be attributed to poor health awareness and underdeveloped psychiatric medical services in the country as well as an inadequate social support system provided by family and government to the elderly living in old aged homes.

5.2 Conclusion

The main objectives of this study was to identify the level of anxiety and depression and the factors associated with them among elderly living in 10 old age homes in Kathmandu Valley of Nepal. The above findings and discussion reveal that according to HAM-A tools, majority of respondents had somatic (muscular) and insomnia problems as well as looked anxious while taking interview. Fifty-six (32.4%) respondents had anxiety, out of which, 36 (20.8%), 11 (6.4%) and 9 (5.2%) respondents had mild,

moderate and severe anxiety respectively. This study also concludes that more female respondents had anxiety. The respondents who had CPHP, worries, dissatisfaction with old aged homes, and even those who used coping strategies like visiting different places were found to have anxiety. Regarding depressed answers; majority of respondents did not have the feeling of being full of energy and were not hopeful about the future. The study showed that majority of elderly had depression. Among them, more were females. The respondents who had CPHP; different types of worries like financial security, lack of social relation, lack of favorite activities, fear of future and dissatisfaction with environment of the elderly homes; feeling of stress and those who used coping strategies like self blame were found to have depression. This study also concludes that the female respondents and those who have DM, HTN and GI problems, were more at risk of having anxiety and depression. Moreover, the respondents, having CPHP (i.e. respiratory and musculoskeletal problems) and other worries were more at risk of having anxiety. The worries regarding financial security, lack of favorite activities and lack of social relation led to more risk of having anxiety and depression. Moreover, the respondents having worries regarding dissatisfaction with old age and dissatisfaction with elderly home officials as well as fear of future and dissatisfaction with environment of the elderly homes were more at risk of having anxiety and depression. Surprisingly, the respondents who used coping strategies like EFCS, ACS, PACS and SSSCS were found to be more at risk of having anxiety and depression. Moreover, the respondents who used RCS like reading religious books and praying to god were more at risk of having depression. The respondents using MDA like prabachan and religious activities were more at risk of having depression. Therefore, it can be concluded that the coping strategies and mind

diversional activities which the respondents used were not adequate and appropriate to reduce their anxiety and depression. Based on the results of the study, it can be suggested that new coping strategies as well as mind diversional activities should be sought to prevent their anxiety and depression and to develop effective prevention and treatment policies. Factors associated with anxiety and depression in elderly should be further examined in longitudinal research with quantitative and qualitative approach.

5.3 Recommendation

The study can further be replicated with elaborate and sounder research design and can be extended to a larger sample size.

Studies can be carried out by including the major part of the aged population who are not institutionalized.

There should be at least two caregivers in each shift (morning, evening and night), one for the males and other for females.

Since good behavior of the staff of the elderly homes can be a strong support source for the residents, it is essential to pay attention to on-the-job training for the staff regarding the life of the elderly, their needs, problems and ways to approach them.

Each old aged home should have necessary contacts with psychologists and counselors because counseling and psychological services can play a major role in reducing anxiety and depression. Group counseling services should be implemented at a daily or weekly based sessions for the elderly to give them opportunity to ventilate their feelings.

5.4 Limitations of the Study

This study is only based on elderly people living in old aged homes in Kathmandu valley.

The findings of this study may not be generalized for the general elderly population and elderly population living within the country.

The study design was cross-sectional descriptive analytical along with case study. Therefore, in order to ensure validity of the result, both quantitative and qualitative approach can be used with larger sample size.

5.5 Plans for Dissemination

The researcher intends to share and disseminate the findings of this study to the concerned authorities: University grant commission (UGC), Nepal Institute of Health Sciences (NIHS), Nepal Health Research Council (NHRC), Ministry of Women, Children and Social Welfare of Nepal and other related organizations and publications.

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ANNEX-IA

CASE STUDY I

An 80 year old female from Lamjung district of Nepal came to stay in elderly homes 3 months back. She is illiterate and comes from Brahmin family following Hindu religion. She became widowed at the age of 12 years. Then, she stayed at her parent's house and helped them in their agricultural activities. But, after her parent's death, her brothers objected to her staying at her parent's house with them even when she said she would help them in the fields to the best of her ability. As she had nowhere to go, she was compelled to stay there with them despite their objection. She said, "From then onwards, I suppressed all my desires and never poured out my feelings to anyone."

At the age of 75, when she could no longer help them in the fields, they started neglecting her and made her leave the house. She travelled to the city and managed to get a rented room. She would beg in the streets to make her ends meet. Finally she got a job of washing dishes at a hotel and collected some money from this. One day, her brother's son came and took all her money and left her at an old age home in Kathmandu, at the age of eighty, promising to visit her from time to time. But, he never came back.

She had a history of hypertension and respiratory problems. From the first day of her stay, she did not like staying at the old age home. She worried about the money taken by her brother's son, worried that she had no social relation and was dissatisfied with her old age and the environment of the elderly home. She was anxious about her future and what it held for her. She ventilated that she could not do her favorite activities, did not get warm and soft food to eat like rice pudding, noodles soup or hot water to drink. The toilet

was so far from her room that it was difficult for her to use it, especially at night. This even led her to escape her evening meal so that she would not have to go to the toilet at night. Majority of the elderly staying at the old age home escaped their meal for the same reason. With tears in her eyes, she said that everybody there in the old age home were selfish and did not want to help others. So, she preferred to stay in a rented house as before where she could live her life as she wanted, even if she had to beg to sustain her life.

She usually felt stressed and went to religious places to relieve her stress. But, she did not like to share her feelings with her friends as nobody listened to her. She shared that there was no caregivers to look after them from 5 pm in the evening to 9 am in the morning. There were no diversional activities to manage the stress of elderly as well as no one to listen to their problems. Therefore, she wished to go back to her village.

She was interviewed with using **Hamilton Rating Scale for Anxiety**. Her rating with HAM-A tools showed that she had a feeling of dread so often that it markedly interfered with her life. The tensions and lack of rest interfered with her life and work at all times. She experienced phobic anxiety, but was able to fight it. She goes to bed early but her sleep depth is so shallow that she has only short periods of slumber or dozing, but no real sleep. It was doubtful whether she had difficulty in concentration and /or memory. She showed despondency and helplessness as well as non verbal signs of hopelessness which dominated the interview and she could not be distracted from her hopelessness. She seemed somewhat stiffer than usual. It was doubtful whether she had sensory somatic symptoms or the presence of any

cardiovascular symptoms. She had difficulty in breathing, but she was able to control it. She also had dryness of the mouth and dizziness but it did not interfere with her daily life and work. She looked moderately anxious while taking interview. The total score obtained from HAM-A tool was **28** which can be interpreted as **moderate level of anxiety**.

While dealing with GDS tools, she was dissatisfied with her life, had dropped many of her activities and interest, showed a signs of restlessness, felt downhearted and blue, cried frequently, got bored, had feelings of worthlessness, hopelessness and lack of energy and fatigue. The total score from GDS scale was **21** which revealed that **she had severe depression**. Besides these, she also had depressed mood, feelings of guilt, suicidal thoughts or recurrent thoughts of death, insomnia, loss of appetite, difficulty in concentrating as well as psychotic features like delusion, hallucination etc. This matter was discussed with elderly home staff and she was counseled by the nursing staff and other official members of the elderly homes but she did not like to listen to them. She was adamant and said did not want to stay there. She also underwent a psychiatric consultation and was prescribed antidepressants but she refused to take the medicine. **Finally, she was sent to her village with the help of local police.**

ANNEX- IB

CASE STUDY II

A 91 years male from Bhaktapur district of Nepal came to stay in elderly home 1 year back. He is literate and came from a Brahmin family following Hindu religion. He worked as a Pujari in the nearby temple. He is a widower and has one daughter. After his wife's death, he stayed single. He had problems of joint pain. For this he used to take analgesics. He worried about lack of favorite activities at elderly home as well as dissatisfaction with old age because he could not contribute to anyone or the society and considered himself a burden to the society. He opined that the elderly homes should have proper infrastructure like the facility of toilets in each floor at a place convenient to each elderly to use it even at night. He usually felt stressed and so used religious coping strategies like visiting religious places, listening to religious music/radio and praying as well as passive avoidance coping strategy like crying alone. There were no caregivers to look after the elderly after 5 pm till 9 am the next morning. So, he felt the need of caregivers to look after them and help them according to their need. He said that, as in hospitals, there should be caretakers in shifts. This would create a sense of satisfaction and safety for the elderly living in old aged homes. He also shared that there were no mind diversional activities in the old age home.

He was interviewed using **Hamilton Rating Scale for Anxiety**. His HAM-A ratings showed that he did not have any symptoms of anxious mood, tension, fears, insomnia, intellectual difficulty, somatic (sensory) problems, cardiovascular symptoms, respiratory symptoms, gastrointestinal symptoms, genitourinary symptoms

or autonomic symptoms. But he showed clear non verbal signs of depression and hopelessness. He said that muscle pain was present most of the time and it clearly interfered with his daily work and life and opined that this problem might be related to arthritis. He looked moderately anxious while taking interview. The total score obtained from HAM-A tool was **9** which can be interpreted as **normal and without any anxiety**.

While dealing with GDS tools, he felt helpless, worthless, hopeless, down hearted and blue. He frequently worried about the past, could not make decisions, did not enjoy getting up in the morning and felt lack of energy and fatigue. But he was satisfied with his life and had not stopped his activities and interests. The total score from GDS scale was **13** which revealed that he had **mild depression**.

ANNEX-II

WORK PLAN

Task to be Performed	Responsible Person	Aasadh to Jestha (2069 & 2070)											
		1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th
*Literature Review, finalize proposal and submit to IRC of SHCC and Funding Agency	Principle Investigator	×× ××	×× ××										
*Clearance from NHRC and Funding Organization	PI/ Organization Related			×× ××									
*Preparing Research Tools	Research Team		××	××									
*Translating and back translating of questionnaire in Nepalese language, typing and photocopying	Research Team & Consultant				×× ××								
*Discussion about Tools with Team	Research Team					×							
*Pretesting of the Tools	Principle Investigator					××							
*Finalizing Tools and Printing	Research Team					××	××						

*Orientation to Organization Related and Obtaining Clearance/ Permission from them	Research Team						××						
*Data Collection	Research Team							×× ××	×× ××				
*Data Editing, Coding and Entry into the Computer	Research Team Consultant									××			
*Data Analysis	Research Team (PI) & consultant									××	××		
**Report Writing	Research Team										××	××	
**Preparing Final Report and Submission to concerned Authority and Funding Agency	Research Team(PI), Co-PI											×× ××	
***Dissemination and Discussion of Research Findings and Preliminary recommendations with Managers/ Policy Makers	Research Team (PI)												××

*: Completed within the time

**: Ongoing, exceed the proposed time

***: Planning for dissemination

ANNEX- III

BUDGET

S.N.	Expenditure Category	Per Person/Day	Unit Rate	Total (NRs)
1	**Human Resources**			
	Enumerator	3×30=90	900	81,000
	Statistician	1×2=2	2000	4000
	Consultant for Translation & Back-Translation	1×3=3	2000	6000
	Sub-Total			**91,000**
2	**Logistics**			
	Transportation	70 times	300	19000
	Stationery	Lumsum	12,000	12,000
	Discussion about the tools with team and Refreshment	-	2400	2400
	Meeting with authorities of organization related with Refreshment	-	5500	5500
	Email, Internet and Communication	-	4400	4400
	Meeting Allowance for Research Team	3×3=9	500	4500
	Sub-Total			**47800**
3	**Report Preparation**			
	Allowance for Data Management and Entry	Lumsum		14000
	Typing and Printing	-	6000	6000
	Photocopy and Binding	-	9000	9000
	English correction		4000	4,000
	Sub-Total			**33,000**
4	**Others**			
	Allowance for Presenter	1×2=2	2000	4000
	Ethical Approval		1000	1000
	Dissemination of Report to related organization with refreshment	Lumsum	5000	5000
	Sub-Total			**10,000**
Total				**1,81800**
5	**Administrative costs(10% of total Budget)**			**18180**
Grand Total				**1,99,980**

ANNEX-IV

INTERVIEW SCHEDULE

I am …… from Nepal Institute of Health Sciences, Boudha Kathmandu. I am here to collect the data. This data is needed to study the factors associated with Anxiety and Depression among Elderly Living in Old Aged Homes in Kathmandu Valley. The information collected will be kept totally confidential and it will use only for this study and will not be used for any other purpose. The respondents will be encouraged to participate voluntarily.

Serial No.

A. Socio-demographic Other Variables related Information

1. **Name of Organization**

   ……..

2. **Types of Organization**

   ……..

3. **Age……**

4. **Sex**

   a. Male b. Female

5. **Education**

   a. Primary d. Lower Secondary

   b. Secondary e. Higher Secondary

   c. Literate f. Illiterate

6. Marital Status (If Unmarried, Go to Q. 9)

a. Married
c. Widow/Widower
b. Unmarried
d. Others

7. If married, Residing at the old age home with spouse

a. Yes
b. No

8. How many Children do you have?

a. One
c. Two
b. Three
d. Others……..

9. Previous Family Type

a. Nuclear
c. Joint
b. Extended
d. Others…….

10. Ethnic Group

a. Newar
c. Bramhin
b. Chhetri
d. Others

11. Religion

a. Hindu
c. Christian
b. Buddhism
d. Others…….

12. Previous Address …….

13. Last Occupation……

14. Do you have any Chronic Illness?

a. Yes
b. No

14.1 If Yes, What disease do you have? Response will be Yes/No.

Diseases	Yes	No
Hypotension		
Cancer		
Heart Disease		
Hypertension		
Musculoskeletal Problem		
Gastrointestinal Disease		
Respiratory Problem		
Diabetes Mellitus		
Others		

15. Do you have any worries regarding your living at elderly home?

Worries about	Yes	No
Financial Security Lack of Social Relation Dissatisfaction with old age Lack of favorite activities Fear of future Dissatisfaction with the environment of the elderly home Dissatisfaction with the treatment of the elderly home official Others……		

16. How many years have you been staying here?

…….....

17. Do you usually feel stress?

a. Yes b. No

17.1 If Yes, How do you cope with your stress? Response will be Yes/No.

S.N.	Coping Style	Yes	No
1	Go to Religious Places		
2	Listening to Religious Music/Radio		
3	Staying Alone		
4	Pray to God		
5	Reading Religious Books		
6	Shares the problem to peers		
7	Visit in different places		
8	Crying Alone		
9	Take Cigarettes		
10	Self Blame		
11	Others		

Keys:

1, 2, 4 & 5: Religious Coping Strategies (RCS)

3 & 9: Avoidance Coping Strategies (ACS)

6: Seeking Social Support Coping Strategies (SSSCS)

8: Emotion Focused Coping Strategies (EFCS)

10: Passive Avoidance Coping Strategies (PACS)

18. Do you have any caregivers constantly to look after you?

a. Yes c. No

18.1 If yes, who look after you?

a. Nurse c. Others……..

b. Volunteer

18.2 Do you feel the need of Caregivers Constantly to look after you?

a. Yes b. No

19. Do the organizations organize any mind diversional activities?

a. Yes b. No

19.1 If yes, what type of activities?

Please Specify……

B. Anxiety Assessment Tools

Hamilton Anxiety Rating Scale (HAM-A)

For each item, please **Tick** in the box the number that best characterizes the individual during the past week

1. Anxious Mood

This item covers the emotional condition of uncertainty about the future, ranging from worry, insecurity, irritability and apprehension to overpowering dread.

0	Absent.
1	Doubtful whether the patient is more insecure or irritable than usual.
2	The patient is clearly in a state of anxiety, apprehension or irritability, which he

	may find difficult to control. However, the worrying still is about minor matters and thus without influence on the patient's daily life.
3	At times the anxiety or insecurity is more difficult to control because the worrying is about major injuries or harms which might occur in the future. Has occasionally interfered with the patient's daily life.
4	The feeling of dread is present so often that it markedly interferes with the patient's daily life.

2. Tension

This item includes inability to relax, nervousness, bodily tensions, trembling and restless fatigue.

0	Absent.
1	The patient seems somewhat more nervous and tense than usual.
2	Patient is clearly unable to relax and is full of inner unrest, which he finds difficult to control, but it is still without influence on the patient's daily life.
3	The inner unrest and nervousness is so intense or frequent that it occasionally interferes with the patient's daily work.
4	Tensions and unrest interfere with the patient's life and work at all times.

3. Fears

This item includes fear of being in a crowd, of animals, of being in public places, of being alone, of traffic, of strangers, of dark etc. It is important to note whether there has been more phobic anxiety during the present episode than usual.

0	Absent.
1	Doubtful whether present.
2	The patient experiences phobic anxiety but is able to fight it.
3	It is difficult to fight or overcome the phobic anxiety, which thus to some extent interferes with the patient's daily life and work.
4	The phobic anxiety clearly interferes with the patient's daily life and work.

4. Insomnia

This item covers the patient's subjective experience of sleep duration and sleep depth during the three preceding nights.

0	Usual sleep duration and sleep depth
1	Sleep duration is possibly or slightly reduced (e.g. due to difficulties falling asleep), but no change in sleep depth.
2	Sleep depth is also reduced, sleep being more superficial. Sleep as a whole is somewhat disturbed.
3	Sleep duration and sleep depth is markedly changed. Sleep periods total only a few hours per 24 hours.
4	Sleep depth is so shallow that the patient speaks of short periods of slumber or

	dozing, but no real sleep.

5. Intellectual

This item covers difficulties in concentration, making decision about everyday matters, and memory.

0	No difficulty
1	Doubtful whether the patient has difficulty in concentration and/or memory.
2	Even with a major effort it is difficult for the patient to concentrate on his daily routine work.
3	The patient has pronounced difficulties with concentration, memory, or decision making, e.g. in reading a newspaper article or watching a television programme to the end.
4	During the interview the patient shows difficulty in concentration, memory or decision making.

6. Depressed Mood

This item covers both the verbal and the non-verbal communication of sadness, depression, despondency, helplessness and hopelessness.

0	Absent
1	Doubtful whether the patient is more despondent or sad than usual, or is only vaguely so.
2	The patient is more clearly concerned with unpleasant experiences, although he

	still lacks helplessness or hopelessness.
3	The patient shows clear non-verbal signs of depression and/or hopelessness.
4	The patient remarks on despondency and helplessness or the non-verbal signs dominate the interview and the patient cannot be distracted.

7. Somatic (Muscular)

Weakness, stiffness, soreness or real pain, more or less diffusely localized in the muscles, such as jaw ache or neck ache

0	None.
1	The patient seems somewhat more stiff or sore in the muscles than usual.
2	The symptoms have the character of pain.
3	Muscle pain interferes to some extent with the patient's daily work and life.
4	Muscle pain is present most of the time and clearly interferes with the patient's daily work and life.

8. Somatic (Sensory)

This item includes increased fatigability and weakness or real functional disturbances of the senses, including tinnitus, blurring of vision, hot and cold flashes and prickling sensations**.**

0	Absent
1	Doubtful whether the patient's indications of symptoms are more pronounced

	than usual
2	The sensations of pressure reach the character of buzzing in the ears, visual disturbances and prickling or itching sensations in the skin.
3	The generalized sensory symptoms interfere to some extent with the patient's daily life and work.
4	The generalized sensory symptoms are present most of the time and clearly interfere with the patient's daily life and work.

9. Cardiovascular Symptoms

This item includes tachycardia, palpitations, oppression, chest pain, throbbing in the blood vessels, and feelings of faintness**.**

0	Absent
1	Doubtful whether present.
2	Cardiovascular symptoms are present, but the patient can still control them.
3	The patient has occasional difficulty controlling the cardiovascular symptoms, which thus to some extent interfere with his daily life and work.
4	Cardiovascular symptoms are present most of the time and clearly interfere with the patient's daily life and work.

10. Respiratory Symptoms

Feelings of constriction or contraction in throat or chest, dyspnea or choking sensations and sighing respiration

0	Absent
1	Doubtful whether present.
2	Respiratory symptoms are present, but the patient can still control them.
3	The patient has occasional difficulty controlling the respiratory symptoms, which thus to some extent interfere with his daily life and work.
4	Respiratory symptoms are present most of the time and clearly interfere with the patient's daily life and work.

11. Gastrointestinal Symptoms

This item covers difficulties in swallowing, "sinking" sensation in stomach, dyspepsia (heartburn or burning sensation in the stomach, abdominal pains related to meals, fullness, nausea and vomiting), abdominal rumbling and diarrhea.

0	Absent
1	Doubtful whether present
2	One or more gastro-intestinal symptoms are present, but the patient can still control them.
3	The patient has occasional difficulty controlling the gastro-intestinal symptoms, which to some extent interfere with his daily life and work.
4	The gastro-intestinal symptoms are present most of the time and interfere

	clearly with the patient's daily life and work.

12. Genitourinary Symptoms

This item includes non-organic or psychic symptoms such as frequent or more pressing passing of urine, menstrual irregularities, anorgasmia, dyspareunia, premature ejaculation, loss of erection.

0	Absent.
1	Doubtful whether present
2	One or more genito-urinary symptoms are present, but do not interfere with the patient's daily life and work.
3	Occasionally, one or more genito-urinary symptoms are present to such a degree that they interfere to some extent with the patient's daily life and work.
4	The genito-urinary symptoms are present most of the time and interfere clearly with the patient's daily life and work.

13. Autonomic Symptoms

This item includes dryness of the mouth, blushing or pallor, sweating and dizziness

0	Absent
1	Doubtful whether present.
2	One or more autonomic symptoms are present, but they do not interfere with the patient's daily life and work.

3	Occasionally, one or more autonomic symptoms are present to such a degree that they interfere to some extent with the patient's daily life and work.
4	Autonomic symptoms are present most of the time and clearly interfere with the patient's daily life and work.

14. Behavior at Interview

The individual may appear tense, nervous, agitated, restless, tremulous, pale, hyperventilating or sweating during the interview. Based on such observations a global estimate is made.

0	The patient does not appear anxious.
1	It is doubtful whether the patient is anxious.
2	The patient is moderately anxious.
3	The patient is markedly anxious.
4	Patient is overwhelmed by anxiety, for example with shaking and trembling all over.

C. Depression Assessment Questionnaire

Geriatric Depression Scale

S.N.	Scale Questions	Yes	No
1	Are you basically satisfied with your life?		
2	Have you dropped many of your activities and interests?		

3	Do you feel that your life is empty?		
4	Do you often get bored?		
5	Are you hopeful about the future?		
6	Are you bothered by thoughts you can't get out of your head?		
7	Are you in good spirits most of the time?		
8	Are you afraid that something bad is going to happen to you?		
9	Do you feel happy most of the time?		
10	Do you often feel helpless?		
11	Do you often get restless and fidgety?		
12	Do you prefer to stay at home, rather than going out and doing new things?		
13	Do you frequently worry about the future?		
14	Do you feel you have more problems with memory than most?		
15	Do you think it is wonderful to be alive now?		
16	Do you often feel downhearted and blue?		
17	Do you feel pretty worthless the way you are now?		
18	Do you worry a lot about the past?		
19	Do you find life very exciting?		
20	Is it hard for you to get started on new projects?		
21	Do you feel full of energy?		
22	Do you feel that your situation is hopeless?		
23	Do you think that most people are better off than you are?		

24	Do you frequently get upset over little things?		
25	Do you frequently feel like crying?		
26	Do you have trouble concentrating?		
27	Do you enjoy getting up in the morning?		
28	Do you prefer to avoid social gatherings?		
29	Is it easy for you to make decisions?		
30	Is your mind as clear as it used to be?		

Thank You

ANNEX-V

अन्तरवार्ताको लागि तयार पारिएका नमुना प्रश्नहरु

१. व्यक्तिगत तथा सामाजिक र अन्य तत्वहरुसँग सम्वन्धित सूचनाहरु

अ. सस्थाको वर्गिकरण

.....

२. उमेर .....

३. लिङ्ग

क. पुरुष　　ख. महिला

४. शिक्षा

क. प्राथमिक　　ख. निम्नमाध्यामिक

ग. माध्यामिक　　घ. उच्चमाध्यामिक

ङ. साक्षर　　च. निरक्षर

५. बैवाहिक स्थिती

क. विवाहित　　ख. अविवाहित

ग. विदुर । विदुवा　　घ. अन्य

६. यदि विवाहित हो भने आफुसँगै वद्धाआश्रममा आफ्नो कुनै परिवारको व्यक्ति सँगै बस्नु

भएको छ ।

क. छ ख. छैन

७. यदि विवाहित हो भने तपाईका कति वटा बच्चाहरु छन् ?

क. १ ख. २

ग. ३ घ. अन्य .....

८. पहिलेको पारिवारिक स्थिती तथा प्रकार

क. एकल परिवार ख.संयुक्त परिवार

ग. बृहत परिवार घ. अन्य

९. जाती

क. ब्राम्हण ख. क्षेत्री

ग. नेवार घ. अन्य

१०. धर्म

क. हिन्दु ख. बौद्ध

ग. ईसाई घ. अन्य

११. पहिलेको ठेगाना .....

१२. पहिलेको व्यवसायको विवरण .....

१३. के तपाई कुनै दिर्घ रोगवाट गैसित हुनुहुन्छ ।

क. छ ख. छैन

१३.क. यदि कुनै दिर्घ रोग छ भने, तलको कुन रोगवाट ग्रसित हुनुहुन्छ ?

क. न्यून रक्तचाप । उच्च रक्तचाप ख. क्यान्सर

ग. मुटुरोग　　घ. मधुमेहरोग

ङ. हार्डजोर्नीसँग सम्वन्धित समस्या　　च. पाचनप्रणालीसँग सम्वन्धित समस्या

छ. स्वासप्रस्वास प्रणाली सम्वन्धित समस्या　ज. अन्य .....

१४. के तपाईलाई वृद्धाआश्रमको बसाईमा कुनै समस्या वा चिन्ता छ ?

चिन्ता तथा समस्या	छ	छैन
क. आर्थिक सुरक्षा		
ख. सामाजिक सम्वन्धमा कमी		
ग. बुढेसकाल प्रति असन्तुष्टि		
घ. रुचीका क्रियाकलापमा कमी		
ङ. भविष्य प्रति डर		
च. मृत्यु देखी डर		
छ. वृद्धाआश्रमको वातावरण प्रति असन्तुष्टि		
ज. वृद्धाआश्रमको कर्मचारीहरुले गर्ने व्यवहार प्रति असन्तुष्टि		
झ. अन्य		

१५. तपाई कहिले देखी बृद्धाआश्रममा बसिरहनु भएको छ ?

क. १ वर्ष भन्दा कम　　ख. १ वर्ष देखी ५ वर्ष

ग. ६ वर्ष देखी १० वर्ष　　घ. ११ वर्ष देखी १५ वर्ष

ङ। १५ वर्ष भन्दा माथि　　च. अन्य .....

१६. बृद्धाआश्रमको बसाईका दौरान तपाईले कहिले मानसिक दवाबको सामना गर्नु भएको छ ?

क. छ　　ख. छैन

१६.क. यदि छ भने, मानसिक दवाबलाई नियन्त्रण गर्न के गर्नु हुन्छ ? प्रतिक्रिया छ वा छैनमा हुनेछ ।

क. धार्मिक प्रवचन सुन्न　　ख. धार्मिक भजन सुन्ने र गाउने

ग. धार्मिक स्थलमा घुम्न जाने　　घ. भगवानसँग प्राथना गर्ने

ङ. एक्लै बस्छु　　च. एक्लै रुन्छु

छ. चुरोट पिउँछु　　ज. साथीहरुसँग समस्याको वारेमा छलफल गर्छु

झ. एक्लै वरवराउँछु　　ञ. अन्य .....

१७. यस वृद्धाआश्रममा सधै तपाईको हेरविचार गर्ने ब्यक्ति कोही हुनुहुन्छ ?

क. छ　　ख. छैन

१७.क. यदि छ भने , कसले हेरविचार गर्छ ?

क. नर्स　　ख. स्वयम सेवक

ग. नातेदार　　घ. अन्य .....

१७.ख. के तपाईले आफुलाई सधै हेरविचार गर्ने व्यक्तिको आवश्यकताको महसुस गर्नु भएको छ ?

क. छ　　ख. छैन

१८. यस वृद्धाआश्रममा तपाईलाई मनोरञ्जन दिलाउनको लागि कुनै कार्यक्रम संचालन गरिएको छ ?

क. छ　　ख. छैन

१८.१. यदि छ भने, के कस्ता कार्यक्रम संचालन हुन्छ ?

.....

व्यग्र मनस्थिति जांच गर्ने साधन

ह्यामिल्टन एन्जाइटि रेटिङ्गस्केल (ह्याम ए)

तल उल्लृखित प्रत्यैक बुंदामा, कुनैपनि व्यक्तिको बितेको हप्तामा अनुभव गरेको बिशेषताको आधारमा ( ) चिनो लगाउनुहोस ।

१ Anxious Mood व्यग्र मनस्थिति

यसले भविष्यको बारेमा अनिश्चितताको भावनात्मक स्थितिको बारेमा उल्लेख गरेको छ । चिन्ता, असुरक्षा, चिडचिडापन तथा आशंकाबाट उत्पन्न हुने जोडदार भयलाई यसले समेटेको छ ।

० केही पनि छैन ।

१ व्यक्ति सामान्य भन्दा बढी असुरक्षित र चिडिएको छ ।

२ ब्यक्ति चिन्ता, आशंका, अथवा, चिडचिडापनबाट ग्रसित देखिन्छ, जसलाई नियन्त्रण गर्न व्यक्ति असक्षम छ । यद्यपी चिन्ता अझ दैनिक

जीवनमा साधारण कुरोमा मात्र सिमित भएको हुनाले उसको अन्य गतिबिधिमा यसको असर परेको छैन ।

३ कतिपय अवस्थामा चिन्ता वा असुरक्षाको नियन्त्रण गर्ने मुस्किल पर्छ किनकी भविष्यमा हुनसक्ने कुनै महत्वपूर्ण दुर्धटना अथवा चोटपटकको विषयमा व्यक्ति चिन्तित हुन्छ । कहिलेकाही दैनिक जीवनमा समेत यसको असर परेको पाईन्छ ।

४ अक्सर भय र डरको भावना पाइन्छ जसले प्रायजसो व्यक्तिको दैनिक व्यवहारमा प्रभाव पारेको पाइन्छ ।

२ Tension तनाव

यसमा आराम गर्ने असमर्थता nervousness शारिरिक तनाव, कम्पन, तथा बैचेनी, थकान जस्ता लक्ष्यणहरु समाबेश गरिएको छ ।

० छैन ।

१ व्यक्ति सामान्य भन्दा केही बढी nervous र तनाव पाइन्छ ।

२ व्यक्ति स्पष्टरुपमा आराम गर्न नसेको देखिन्छ । व्यक्तिको आन्तरिक असान्ति पाइन्छ । जसलाई उ नियन्त्रण गर्न सकिरहेको हुदैन यद्यपि यसले व्यक्ति जीवनमा कुनै प्रकारको प्रभाव परेको पाइन्दैन ।

३ आन्तरिक असुरक्षा र nervousness ज्यादै तिब्र हुनुका साथै यसले व्यक्ति दैनिक कार्यमा कहिलेकाही प्रभाव पार्न गरेको पाइन्छ ।

४ तनाव र असुरक्षाले व्यक्ति दैनिक जीवनमा अक्सर प्रभाव पारेको पाइन्छ ।

३ Fears आशंका / भय

यसले भीडभाडमा बस्नुपर्ने भय जनावर प्रतिको भय, सार्वजनिक स्थानमा बस्नुपर्ने भए एक्लो हुनु पर्ने, Traffic, पराई मानिस, अन्धकार, आदीको भय, डरलाई समेटेको छ । सामान्य भन्दा बढी भयको चिन्ता छ कि छैन भन्ने अवलोकन गर्न जरुरी हुन्छ ।

० छैन ।

१ शंकास्पद ।

२ व्यक्तिमा भयको चिन्ता पाइएला, तर पनि उ त्यसलाई नियन्त्रण गर्न सक्षम छ ।

३ भय, चिन्तालाई नियन्त्रण गर्न कठीन भएको हुंदा त्यसले व्यक्तिको व्यवहारलाई केही हद सम्म प्रभाव पारेका छ ।

४ भयको चिन्ताले व्यक्ति पूर्णरुपमा ग्रसित । दैनिक कृयाकलापमा पूर्ण प्रभाव ।

४ Insomnis अनिन्द्रा

यसमा विगत ३ रातमा बिरामीको निन्द्राको अवधि र निन्द्राको गहिराइको बारेमा व्यक्तिपरक अनुभवलाई समावेश गरिएको छ ।

० असामान्य निन्द्रको अवधि तथा गहीराई

१ निन्द्रको अवधि केही कम भएको (निदाउन कठीनाइ भएर), तर निन्द्राको गहिराइमा कुनै परिवर्तन छैन ।

२ निन्द्राको अवधिको साथै गहिराई पनि कम भएको । निन्द्रा सतही मात्र हुन्छ । निन्द्रा केहीहद सम्म खलबल हुन्छ ।

३ निन्द्राको अवधि र निन्द्राको गहिराइमा ठूलो परिवर्तन हुन्छ । २४ घण्टामा केही घण्टा मात्र निन्द्रा पर्छ ।

४ निन्द्रा एकदमै सतही हुन्छ जसमा बिरामी छोटो समयको लागि मात्र हुन्छ, निन्द्रा लाग्दैन ।

५ Intellectual बौदिक क्षमता

यसले बिरामीको एकाग्र हुनसक्ने क्षमता, दैनिक व्यवहारमा गरीने निर्णय र सम्झन सक्ने क्षमताको बारेमा बुझाउंछ ।

० कुनै कठिनाइ छैन ।

१ व्यक्तिलाई एकाग्रता र सम्झनमा कुनै कठीनाई छ कि छैन भन्ने अष्पष्ट भएको ।

२ ठूलो प्रयत्न गर्दा पनि व्यक्तिलाई आफनो दैनिक कृयाकलापमा एकाग्र हुन कठिनाई भएको ।

३ व्यक्तिले याद गर्न, एकाग्र हुन वा निर्णय गर्न कठिनाइ भएको स्विकार गरेको । जस्तै पत्रिका पढ्न वा टी.भि. कार्यक्रम पूरा हेर्न ।

४ अन्तर्वाताको क्रममा व्यक्तिले एकाग्र हुन नसकेको सम्झन समस्या गरेको वा निर्णय गर्न कठिनाई महसुस गरेको पाइयो ।

६ Depressed Mood उदासिनता

यसमा उदासिन्ता, अवसाद, निराशा, लाचारी तथा निराशाको मौखिक र गैर मौखिक संचारलाई समावेश गरिएको छ ।

० छैन ।

१ व्यक्ति सबैभन्दा हतास वा उदास भएजस्तो देखिएता पनि छुटाउन मुश्किल हुन्छ ।

२ व्यक्ति नराम्रो अनुभवहरु प्रति ज्यादै चिन्तित हुन्छ, यद्यपि उसमा निराशा तथा लाचारीपन पाइन्दैन ।

३ व्यक्तिले स्पष्ट रुपमा उदासिनताको तथा निराशाको गैर, मौखिक लक्षण देखाउंछ छ ।

४ व्यक्तिमा उदासिनता निराशा झल्किन्छ । गैर मौखिक लक्ष्यणहरु अन्तर्वातामा हावि हुन्छन र व्यक्तिलाई अन्यत्र मोडन सकिन्दैन ।

७ Somatic (Muscular)

यसमा निम्न शारिरक अवस्थाहरुको निरिक्षण तथा अवलोकन गरिन्छ । कमजोर, मांशपेशीहरुको सुसंगठन सुनिएको अथवा दुखेको केही हदसम्म मांशपेशीहरुमा हुने पिडा वा दुखाई जस्तै गर्धन वा च्यापु दुख्ने ।

० केही छैन ।

१ व्यक्तिको मांशपेशी सामान्य छ वा सुनिएको छ ।

२ दुखाइको लक्ष्यण देखिएको छ ।

३ मांशपेशीहरुको दुखाइले व्यक्तिको दैनिक जीवनमा केही हदसम्म हस्तक्षेप गरेको पाइन्छ ।

४ मांशपेशीहरु सधै दुख्ने हुन्छ र त्यसले व्यक्तिलाई सधै दैनिक कामकाजमा अप्ठ्यारो पारेको हुन्छ ।

८ Somatic (Sensory)

थकान बढदै जाने र कमजोरी हुने अथवा स्नायुहरुको क्रियाकलापमा असर हुने जस्तै कान बज्ने धमिलो दृष्टि, तातो चिसो, घोचेको, चिमोटेको जस्तो अनुभूती हुने ।

० छैन ।

१ व्यक्तिको लक्षणहरु सामान्य अवस्थामा भन्दा अझ प्रगाढ भएको हो कि होइन भन्ने छुट्याउन मुस्किल ।

२ दवावको अनुभूति यस्तो अवस्थामा पुग्छ की त्यसले कानमा भूभूर (buzzing) किसिमको बज्ने आवाज आउंछ दृष्टि भ्रम हुन्छ । छाला चिलाउने, चिमोटेको अनुभव हुन्छ ।

३ सामान्यतया स्नायुका सबै (generalized) लक्ष्यणहरुले व्यक्तिको दैनिक कामकाजमा खलबल पुऱ्याउछ ।

४ स्नायुका generalized लक्ष्यणहरु व्यक्तिमा अक्सर भेटिन्छ । त्यसले व्यक्तिको दैनिक जीवनमा पूर्णरुपमा असर पारेको पाइन्छ ।

९ Cardiovascular Symptoms मुटु तथा नशाको लक्ष्यण

यसमा नाडीको चाल बढ्ने (tachycardia), ढुकढुकी, कहिले थिचेको जस्तो हुने (oppression) छाती दुख्ने, रक्त नलिहरुमा झुल्का हान्ने (trobbing) र बेहोस, मुर्छा होला जस्तो अनुभव हुने जस्ता लक्ष्यणहरु पाइन्छन ।

० छैन ।

१ यस्ता लक्ष्यणहरु भए नभएको छुट्याउन मुश्किल ।

२ मुटु तथा नशाका लक्ष्यणहरु देखिन्छन तरपनि बिरामीले त्यसलाई नियन्त्रण गर्न सक्षम हुन्छ ।

३ व्यक्तिलाई कहिलेकाही यस्ता लक्ष्यणहरु नियन्त्रण गर्न मुश्किल पर्छ जस्ले गर्दा उसका दैनिक कृयाकलापहरु प्रभावित हुन्छन ।

४ यस्ता लक्ष्यणहरु व्यक्तिमा अक्सर पाइन्छन र त्यसले बिरामीको दैनिकीमा पूर्ण असर पारेको हुन्छ ।

१० Respiratory Symptoms श्वासप्रश्वासका लक्ष्यणहरु

यसका लक्ष्यणहरु निम्न छन । घांटी तथा छातिमा केहीले थिचेको जस्तो अठ्याएजस्तो कुराको (Constriction and Contraction) को अनुभव, श्वास फेर्न गाह्रो हुने (dyspnoea) अथवा अडकेको जस्तो अनुभव र (Sighing respiratory) हाइ हाइ आउने

० छैन ।

१ यस्ता लक्ष्यणहरु भए नभएको छुट्याउन मश्किल ।

२ व्यक्तिलाई कहिलेकाही यस्ता लक्ष्यणहरु नियन्त्रण गर्न मुश्किल पर्छ जसले गर्दा उसका दैनिक कृयाकलापहरु पनि प्रभावित हुन्छन ।

३ यस्ता लक्ष्यणहरु व्यक्तिमा अक्सर पाइन्छन र त्यसले बिरामीको दैनिकीमा पूर्ण असर पारेको हुन्छ ।

११ Gastrointestinal Symptoms पेट तथा आन्द्राका लक्ष्यणहरु र पाचन प्रणालिका लक्ष्यणहरु

यसका लक्ष्यणहरु निल्न अप्ठ्यारो हुने, पेटमा Sinking भएजस्तो लाग्ने, dyspepsia (छाती पोल्ने, अमिलो पानी आउने, पेट पोलेको जस्तो हुने, पेट दुख्ने, खाइसकेपछी अथवा खाली पेटमा वाक वाक लाग्ने बान्ता हुने) पेटमा rumbling हुने तथा पखाला लाग्ने आदी ।

० छैन ।

१ यस्ता लक्ष्यणहरु भए नभएको छुट्याउन मुश्किल ।

२ एक वा बढी यस्ता लक्ष्यणहरु देखिएता पनि व्यक्तिले त्यसलाई नियन्त्रण गर्न सक्षम ।

३ व्यक्तिलाई कहिलेकाही यस्ता लक्ष्यणहरु नियन्त्रण गर्न समस्या पर्छ जसले गर्दा उसका दैनिक कामकाजहरु प्रभावित हुन्छन ।

४ यस्ता लक्ष्यणहरु व्यक्तिमा अक्सर पाइन्छन र त्यसले उसको दैनिक कामकाजहरुमा पूर्ण रुपले असर पारेको हन्छ ।

१२ **Genitourinal Symptoms** लिङ्ग तथा पिसावका लक्ष्यणहरु

यसका लक्ष्यणहरु मानसिक प्रकृतिका हुन्छन, जस्तै पटक पटक पिसाब लाग्नु वा पिसाब गर्दा दवाव पर्नु, महिनावारीमा अनियमितता, पेट दुख्नु, शिध्रपटन, लिङ्ग ठूलो नहुनु आदी ।

० छैन ।

१ यस्ता लक्ष्यणहरु

२ एक वा बढी यस्ता लक्ष्यणहरु

३ कहिलेकाही एक वा बढी यस्ता लक्ष्यणहरु देखिन्छन ।

४ अक्सर पाइन्छ ।

१३ Autonomic Symptoms

यसका लक्ष्यणहरुमा मुख सुक्ने, blushing वा pallor हुने, पसिना आउने तथा रिंगटा लाग्ने हुन्छ ।

० छैन ।

१ छुट्याउन मुश्किल

२ एक वा बढी लक्ष्यण छ, प्रभाव देखिन्दैन ।

३ एक वा बढी लक्ष्यण छ, प्रभाव कहिलेकाही देखिन्छ ।

४ अक्सर प्रभाव देखिन्छ ।

१४ Behavior at Interview अन्तरवार्ताको व्यवहार

व्यक्ति गम्भिर, nervous उत्तेजित, चंचल, tremulous पहेलो, hyperventilating वा असिना पसिना देखिन सक्छ । यस्ता लक्ष्यणहरुको आधारमा मोटामोटी मूल्यांकन गर्ने ।

० व्यक्ति enxious देखिन्छ ।

१ व्यक्ति anxious छ । छैन भन्न कठीन हुन्छ ।

२ व्यक्ति ठिकै anxious छ ।

३ व्यक्ति निकै anxious छ ।

४ व्यक्ति anxious भएर सम्हाल्न कठीन जस्तै शरिर काम्ने

D. Depression Assessment Questionnaire

निराश परिक्षण गर्ने प्रश्नावली (Geriatric Depression Scale)

		छ	**छैन**
१	के तपाई सामान्य आफनो जीवन प्रति सन्तुष्ट हुनुहुन्छ ?		
२	के तपाईले आफनो धेरै कृयाकलाप तथा रुचिहरुको त्याग गर्नु भएको छ ?		
३	के तपाईलाई आफनो जीवन रित्तो, खाली, खोक्रो लाग्छ ?		
४	के तपाईलाई अक्सर दिक्क लाग्छ ?		
५	के तपाई भविष्य प्रति आशावादी हुनुहुन्छ ?		

६	के तपाईलाई आफू आफनो मनबाट बाहीर निस्कन सक्दिन भन्ने सोचले पिडित हुनुहुन्छ ?		
७	के तपाई अक्सर स्वच्छ मानसिकतामा रहनु हुन्छ ?		
८	के तपाई आफूलाई केही अप्रिय, नराम्रो कुरा होला भन्ने डराउनु भएको छ ?		
९	के तपाई अक्सर खुशी हुनुहुन्छ ?		
१०	के तपाई अक्सर आफूलाई निशाहाय सोच्नु हुन्छ ?		
११	के तपाई अक्सर चंचल र fidgety हुनुहुन्छ ?		
१२	के तपाई बाहिर गएर केही नयां चिज गर्नुको सट्टा घरमै बस्न रुचाउनु हुन्छ ?		
१३	के तपाई भविष्यलाई लिएर धेरै जसौ चिन्ता गर्नुहुन्छ ?		
१४	के तपाईलाई लाग्छ अरुलाई भन्दा तपाईमा सम्झन सक्ने क्षमतामा समस्या छ ?		
१५	के तपाईलाई लाग्छ अहिले जीवित हुनुमा ज्यादै उल्लासपूर्ण छ ?		
१६	के तपाई अक्सर निरर्थक भएको सोच्नु हुन्छ ?		
१७	के तपाईलाई आफनो अहिलेको अवस्था निरर्थक लाग्छ ?		
१८	भूतलाई लिएर चिन्तित हुनुहुन्छ ?		
१९	जीवन ज्यादै exciting लाग्छ तपाई ?		

२०	नयां काम शुरु गर्न तपाईलाई गाह्रो लाग्छ ?		
२१	तपाई आफूलाई पूर्ण जोश जागर भएको जस्तो लाग्छ ?		
२२	के तपाईलाई अरु मानिस आफू भन्दा सुखी भए जस्तो लाग्छ ?		
२३	के तपाईलाई आफनो अवस्था निराशापूर्ण लाग्छ ?		
२४	के तपाईलाई धेरै जसो सामान्य कुरामा रिसाउनु हुन्छ ?		
२५	के तपाईलाई अक्सर रुउ रुउ जस्तो लाग्छ ?		
२६	के तपाईलाई मन एकाग्र गर्न अप्ठ्यारो हुन्छ ?		
२७	बिहान उठन तपाईलाई आनन्द लाग्छ ?		
२८	के तपाई सामाजिक जमघट पन्छाउन खोज्नु हुन्छ ?		
२९	के तपाई निर्णय गर्न सजिलो लाग्छ ?		
३०	के तपाईको दिमाग पहिले जस्तै स्वच्छ र सफा छ ?		

धन्यबाद

ANNEX-VI

मन्जुरीनामा

अनुसन्धानको विषय : काठमाण्डौ उपत्यकामा रहेका १० वटा वृद्धाआश्रममा बसोबास गर्ने बृद्धाहरुको व्यग्र मनस्थिती र निरास मनस्थिती र यसलाई असर गर्ने तत्वहरु ।

प्रमुख अनुसन्धानकर्ता : रेखा तिमल्सिना

म .....हुँ । म यहाँ व्यग्र, निराश मनस्थिती र यसलाई असर गर्ने तत्वहरुको विषयमा अध्ययन गर्नको लागि यहाँ उपस्थित भएको छू । यो अनूसन्धानको लागि नेपाल स्वास्थ्य अनूसान्धान परिषद, नेपाल स्वास्थ्य विज्ञान अध्ययन संस्थान तथा यस सस्थानवाट स्विकृती लिएर उपस्थित भएको छू । यो अनूसन्धानमा म हजूरलाई अर्न्तवार्तामा सहभागीता जनाउनको लागि हार्दिक अनूरोध गर्दछू । यसमा पहिलो चरणमा व्यक्तिगत सुचनाहरु, अन्य तत्वहरु र दोस्रो चरणमा व्यग्र र निरास मनस्थितीको बारेमा केही प्रश्नहरु सोध्ने छू र यस अर्न्तवार्ताको लागि तपाईलाई ३० मिनेट देखि ४५ मिनेट सम्मको समय लाग्ने छ । यस अन्तरवार्ताको दौरानमा तपाईको कूनै प्रश्न तथा प्रतिक्रिया भएमा पनि सोध्न सक्नू हूनेछ । यस अनूसन्धानवाट तपाईलाई प्रत्यक्ष रुपमा केही फाईदा नभएता पनि अप्रत्यक्ष रुपमा यस अध्ययन अनूसन्धान प्रतिवेदनवाट यस वृद्धाआश्रमको प्रशासनिक निकायमा समस्याहरुलाई नियाल्न र समाधान गर्न बाटो पहिल्याउन सहयोग मिल्ने छ । यो अध्ययन अनूसन्धानमा तपाईको सहभागिता नितान्त स्वेच्छिक हूनेछ र यस दौरानमा जूनसूकै बेलामा पनि यदि सहभागीता जनाउन चाहनू भएन भने यस अनूसन्धानवाट बाहिरिन सक्नू हूनेछ । साथै अन्तरवार्ताको क्रममा तपाईले दिनू भएको जवाफ

कसैलाई पनि थाहा हूने छैन र तपाईवाट लिइएको सूझावको आँकडा एकदमै सूरक्षित राखिनेछ र तपाईको अनूमती बिना ती सूझावहरु कसैलाई पनि हेर्न दिईने छैन ।

अन्त्यमा मैले माथि लेखेका सबै कूराहरु पढे, सूने र म स्वेच्छिक रुपमा यस अनूसन्धानमा सहभागिता जनाउन मन्जूर छू ।

सहभागि व्यक्तिको नाम :

दस्तखत :

ठेगाना :

मिति :

मैले माथि उल्लेखित सबै कुराहरु प्रष्ट रुपमा सहभागीले बुझ्ने गरी बुझाएर मात्र सहभागीको मन्जुरीनामा लिएँ ।

अनुसन्धानकर्ताको नाम :

दस्तखत :

धन्यबाद

ANNEXE: VII

Socio-demographic Profile and Depression

n=173

Sociodemographic Variables	Normal	Depression		Total
		Mild	Severe	
Name of Organization				
Pashupati Bridhashram	21 (25.3)	46 (55.4)	16 (19.3)	83 (100)
Nishahaya Sewa Sadan	5 (23.8)	16 (76.2)	0 (0)	21 (100)
Amako Ghar	0 (0)	8 (100)	0 (0)	8 (100)
Matatirtha Bridhashram	2 (28.6)	3 (42.8)	2 (28.6)	7 (100)
Dev Corner	5 (45.4)	4 (36.4)	2 (18.2)	11 (100)
Divya Sewa Niketan	6 (55.5)	4 (36.4)	1 (9.1)	11 (100)
Tapasthali Bridhashram	3 (27.3)	8 (72.7)	0 (0)	11 (100)
Siddhi Saligram Bridhashram	5 (33.3)	6 (40.0)	4 (26.7)	15 (100)
Sahara Care Centre	0 (0)	2 (50.0)	2 (50.0)	4 (100)
Senior Citizen Homes	0 (0)	1 (50.0)	1 (50.0)	2 (100)
Total	**47 (27.2)**	**98 (56.6)**	**28 (16.2)**	**173 (1000**
Sex				
Male	17 (37.8)	22 (48.9)	6 (13.3)	45 (100)
Female	30 (23.4)	76 (59.4)	22 (17.2)	128 (100)
Education				
Literate	13 (28.2)	27 (58.7)	6 (13.1)	46 (100)
Illiterate	34 (26.8)	71 (55.9)	22 (17.3)	127 (100)
Marital Status				
Married	13 (30.9)	23 (54.8)	6 (14.3)	42 (100)
Unmarried	7 (30.4)	14 (60.9)	2 (8.7)	23 (100)
Widow	19 (21.1)	53 (58.9)	18 (20.0)	90 (100)

Widower	8 (44.4)	8 (44.4)	2 (11.2)	18 (100)

Socio-demographic Profile and Depression Contd……

n=173

Socio-demographic Variables	Normal	Depression		Total
		Mild	Severe	
Offspring				
Yes	16 (18.6)	57 (66.3)	13 (15.1)	86 (100)
No	31 (35.6)	41 (47.1)	15 (17.2)	87 (100)
Previous Family Type				
Nuclear	10 (33.3)	16 (53.4)	4 (13.3)	30 (100)
Joint	9 (18.2)	33 (67.3)	7 (14.3)	49 (100)
Extended	7 (33.3)	11 (52.4)	3 (14.3)	21 (100)
Single	16 (29.1)	28 (50.9)	11 (20.0)	55 (100)
Living With Others	5 (27.8)	10 (55.6)	3 (16.7)	18 (100)
Ethnicity				
Bramhan	12 (22.2)	31 (57.4)	11 (20.4)	54 (100)
Chhetri	14 (26.9)	34 (65.4)	4 (7.7)	52 (100)
Newar	13 (31.7)	17 (41.5)	11 (26.8)	41 (100)
Others	8 (30.8)	16 (61.5)	2 (7.7)	26 (100)
Religion				
Hindu	46 (28.7)	88 (55.0)	26 (16.3)	160 (100)
Bouddist	1 (20.0)	3 (60.0)	1 (20.0)	5 (100)
Christian	0 (0)	7 (87.5)	1 (12.5)	8 (100)
Previous Occupation				
Agriculture	20 (29.8)	33 (49.3)	14 (20.9)	67 (100)
Animal Husbandry	17 (34.0)	23 (46.0)	10 (20.0)	50 (100)
Housemaid	6 (26.1)	13 (56.5)	4 (17.4)	23 (100)
Laborer	5 (27.8)	12 (66.7)	1 (5.5)	18 (100)
Others	17 (25.0)	40 (58.8)	11 (16.2)	68 (100)

Socio-demographic Profile and Anxiety

n=173

Name of Organization	Normal	Anxiety			Total
		Mild	Moderate	Severe	
Pashupati Bridhashram	56 (67.5)	13 (15.7)	8 (9.6)	6 (7.2)	83 (100)
Nishahaya Sewa Sadan	14 (66.7)	7 (33.3)	0 (0)	0 (0)	21 (100)
Amako Ghar	3 (37.5)	5 (62.5)	0 (0)	0 (0)	8 (100)
Matatirtha Bridhashram	4 (57.4)	2 (28.6)	1 (14.3)	0 (0)	7 (100)
Dev Corner	8 (72.7)	2 (18.2)	0 (0)	1(9.1)	11 (100)
Divya Sewa Niketan	6 (54.5)	3 (27.3)	1 (9.1)	1 (9.1)	11 (100)
Tapasthali Bridhashram	9 (81.8)	2 (18.2)	0 (0)	0 (0)	11 (100)
Siddhi Saligram Bridhashram	12 (80.0)	1 (6.7)	1 (6.7)	1 (6.7)	15 (100)
Sahara Care Centre	4 (100.0)	0 (0)	0 (0)	0 (0)	4 (100)
Senior Citizen Homes	1 (50.0)	1 (50.0)	0 (0)	0 (0)	2 (100)
Total	**117 (67.6)**	**36 (20.8)**	**11(6.4)**	**9 (5.2)**	**173 (100)**
Sex					
Male	34 (75.5)	7 (15.5)	3 (6.7)	1 (2.3)	45 (100)
Female	83 (64.8)	29 (22.6)	8 (6.3)	8 (6.3)	128 (100)
Education					
Literate	31 (67.4)	10 (21.7)	2 (4.4)	3 (6.5)	46 (100)
Illiterate	86 (67.7)	26 (20.5)	9 (7.1)	6 (4.7)	127 (100)
Marital Status					
Married	30 (71.4)	7 (16.7)	3 (7.1)	2 (4.8)	42 (100)
Unmarried	19 (82.6)	2 (8.7)	2 (8.7)	0 (0)	23 (100)
Widow	53 (58.9)	24 (26.7)	6 (6.7)	7 (7.7)	90 (100)
Widower	15 (83.3)	3 (16.7)	0 (0)	0 (0)	18 (100)
Offspring					
Yes	56 (65.1)	22 (25.6)	5 (5.8)	3 (3.5)	86 (100)
No	61 (70.1)	14 (16.1)	6 (6.9)	6 (6.9)	87 (100)

Socio-demographic Profile and Anxiety Contd….

Name of Organization	Normal	Anxiety			Total
		Mild	Moderate	Severe	
Previous Family Type					
Nuclear	19 (63.3)	7 (23.3)	2(6.7)	2 (6.7)	30 (100)
Joint	34 (69.4)	11 (22.4)	3 (6.1)	1 (2.1)	49 (100)
Extended	12 (57.1)	7 (33.3)	0 (0)	2 (9.5)	21 (100)
Single	38 (69.1)	10 (18.2)	4 (7.3)	3 (5.4)	55 (100)
Living With Others	14 (77.9)	1 (5.5)	2 (11.1)	1 (5.5)	18 (100)
Ethnicity					
Bramhan	35 (64.8)	11(20.4)	3 (5.5)	5 (9.3)	54 (100)
Chhetri	32 (61.6)	16 (30.8)	2 (3.8)	2 (3.8)	52 (100)
Newar	32 (78.1)	3 (7.3)	5 (12.2)	1 (2.4)	41 (100)
Others	18 (69.2)	6 (23.2)	1 (3.8)	1 (3.8)	26 (100)
Religion					
Hindu	110 (68.7)	31 (19.4)	10 (6.3)	9 (5.6)	160 (100)
Bouddist	4 (80.0)	1 (20.0)	0 (0)	0 (0)	5 (100)
Christian	3 (37.5)	4 (50.0)	1(12.5)	0 (0)	8 (100)
Previous Occupation					
Agricultural	41 (61.2)	17 (25.4)	5 (7.5)	4 (5.9)	67 (100)
Animal Husbandry	32 (64.0)	10 (20.0)	5 (10.0)	3 (6.0)	50 (100)
Housemaid	17 (73.9)	0 (0)	2 (8.7)	4 (17.4)	23 (100)
Laborer	10 (55.5)	6 (33.3)	2 (11.2)	0 (0)	18 (100)
Others	51(75.0)	13 (19.1)	3 (4.4)	1 (1.5)	68 (100)

Note: Outside the bracket: **Frequency** and Inside the bracket: **Percentage**