

*REVIEW OF LITERATURE*

## **CHAPTER – II**

### **REVIEW OF LITERATURE**

The study on ‘Effects of Spiritual Quotient, Management of Depression and Enhancement of General Well Being among Nuns through Positive Therapy’ was reviewed under the following

- Nuns
- Depression and Older Women
- Spiritual Quotient
- General Well Being
- Positive Therapy and Depression

#### **NUNS**

The Vatican (2010) is investigating whether a woman who had inoperable lung cancer was cured by a miracle that would qualify Australian nun Mary MacKillop for sainthood. Two doctors are looking into the case of a woman who was told in 1993 she had weeks to live. She pinned a small picture of MacKillop and a piece of the nun's habit to her clothes and, 10 months after being diagnosed, had no sign of cancer, said Maria Casey, the lead nun lobbying the Vatican to canonize MacKillop. If verified, this would be the second miracle needed for MacKillop to become a saint in the eyes of the Catholic Church.

The Johns Hopkins School of Medicine (2009) did a study on 38 Catholic nuns who donated their brains to science. It was found that Superior language skills in the late teens and early twenties may actually protect a person from dementia many decades later. They compared nuns with normal cognitive function at the end of life with those who had mild dementia or full-blown Alzheimer's. By studying the nuns' autobiographical writings from their early lives, the scientists confirmed that regardless of evidence of Alzheimer's in the brain, sisters who had better language abilities early in life were less likely to exhibit symptoms.

In 2009, Liberman conducted a research on Psychology of language, which revealed that low idea density and low grammatical complexity in autobiographies written in early life were associated with low cognitive test scores in late life. Low idea density in early life had stronger and more consistent associations with poor cognitive

function than did low grammatical complexity. Among the 14 nuns who died, neuropathologically confirmed Alzheimer's disease was present in all of those with low idea density in early life and in none of those with high idea density.

"Can Language Skills Ward Off Alzheimer's? A Nuns' Study" (2009) was carried out looking for physical symptoms of Alzheimer's in living nuns using positron emission tomography (PET) brain imaging, rather than relying on post-mortem examination of the brains of dead ones. The tests revealed symptoms of Alzheimers in nuns with low/poor language skills.

Iacono et al (2009) conducted a research on " Clinically silent Alzheimer's Disease, neuronal hypertrophy, and linguistic skills in early life" among 38 nuns. They concluded that Neuronal Hypertrophy may constitute an early cellular response to Alzheimer disease (AD) or reflect compensatory mechanisms that prevent cognitive impairment despite substantial AD lesions.

The Nun Study "*A Graceful Gift of Brain* " was conducted in 2009 by Snowdon. Over the past 30 years, 678 Roman Catholic Nuns had offered a remarkable gift to the knowledge of successful aging: their brains. Their ages had ranged from 75 to 106 with an average of about 83 years, and during the study, their health had varied from highly functional even in advanced age, to severely disabled as young as in their 70s. The research revealed that, the more highly educated the nuns were the fewer symptoms of cognitive decline they showed. The nuns who showed a better grasp of language in early life were less prone to dementia, and those whose early writings revealed a positive emotional outlook tended to live longer than those who didn't. And then there was the astounding Sister Mary, who at the advanced age of 101, showed no signs or symptoms of mental frailty – but upon her death, the autopsy of her brain revealed the structural changes usually associated with advanced Alzheimer's. On the whole, the nuns had remained remarkably healthy and well - a brilliant example of aging successfully.

Snowdon in 2008 conducted a longitudinal study of aging and Alzheimer's disease in nuns. The Nun Study was done on 678 American Roman Catholic sisters who were members of the School Sisters of Notre Dame. They were in the age range of 75 to 106 years. He studied a relatively homogeneous group (no drug use, little or no alcohol, similar housing and reproductive histories, etc.) minimizing the extraneous variables that

may confound other similar research. Researchers had also accessed the convent archive to review documents through the lives of the participants of the study. One such document reviewed was an autobiographical statement that participants made when joining the Sisterhood, the complexity and fluency of which (or lack there of) has been shown to be a significant predictor of the onset of Alzheimer's disease.

A nun study carried out by Danner, Snowdon and Friesen (2001) consisted of handwritten autobiographies of 180 Catholic nuns, composed when participants were a mean age of 22 years. They were scored for emotional content and related to survival during ages 75 to 95. A strong inverse association was found between positive emotional content in these writings and risk of mortality in late life ( $p < 0.001$ ). As the quartile ranking of positive emotion in early life increased, there was a stepwise decrease in risk of mortality resulting in a 2.5-fold difference between the lowest and highest quartiles. Positive emotional content in early-life autobiographies was strongly associated with longevity 6 decades later.

Department of Health policy (2000) suggested that cervical cancer was extremely rare among nuns, virgins, and spinsters. Rigoni-Stern, a surgeon in Padua found four deaths from cancer of the womb among 1288 deaths in nuns. There was a suggestion of considerable under-reporting of this cancer, both in nuns and in the general population. The observations made were not of statistical significance. He limited his observations on cancer of the womb to noting that the ratio of deaths from breast cancer to deaths from cancer of the womb was far greater in nuns (and single women) than in other women. This observation (of an excess of breast cancer in nuns) had already been made almost 150 years earlier by Ramazzini (1713). This would be expected on the basis of modern knowledge and was associated with the protective effect of pregnancy against breast cancer.

Towne (1999) a Chicago based gynaecologist examined the role of child birth in cervical cancer. She conducted a retrospective analysis of known cases of cervical carcinoma over a 21-year period, from a radiotherapy unit. Of 574 cases, 16.3% were in nulliparous women, 6.4% occurred in unmarried women, 0.52% in members of religious orders. This represented cases among nuns too. Towne calculated a rate for cervical cancer in nuns of 1 in 1000. This implied a rate of a third that in parous married women.

However, this statistic was arrived at by rather dubious means. The denominator used was the number of nuns examined in the 21-year period (rather than the population from which they were derived). All cases were histologically squamous carcinomas.

Fraumeni and epidemiological colleagues at the US National Cancer Institute (1999) studied 31,658 white Catholic nuns in order to clarify the role of marital status in human carcinogenesis. Their study covered 41 religious communities. As a comparison group they used the total female population of Massachusetts and the white female population of the US. In fact, data on the incidence of specific gynaecological cancers were not available for these comparison groups. As would have been expected, nuns suffered from an excess mortality from breast cancer. Except in the older age groups they had fewer deaths from malignancies of the genital tract. Almost 11% of deaths from genital cancer among nuns were due to cervical tumours, compared to more than half in the comparison group.

#### **DEPRESSION AND OLDER WOMEN**

A longitudinal research by Keith (2010) examined postponement of needed health care by unmarried older women. Relationships between being unmarried (widowed, separated divorced, never married) and postponement of treatment, reasons for postponement of care, and changes in health care behavior were examined. Data were analyzed from 1,159 widowed, 264 never married and 251 separated divorced women age 58 to 63 years at the time of the initial interview. Marital status was associated with postponing care and reasons for delaying care. The proportion of women who failed to obtain care and their reasons for doing so were fairly stable over a decade. Distress over finances tended to be more salient in determining postponement of care than health status.

Braam et al (2009) described that depressive symptoms can also as symptoms of parkinsonism. Data from 16 313 respondents, aged 65 and older indicated that 306 (1.9%) reported or had signs of parkinsonism. The rate of depression was about twice as high among respondents with parkinsonism, also among those without functional disability. Overlap symptoms between parkinsonism and depression, were represented by motivation and concentration problems, appetite problems and especially the symptom

of fatigue (energy loss). However, principal component analysis showed that these overlap symptoms loaded on different factors of the EURO-D scale.

A meta-analytic study on psychoeducation for depression, anxiety and psychological distress was carried out in 2009 by Donker. In this, 9010 abstracts were identified. Of these, five papers which described four research studies targeting passive psychoeducation for depression and psychological distress met the inclusion criteria. Although it was commonly believed that psychoeducation interventions were ineffective, this meta-analysis revealed that brief passive psychoeducational interventions can reduce symptoms of depression and psychological distress.

Mayo Clinic research (2008) suggested that unmarried women living in rural areas have lower self-rated health status than their married counterparts. This lower health status often includes greater instances of self-assessed feelings of depression. Researchers used a cross-functional survey to gather self-ratings of overall health among female primary care patients aged 18 years and older who live in cities with a census of approximately 3,000. The study analyzed marital status and self-assessed mental health as potential risk factors for poor overall self-rated health among female primary care patients. The analysis revealed that single or divorced women were more prone to poor self-rated health compared to married women. Women who described themselves as being depressed also had worse overall health. Women aged 65 and older had an even higher risk of poor self-rated health.

In 2007, Etowa et al worked on the title 'Depression: The "invisible grey fog" influencing the elderly health of African Canadian women.' The purpose of this study was to investigate the health of Black women living in the province of Nova Scotia, Canada. A triangulation of qualitative and quantitative methods guided by the principles of Participatory Action Research (PAR) was used in the study. Data collection methods included 50 in-depth interviews of mid-life African Canadian women aged 40-65, focus groups, and workshops as well as the CES-D structured instrument. Purposive sampling method was the primary recruitment strategy and 113 people participated in the study. At midlife, Black women frequently recognized the importance of greater self-care and the need to pay more attention to their health, but they were reluctant to do so because they had to be strong in order to deal with their daily experiences of racism. Racism, among

other things, led to accumulated stress and undermined Black women's ability to cope and make healthy life choices. This signified the implications of these research findings for clinical practice.

A Feminist Action Research was done by Women Friendly Groups and Welfare Dynamics in Finland on 'Women and Depression' in 2006. Data from 101 respondents were analysed. Feminist self-help techniques were taught for depressed women to become active subjects in healing their depression. Conclusions showed that depression is a consequence of invisible gendered tensions in a women friendly welfare state. The study made a step forward by problematising women's experience of depression in the private and public domain.

Valvanne (2005) carried out a study to estimate the prevalence of major depression and to evaluate associated features in random age cohorts of 75, 80, and 85 years (N = 651). A clinical examination was made by experienced health center physicians, and major depression was diagnosed according to DSM-III criteria. Major depression was strongly associated with objective health, intellectual functioning, and functional capacity. Depression was most common in subjects suffering from poor vision, urinary incontinence or Parkinson's disease (odd ratios 4.2 to 4.9). Depression was also correlated with musculoskeletal disorders, coronary heart disease, and cerebrovascular diseases (odd ratios 2.5 to 3.4). The survey suggested that major depression is quite rare in healthy elderly people but common in disabled institutionalized patients.

Blazer et al (2004) assessed 3,998 community-dwelling elders (65+) for depressive symptoms using a modified version of the ces-d and relevant control variables. Depressive symptoms were associated in bivariate analysis with increased age, being female, lower income, physical disability, cognitive impairment, and social support. In a multiple regression analysis, the association of age and depressive symptoms reversed when the above confounding variables were simultaneously controlled. The oldest old suffered fewer depressive symptoms when factors associated with both increased age and depressive symptoms were taken into account.

Cole and Dendukuri (2002) carried out a Meta analysis to determine risk factors for depression among elderly community subjects. Despite the methodological limitations of the studies and this meta-analysis, bereavement, sleep disturbance, disability, prior

depression, and female gender appeared to be important risk factors for depression among elderly community subjects.

Yaffe et al (2000) tested the hypothesis that elderly women (aged 65 years and older) without dementia but with depressive symptoms have worse cognitive function and greater cognitive decline than women with few or no symptoms. They evaluated 5781 elderly, mostly white, community-dwelling women using the Geriatric Depression Scale short form, 3 cognitive tests - Trails B, Digit Symbol, and a modified Mini-Mental State Examination. It was concluded from the study that depressive symptoms in older women were associated with both poor cognitive function and subsequent cognitive decline. Results were similar after being adjusted for education, age, health status, exercise, alcohol use, functional status, and clinic site.

Williams et al (2000) carried out a study to find out the impact of depression on the incidence of heart failure in the elderly. They examined the effect of depression on 2501 individuals (assessed by means of the Center for Epidemiological Studies Depression Scale {CES-D}) on the incidence of heart failure in a community sample of persons aged  $\geq 65$  years who were participants in the New Haven cohort of the Established Populations for Epidemiological Studies in the Elderly. The results of this study proved that Depression is an independent risk factor for heart failure among elderly women but not elderly men.

Livingston et al (2000) conducted a research to determine the prevalence rates of dementia, depression and activity limitation among elderly residents in Inner London. Based upon this, 87.2% of the elderly residents of an inner-city electoral area were screened for memory disorder, depression and activity limitation using the Short CARE. Contact with medical and social agencies was also recorded. Thirty-two per cent of the population showed impairment in daily activity, these individuals were usually older, not married and receiving hospital care. Sleep disorder and complaint of many somatic symptoms were associated with a diagnosis of depression. In contrast, most respondents with a subjective complaint of memory disorder, which was common in this population, were neither suffering from depression nor dementia.

Schoevers (2000) carried out a research to investigate the association between major and mild depressive syndromes and excess mortality in community-living elderly

men and women. Depression (Geriatric Mental State AGECAAT) was assessed in 4051 older persons, with a 6-year follow-up of community death registers. The mortality risk of neurotic and psychotic depression was calculated after adjustment for demographic variables, physical illness, cognitive decline and functional disabilities. A total of 75% of men and 41% of women with psychotic depression had died at follow-up. Psychotic depression was associated with significant excess mortality in both men and women.

### **SPIRITUAL QUOTIENT**

In the journal 'Studies in Spirituality', Francis (2008), published an article titled, 'The Symbiosis of the Theology and Spirituality in a Hindu Defense of the Goddess'. This essay explores the personal and intense piety of the south Indian Hindu theologian Vedanta Desika, noting his seemingly novel insistence that the Goddess Sri is in every way equal to the supreme deity, Narayana. Desika's intense argument for her equality, his insistence that tradition is entirely on his side, and his heated critique of esteemed senior teachers, all suggested that his motivation was personal and spiritual, rooted in his own devotion to Sri. For the Christian theologian seeking to learn from Srivaisnava theology and piety, expectations were thus heightened, since intellectual arguments were only the preliminary part of a larger project which had deep roots in spirituality, a sense of tradition, and an underlying personal piety; the latter, a more subjective factor demanded the attention of the comparativist who sought to understand adequately a theological argument from another tradition.

Ross (2008) presented a paper titled, 'Connecting Art with Spirituality within the Indian Aesthetics of Advaita Vedanta'. This paper presented an exploration of how aesthetic experience could be interpreted along the lines of the Hindu philosophy of *Advaita* Vedanta and how Western art could be viewed as an expression of a deeper spiritual reality, albeit defined in Vedantic terms. According to *Advaita* Vedanta every entity has five characteristics namely, existence, cognoscibility, inherent appeal, form, and name. Of these, the first three characteristics were seen as spiritual and the following two constitute the appearance of the entity in the world. *Advaita* Vedanta holds that it is specifically the characteristics of form and name that distinguishes one entity from another while it is the three former characteristics, which all entities have in common, that spiritually unites everything. Furthermore, within this philosophy, existence,

cognizability, and inherent appeal are seen as stemming from Brahman, the Being of all beings, whose nature is *Satcitanandna* (Existence-Knowledge-Bliss). Religious or sacred art within this thinking is that art which has the potential to take the beholder, through an act of concentration on the work's form and name – its appearance in the world, into a deeper experience, into a momentary 'glimpse' of *Satcitanandna*. This epiphanic experience is conjointly for the beholder an awakening experience of recognition to his or her own inherent spiritual depth, for the same mysterious nature of *Satcitanandna* that underpins the artwork underpins the beholder.

The Sino-Japanese religious tradition of Chan Buddhism, known in the West by its Japanese name Zen, has been surrounded by both mystique and skepticism in the Western mind. Recently, many controversies had come to the forefront regarding the nature of Zen Buddhism, and Western interpretation of it. These days, Zen scholars and Zen practitioners are often at odds with each other regarding the true nature of Zen spirituality. The study by Taylor (2008) attempted to elucidate the current controversies around Zen by taking a closer look at Western self-understanding and relationship to spirituality. Taylor's findings regarding what it means to be spiritual in our secular age were summarized under the headings of universalization, individualization and psychologization. These headings were subsequently used to critically review the reception of Zen Buddhism in the West. Several questionable trends in the current approach to spirituality, such as excarnation, a therapeutization of religion, and a neglect of ordinary life were also identified.

The study of spirituality by Fr. Jenson (2008) offered an example of a human science approach to the study of spirituality as a universal human experience. The objective of the thesis was that, through a careful consideration of themes central to a specific spiritual tradition one can come to an appreciative critical understanding not only of that tradition, but also of themes foundational to all human spiritualities. The paper began with a criticism of two reductionistic approaches to the study of spirituality, one empirical (projectionism) the other theological (mystification) that in their rejection of, or indifference to, concrete human freedom undermines the very possibility of spirituality. This was followed by a phenomenological analysis of the relationship of communion and asceticism in the Eastern Christian tradition. To help elucidate this relationship, the

author consulted a key element in Hasidic anthropology: self-contraction. The paper concluded with a brief consideration of the promises and risks of a human science approach to the study of human and Christian spirituality in light of a Liturgical-ascetical spirituality of communion.

A Demonstration Analysis of the effects of Spiritual Quotient on research performance of Ph.D. Candidates was done by Haoba in 2007. This revealed that, as a kind of brainwork, research needed more personal spiritual ability not material ability than physical work. This paper focused on Ph.D. candidates who play important role in university research work but without drawing much academic attention. The researchers first constructed the character dimensions of spiritual quotient and designed the research performance evaluation system of Ph.D. candidates. Then they tried to explore the impact of spiritual quotient on research performance through case interviews and statistical analysis. The conclusions drawn were except spontaneity, other 11 dimensions of spiritual quotient all had positive relationship with research performance which included task performance and contextual performance.

Avinash and Nagarathna (2004) researched on the concept of Kundalini according to Yoga and Spiritual Lore. The study was conducted to compare the effects of three different integrated yoga modules on fine motor movements, using Minnesota Manual Dexterity Test. After stratifying for sex, 295 school students of both genders (aged between 13 to 17 years), were randomly assigned to three groups IQ group [Intelligence Quotient] (n= 93), PS group [Physical Stamina] (n=102), and CV group [Creativity] (n=100). All the groups were trained in specific yoga modules for 10 days residential personality development camp (PDC) at Vivekananda Yoga Research Foundation, Bangalore. Fine motor movement skills were assessed using Minnesota Manual Dexterity Test. The results revealed that integrated yoga modules have shown significant improvement in Manual dexterity (MD) in school students in age group 13 to 17 years.

In 2000, Levin did a research titled, "From Psychosomatic to Theosomatic: The Role of Spirit in the Next New Paradigm." The objective of the study was to examine the association between absorption and intrinsic and extrinsic religiousness. The participants were 83 respondents of a self-administered survey of adult survivors of cancer or other life-threatening diseases, recruited from participants in a pilot study of psychosocial

factors related to recovery from illness. They were assessed using Tellegen Absorption Scale and Religious Orientation Scale. The results revealed that Absorption, as assessed by the Tellegen Absorption Scale, was positively and significantly associated with intrinsic religiousness, as measured by the Religious Orientation Scale. Predominantly intrinsic subjects had absorption scores at least 20% higher than did predominantly extrinsic, proreligious, or nonreligious subjects.

Koenig (2003) examined the frequency of religious coping among older medical inpatients, the characteristics of those who use it, and the relation between this behavior and depression. The sample size was 850 who were aged 65 years and over, without psychiatric diagnoses, who were consecutively admitted to the medical or neurological services of a southern Veterans Administration medical center. Religious coping was assessed with a three-item index. Depressive symptoms were assessed by self-rating (the Geriatric Depression Scale) and observer rating (the Hamilton Rating Scale for Depression). One out of every five patients reported that religious thought and/or activity was the most important strategy used to cope with illness. Variables that were associated with religious coping included black race, older age, being retired, religious affiliation, high level of social support, infrequent alcohol use, a prior history of psychiatric problems, and higher cognitive functioning. Depressive symptoms were inversely related to religious coping, an association which persisted after other sociodemographic and health correlates were controlled. These findings suggested that religious coping is a common behavior that is inversely related to depression in hospitalized elderly population.

A study conducted by Linda M. Chatters in 1999, examined the impact of religious involvement on health status and psychological well-being using data on older adults from three national probability surveys: the Myth and Reality of Aging (N = 2,797), the Quality of American Life (N = 1,209), and Americans' Changing Lives (N = 1,669) studies. Constructs were measured by single items and indices that vary across data sets. A proposed theoretical model specified direct effects of religiosity on health and well-being and indirect effects on well-being through health.

A Panel Analyses of Religious Involvement and Well-Being in African Americans was carried out by Taylor in 1999. This panel study explored the effects of

eight measures of religious involvement on three indicators of well-being in a national probability sample of African Americans. Religious measures included religious attendance, church membership, church activity, reading religious books, listening to religious TV/radio, prayer, asking for prayer, and subjective religiosity. The RAND Mental Health Index (MHI), was used to assess the psychological distress. Findings revealed strong, statistically significant, and consistent religious effects on well-being.

Levin and Taylor in 1999 did a study on the age differences in patterns and correlates of the frequency of prayer. Analyses were conducted across four age cohorts (18-30, 31-40, 41-60, >61) using data from the 1988 National Opinion Research Center (NORC) General Social Survey (N = 1,481). Findings revealed that prayer was frequently practiced at all ages, but more frequently in successively older cohorts.

### **GENERAL WELL BEING**

In 2009, Louise made an attempt to explore the relationship between well-being and self-perceived satisfaction with sexual function in women and to determine if there was an independent effect of menopausal status or age. A community-based cross-sectional study was designed on a total of 421 women, aged 18 to 65 years. Women were required to self-identify at study outset as being either satisfied or dissatisfied with their sexual life and be premenopausal or postmenopausal. They were assessed using the Psychological General Well-Being Index (PGWB), the Beck Depression Index (BDI) and a daily diary of sexual function. A group of 349 women were included in the analysis. Total PGWB and domain scores of positive well-being and vitality were lower in dissatisfied women compared to satisfied women. PGWB total and domain scores of depressed mood, positive well-being and vitality were higher in older women. Menopause did not have an independent effect on well-being. The conclusion of the study was that women who self-identified as having sexual dissatisfaction had lower psychological general well-being. These findings reinforced the importance of addressing sexual health and well-being in women as an essential component of their health care.

The European Journal of Clinical Nutrition (2008) carried out a hypothesis whether chocolate preference would be related to health and psychological well-being in old men. A mailed questionnaire was used to assess the health and well-being (including questions related to positive life orientation, visual analogue scales and the Zung

depression score) of survivors. In addition, candy preference was inquired. Of the respondents, 860 and 399 preferred chocolate and other type of candy, respectively. The average age in both candy groups was 76 years. Variables related to psychological well-being were consistently better in those preferring chocolate. In this socioeconomically homogenous male cohort, chocolate preference in old age was associated with better health, optimism and better psychological well-being.

Wiren (2007) carried out a prospective investigation of Quality of Life and Psychological Well-Being after the discontinuation of GH treatment in adolescent patients who had GH deficiency during childhood. This longitudinal study sought to assess whether quality of life declines after GH discontinuation in late adolescence, and whether differences could be discerned in quality of life in patients whose GH deficiency persists into adulthood and those whose GH secretory capacity fell within normal ranges. Forty patients, aged 16–21 years at baseline, were assessed over a 2-yr period commencing with discontinuation of GH therapy. Twenty-one patients were assigned to a GH deficiency group and 19 were assigned to a GH-sufficient group. Quality of life assessments were made using the Nottingham Health Profile, Psychological General Well-Being Index and Mood Adjective Check List Measures. Visual analog assessment of personality and affect and cognitive function tests were performed. The Mood Adjective Check List and visual analog assessments identified between-group and temporal changes in a limited number of the various personality domains. The Psychological General Well-Being Index assessment indicated greater baseline impairment in the GH deficiency group than in the GH-sufficient group in overall score and in the domains of depression and general health.

Bhattacharya (2006) did a correlational study to explore the relationship between mid adulthood, wellbeing, hope, coping and meaning in life. Hundred and twenty (60 male and 60 female) midlifers completed questionnaires of 'Life Regard Index', 'Hope Scale', 'Goals Scale for the Present and Future', 'Coping Checklist-I' and 'PGI General Well Being Measure'. Significant positive correlation emerged between general sense of well being and meaning in life, state hope, trait hope, and problem focused coping and social support seeking behavior. The study also indicated that meaning in life, trait hope and coping repertoire predicted enhanced well being among middle aged adults.

In 2005, a research was carried out on the general population of the Swedish community by Wiklund. This study aimed to investigate the relationship and determine the severity threshold at which gastroesophageal reflux symptoms meaningfully affected patients' well-being. A random sample of the population of Malmö, Sweden (n=4,624), was sent the Gastrointestinal Symptom Rating Scale, the Subjective Symptom Assessment Profile, and the Psychological General Well-Being Index. The relationship between well-being and the severity of heartburn, acid regurgitation, stomach pain, and abdominal pain was investigated by analysis of covariance (ANCOVA). Complete data were obtained from 1,476 subjects (43% male; mean age 49.9 yrs). Increasing symptom severity was associated with a decrease in well-being, and correlations between Psychological General Well-Being Index score and symptom severity ratings were statistically significant. At least mild symptoms of heartburn or abdominal pain were associated with a clinically meaningful reduction in well-being

Rosen (2004) determined the relationship between premenstrual symptoms and general well-being on a sample of 250 American military wives. Data were collected on two occasions one year apart. The women's general well-being and premenstrual symptoms were highly correlated on both occasions, but an even higher correlation was found between the presence of premenstrual symptoms at time 1 and the presence of premenstrual symptoms at time 2. Further analyses revealed that women with higher scores on general well-being and premenstrual symptoms were older and reported fewer cognitive depressive symptoms than women with lower scores on general well-being and premenstrual symptoms. At the one-year follow-up, the women with lower scores on general well-being who complained of premenstrual symptoms were more depressed than those who did not.

To describe the cross-sectional relation between glycemic control and physical symptoms, emotional well-being, and general well-being in patients with type II diabetes, a study was done by Van der does in 2004. The study population consisted of 188 patients with type II diabetes between 40 and 75 years of age. Higher HbA1c levels were significantly associated with higher symptom scores with worse mood (total score, displeasure score, depression, tension, fatigue), and with worse general well-being. These data suggested that better glycemic control in type II diabetes was associated with fewer

physical symptoms, better mood, and better well-being, in a nonhypoglycemic HbA1c range.

The Psychometric characteristics of the General Well-Being Schedule (GWB) with African-American women were established by Taylor in 2003. This study evaluated the reliability, validity, and factor structure of the GWB in a sample of 599 overweight African-American women who participated in multicenter weight loss trial. The results of the factor analysis indicated that the GWB is primarily one-dimensional and that the existence of the six hypothesized subscales was not supported. The GWB demonstrated evidence of concurrent and construct validity when examined in association with measures of self-concept, depression, and several health behaviors. The results of this study suggested that the GWB is a reliable and valid measure of psychological well-being in African-American women.

#### **POSITIVE THERAPY AND DEPRESSION**

A study by Rohini and Nazrin (2010) aimed at the Management of stress and depression in women facing violence through psychological intervention called Positive Therapy. Forty seven women victims from Upahaar Social Service Organization, Dharapuram, Tamil Nadu were selected for the study through purposive sampling. The age range of the sample was 19-58 years. The tools used for the study was Case Study Schedule by Dr. N.S. Rohini (2009), Stress Inventory constructed and standardized by Dr. Hemalatha Natesan and Dr. Nandini Menon (2005) and Beck's Depression Inventory by Beck (1971). After the assessment, six session of Positive Therapy was given to the entire sample. They were reassessed after a week using Case Study Reassessment Schedule, Stress Inventory and Beck's Depression Inventory.

Rajalakshmi and Hemalatha Natesan (2007) conducted a study on 'Management of depression and enhancement of well-being in cancer patients through Positive Therapy'. Thirty two cancer patients, 15 male and 17 female, in the age range of 25-65 years, from GKNM Hospital, Coimbatore, Tamil Nadu, were screened and were found to have high depression and low well-being. The entire sample was given 10 sessions of Positive Therapy in 2 weeks. Results showed that the mean depression of the sample had come down from 'High' (32.91) to 'Low' (11.25) and their well-being improved from 'Low' (5.3) to 'High' (15.31).

Gayathri Devi and Gayatridevi (2007) had done a study on 'Management of depression in depressive patients through Positive Therapy'. Thirty depressive patients, in the age range of 18-58 years, from Illakunavar Mental Health Clinic, Madurai, Tamil Nadu, were selected as the sample. The subjects were given 5 sessions of Positive Therapy. The results revealed that, after Positive Therapy, the mean depression had come down from 29.83 to 23.83.

Venkateswari and Rohini (2006) conducted a study on the 'Management of pain and depression in institutionalized geriatrics through Positive Therapy'. The sample consisted of 41 institutionalized geriatrics, 20 male and 21 female, in the age range of 60-80 years, from Coimbatore, Tamil Nadu. After the administration of Positive Therapy on the entire sample for 5 sessions on consecutive days, the mean pain reduced from 7.10 to 3.42 and the mean depression reduced from 21.10 to 12.37.

Sangeetha and Vijayalakshmi (2003) conducted a research on 'Assessment and Management of Geriatric Depression through Positive Therapy'. Sixty subjects (30 male and 30 female) were selected from the 'Home for the Aged', Thindal, Erode, Tamilnadu. The samples were in the age range of 60-80 years. The tools used were Case Study Schedule (Vijayalakshmi, 2001) and Geriatric Depression Scale (Lenore Kurlowicz, 1997). Depression at a moderate level was a common feature among the entire sample before treatment. All the elderly subjects in the experimental group were given Positive Therapy designed by Natesan as an intervention to develop their coping skills for handling their problems and to enhance better mental health. After treatment, the mean depression of the subjects in the experimental group had reduced significantly from 'moderate' to 'normal' level, whereas the mean depression of the control group continued to be at moderate level. Positive Therapy helped them keep their body and mind relaxed and also they were able to sleep peacefully during night time without any negative cognitions, since Thought Stopping helped them change their negative cognitions into positive ones thus, helping them, enjoy sound mental health.

Sivasankari and Rohini (2003) conducted a study on, 'Post-partum depression and anxiety through Positive Therapy'. Sixty new mothers from Cosmopolitan Hospital and Gowreesha Hospital, Trivandrum, Kerala served as the sample. They were in the age range of 19-35 years. Case Study Schedule (Natesan, 2002), Zung's Depression

Questionnaire (1965) and Zung's Anxiety Questionnaire (1971) were used. They were classified into 2 groups experimental and control. Positive Therapy was given individually to the Ss in the experimental group for 7 days, after which they were asked to practice Relaxation Therapy and the Exercises daily at home for 3 weeks. All the Ss were re-assessed with the same tools after 3 weeks. Initially, 10% of the sample had severe depression and 20% had severe anxiety. After the treatment namely, Positive Therapy, there was a significant reduction in the mean depression as well as anxiety in the experimental group, clearly proving the efficacy of Positive Therapy in the management of post-partum depression and anxiety. No such difference was found in the control group between I test and retest.

The literature reviewed clearly indicates that the researches conducted on nuns are less in number. Studies related to depression in older women are presented since the sample of this study, who are nuns belong to old age. Studies on Spirituality and General Well Being are also presented. A number of researches conducted on Positive Therapy in the management of depression are also discussed.