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Occurrence of Chromosomal Aberrations in Developing Mice Exposed Prenatally to Gamma Rays and its Inhibition by Vitamin B-Complex

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ABSTRACT

Vitamins have generated a great deal of interest in recent years for a wide range of protective effects in biological systems. In the present study, an attempt has been made to inhibit the radiation induced chromosomal aberrations by multi-vitamins during postnatal development . Pregnant Swiss albino mice were exposed to gamma radiation during fetal stage in the presence (experimental) or absence (control) of a vitamin B-complex, polybion (20 mg/kg b.wt.) till term.

Prenatal irradiation to 0.50 Gy gamma rays caused a significant increase in the frequency of chromosomal aberrations (such as chromosomal heaks, acentric fragments, dicentrics, rings etc.) at 2 and 4 weeks post-partum, which later decreased at 6 weeks. When various aberrations were summed up, results obtained from polybion administered animals were found to be significantly lower than the control (only radiation) throughout the period of study. A significant reduction was noticed at two weeks of age. The finding shows that polybion acts as an effective radioprotector aging chromosomal aberrations in post-partum young ones irradiated during pre-natal life.

Key words : Chromosomal aberration, Vitamin B-complex, Post natal development, Fetal growth period.

The intrauterine development in mammals, a period of active cell proliferation, migration and differentiation is highly sensitive to

radiation injury. Irradiation of mammalian embryos can produce a spectrum of morphological changes ranging from severe organ defects and stunted growth prenatal and postnatal mortality. The type and severity of the effect depends on the developmental stage of exposure and dose of radiation (BEIR, 1990).

Cytogenetic damage is a very sensitive indicator and acts as biological dosimeter of radiation insult. Chromosomal structural lesions have been assumed to cause embryonic death following irradiation during embryonic development. Informations are not enough about the occurrence of chromosomal aberrations at post-natal life of individuals who have been exposed to radiation during embryonic life.

Some studies have been performed to reduce the radiation induced lesions in embryonic life by using certain chemicals like MPG (Sugahara *et al.* 1970; Saini *et al.* 1978) and natural plant products like Liv. 52 (Saini *et al.* 1985), ocimum (Uma Devi and Ganasoundari, 1999), mentha (Samarthy *et al.,* 2000). However, no chemical has produced the desirable results, which limited their application in clinical field. Over the past few years, vitamins have played a significant role for a wide range of protective effects in biological systems. B vitamins play an important role in the maintenance of human adaptive capacity to resist a large number of chemical and physical stress or agents commonly encountered in the environment. The present study has been undertaken to assess the efficacy to Vitamin B-complex in altering the radiogenic chromosomal aberrations in postnatally developing young mice after prenatal irradiation.

Materials and Methods

Determination of pregnancy

For the experimentation, 5 females and 1 male Swiss albino mice were kept in a polypropylene cage of 15"×10"×6" size with wire gauge roof. Saw dust was used as a bedding material. Females were checked every morning at 6.00 am for the presence of vaginal plug. Since the indication of vaginal plug is not an infallible indication of successful

mating so these mice were weighed regularly and when first sign of significant weight increase was noted for 8 days, pregnancy was considered as confirmed. The number of days was recorded to select the desired post-coitum day (p.c.d.).

Design of Experiment

Pregnant mice at 14.25 post-coitum day (p.c.d.) selected from above inbred colony were divided into two groups, taking atleast 6 animals for each group. One group was given Vitamin B-complex (as polybion) obtained from E. Merck Ltd. at a dose of 20 mg/kg b.wt., orally till term to serve as the experimental; the other group received physiological saline (volume equal to Vitamin B-complex) in a similar way to serve as control. Animals of both the groups were exposed to 0.50 Gy from Co-60 as the dose rate 2.02 Gy/min. The irradiation was done by Cobalt teletherapy unit (ATC-C9) at Cancer Treatment Centre, SMS Hospital, Jaipur. All the females were allowed parturition and five young ones from each group were given 0.25% colchicine intraperitoneally 2 hrs. before their sacrifice at 2, 4 and 6 weeks of age. The femora were removed and metaphase plates were prepared by air-dried method to score chromosomal aberrations.

Statistical Analysis

The results were expressed in Mean±S.E. The Students 't' test was used to make statistical comparison between the groups.

Results and Discussion

The frequency of chromosomal aberrations in mice irradiated prenatally in the presence or absence of polybion is presented in Table-1. Prenatal irradiation to 0.50 Gy gamma rays caused a significant increase in total chromosomal aberrations at 2 and 4 weeks post-partum. Thereafter, counts of such aberrations declined gradually at 6 weeks of postnatal age. These aberrations were evident mainly in the form of chromosome breaks, acentric fragments, dicentrics and rings etc.

The frequency of total chromosomal aberrations was found to be lower at all the autopsy intervals in experimental animals (polybion +

radiation) than in the control (only radiation). The appearance of such aberrations was significantly diminished at 2 weeks of age in these young ones. It was evident due to a significant decrease in number of chromatid breaks, acentric fragments, rings etc. No such aberrations were noted at 6 weeks. Chromosomal aberrations in lymphocytes of the survivors of atomic bomb explosion demonstrated a dose-dependent increase in the frequency of aberrant cells. A linear relationship of such aberrations in dose gradation was reported by Awa *et al.* (1971). Awa (1975) and Sofuni *et al.* (1978) studied the chromosomal aberrations in the lymphocytes of atomic bomb explosions and demonstrated a dose-dependent increase in frequency of aberrant cells.

Various chemical protectors like MPG, WR-2721, Liv. 52, *Caffine*, TMG, *Polyvitamins, Ocimum, Phyllanthus niruri, Podophylluns hexandrum* caused a significant decline in aberrant cells in mammals before exposure to gamma radiation (Taj, 1991; Jain and Goyal, 1995; Farooqui and Kesavan, 1992; Benova, 1992; Goel *et al.* 1999). Evidences suggest that DNA double strand breaks (dsb's) play a major role in the formation of chromosomal aberrations. They also occur because of lesions in DNA double helix. The evidence for dsb's being the ultimate DNA lesion for chromosomal aberrations has been summarised by Obe *et al.* (1982). It is also possible that elevated level of glutathione (GSH) in Vitamin B complex treated group may be able to enhance the repair of dsb's lowering the frequency of aberrations in experimental group. The increased GSH level by B Vitamin pre-treatment facilitated reduction of oxidative free radicals by 'H' atom donation and GSH will be restored by GSH reductase activity. Benova (1992) treated mice with polyvitamins before exposure to gamma rays and found a significant anticlastogenic effect in somatic and germ cells.

Vitamin B_6 and B_{12} have been used to eliminate heavy metals like Hg from various tissues in rats and guinea pigs as well as to check recovery of proteins, enzymes and animal behaviour. Vitamins used in the present experiment could afford to pass through the placenta into foetus, thus affording protection by scavenging effect against direct

Table 1 : Frequency of chromosomal aberrations at various postnatal age in mice after *in vitro* (14.25 d.p.c.) exposure to 0.50 Gy gamma rays in the presence (experimental) or absence (control) of Polybion

Postnatal age (in weeks)	Treatment	Type of Aberrations						Total Aberrations	% Aberrations
		Chromosome Breaks	Chromatid Breaks	Acentric Fragments	Dicentrics	Rings	Exchanges		
	C	0.14±0.02	0.26±0.05	0.92±0.10	0.32±0.55	0.15±0.02	0.33±0.05	2.12±0.35*	2.12
2	E	0.10±0.01	0.14±0.03	0.30±0.08	0.23±0.01	0.05±0.01	0.30±0.02	1.12±0.20*	1.2
	C	0.18±0.03	0.21±0.06	0.55±0.12	0.20±0.02	0.20±0.05	0.28±0.06	1.62±0.18*	1.62
4	E	0.15±0.05	0.17±0.08	0.52±0.05	0.19±0.05	0.19±0.03	0.26±0.08	1.48±0.22	1.48
	C	–	0.45±0.15	0.28±0.10	–	0.13±0.05	–	0.85±0.20	0.85
6	e	–	0.25±0.18	0.22±0.12	–	0.13±0.06	–	0.60±0.15	0.60

C = Control, E = Experimental, *P< 0.01

cell death and repair of free radicals of target molecules by reduction or protection of endocrine balance in the mother. Indirect protection by better nourishment to young ones through the mother whose hormonal level was partly balanced by Vitamin B-complex for better pregnancy may also be responsible for protection in the present study.

Conclusions

The observations from the present study demonstrates that Vitamin B-complex introduction during pregnancy is effective in inhibiting chromosomal lesions during postnatal development in mice against prenatal gamma irradiation.

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Protective effect of Bacopa monniera on the brain of D-galactose induced aging in female albino mice

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ABSTRACT

The Indian system of medicine had proposed multifaceted role of Bacopa monniera as memory tonic, anti-anxiety, anti-inflammatory, analgesic etc. Present study was undertaken to show the role of Bacopa monniera in antioxidant defense. Female albino mice of age 6 months received subcutaneous injections of 5% D-galactose 0.5 ml per day for 15 days. The experimental group received subcutaneous injections of 40 mg alcoholic extract of Bacopa monniera/ kg body weight in addition to 5% D-galactose as above. Lipid peroxidation was measured and antioxidant enzymes : Superoxide dismutase (SOD), Catalase (CAT) and Glutathione peroxidase (GPX) were studied in the different regions of the brain. Highly significant increase in lipid peroxidation and highly significant decrease in all three antioxidant enzymes was observed in D-galactose induced aging mice as compared to the control. Treatment of Bacopa monniera extract showed highly significant decrease in lipid peroxidation. The antioxidant enzyme activity was also protected by Bacopa monniera.

Key words : Aging, *Bacopa monniera,* D-galactose, Lipid peroxidation, Antioxidant enzymes.

Bacopa monniera is known as a brain tonic from time immemorial. In Charak Samhita written in 1st century (A.D.) Brahmi (*Bacopa monniera*) is prescribed to cure mental disorders leading to senility. Susrut samhita describes use of Brahmi in intellectual and memory losses. It can also improve the learning capacity (Singh and Dhawan 1982). In Ayurveda, it is also recommended as anti-inflammatory, analgesic, and antipyretic. In Indian market, there are several ayurvedic medicines containing Brahmi for the prevention of aging and cure certain age associated diseases like dementia and Alzheimer's disease. Recently, *Bacopa monniera* has been extensively studied by several workers at Central Drug Research Institute, Lucknow India. *Bacopa monniera* also has potent antioxidant capacity (Tripathi *et al.,* 1996, Bhattacharya and Ghosal 1998). In the present investigation, protective effect of *Bacopa monniera* has been demonstrated in D-galactose induced aging mice.

Materials and Methods

Female albino mice – *Mus musculus* of age 6 months were kept in aluminum cages of dimensions 260 mm × 200 mm × 140 mm at 29-30°C with a light-dark cycle of 12/12hrs. They were supplied with rat food obtained from Sagar feed Center, Kolhapur (India) and water *ad libitum*.

Bacopa monniera was collected, washed and shoots were shed dried and powdered. 200 gm power was soaked in two liters ethyl alcohol for two days and filtered through muslin cloth. Alcohol was evaporated in vacuum evaporator and extract was filtered through muslin cloth. Alcohol was evaporated in vacuum vaporator and extract was stored in a glass container at 4°C. The animals were grouped into three, each group consisting of six animals.

(i) Control group : received subcutaneous injections of 0.5 ml sterile water per day for 15 days.

(ii) Aging accelerated group received subcutaneous injections of 5% D-galactose 0.5 ml per day for 15 days.

(iii) D-galactose + *Bacopa monniera* co-treated group received subcutaneous injections of 5% D-galactose Containing *Bacopa monniera* extract, 40 mg/kg body weight 0.5 ml per day for 15 days.

All the animals were sacrificed on the next day of last treatment by cervical dislocation. The treatment schedule was designed in such a way that on the day of sacrifice the animals should be in diestrous, since it is a phase with constant estrogen level. Different regions of brain like cerebral cortex, hippocampus, corpora quadrigemina and cerebellum were dissected out for biochemical estimations.

Estimation of lipid peroxidation by TBARS test (Wills, 1966)

Tissue homogenate [2mg/ml] was prepared in the chilled pestle mortar using potassium phosphate buffer pH 7.04 containing 1mM ascorbic acid, 1mM $FeCl_3$, and 10 ppm chlorotetracycline. Lipid peroxidation was estimated in the form of MDA formed which can be measured colorimetrically, by thiobarbituric acid reaction.

Estimation of antioxidant enzymes

(a) Estimation of Superoxide dismutase : The SOD activity was measured by the method of Beauchamp and Fridovich (1971). The homogenate [10mg/ml] was prepared in 0.25 M sucrose containing 1mM EDTA. The reaction system contained phosphate buffer (pH 7.8), 0.3 ml EDTA (10mM), 1.2 ml methionine (130 mM), 0.6 ml NBT (750 μM) and SOD source i.e. tissue homogenate. Reaction was initiated by adding 0.4 ml riboflavin (60 μM) and placing all the tubes in front of fluorescent tubes (18W) and kept in a light proof chamber to avoid interference of external light. NBT was used as a substrate, which get converted into blue colored pharmazone by free radicals generated due to riboflavin and light. This blue colour was measured colorimetrically. The amount of SOD source required for half inhibition was considered to contain 1 unit of SOD.

(b) Estimation of Catalase : Catalase activity was measured by the method of Beers and Sizer (1952) in which disappearance of peroxide was followed spectrophotometrically at 240 nm. The ΔT i.e. time required to decrease the absorption by 0.05 was measured at pH 7.0.

(c) Estimation of Glutathione peroxidase : Glutathione peroxidase activity was estimated as per the modified method of Beers and Sizer (1952), in which the catalase activity was inhibited by 0.1 ml of 0.1 mM sodium azide.

Estimation of protein (Lowry *et al.* 1951) : Total tissue protein was estimated by Lowry's method for calculation of specific enzyme activity i.e. enzyme activity/ mg protein.

Statistical analysis : Results were interpreted with the help of SD and Student 't' test.

Results

Lipid Peroxidation in the form of MDA (Table-1) increased significantly ($p<0.001$) in all regions of brain in accelerated aging group as compared to the control adult. In D-galactose + *Bacopa monniera* treated group lipid peroxidation decreased significantly ($p<-0.001$) as compared aging group. These values were even lower than the control group.

Superoxide dismutase and catalase activities decreased significantly in aging group. In *Bacopa monniera* and D-galactose treated group they were protected to certain extent. The SOD and catalase values in *Bacopa monniera* treated group were higher than accelerated aging group but lower than control group. All these changes were highly significant ($p<0.001$) (Table-2 and Table-3).

Glutathione peroxidase activity decreased in all the regions of brain in accelerated aging group. In *Bacopa monniera* treated group, there was significantly higher activity of glutathione peroxidase as compared to accelerated aging group as well as control group. All changes were highly significant ($p<0.001$) (Table-4).

Discussion

D-galactose is known to accelerate the process of aging by formation of advanced glycation end products (AGEs) (Song *et al.* 1991). AGEs can increase the oxidative stress by :

* Direct radical production by chemical oxidation and degradation of AGEs : At a physiological pH, glycated proteins produce nearly 50 folds more radicals than non-glycated proteins (Mullarkey *et al.,* 1990).
* Induction of oxidative stress via AGE – receptor binding and activation of signaling pathways (Schmidt *et al.,* 1994).

Table-1 : Effect of *Bacopa monniera* extract on Lipid peroxidation (nm of MDA/ mg tissue) in various regions of brain of ageing accelerated female albino mice

Organ	Control Group (I) n = 6	Ageing acc. Group (II) n = 6	*B. monniera* treated group (III) n = 6	t-value between (I) & (II) (Statistical significance)	t- value between (I) & (II) (Statistical significance)
Cerebral cortext	1.49±0.059	2.11±0.054	0.8±0.025	19.03 (P<0.001)	51.12 (P<0.001)
Hippocampus	0.9±0.035	1.61±0.047	1.14±0.03	29.39 (P<0.001)	20.49 (P<0.001)
C. quadrigemina	1.01±0.057	1.72±0.044	0.63±0.035	24.01 (P<0.001)	46.86 (P<0.001)
Cerebellum	1.23±0.029	1.58±0.019	0.97±0.03	24.66 (P<0.001)	42.73 (P<0.001)

P<0.001 = Highly significant

Table-2 : Effect of *Bacopa monniera* extract on Superoxidedismutase activity (Units of SOD / mg protein) in various regions of brain of ageing accelerated female albino mice

Organ	Control Group (I) n = 6	Ageing acc. Group (II) n = 6	*B. monniera* treated group (III) n = 6	t-value between (I) & (II) (Statistical significance)	t- value between (I) & (II) (Statistical significance)
Cerebral cortext	22.54±1.1	2.39±0.4	12.41±0.6	42.21 (P<0.001)	33.86 (P<0.001)
Hippocampus	21.79±1.22	6.49±0.4	11.85±0.62	29.22 (P<0.001)	17.88 (P<0.001)
C. quadrigemina	30.3±1.07	4.19±0.38	12.61±0.62	56.08 (P<0.001)	28.43 (P<0.001)
Cerebellum	37.45±1.02	3.60±0.32	19.64±0.68	77.67 (P<0.001)	52.53 (P<0.001)

P<0.001 = Highly significant

Table-3 : Effect of *Bacopa monniera* extract on Catalase activity (Units / mg protein) in various regions of brain and heart of ageing accelerated female albino mice

Organ	Control Group (I) n = 6	Ageing acc. Group (II) n = 6	*B. monniera* treated group (III) n = 6	t-value between (I) & (II) (Statistical significance)	t- value between (I) & (II) (Statistical significance)
Cerebral cortext	0.091±0.0037	0.048±0.0022	0.063±0.0021	23.97 (P<0.001)	11.69 (P<0.001)
Hippocampus	0.091±0.0031	0.046±0.00105	0.064±0.0017	34.54 (P<0.001)	22.67 (P<0.001)
C. quadrigemina	0.098±0.0034	0.021±0.0015	0.026±0.0015	50.94 (P<0.001)	5.88 (P<0.001)
Cerebellum	0.107±0.028	0.053±0.0024	0.058±0.0018	4.71 (P<0.001)	4.23 (P<0.001)

P<0.001 = Highly significant

Table-4 : Effect of *Bacopa monniera* extract on Glutathione peroxidase activity (Units / mg protein) in various regions of brain of ageing accelerated female albino mice

Organ	Control Group (I) n = 6	Ageing acc. Group (II) n = 6	*B. monniera* treated group (III) n = 6	t-value between (I) & (II) (Statistical significance)	t- value between (I) & (II) (Statistical significance)
Cerebral cortext	0.032±0.00019	0.019±0.000278	0.034±0.0027	94.59 (P<0.001)	91.28 (P<0.001)
Hippocampus	0.02±0.00081	0.012±0.00027	0.022±0.0006	63.89 (P<0.001)	37.12 (P<0.001)
C. quadrigemina	0.036±0.00015	0.022±0.00093	0.037±0.00045	36.67 (P<0.001)	36.21 (P<0.001)
Cerebellum	0.031±0.00018	0.015±0.00022	0.039±0.00059	138.29 (P<0.001)	93.83 (P<0.001)

P<0.001 = Highly significant

* Respiratory burst via activation of microglia (Mc Millian *et al.* 1995).

This increased oxidative stress may be the reason for accelerated aging. Lipid peroxidation is a consequence of oxidative damage to unsaturated fatty acids. There is positive correlation between lipid peroxidation values and oxidative stress (Gutteridge, 1995, Pratico, 2002). Lipid peroxidation is a free radical related process that in biological systems may occur under enzymatic control or nonenzymatically (Francisco *et al.,* 1998). During aging there is increase in ROS production, therefore, there is increase in lipid peroxidation (Hassan 1985, Patro *et al.,* 1987). In aging accelerated group AGEs cause production of free radicals particularly superoxide radicals by various ways (Munch *et al.,* 1996). Superoxide radicals react with H_2O_2 to generate hydroxyl (.OH) radicals, which results in enhanced lipid peroxidation.

Decrease in antioxidant enzymes in D-galactose induced aging group may be a consequence of oxidative stress, which further cause increase in unscavenged free radicals. This age related decrease in antioxidant enzymes might be due to decreased protein synthesis. The age dependent decrease of protein synthesis may be due to decreased rate of transcription (Kanungo, 1980, Semsei *et al.,* 1991). High production of ROS damage DNA in various ways, like single and double strand breaks in the back bone and cross-links with other molecules, damage to four bases etc. (Beckman and Ames, 1998) leading to decreased rate of transcription and protein synthesis (Suh *et al.,* 2004) resulting in the decrease in various enzymes including antioxidant enzymes like SOD, CAT, GPX.

In *Bacopa monniera* treated group, there was significantly low level of lipid peroxidation indicating that *Bacopa monniera* is protecting the membrane lipids from free radical attack. *Bacopa monniera* contains Bacosides A and B, Betulic acid, D-mannitol, Stigmasterol, β-sitosterol etc. (Chatterji *et al.,* 1965) which might be directly scavenging the reactive oxygen species at very initial stage of lipid peroxidation chain reaction. Values of lipid peroxidation in *Bacopa monniera* treated group were lower as compared to the control group indicating that it also helps in metabolizing lipid peroxides.

Treatment with *Bacopa monniera* also protected the cells from D-galactose mediated decrease in antioxidant enzymes. The decreased values of lipid peroxidation in *Bacopa monniera* treated group as compared to the control group suggests that though there was decrease in SOD and CAT activity in *Bacopa monniera* treated group as compared to the control, the enzyme activity is sufficient to protect the cells from free radical attack. This indicates that there is overall reduction in free radical formation. The decreased SOD and CAT activity in *Bacopa monniera* treated group is not due to glycation but a feedback to decreased production of free radicals. These results suggest that *Bacopa monniera* itself scavenges free radicals and prevents further consequences.

There was highly significant increase in GPx activity in *Bacopa monniera* treated group as compared to the control in almost all regions examined. GPx is preferentially involved in lipid peroxide metabolism (Nohl *et al.,* 1979, Molina and Garcia, 1997). Hence, the results suggest that *Bacopa monniera* also stimulates the metabolism of the lipid peroxides.

All these results suggest that *Bacopa monniera* is highly protective against oxidative damage and aging induced by D-galactose. It is having multidimensional role. It itself scavenges free radicals, it balances the antioxidant enzyme system and it stimulates metabolism of oxidative wastes like lipid peroxides.

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Psychological Challenges in Menopausal Women

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ABSTRACT

Postmenopausal years are becoming a major proportion of women's life as the longevity increases. Various changing physical, social and interpersonal issues contribute to psychological status in this period; and all of these factors considerably influence quality of life. Psychiatric problems like depression, psychoses, sexual and pain disorders are commonly observed around menopause. The role of hormone replacement therapy in management is explored. These deserve further focused study to determine the phenomenology and management methods.

Keywords : Post-menopause, HRT, Psychiatric problems, Population aging, Biological factors.

Currently the social challenge is shifting from population control to the consequences of population aging in many parts of the world. The older segment of the population is increasing, and it is dominated by women. By age 85, only 45 men are alive for every 100 women (Speroff, 1996). Both men and women age and experience an age-related decline in reproductive capacity, but only women experience complete gonadal cessation (Rubin and King, 1995). Prior to the 1800s, menopause tended to occur just before death. Today's women, however, must adjust to the challenge of life (almost one third of whole life) after the loss of endogenous reproductive capacity.

Menopause is not only a marker of life stage; it also presents biological and psychological challenges unique to women. It may come as a 'sense of freedom' for many women; **i**n fact many women report an enhanced sense of well-being and enjoy the opportunity to pursue postponed goals. However, it may be associated with new onset psychiatric symptoms or may exacerbate or heighten preexisting psychiatric problems in women (Simon et al, 2000). As menopause occurs at a strategic time in life, preventive health care can have a major impact (Speroff, 1996).

Extent of the Problem

Natural menopause does not have negative mental health consequences for the majority of middle-aged healthy women (Matthews et al, 1990). General population studies show that, if at all, psychiatric morbidity is more common in women in the five years before menopause (Ballinger, 1990). The bulk of psychological symptoms associated with the menopause are actually reported during *peri*-menopause rather than after complete cessation of menses.

About half of the psychiatric morbidity is reported to be major depressive episodes (Hallstrom and Samuelsson, 1985). There were no significant differences in point prevalence or one-year onset rates of psychiatric morbidity between ages or between waves 6 years apart in middle-aged women (Hallstrom and Samuelsson, 1985).

Etiological Issues

Menopause is defined as the permanent cessation of menses that occurs after the cessation of cyclic ovarian activity (Berga and Parry, 1995; Kutty, 2005). A surgical menopause occurs when the ovaries are removed. There are many possible reasons why psychological changes are apparent following menopause. The most obvious reason is the physiological changes. The brain is a target organ for gonadal steroids. The loss of ovarian estrogen and progesterone exposure can precipitate hot flashes, decline in libido, sleep disturbances, affective complaints, and decreased memory, despite stable or improved life circumstances (Rubin and King, 1995). Activities of serotonin, acetyl-choline and nor-epinephrine in menopausal women are decreased, and their association with depression is a possibility (Halbreich, 1998).

Biological factors at the time of menopause appear to predispose women to major mental illness. A peak in the onset of bipolar

disorder, induction of rapid mood cycling, increase in number of episodes of mood disorders have been reported around menopause (Berga and Parry, 1995).

Aging is associated with declined resiliency and circadian rhythmicity in both men and women. Desynchronized or reduced biological rhythms may compromise sleep, cognition, and mood. This role of aging also has to be kept in mind while discussing the lack of ovarian estrogen and progesterone.

In addition, there are many interlinked psychological, personal and social issues, relevant at this stage of life, which contributes to psychological status of the woman. Her children leave home, the relation with her husband alters, and her own parents become ill or die (Gelder *et al.,* 2002). Loss of reproductive capacity may present a psychological challenge to those who are not reconciled to the loss of fertility.

Risk factors for psychiatric problems following menopause

Women from the lower social classes (Hallstrom and Samuelsson, 1985), divorced and the childless women and women whose menopause started early, run an increased risk of developing a mental disorder during the menopausal period.

Women who report having experienced premenstrual dysphoria are more likely to present with psychiatric symptoms at the time of the menopause (Novaes et al, 1998). Women who seek gynaecological care due to "menopausal complaints" show greater psychiatric morbidity and social dissatisfaction, a lower level of diffused social support and a higher frequency of severe life events than controls (Montero, 1993).

The difficulties women experience during the climacteric, related to the major change they are undergoing (i.e. physical, psychological, social and familial), are often linked to negative attitudes and misunderstanding concerning the phenomena involved (Grenier, 1987). According to Ballinger (1990) sociocultural and family factors are more important in the etiology of mental illness in menopausal women than physiological changes. Anxiety and depression in such women do not respond to estrogen therapy, although some cases respond to antidepressants.

Types of the Problems

The common symptoms of menopause are hot flashes, night sweats, vaginal dryness, headache, dizziness, sleep disturbances, and psychic complaints, anxiety, irritability, depressive mood, and a decrease in sexual interest and satisfaction (Kutty, 2005). Comparison among groups at the baseline and follow-up examination showed that natural menopause led to few changes in psychological characteristics, with only a decline in introspectiveness and an increase in reports of hot flashes being apparent (Matthews *et al.,* 1990).

Mood Disorders

The clinical presentation of menopause can resemble the symptoms of a mood disorder (Berg *et al.,* 2000). Although studies suggest no increased incidence of major depressive disorder, reported symptoms include worry, fatigue, crying spells, mood swings, diminished ability to cope, and diminished libido or intensity of orgasm. Depression at menopause was previously attributable to the 'empty-nest syndrome'; as this age coincides with last child leaving home for various reasons like further studies or marriage.

A peak in the onset of bipolar illness in women around the time of menopause has been observed. There is report of induction of rapid mood cycling at the time of menopause in women; an increased number of affective episodes in women coinciding with the mean age of menopause at about 50 years.

Psychoses

At menopause and afterwards, admissions for psychotic disorders for women increase more than that for men (Salokangas, 1993). There is some evidence, that estrogens as antidopaminergic agents may protect women from psychotic disorders in general and that the reduction in estrogen production may explain increased admission rate. However the patients' age at first psychiatric contact does not support the view that estrogens specifically delay the onset of schizophrenia in women (Salokangas, 1993).

Late onset Schizophrenia

Studies of late-onset schizophrenia that have included both men and women have consistently found a predominance of women, which contrasts with the preponderance of men among schizophrenic patients between the ages of 15 and 34. It has been suggested that the relative excess of dopamine type 2 (D2) receptors in young men (compared with young women) and elderly women (compared with elderly men) may help explain the age-related gender differences seen in schizophrenia. Alternatively, estrogen may help delay the onset of schizophrenic symptoms in predisposed women until after menopause; a view though still controversial.

Cognitive disorders

Serotonergic, cholinergic and noradrenergic activities of menopausal women are decreased as compared to women of reproductive age. These changes might be associated with changes in cognitive function (Halbreich, 1998).

In certain complex integrative tasks, there is no age related deterioration in women of reproductive age, but following menopause, there is a high correlation between decreased performance and age. The selective deterioration of some cognitive functions might suggest an association with the lack of estrogen. Though there are reports of improvement in cognitive functions by estrogen replacement therapy (ERT) the results are not unanimous (Halbreich, 1998).

Alzheimer's Dementia

Some of the risk factors for Alzheimer's Dementia have been shown to be more prevalent among women and to be influenced by estrogen. They include female gender itself, hysterectomy, hip fracture, hypertension, myocardial infarction, diabetes, hypothyroidism, and increased hematocrit as well as depression. Therefore, it appears logical that the lack of estrogen would be implicated in increasing the risk for Alzheimer's dementia and that ERT would be suggested as a preventive and treatment modality. Epidemiological studies have showed a lower incidence of Alzheimer's Dementia in women who received ERT. Relative risk (odds ratio) had decreased by 0.5 in some not all studies. Higher dosage and duration of ERT lower the risks for Alzheimer's dementia (Halbreich, 1998).

Sexual disorders

Hormonal changes can affect both libido and the reproductive tract (Venugopal and Biradar, 2005). Loss of estrogen with menopause or from surgical removal of the ovaries can lead to loss of vaginal lubrication and elasticity. Intercourse may be painful, or more typically, there may be less sexual sensation and decreased arousal. This may or may not decrease overall satisfaction within the relationship.

Menopause may increase sexual interest among women who earlier had an innate fear of pregnancy so long as they were menstruating (Venugopal and Biradar, 2005). Sensitivity of the clitoris and nipples remains unchanged, and hence the orgasmic experience essentially remains unaltered in quality. Sexual disorders are similar to those in younger population except that they are confounded by the physiological changes.

Dyspareunia is a common problem in postmenopausal women. Besides the falling hormonal level and its resultant change in the genital tract, other causes include skin diseases, faulty technique, infections, 'angle of dangle' (penile angle), endometriosis and pelvic inflammatory diseases. An important component of management is education regarding the nature of changes. Lubricant jelly and hormonal treatment may help (Venugopal and Biradar, 2005).

The female sexual arousal disorder seen after menopause may be due to alterations in testosterone, estrogen, prolactin, and thyroxin concentrations. Postmenopausal women require longer stimulation for lubrication to occur, and there is generally less vaginal transudate. An artificial lubricant is frequently useful in that situation.

Avis *et al.* (2000) found that besides the biological factors other issues also significantly contribute to the sexual functioning of menopausal women. Health, marital status (or new partner), mental health, and smoking had a greater impact on women's sexual functioning than menopause status. Menopause status (*pre, peri, and post*) was significantly related to lower sexual desire, a belief that interest in sexual activity declines with age; and women's reports of decreased arousal compared with when in their 40s contribute to slower sexual functioning. Other contributing factors are level of sexual satisfaction, desire, frequency of sexual intercourse, difficulty reaching orgasm and pain.

Pain Disorders

Physical pain is known to be associated with psychological distress. Headaches, genitourinary symptoms and musculoskeletal symptoms are reported following menopause. The frequency of migraine attacks generally decreases dramatically after menopause, unless ERT is administered. In addition, a proportion of menopausal women may suffer from somatoform pain disorder.

Premature menopause and Psychiatric Problems

Experience of premature menopause comes as a shock for many women (Boughton, 2002). It is perceived as a major epiphany in their lives and they are confronted with a multitude of issues related to the timing of the event and their embodied understanding of menopause. Premature menopause may lead to multiple disruptions in the women's lives; many aspects of which seems to be 'out of synchrony' (Boughton, 2002).

Women with premature menopause report high levels of depression and perceived stress, and low levels of self-esteem and life satisfaction, compared to the general population. Self-reports on several dimensions of sexuality are significantly more negative. The following factors could affect the degree of reported distress: age, age at diagnosis, time since diagnosis, already having children, being in a long-term relationship, or having psychological treatment in the past or present. The results suggest that premature menopause could pose significant psychological difficulty for a sizeable proportion of those who suffer from it. It is argued that the provision of psychological care should be an integral part of clinical management of premature menopause (Liao *et al.,* 2000).

Management Issues

Concepts of menopause as disease or as normal development are still being discussed and debated as well as issues related to "care or cure" interventions for menopausal women (Herrick *et al.,* 1996); while some suggest to celebrate this passage rather than deny it. Management of psychiatric problems in postmenopausal women requires special attention to changed physiological status and associated age related physical morbidity. Side effects of many psychotropics may exacerbate some of the menopausal symptoms and this needs to be specifically addressed.

Role of Hormone Replacement Therapy in psychological symptoms related to menopause

Hormone Replacement Therapy (HRT) is currently indicated for prevention of osteoporosis, cardiovascular problems, menopausal genitourinary problems, menopausal symptoms of hot flashes and insomnia.

There are numerous reports of improvement of well-being in healthy non depressed post menopausal women who are taking estrogen for prevention of osteoporosis and cardiovascular disorders (Halbreich, 1998). Although most advocate estrogen replacement, combination androgen-estrogen replacement therapies may be superior for reinstating energy, a sense of well-being, and libido. The adrenal hormone dehydroepiandrosterone (DHEA) is an androgen currently being promoted as a dietary supplement to restore a sense of well-being, but few data are available on its long-term safety and effects.

Some evidence suggests that estrogens may have some antidepressant effects in postmenopausal women and that progesterone may be depressogenic. Attempts to augment tricyclic drugs with estrogen have been mixed. More-recent data suggest that estrogens modulate the effect of serotonin agonists. In addition, preliminary data indicate that postmenopausal women who are on hormone replacement therapy are more likely to have a robust response to fluoxetine treatment for major depressive disorder than those who are not. Administration of estrogen as an adjunct to antidepressants is an exciting possibility (Stahl, 1998).

HRT especially ERT is now being suggested for prevention and treatment of menopause related decrease in cognitive functions as well as prevention of dementia of Alzheimer's type in women (Halbreich, 1998). Most studies indicate that ERT is associated with better performance on neuropsychological tests, particularly in measures of verbal memory and fluency. The data also supports claims that ERT reduces the risk of Alzheimer's disease in later life and improves response of patients to anticholinesterase treatment (Almeida, 1999).

However there are many studies with results that did not support the estrogen effectiveness in managing psychological issues in menopausal women. There was no significant difference in well-being

between the groups treated with estrogen and placebo, in postmenopausal women without vasomotor complaints (Skarsgard, 2000). Anxiety and depression in many menopausal women do not respond to estrogen therapy, although some cases respond to antidepressants (Ballinger, 1990).

Data on the effects of testosterone is sparser. Preliminary findings suggest that testosterone therapy may improve mood when used in isolation or in association with estrogen (Almeida, 1999). In women who have undergone oophorectomy and hysterectomy, transdermal testosterone improves sexual function and psychological well-being (Shifren *et al.,* 2000). The effects of testosterone on cognitive functioning are less clear; some studies indicate that the administration of testosterone to non-demented subjects is associated with better visuospatial functioning and deterioration of verbal skills.

In summary, gonadal hormones seem to modulate various aspects of mental functioning. If future studies prove this to be true, HRT should have a major impact on the physical and mental health of older people in the years to come (Almeida, 1999). However, the use of HRT in postmenopausal women must also consider the risks and benefits of such treatment for each individual woman (Sherwin, 1998). There are concerns that by suggesting all post menopausal women are in need of hormonal/medicinal intervention, menopause is being medicalised (Meyer, 2001).

Psychosocial Intervention

The uncertainty and confusion of the women about symptoms of menopause are exacerbated by the lack of consistent health-related information in this area. Giving information (Banister, 2000) and increasing awareness (Grenier, 1987) are important aspects in managing menopausal challenges. Negative societal attitudes about aging women also contribute to the agony of this transitional phase. It is important that the information is given in various ways not only to menopausal women, but also to the society at large.

Centres where the issues specific to menopause are dealt in a multidisciplinary approach have been developed such as ‘a model centre for midlife women’ (Simon et al, 1998) and ‘menopause support centre’ (Boughton, 2002). Most women who are referred for psychiatric services report a positive experience with the services

provided by outpatient psychiatrists and report being very satisfied with their treatment. The proponents of these centres feel that this represents a unique way to identify and treat psychiatric disorders in a patient population that may be at high risk for depression and other psychiatric disorders.

Conclusion

Menopause comes as a strategic period of woman's life with various changing psycho-socio-biological issues, which makes her vulnerable for many psychological problems. The complex interaction of various influencing factors, the manifest symptoms and management issues deserve attention. There is a great need for further focused research in this area.

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Assessment of Financial Planning for Old Age: Support among the Elderly in South-Western Nigeria

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ABSTRACT

This study explores the assessment of financial planning for old age support among the elderly population in the informal sector in Nigeria. Up till date, the only recognized form of support for old age in Nigeria is through pension scheme which is greatly limited to those who retire from the formal sector, especially government establishment. For those in the informal sector, the issue of old age support is largely through personal efforts. The current research effort aimed at providing an empirical insight into issues of financial planning as well as expectation of financial support among this subset of the population. Data for the paper was collected from 455 respondents through structured questionnaire. We used a Likert-type rating scale to investigate their attitude towards financial planning as well as expectation in old age. The findings revealed that about 25 percent among the elderly had no bank savings, 60 percent had no investment in securities or shares, and about 80 percent had no insurance policy.

It is desirable that government should provide adequate policy and programme to cater for the needs of this set of people. Also, the traditional form of support for the elderly should be strengthened. Deliberate policies towards alleviating poverty in old age should be accorded concerted efforts by government and private institutions.

Keywords : Oldage support, Financial planning, Government private agencies.

In almost all western societies, governments have developed mechanisms to provide income security for their older citizens as part of the social safety nets for reducing poverty. Income sources in old age in these societies consist of three major sources; social security, personal savings and employers-sponsored retirement plans. However, income security in old age is now a worldwide problem, though its manifestation differs in different parts of the world (World Bank Report, 1994). The world wide problems can be associated with the following; the informal community and family based arrangements are weakening (Mitchel, B. 1982); the formal programmes are beset by escalating costs that require high tax rates and deter private sector growth- while failing to protect the old (World Bank Report, 1984).

In this discourse, we viewed old age financial planning as; (a) means of facilitating peoples efforts to shift some of their income from their active working years to old age, by saving or other means; (b) redistributing additional income to old age who are lifetime poor, but avoiding perverse intra-generational redistributions and unintended inter-generational redistributions; (c) providing insurance against the many risks to which the old are especially vulnerable; (d) minimizing hidden costs that impede the growth- such as reduced labour employment, reduced savings, heavy administrative expenses and evasion; (e) being sustainable, based on long term planning that takes account of unexpected changes in economic and demographic conditions, some of which may be induced by the old age system itself; and (f) being transparent, to enable workers, citizens, and policy makers to make informed choices, on isolated from political manipulations that lead to poor economic outcomes (World Bank Report, 1994).

In Nigeria, pension is only available to those who retired from pensionable jobs. These Nigerian retirees face a lot of problems. For

instance, their gratuities and pension are either not paid at all, or irregularly paid. In addition, the Nigerian government has not indexed pension to inflation, thus Nigerian workers are poorly protected in their old age. Whereas, the situation of financial support is very poor among retirees from the formal sector, the situation among those in the non-formal sector is worse, particularly for those who are self-employed. This includes the artisans, farmers and petty traders. The financial security in old age of this category of Nigerians is usually the preserve of informal or traditional arrangements. The traditional arrangement is currently facing some crises and gradually fading away. For instance, the poor state of the nation's economy weakens these informal arrangements. In addition, families now become smaller and more dispersed.

Although traditionally the family was the single most important source of support for the older adults in sub-Saharan Africa (Adamchak et al., 1991; Adamchak, 1996; Nyanguru, 1994; Nyanguru et. al., 1994 and Wilson et. al., 1991), the current demographic and social changes occurring in Nigeria and elsewhere in Africa have disrupted some of the inbuilt safety nets that were in place for the older adults. There is till date, a dearth of empirical investigation into securing income in old age in Nigeria. To the best of our knowledge, there is no published research work on old age security among women. Demographic figures attested to the fact that women live longer than men (United Nations, 2002), and thereby require unique old age planning needs. Partly because they live longer and partly because they dis-engage from active work earlier, they have very peculiar old age financial needs.

This current research effort is therefore justified on providing empirical data to explore issues of financial planning among the elderly in the informal sector. Among issues considered are to; examine gender disparity in old age financial planning; explore information on planning as well as expectation of old age support; and investigate the most likely financial plans as well as expectation this group of people have for old age support.

Method

Sample size and Instrument of the study

Data for this survey were collected from five local government areas of Osun state, Nigeria. At the initial stage of sampling size determination, we aimed at a sample of 500 elderly respondents out of which 455 duly completed copies of the questionnaire were returned and analysed for the current study. The sample for the study consists of 455 elderly populations drawn from varied socio-economic background but who are either in or have disengaged from informal employment sector.

The instrument used for the study is a set of questionnaire that consists of 3 sections. Section 1 explores the socio-demographic characteristics of the respondents; section 2 involves 10 variable items in order to measure individual planning towards old age; while section 3 utilized a set of 20 questions to measure expectation for old age support among the respondents. Likert-type rating was used for the questionnaire design.

Measures

Financial planning for old age support was measured based on a ranked 10-variables questions scale. The ranking was based on responses to variables as; 70% or more -5 points; 50-69% -4 points; 20-49% -3 points; 5-19% -2 points; and None-1 point. Individual respondents were scored using this ranking and the aggregate points were computed. The highest mark obtainable is 50 points (if 70% and above was chosen through the 10 variables) while the lowest is 10 points (if none was chosen across the 10-variables).

Expectation for old age support was measured based on a ranked 20-variables questions scale. The ranking was based on responses to variables as done for financial planning stated above. Individual respondents were scored using this ranking and the aggregate points were computed. The highest mark obtainable is 100 points (if 70% and above was chosen through the 10 variables) while the lowest is 10 points (if none was chosen across the 10-variables).

Characteristics of Sample population

The proportion of male to female is 49.7 to 50.3. The age range is 44-95 years (M=56.2, SD=12.4). Overwhelming proportion of the respondents (85%) reside in the urban area. About 3 percent of the respondents were never in marital union while 82 percent are currently married. Those out of marriage (divorced, separated or widowed)

constituted about 15 percent. Among those who are currently married or formerly in marriage union, about 3 out of 10 were in polygyny while 3 out of 5 are in monogamous marriage, and 1 out of 10 is in either the second or higher marriages. About 1 out of 4 respondents had no formal education, almost 1 out of 4 had primary school completed while half had a high school certificate or higher. Considering religious affiliation, about 70 percent are Christians while less than 30 percent are Moslems. About 3 out of 5 males are currently living in the same household with their wife/wives and at least an adult child compared with 2 out of 5 among females. On the contrary, more elderly females are currently co-residing with an adult child's family. Table 1 presents the details of respondents' background information.

Table1: Percent distribution of respondents by background information

	Male (n=226)	Female (n=229)
Residence		
Urban	85.8	83.4
Rural	14.2	16.6
Age as at last birthday		
Less than 45 years	21.7	23.1
46-50 years	19.0	24.0
51-60 years	28.3	27.5
61-70 years	17.7	14.0
71-80 years	6.2	4.4
81 years and above	7.1	7.0
Marital Status		
Single	5.3	0.0
Married	87.2	82.4
Others[1]	7.5	22.3
Type of Marital Union[2]		
Polygyny	26.2	30.6
Monogamy	67.3	55.0
2nd or more marriages	6.5	14.4

Educational level		
Higher Degree	22.0	10.1
NCE, OND, A/Levels	5.0	3.1
Ordinary Level (GCE/WASCE)	35.8	25.3
Primary school	21.2	26.6
No Schooling	16.0	34.9
Religion Affiliation		
Christians	27.9	30.6
Muslims	69.0	65.9
Others	3.1	3.5
Living Arrangement		
Living with spouse only	8.4	13.5
Living with spouse and at least a child	64.6	44.1
Living alone	12.8	14.0
Living with house help or extended relations	4.4	1.8
Living with an adult daughter and her family	1.3	6.1
Living with an adult son and her family	2.7	5.2
Living with an unmarried child	5.8	15.3

Financial Planning

In this section, we explored possible financial planning prospect for enhancing financial needs in old age. The analysis showed that about 1 out of 5 respondents had no savings in either the bank or cooperative societies. A significantly high proportion of the respondents (about 80%) had no savings in the informal sector and more than 3 out of 5 of the respondents had no investment in shares or in the capital market.

More than 4 out of 5 had no insurance policy, and more than 70 percent had no inheritance that could be regarded as a source of income. More than half had no landed property or any investment in agriculture. More than half of the respondents had their income invested in personal businesses. About 1 out of 5 had about 70 percent of their income on landed property while about 3 out of 10 of the respondents had investment in agriculture. Table 2 presents the data:

Table 2: Percent Distribution of Respondents' by Financial Planning

Variables	Male (n=226)	Female (n=229)
Savings in the bank		
None	39.4	46.4
5-19 percent	16.4	13.6
20-49 percent	9.7	10.3
50-69 percent	12.8	11.9
70 and above	21.7	17.8
Savings in cooperative societies		
None	36.7	45.0
5-19 percent	21.7	14.9
20-49 percent	15.9	12.7
50-69 percent	15.5	14.4
70 and above	10.2	13.1
Savings in informal organizations		
None	76.1	84.7
5-19 percent	5.8	4.4
20-49 percent	7.5	4.4
50-69 percent	7.1	4.8
70 and above	3.5	1.8
Buying shares		
None	62.8	76.0
5-19 percent	8.0	6.1
20-49 percent	9.7	7.0
50-69 percent	11.1	5.7
70 and above	8.4	5.2
Insurance policy		

None	78.3	87.0
5-19 percent	9.3	5.2
20-49 percent	7.1	2.2
50-69 percent	3.1	1.3
70 and above	2.2	4.0
Investment in personal businesses		
None	12.8	12.2
5-19 percent	8.0	5.2
20-49 percent	19.0	14.4
50-69 percent	23.5	23.1
70 and above	36.7	44.5
Investment in joint business		
None	84.5	87.3
5-19 percent	3.1	3.0
20-49 percent	4.9	4.4
50-69 percent	6.2	3.9
70 and above	1.3	1.3
Investment in family business through inheritance		
None	70.8	78.2
5-19 percent	14.2	7.4
20-49 percent	9.3	7.4
50-69 percent	3.5	5.7
70 and above	2.2	0.9
Investment in landed property		
None	41.2	54.2
5-19 percent	26.6	18.3
20-49 percent	12.8	10.5
50-69 percent	9.3	10.9
70 and above	10.2	6.1
Investment in agriculture		
None	47.8	54.2
5-19 percent	17.3	12.2
20-49 percent	4.0	8.3

50-69 percent	10.2	14.0
70 and above	20.8	11.4

Expectation of Financial Support in Old Age:

More than half of the respondents had a high expectation from their adult children for financial support in old age. With males having 50% while females being 74%. Equally, about half of the respondents also have a high expectation from the investments they have made in their personal businesses. Those who are expecting their support from agriculture is just 20%.

However, some of the respondents (about 70%) had no expectation from their spouses. More than 50% had expectation from their in-laws and kins. Almost 4 out of 5 had no expectation from friends and family business or joint business. 4 out of 5 of the respondents had no expectation from insurance policy while almost all the respondents (about 90%) had no expectation from the government, community, NGOs as well as voluntary organisations.

Table 3a: Percent Distribution of Respondents by Expectation of Financial Support for old age

Variables	Male (n=226)	Female (n=229)
Adult Children		
None	11.1	6.1
5-19 percent	15.5	5.7
20-49 percent	23.0	14.0
50-69 percent	19.5	21.4
70 and above	31.0	52.8
Spouse/spouses		
None	66.8	71.6
5-19 percent	15.9	10.0
20-49 percent	8.0	10.9
50-69 percent	8.0	5.7
70 and above	1.3	1.8
In-laws		

None	54.9	61.1
5-19 percent	28.8	24.5
20-49 percent	11.1	8.3
50-69 percent	4.0	6.1
70 and above	1.3	0.0
Kins and close relatives		
None	65.5	66.4
5-19 percent	23.01	23.1
20-49 percent	5.3	6.1
50-69 percent	5.3	3.9
70 and above	0.9	0.4
Neighbours/Acquaintances		
None	78.3	84.3
5-19 percent	12.8	8.3
20-49 percent	5.3	3.1
50-69 percent	2.2	3.1
70 and above	1.3	1.3
Family friends		
None	72.1	76.4
5-19 percent	14.2	10.9
20-49 percent	7.1	6.1
50-69 percent	4.4	3.9
70 and above	2.2	2.6
Personal businesses/Savings		
None	20.8	28.0
5-19 percent	7.5	11.8
20-49 percent	21.7	19.2
50-69 percent	23.0	24.5
70 and above	27.0	16.6
Joint business		
None	81.4	85.6
5-19 percent	4.0	2.6
20-49 percent	6.6	5.7

50-69 percent	6.6	3.5
70 and above	1.3	2.6
Family business		
None	76.6	81.7
5-19 percent	9.3	5.2
20-49 percent	7.1	5.2
50-69 percent	4.4	5.2
70 and above	2.7	2.6
Landed property		
None	46.5	59.0
5-19 percent	25.2	17.5
20-49 percent	13.3	10.9
50-69 percent	7.1	7.0
70 and above	8.0	5.7

Table 3b: Percent Distribution of Respondents by Expectation of Financial Support for old age

Variables	**Male (n=226)**	**Female (n=229)**
Agriculture		
None	52.2	61.1
5-19 percent	16.4	7.4
20-49 percent	5.3	11.0
50-69 percent	9.7	15.3
70 and above	16.4	5.2
Insurance Agents		
None	82.7	87.0
5-19 percent	7.1	4.8
20-49 percent	4.9	3.1
50-69 percent	2.2	1.8
70 and above	3.1	3.5
Local Government		
None	85.8	87.8

5-19 percent	4.9	3.9
20-49 percent	3.5	4.8
50-69 percent	5.3	2.2
70 and above	0.4	1.3
State Government		
None	82.3	85.6
5-19 percent	5.8	4.4
20-49 percent	6.2	4.4
50-69 percent	4.4	3.5
70 and above	1.3	2.2
Federal Government		
None	81.4	87.0
5-19 percent	6.2	6.1
20-49 percent	5.3	3.1
50-69 percent	4.0	2.2
70 and above	3.1	1.8
Community		
None	87.2	90.4
5-19 percent	6.2	5.7
20-49 percent	4.0	2.6
50-69 percent	1.8	0.9
70 and above	0.9	0.4
Church/Mosque		
None	83.2	87.0
5-19 percent	8.0	7.0
20-49 percent	4.4	3.1
50-69 percent	2.2	1.8
70 and above	2.2	1.3
NGOs		
None	87.6	89.1
5-19 percent	8.9	6.1
20-49 percent	2.7	2.2
50-69 percent	0.9	1.8

70 and above	0.0	0.9
Junior colleagues		
None	85.0	90.0
5-19 percent	10.2	6.1
20-49 percent	3.1	2.6
50-69 percent	1.3	1.3
70 and above	0.4	0.0
Voluntary organizations		
None	82.3	86.5
5-19 percent	13.3	5.7
20-49 percent	3.1	4.4
50-69 percent	0.8	3.5
70 and above	0.4	0.0

Results and Discussions

Based on the Likert-type ranking and scoring measure employed, the highest score for planning is 45 points (out of the 50 points obtainable). About 82.4 percent fall below the middle line (25 points). About 7 percent had the average score, while about 11 percent had above average score. This is an indication that only about 10 percent had financial plans for old age support. According to expectation of financial support, only about 10 percent had high expectation from all the 20 variable scales considered.

Evidently, it can be established that people earn less as they aged, particularly in developing countries. Arising the findings from this survey, elderly in informal sector hardly have serious plans for dis-engagement from workforce. It is therefore recommended that government should provide income security to the older citizens in the informal sector. This arrangement will serve as a societal safety nets for reducing poverty in old age. It is further recommended that such assistance be subject to a means-test to prove they are worthy of support. This should include medical, food as well as housing support.

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Footnotes

1 This includes Divorced, Separated and Widowed

2 Among those who are either currently or formerly married (n=443, male-214, female-229)

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Problems of Elderly Women in India and Japan

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ABSTRACT

Graying of population is one of the most significant characteristics of the 21st century. Rapid ageing trends present new challenges to governments, communities, families and the elderly themselves. Elderly women are a significant group of the society. Addressing their agendas in familial, social and economic spheres is imperative for improving their overall status and in turn, the society's as well. This paper describes the result of a comparative study to examine the problems faced by elderly women in India and Japan. I t aimed at highlighting the problems of aged women in a developed country as against a developing country. Empirical data was collected from representative samples of elderly women from both the countries.

Keywords : Ageing; Elderly Women; Problems; Developed and Developing countries.

Old age is a universal phenomenon. With varying degrees of probability, individuals survive childhood, grow to maturity and become old, in all societies. In the Indian context, people who have attained 60 years and above are considered old, whereas in developed countries it begins only at 65 years (Mahadevan et al, 1992).

The problem of old age is now generally recognized as one of the most pressing of our domestic issues. Continued growth of the population coupled with increasing life expectancy as a result of improvement in health and medical facilities is giving rise to larger numbers and proportions of older people in nearly all societies. As the proportion of aged people is gradually increasing, the number of the elderly women is also increasing. In India 6.5% of the population are above 60 years. The percentage of female population aged 60 years and above constitutes 8.9% as against 8.0% of male population (Renganath, 2002). According to Census (2001), the life expectancy for males is 63.1 years and for females 64.1 years in India.

As far as Japan is concerned, the society is ageing faster than ever before and this trend is particularly prominent for women. The elderly population of Japan accounts for 19.5% of the total population. It is estimated that 19.4% of all women (17% of the total population) are in the elderly age brackets. Average life expectancy is 85.59 years for women and 78.64 years for men. Japan's life expectancy remains the highest in the world (Ministry of Health, Labor and Welfare, Japan, 2004).

Older women are facing with different problems in most of the countries. Due to socio-technological changes, loss of joint family, changing values, dual career families etc, the position of elderly women has become deplorable (Ramamurthy, 2003). Illiteracy, absence of a steady dependable income, lack of employment opportunities, irregular and inadequate pension system and inadequate social security programmes aggravates the elderly women's problems in India.

In Japan, the rapid modernization, migration and increase in women's education and employment lead to an increase in nuclear families and a decrease in traditional joint families. Now the elderly in Japan tend to live separately and independently of their children. But most of the Japanese elderly are in a better financial status today as a result of various forms of public pensions, other savings, employment opportunities and social security packages (Japan NGO Report Preparatory Committee, 1999).

Relevance and scope of the study

The findings of the study will certainly help the planners and policy makers to develop new policies and strategies to improve the status of elderly women. I t also expected to enlighten policy makers regarding the needs of the elderly and to indicate remedial measures. By identifying the various factors that contributes to the better status of aged women in a developed country like Japan, a developing nation like India can adopt the better practices prevailing in that country for the upliftment of elderly in our country.

Objectives of the study

1. To trace the common social, economic and psychological problems of the aged women in India and Japan.
2. To find out the health problems commonly faced by elderly women
3. To assess the elderly's preference in spending their old age
4. To elicit suggestions by the aged women for the welfare of elderly.

Methodology

The study was carried out in India and Japan. Purposive sampling was adopted to select the areas for the study. Tokyo, the capital city of Japan was selected for conducting the study in Japan. In India, the study was carried out in Thiruvananthapuram city, the capital of Kerala State.

The sample consisted of 300 women aged 60 years and above. One hundred and fifty women each were selected from both the countries. The selection of respondents was made based on the occupation of the respondent's or their husband's occupation. To get representation from all categories of population, the respondents were selected from Class I, Class II and Class III workers. Fifty respondents were selected from each of these categories from both the countries.

Method of data collection

The tools utilized for collecting the data were Questionnaire and Check list. Questionnaire was used to collect information on the respondent's socio economic background, preference in spending old age and various health problems faced by them. To understand the

common social, economic and psychological problems of the aged women, a Check list was used.

The collected data was analyzed and discussed.

Results and Discussion

Table 1 : Personal variables

Categories	No. of Respondents	
	India	**Japan**
Level of Education		
Up to 7th Standard	53(35)	39(26)
8th to 10th Standard	40(27)	60(40)
Pre-Degree	15(10)	17(11)
Graduate	24(16)	13(7)
Post-Graduate	8(5)	21(14)
Professionally qualified	10(7)	Nil
Employment Status		
Employed	7(5)	31(21)
Unemployed	115(76)	88(58)
Retired	15(10)	4(3)
Self Employed	12(8)	6(4)
Part Time	1(1)	21(14)
Family type		
Nuclear	143(95)	119(79)
Joint	7(5)	31(21)

Figures in parentheses denote percentage

It is clear from Table 1 that the proportion of employed respondents was high in Japan. "In Japan, where a retirement age is normally set at age 60, many corporations keep or rehire their employees after a mandatory retirement, resulting in higher employment rates among seniors" (Yoshida, 2003). According to the Labour Force Survey (2002) by the Ministry of Public Management, Home Affairs, Posts and Telecommunications, Japan, 13.3% of females aged 65 and over were in the labour force.

"In Japan, like the other East Asian countries the concept of "work" is not just "labour". Work can give the elderly senses of responsibilities and mission as well as rhythm in life, which they know are good for their physical and mental health" (Yoshida, 2003). "Even if the elderly do not need the earnings, they don't retire from their

jobs, because they work for self satisfaction, for friendly relations with colleagues and for the realization of their social participation" (Naganawa, 1997).

In 1986, the Law for Employment of the Elderly was revised and became the Law Concerning the Stabilization of Aged Workers Employment in Japan.

To guarantee the right to work for those aged 55 years and over, the law stipulates a moral obligation for employers to set the minimum retirement age at 60. I t also encourages them to provide employment opportunities for workers aged 60 and over.

The Government is promoting employment measures based on this law with an emphasis on the following points,

1) Require enterprises to extend mandatory retirement age to 60, and to employ older persons at the same enterprise or its affiliated companies until about age 65,
2) Reinforce the services at employment counseling offices to promote early re entry of unemployed elderly
3) Assist enterprises to encourage temporary and short – term employment for those who leave their jobs after the mandatory retirement age (Naganawa, 1997).

In India, the elderly especially in rural areas work mainly for economic reasons. According to Census (2001), 10.9% of rural elderly women and 4.6% of urban elderly women aged 60 and over were in the labour force. Higher proportion of rural elderly women continues to work than the urban elderly to meet their economic demands. The reasons such as the absence of adequate old age pension and wage employment forces them to be economically active till they are able to do so.

Considerable variation was observed on the level of personal income between the two samples. A high majority of respondents (91%) selected from Japan had regular personal income compared to 37% of respondents from India.(Table -2).

In Japan the pension system is very prompt and the employment rates of elderly in wage employment are high. Pension is one of the major components in the social security package for elderly and is distributed promptly. In 1985, Japan introduced the national basic

pension system, in which all citizens were to participate. All Japanese citizens between the ages of 20 and 60 must join one of following three public pension systems;

1. The National Pension System – a public programme, for the self employed and housewives;
2. The Employee's Pension Fund and Mutual Aid Pension – a public system, involving salaried personnel and public workers; and
3. A defined benefit pension programme and/ or a defined contribution pension programme, which are add on to the above.

The benefits for the elderly are paid by younger generations aged 20 and over as pension premiums (Yoshida, 2003).

In India fewer employment opportunities and poor pension system make elderly deprived of having a fixed regular income. The present old age pension is inadequate in quantum and incomplete in its coverage. The pension offered is almost static or the increase if any has been very negligent and is not commensurate with the cost of living which is galloping on a month to month periodicity. Most of the elderly have no other personal income to mention as a supplement to the pension.

The data revealed that a good majority of respondents from Japan (85%) were not depending on their children financially as against 63% in India. (Table -2). This again clearly shows the sound financial status of elderly in Japan. In the absence of a steady dependable income, inadequate pension and lesser employment opportunities forces most of the elderly to be dependent on their children financially in India.

Table 2 : Economic status of respondents

Categories	No. of Respondents		z
	India	Japan	
Respondents having: Regular personal income	55 (37)	136 (91)	9.723**
Financial dependence on children: Not depending	94 (63)	127 (85)	4.326**

Figures in parentheses denote percentage

** - significant at 0.05 level*

*** - significant at 0.01 level*

Regarding the respondent's membership in old age clubs and similar organizations, it was found that 99% of elderly women had membership in such organizations in Japan compared to 18% of respondents from India. (Table-3).

In Japan among the initiatives by the elderly, old age clubs are prominent as bases for various programmes. To help people enjoy their old age, elderly people are encouraged to utilize their wealth of knowledge and experience as active members of society by participating in old age club's activities. Most of the elderly women belong to old age clubs which provide community service, group study and recreation. In addition, Welfare Centers operating for the aged, offer education, recreational and consultation services with little or no cost. Subsidies are furnished to elderly person's clubs involved in community service and other activities that provide aged people with value in life (Goodman, 2002). But such a feature is not common in India.

Table 3 : **Distribution of respondents based on the membership in old age clubs and Club activities**

Particulars	**India**	**Japan**	**z**
Respondents having membership in Old age clubs	27 (18)	149 (99)	14.304**
Club activities:			
Religious	17 (63)	35 (23)	4.136**
Educational	6 (22)	31 (21)	0.166
Recreational	5 (19)	114 (77)	5.925**
Social work	1 (4)	71 (48)	4.273**

Figures in parentheses denote percentage

** -significant at 0.05 level*

*** - significant at 0.01 level*

Out of 27 respondents who had membership in Old age clubs, majority (63%) participated in religious activities of the clubs in India. But majority of respondents from Japan (77%) participated in the recreational activities of the clubs. (Table-3).

Religion plays a major role in the life of Indian people. Religious thrust is there in most of the activities of elderly in India because of the India tradition. This could be one of the reasons for the pronounced religious activities in old age clubs in India. In Japan religion does not play any role in the routine activities of people. The elderly's activities are focused on recreation and education. This reason can be attributed to the increased recreational activities among the old age club proceedings in Japan. It was also observed that the proportion of respondents who had participated in 'social work' was high in Japan -48% compared to 4% in India.

According to Yoshida (2003) "the Japanese elderly, with financial security through pension and other sources are trying to find true 'meaning of life' and their interest in social work and volunteer activities has been growing in recent years"

Preferences in spending the Old Age

The study revealed that majority of respondents from India (77%) preferred to spend their old age in their own home whereas in Japan only 27% of the respondents preferred their own homes. I t was also found that 51% of respondents from Japan preferred 'nursing homes/care houses' to spend their old age whereas in India no respondents preferred 'nursing homes/care houses'. Twelve percent of respondents from Japan preferred 'old age homes' as against 1% in India. (Table-4).

The preference for living in 'nursing homes/care houses' and 'old age homes' among the respondents from Japan could be due to the higher standard of services and care these institutions provide to elderly people.

Home help services, special nursing homes for elderly, care houses, health facilities for the elderly, every day welfare centers for elderly etc have been developed by the Japanese government in 1994, which were designed to give every Japanese peace of mind in approaching old age. These facilities provide care to elderly persons who are unable to receive proper care at home and those who need constant medical attention. The aim is to give elderly people access to health and welfare services tailored to the requirements of both elderly and their care givers and to improve the standard of welfare for both elderly people and the families (Prime Minister's Office, Japan, 1995).

In India old age care in care houses and old age homes is not a common feature. The preference for living in one's own home among the respondents from India could be due to the Indian tradition of people's love for ownership possession as well as for sentimental reasons. Traditionally people in India love to live in their own homes.

Table 4 : Preference in spending the Old age

Particulars	No. of Respondents		z
	India	Japan	
Old age homes	2 (1)	18 (12)	3.703**
Nursing homes/Care houses	-	77 (51)	10.178**
With sons	21 (14)	17 (11)	0.694
With daughters	14 (9)	15 (10)	0.195
Own home	116 (77)	40 (27)	8.783**

Figures in parentheses denote percentage

- **- significant at 0.05 level*
- *** - significant at 0.01 level*

PROBLEMS FACED BY ELDERLY WOMEN

Ranking of various , social ,economic and psychological problems of respondents revealed 'Health Problems' as the major problem and ranked first among the respondents from India. But among the respondents from Japan the problem 'Fear of Death' got the first position. But the same problem got only the 11th position among the respondents from India. (Table-5).

Majority of elderly have faith in religion in India. According to Patel and Broota (2000), "religious activities affect the older person's adaptation to ageing. The general loss of religious belief in any society may produce a feeling of uncertainty." The lack of religious belief could be the reason why 'fearing death' was high among Japanese elderly.

'Financial difficulties' stood out as the 4th problem among the respondents from India whereas it ranked only 15th in Japan. It is obvious that the better financial status of elderly in Japan could be the result of various forms of public pensions and employment opportunities for the aged.

Table 5 : Problems Faced by Elderly women

	Rank	
	India	**Japan**
Rude behaviour of children	19	6
Children do not care	15	16
Children do not visit as often	18	14
Economic exploitation by children	20	8
Fear of death	11	1
Feel dejected	14	22
Feeling lonely	6	21
Financial difficulties	4	15
Forced to look after grand children e ven though tired	17	4
Health problems	1	2
Ill treatment in public places (Buses, queues, hospitals etc)	21	13
Lack of caring attitude by daughter in law	13	12
Lack of good friends to share feelings	5	18
Lack of recreational facilities at home	7	7
Lack of emotional support from the spouse	12	5
Lack of time to take rest	9	11
Money is not enough for recreation	2	3
Nobody to help when sick	3	19
Nobody to talk	10	20
Physical abuse by children	22	17
Physical abuse by husband	16	10
Not able to move around	8	9

HEALTH PROBLEMS FACED BY ELDERLY WOMEN

Some of the respondents had one or other illness and some of them reported a combination of ailments.

Visual problem difficulty in walking, heart problem, diabetes mellitus, rheumatoid arthritis, osteoporosis, hypertension, fatigue and other health problems were high among the respondents from India. Significant difference was observed on the incidence of these diseases between the samples. I t is clear that the incidences of various diseases was high among the respondents from India.(Table-6).

The higher incidence of liver disease among Japanese respondents (47%) compared to India (8%) is clear from the table. A possible reason for this could be the higher consumption of alcoholic beverages among the Japanese people including the elderly.

Table - 6 : Health problems faced by elderly women

	No. of Respondent		**Z**
	India	**Japan**	
Visual problem	115(77)	75(50)	4.792**
Hearing difficulty	53(35)	76(51)	2.682**
Difficulty in walking	115(77)	67(45)	5.673**
Heart problem	115(77)	58(39)	6.661**
Liver diseases	12(8)	70(47)	7.514**
Diabetes mellitus	115(77)	75(50)	4.792**
Rheumatoid Arthritis	115(77)	51(34)	7.432**
Osteoporosis	115(77)	75(50)	4.792**
Hypertension	115(77)	70(47)	5.344**
Amnesia	102(68)	75(50)	3.169**
Fatigue	115(77)	74(49)	4.903**
Asthma	57(38)	47(31)	1.213
Other health problems	115(77)	73(49)	5.013**

Figures in parentheses denote percentage

* *- significant at 0.05 level*

** *- significant at 0.01 level*

Thus it is clear that the incidence of various health problems are less among Japanese elderly women compared to India. The better health standard of Japanese elderly could be the result of their awareness on health care, improved lifestyle, high literacy level, food

habits, better medical facilities, better hygienic conditions, availability of safe drinking water and unadulterated food.

To improve the health of elderly, there is free annual health examination followed by more detailed examinations and treatments for those who need it in Japan. For persons above 70 years medical examination and medical care are free (Nagar, 1987). In India there is no such programme for the aged.

In Japan medical care insurance is available to all people including elderly covered by health insurance and similar schemes by government and other agencies. Along with improvements in living standards and better nutrition, the health insurance system has contributed in achieving levels of average life expectancy for the Japanese people and healthy life expectancy that are among the highest in the world. Accordingly, the Japanese health insurance system was evaluated as the best in the world by the World Health Organization (Ministry of Internal Affairs and Communications, Japan, 2005).

It is worthwhile to note here the various medical insurance programmes that provide access to basic medical services on an equitable basis in Japan. All Japanese citizens are required to participate in one of these programmes.

1. Employee's health insurances (organized by companies);
2. Government managed health insurances (operated by the central government);
3. The National Health Insurance Programmes (managed by local governments);
4. Mutual Aid Insurances, in which all public servants must participate.

   And

5. The Long term Care Insurance – under this system, those aged 65 and over can receive long term care services.

Salaried persons and their dependents may join either the Employee's insurances or the government- managed health insurance programme. Farmers, the self employed and senior citizens and their families participate in National Health Insurance (Yoshida, 2003).

Lack of health awareness among elderly, financial constraints, poor accessibility to health care services, lack of proper medical facilities, non utilization of health facilities, illiteracy and poor hygienic conditions are the major contributory factors for the poor health of elderly in India. Medical insurance scheme by the government is not prevalent in India. Health care system at various levels in our country is designed for the general population and no special provision/preferences are so far provided in the system to take care of the elderly. Health of the elderly is a part of health care of general population (Raju, 2002). The Indian attitude that illness is part of old age is very much deep rooted. There is inadequate appreciation of the need for geriatric health care practices in India.

Suggestions by the respondents for the welfare of elderly

A number of suggestions have been obtained from the respondents from India and Japan for the welfare of elderly people.

Respondents from India had the following suggestions:

- Old age pension system should be improved and pension should be given regularly.
- The existing services offered by the government for the welfare of elderly should be implemented more efficiently and streamlined.
- New policies and services for the aged should be evolved as the present services are not adequate quantitatively and qualitatively in the changed circumstances of modern living.
- Government should implement awareness programme to make elderly aware of various support services by the government.
- Separate queue system should be introduced for elderly women in government offices and in public places.

Respondents from Japan had the under noted suggestions:

- Government should provide adequate and exhaustive information regarding government schemes offered for elderly.
- Long waiting hours for getting things especially in hospitals is exasperating. This problem should be attended to.
- Youngsters should be motivated properly to render help for the elderly.

Measures suggested

Based on the findings of the study the following suggestions are put forward to reduce the problems of elderly.

- To improve the economic status of elderly, the scope of old age pension should be widened to include all eligible persons in India. Pension should be adequate to meet the minimum needs of recipients and the pension payment should be prompt. The payment system for this purpose should be streamlined.
- The banks should take necessary steps to make the aged aware of the savings/pension schemes for their welfare.
- Income generating schemes should be introduced to generate additional income for the elderly.
- The aged should be associated with creative and developmental programmes. Old age clubs and other organizations for elderly should be organized to involve aged people in various social, recreational, educational and cultural activities.
- Consultation services should be provided to the elderly through welfare centers.
- Government should implement separate medical insurance scheme for elderly in India which will go a long way to mitigate the problem of health care of elderly.
- To reduce health problems the aged people should be educated on health and nutrition.
- Educational programmes should be organized for the public on healthy living so that they can enter the old age with adequate preparation for physical and mental health.
- Government should extend its health care services to the elderly especially to poor elderly, who are unable to move out of their homes.
- Awareness programmes for the welfare of the elderly have to be broadcasted through the Medias.
- Studies have to be conducted with specific focus on elderly women to meet their socio economic and health challenges.

Conclusion

It is obvious from the study that the Japanese elderly women have lesser social, economic and health problems than its counterpart in India. This is the result of improvement in social environment such as economy, hygiene, peace keeping and various social security packages for the elderly and high level of literacy among elderly in Japan. Japan has a number of laws for the old like Employee's pension Law, National Pension Insurance Law, and Law for the health of the Aged. The laws ensure guaranteed income, health care, housing, social services, recreation and other requirements of the aged. India still has to go a long way to reduce the problems of elderly. The government needs to introduce various social security packages for the elderly apart from increasing the literacy level and employment opportunities for the aged for making the older persons real assets rather than being considered liabilities.

The general lesson India can learn from Japan is that the problems of elderly can be reduced and higher status can be achieved through hard work, efficient and sustained effort of government and the people together.

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Physical abuse of elderly in Indian context

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ABSTRACT

Although family ties in India are still strong and an overwhelming majority of the old live with their family members, nevertheless the position of an increasing number of older persons is becoming vulnerable. In the present scenario they cannot take it for granted that their children will look after them when they need care in their old age in view of longevity, which implies an extended period of dependency. Abuse may be emotional, financial, abuse in medical care, neglect and indifference or physical. Where physical abuse of elderly is concerned, review of literature shows that in India this form of abuse is rare though not non-existent especially amongst the poorer sections of society. Present study aims to delineate this issue across the different sections of society. Much abuse especially physical abuse is not reported because many older people are unable frightened or embarrassed to report its presence. The socio economic status, marital status, gender, dependency- both physical and monetary and many other factors determine the vulnerability of an elderly to be abused. It is in this context that an attempt has been made to study existence of physical abuse of elderly across different sections in Indian society. After having a series of discussions with different people, a five-item scale with questions pertaining to physical abuse (comprising of rough handling, forced confinement or physically restraining movement, mistreatment while defending someone under abuse and lack of consideration for physical capacity while assigning any task to them) was devised as a tool to measure

physical abuse in elderly. This article has been prepared based on findings of interviews conducted with 384 elderly residing across different – upper, middle and low-income colonies in Delhi, the details of which are discussed in this paper at length. Findings need to be scientifically utilized in developing suitable programmes addressing the case of elderly in the country.

Keywords : Elderly abuse, Socio-economic status, Gender, Depending

Although family ties in India are strong and an overwhelming majority of the old live with their family members, nevertheless the position of an increasing number of older persons is becoming vulnerable. In the present scenario they cannot take it for granted that their children will look after them when they need care in their old age, keeping in view the longer life span which implies an extended period of dependency (Reddy, 2003). In most countries of the world the older persons do not enjoy a decent status in society. This is all the more so in developing countries such as India which are economically poor and have been subjected to the ravages of demographic transition, migration, modernization, dwindling joint family, market economy, poor public health & hygiene and low social & economic security (Ramamurthy, 2003).

Abuse is synonym of misuse, mistreatment, ill treat and mal treat. It as a noun refers to improper use / handling, giving physical maltreatment, using unjust or wrongful practices, insulting and using coarse language. As a verb it means to use wrongly, improperly, to hurt/ injure by maltreatment, to force sexual activity on, to assail with contemptuous, coarse or insulting words. Not providing treatment to older person according to expected functionality of particular stage of life is, ill treatment / illegitimate behavior on part of care provider in the society which becomes base of elderly abuse (Khan, 2004). A single or repeated act or lack of appropriate action occurring within any relationship where there is an expectation of trust which causes harm or distress to an older person as defined by UN (WHO Toronto Declaration of Elderly Abuse). Abuse may be emotional, financial, abuse in medical care, neglect and indifference or physical**.** Where physical abuse of elderly is concerned, review of literature shows that

in India this form of abuse is rare though not non-existent especially amongst the poorer sections of society. Balambal V (2004) in his study concluded that there is not much physical violence in the upper society. But in lower classes most of the elderly are abused and neglected and face physical violence too. Bhoite A (2004) also found that as we go down the social ladder the abuses are bold, open and ruthless and are of the nature of personal intimidation. Bhat VN (2004) in his study in Karnataka had similarly found that physical violence is infrequent although not rare especially among the elderly women and a large proportion of abused elderly is without spouse. A study conducted by Chakravarty I (2004) in Kolkata has indicated that elderly abuse can vary with socio economic background of the elderly. Poor elderly are more vulnerable to physical abuses and abandonment whereas the elderly belonging to middle and higher class experiences psychological, financial, deprivation of love & care. Bambawale U (2004) and Veedon (2001) also acknowledged existence of physical abuse of elderly in Indian society. In western context also physical mistreatment is less prevalent than other forms of abuse. Podnieks and colleagues (1989) in their study in Canada had found that physical violence is more likely to occur between spouses and 0.5% had experienced some form of family violence. Ferreira M (2002) on the other hand pointed out that types of abuse in Africa are shown to be more violent than those prevalent in western countries. According to Levine J M (2003) physical abuse is most recognizable, yet neglect is most common in New York City, USA. A study on risk indicators of elder mistreatment in the community by Hannie C et al (2004) also showed that physical aggression was associated with an elder living with a partner or other(s) and having depressive symptoms Until Pillemer and Finkelhor's (1988, 1989) Boston random sample survey, conventional wisdom in the United States held that elder abuse involved children abusing their frail elderly parents (usually women). The Boston study changed this orthodoxy: 58 per cent of their abusers were spouses and they found pre-existing marital conflict in 44 per cent of these cases. Much abuse especially physical abuse is not reported because many older people are unable, frightened or embarrassed to report its presence. Thus socio economic status, marital status, gender, dependency- both physical & monetary and many other factors determine the vulnerability of an elderly to be abused. It is in

this context that an attempt has been made to study existence of physical abuse of elderly in Indian society.

Methodology

The study population included 384 elderly males & females above 65 years residing in three selected residential colonies of Delhi, 125 were from posh colony, 127 from the middle-income group of the society and 132 from poor income colony. These colonies are classified as grade C, D and F respectively by MCD, Delhi on the basis of property value assessment using standard criteria. Multistage random sampling method was used to select these colonies from the list of colonies prepared by MCD, Delhi. Study sample of 384 respondents included 187 males and 197 females with almost equal representation of both the sexes. Majority 68.2% were Hindus and rest were either Sikh/ Muslims /Christians. 297 of them belonged to general caste and rests were either SC/ST/OBC (mainly residing in the lower income colony). 291(75.8%) were currently married and rest were either widow (er) / separated or divorcees. Age wise 40.6% were young-old, 42.4% were old-old and 16.9% were oldest old. The selection was based on systematic random sampling from the list of households prepared from each colony. Elderly abuse tool - Physical abuse is a very sensitive issue and so eliciting responses was quite difficult. After having a series of discussions with different people, questions pertaining to physical abuse which included i) rough handling, ii) forced confinement iii) physically restraining movement, iv) mistreatment while defending someone say a child while being beaten and v) lack of consideration for physical capacity while assigning any task to them, were selected for studying physical abuse. Thus, a five-item scale was constructed to measure physical abuse with each item having five options as responses ranging between 'always', 'quite often', 'sometimes', 'rarely' and 'never'. Scoring for the responses was done by assigning score value from 0 to 4. Reliability of the 5 item scale used to measure physical abuse by applying Guttman split half coefficient method emerged highly significant ($r=0.804$) at $p< .01$.

Table –1 : Score distribution frequency of respondents on physical abuse

Physical abuse variables	Always	Quite often	Some times	Rarely	Never
1) Roughly handled	0	4	17	9	354
%	0	1	4.4	2.3	92.2
2) Forced to remain confined to room/bed	0	4	10	22	348
%	0	1	2.6	5.7	90.6
3) Movement physically restrained	0	4	7	23	350
%	0	1	1.8	6	91.1
4) Abused physically in trying to defend someone say a child	0	8	13	15	348
%	0	2.1	3.4	3.9	90.6
5) Physical capacity ignored	9	18	70	31	256
%	2.3	4.7	18.2	8.1	66.7

The data of physical abuse on 384 respondents was analyzed for identifying differences on other important variables such as age, sex, income (estimated on the basis of residential areas), level of abuse etc. Data obtained was analyzed using SPSS 12.0 version.

More than 91% of the respondents denied being physically abused in any form except that quite a few (33.3%) reported that their physical capacity is being ignored while assigning any work to them. Ignoring of physical capacity while assigning any work speaks of one form of abuse. Further, it was enquired that when they are tired and want to take rest then how do their families take it. 299 (77.9%) of respondents replied that it was taken positively and 19 (4.9%) said negatively whereas 66 (17.2%) replied that their families did not bother at all.

Maximum total score possible for one respondent was 20 and minimum was 0. So the total score for any respondent could range from 0-20. To assess the degree of physical abuse it was arbitrarily decided to categorize the respondents with score 0 as those having “no abuse at all”, 1-7 as suffering from “mild degree” of physical abuse,

those having total scores ranging from 8-14 as suffering from "moderate degree" of physical abuse and finally those getting total score in the range of 15-20 as suffering from " severe degree" of physical abuse. Findings are reflected in Table –1b.

Table –1b : Level of physical abuse

Level of physical abuse	No. of respondents	Percent (%)
Absence of abuse	238	62
Mild abuse (1-7)	120	31.2
Moderate abuse (8-14)	22	5.8
Severe abuse (15-20)	4	1
Total	384	100

As evident from Table 1b- 62% had reported absence of physical abuse followed by mild abuse (31.2%) and moderate abuse (5.8%) and severe abuse (just 1%). Effect of background variables on physical abuse was studied as follows-

Table-2 : Physical abuse across the three residential colonies (Duncan's mean test)

Residential colony	No of respondents	Mean Score-X	SD	HIC VS MIC	HIC VS LIC	HIC VS LIC
High income (HIC)	127	0.91	1.89			
Middle income (MIC)	125	2.01	3.08			
Low income (LIC)	132	2.04	4.07			
Total (n)	384	F Ratio –5.24**		*	-	*

** Denotes significance at p< 0.05 & ** denotes significance at p< 0.01*

As evident from the Table-2 physical abuse increases as we move down the social ladder. There is a significant difference (F= 5.24). The occurrence of physical abuse is found more in the lowest income group (X=2.04) followed by middle income (X=2.01) and high income (X=0.91) respectively. On applying Duncans Mean test to see if the difference in mean scores of physical abuse is significantly different across the three income group colonies, it is seen that physical abuse scores are statistically significantly different between high income colony and low income colony and also between low and middle

income colonies. There is no significant difference in scores between middle and high-income colonies.

To ascertain the roots of abuse further analysis was carried out age wise and sex wise- Table-3 & 4.

Table-3 : Comparison of physical abuse across different age groups (Duncan mean test)

Residential colony	No of respondents	Mean Score-X	SD	G1 VS G3	G1 VS G2	G2 VS G3
Young old (65-70) -G1	156	1.87	3.54			
Old old (71-80) -G2	163	1.61	2.99			
Oldest old (81+)-G3	65	1.26	2.74			
Total (n)	384	F value- .87		*	-	-

** Denotes significance at p< 0.05*

Possibly with deterioration in the values of care, one may expect that incidence of abuse may increase along with increasing age. But here it is seen that mean scores of physical abuse decreases with increasing age, however the difference is statistically not significant. Incidence of abuse is found more in young old (X= 1.87) in comparison to old old (X= 1.61) and oldest old (X=1.26). Higher SDvalue is clear indication of wide variation within the class. It looks that it is not age specific phenomenon; it is more of individual variation. There may be only few individuals who are high on score value and majority of respondents in each class may be homogenous in nature and that is why age difference is non significant.

Table-4 : Comparison of physical abuse across different sexes

Sex	Number of respondents	Mean score X	SD
Males	187	1.42	2.87
Females	197	1.88	3.45
Total (n)	384	F value- 3.19	t value- 1.43

There is no statistically significant difference in mean scores of physical abuse sex wise though as such it is higher in females. One can

generally expect that occurrence of physical abuse maybe more amongst elderly women.

Table –5: Relationship (correlation coefficient) of physical abuse with background variables- age, sex and residential colony of respondents

Correlations	Age	Sex	Residential Colony	Physical abuse score
Age	1			
Sex	**.226****	1		
Residential colony	**.048**	**.086**	1	
Physical abuse score	**.067**	**.073**	.144**	1

***Denotes significance at p< 0.01, numbers in bold signify inverse correlation between two variables*.

Physical abuse score is significantly correlated with only the residential colony i.e. economic status as is evident from Table- 5. Age and sex relationships on physical abuse have also emerged as significant (r= .266) when calculated using correlation coefficient.

Next to see if current marital status of the elderly had any role to play in the occurrence of physical abuse: mean scores of physical abuse were studied across various groups. As there were very few divorcees and those who were staying separated were only 5 it was decided to club the widow/ers(88), divorcee (4) and the 5 separated respondents into one group of " others" & compare occurrence of physical abuse if any in this group with that occurring in the currently married group of 291 respondents- Table 6.

Table-6 : Comparison of physical abuse according to the current marital status (t test – independent samples)

Marital status	Number of respondents	Mean score-X	SD
Married	291	1.79	3.35
Others (widow/er, divorcee, separated)	93	1.23	2.58
Total (n)	384	F value-4.72*	t value-1.492

**Denotes significance at p< 0.05*

As can be seen from Table 6 -the scores of physical abuse are lower in the widow/ers, divorcee and separated compared to the currently married elderly but not statistically significant.

Dependency and physical abuse- To see whether physical dependency of the respondent on their family members plays any role in their vulnerability to be abused further respondents were divided into three groups – completely dependent/ partially dependent/ independent. Here complete dependency is defined as complete inability to perform daily routine activities without help from others i.e. totally bed ridden, partial dependency is defined as ability to perform routine activities with minimal aid and independence is defined as absence of any type of dependence on others for performing daily activities like bathing, dressing, eating, moving about etc. As the completely dependent were only 14 and partially dependent only 28 they are clubbed together into a single group –1 to compare with those who were independent – group –2 for variation if any in occurrence of physical abuse. As evident from Table 7a- further breakup to see number of physically dependent / independent respondents in each age group shows that out of the 42 respondents who were completely or partially physically dependent 36 were in the young old and old age group and only 6 out of the 65 oldest old were partially or completely dependent, thus showing that physical dependence is not necessarily age related. In fact majority of the oldest old i.e. 59 out of a total of 65 were independent and performing their daily tasks without any help.

Table - 7a : Number of physically dependent respondents in each age group

Age group	**Dependent (n=42)**	**Not dependent (n=342)**	**Total**
Young old (65-70)	18	138	156
Old old (71-80)	18	145	163
Oldest old (81+)	6	59	65

Those who are completely or partially physically dependent on their families for performing daily activities are showing little physical abuse whereas scores are higher in the completely independent group. This is interesting finding although unconventional. Thus on the whole

there is more sympathy in the minds of family members for the physically dependent elderly.

Table-7b) : Comparison of physical abuse in relation to state of physical dependency of the respondents

Type of abuse	Group (1) Dependant (n=42)			Group (2) Not Dependant (n=342)		
	X	SD	SE	X	SD	SE
Physical	1.28	2.81	.43	1.70	3.23	.17

Pooled variance		F ratio	
t value	2 tail "p"	F value	2 tail "p"
-.79	.42	.31	.57

To see whether monetary dependence of the elderly on his or her family members plays any important role in acting as a risk factor further analysis was carried out Table 8.

Table-8 : Comparison of physical abuse according to the state of monetary dependency of the elderly

State of monetary dependence	Number of respondents	Mean score - X	SD
Complete/partial depend.	161	2.6	3.79
Independence	223	.97	2.46
Total (n)	384	F value– 34.41**	t value– 5.09**

***Denotes significance at p< 0.01*

As can be seen from table –8 mean physical abuse scores were statistically significantly lower in the elderly with no monetary dependence than those with some or other form of dependence. The finding is as per expectations. Why economically independent elderly had reported physical abuse is matter of further research.

Literacy level of elderly may also influence vulnerability of being physically abused - Table –9.Physical abuse scores are highest

amongst the illiterate respondents and lowest amongst those with higher education.

Table-9 : Comparison of physical abuse according to the literacy level of the elderly

Literacy Level	Number of respondents	Mean score - X	SD
Illiterate	42	2.43	4.97
Primary	35	1.08	1.33
Middle	137	2.34	3.84
Higher	170	1.03	1.95
Total (n)	384	F value- 5.702**	

***Denotes significance at p< 0.01*

On comparing the physical abuse scores according to the **caste** of respondents physical abuse scores are found to be higher in the other castes compared to the general caste. Difference was found to be statistically significant–Table-10.

Table-10 : Comparison of total mean scores of physical abuse according to the caste to which the elderly belongs

Caste of Respondent	Number of respondents	Mean score - X	SD
General	297	1.27	2.72
Others(SC/ST/OBC)	87	2.94	4.19
Total (n)	384	F value 27.5**	t value- **4.37****

***Denotes significance at p< 0.01 and number in bold signifies inverse relation amongst the variables*

Result and discussion- one of the major findings is that elderly across all the economic groups are not physically assaulted much .On the other hand prescribing physical work however does not fully take care of physical ability of the elderly. This gives impression about two things – i) the shades of physical abuse are varied in nature. It cannot be just confined with physical assault. ii) It also gives impression about the continuity of culturally acclaimed tradition of not abusing elderly.

The images regarding severe physical abuse of elderly being reflected in the media however are not the reality of the society at large as evident from low total mean physical abuses scores in this study and with only 1% of respondents reporting severe abuse whereas 62% reporting no abuse at all.

The findings demonstrating significant difference on total score of physical abuse across the economic groups is of special importance. From the mean scores there is increasing trend of physical abuse from high-income colony to respondents residing in low-income colony. The difference between high & middle and high & low-income colony is highly significant. As evident from the standard deviation scores wide variability within the group was observed – lowest within group variation in high-income colony category (1.89) followed by middle-income category (3.08) and low-income category (4.07) respectively. This variation seems to be reflection of class characteristics. It also gives an impression about higher number of physical abuse in the low-income and middle-income colony categories. As a matter of reality in a big city like Delhi, people from different social and cultural background come and settle according to their economic capacity regardless of their educational background, their place of living is generally governed by it. Especially in lower and middle income colonies people possess very limited resources, many a times insufficient to cater the needs of spouse and children. In such cases elderly seems to be more of burden on the families and more dependent on them contrary to the high-income colonies, where the majority of elderly use to be independent particularly on economic dimensions. Economic status of elderly seems to have closer relationship with different forms of abuse of which physical abuse is one.

Another most unconventional finding emerges on the age dimension. Contrary to general expectations the average score of physical abuse was found more in young old (1.87) and relatively less in oldest old (1.26). It appears that during young old perhaps there is stronger assertion among the elderly, which comes in conflict with other family members. The decreasing trend of the mean score (which

is non significant) seems to suggest that as the age advances the older people either learns the art of adjustment or simply surrender to the dictates of the family and perhaps come least into conflicting situation. This also suggests towards gradual assimilation of expected social realities and to its surrender. This assumption gets validation when to see interage group difference Duncan's mean test was applied and difference between young old and oldest old was found to be significant.

Regarding male and female difference on physical abuse although F value (F = 3.19) is not significant; however, it is very close to significance level as evident from mean scores, higher physical abuse amongst females (1.88) followed by males (1.42). It looks that gender bias on physical abuse is not pertinent as evident in the study indicating almost similar type of treatment being given to both male and female elderly. Once again it appears that status of physical abuse unlike many other types of abuses – emotional, social, financial seems to have strong bearing on the traditional cultural ethos under which respect for both are duly recognized.

Interesting finding has emerged regarding marital status showing higher score of physical abuse in the currently married as compared to the others, which includes widow/ ers/ divorcees/ separated. It is obvious that others are living a life where status is such that interference is less and so is the interaction with the family members.

The findings related to physical dependency of elderly on others also shows that out of the total 384 respondents only 42 were completely or partially dependent physically on others rest all (342) were completely independent. Majority of the oldest old i.e. 59 out of a total of 65 were independent and performing their daily tasks without any help. Out of the 42 respondents who were completely or partially physically dependent 36 were in the young old and old age group and only 6 out of the 65 oldest old were partially or completely dependent, thus showing that physical dependence is not necessarily age related. The dependent group showed lower physical abuse scores compared to the independent group further validating the assumption that where

physical abuse was concerned, traditional cultural ethos does play an important role and that in Indian society the cultural values are still retained to great extent.

Where monetary dependence of elderly on his / her family is concerned findings show that those who are economically dependent are likely to face more physical abuse as compared to economically independent. This important piece of information carries implications for programmes and policies addressing economic needs of the elderly.

It is also strongly related to level of education- those with illiterate background face higher degree of physical abuse as compared to those who are higher on ladder of education. Physical abuse also seems to convey stronger relationship with caste system in society, those from SC/ST/OBC as evident from analysis are significantly higher on physical abuse scores as compared to general population.

Conclusion

The overall finding seems to suggest close relationship of physical abuse of elderly with their socio-economic and educational background and this piece of information needs to be scientifically utilized in developing suitable programmes addressing the elderly in the country.

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Living Conditions of Elderly in India: An Overview Based on Nationwide Data

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ABSTRACT

The paper gives an overview of living conditions of elderly in India using the data collected during the National Family Health Survey -2 (NFHS -,2). Considering the fact that proportion of elderly in the population is increasing and there is need for policy for them. It is then required to have close look at their current status. Feminization of elderly is not seen during the NFHS -2 and about 80 percent of them are young old. In most of the cases -typically -elderly is between 60 and 70 years with no education and low standard of living. Most of the elderly from urban as well as rural areas own the house. Urban elderly enjoy the comforts of day-to-day life whereas their rural counterparts are deprived of basic needs like water, toilet and electricity. More than one third of the elderly are widowed with sizably more widows among them. Three percent of them are staying alone, with no one to look after. Together it makes a large number who live in adverse conditions, when they need the care and support the most. The framing of policies should therefore focus on ground realities and need of elderly.

Key words : Living conditions, Staying alone, Standard of living.

It is an established fact that population is aging, the result of economic, social and demographic changes, have led to a growing interest in the well being of older adults by both researchers and policy makers. As a result of past high levels of fertility and sharp increases in life expectancy, the absolute numbers of elderly are increasing more rapidly than witnessed in the past (Jones, 1993). A rapid and

spectacular transition from high to low mortality and high to relatively low fertility has fundamentally altered the age composition of India's population. In particular the number of those living beyond the age of 60 is rising rapidly (Chakraborti, 2004). The most recent Census of2001 showed hike in the population above 60 years reaching up to almost 77 million approximatel, comprising 7.7 percent of the total population of India. According to the official projections of the Registrar General, India, in 2016 the elderly population is estimated to be 114 million, which will be approximately 8.9 percent of the total Indian population.

Population ageing is already having major consequences and implications in all areas of day-to-day human life, and it will continue to do so. In the economic area, population ageing will affect economic growth, savings, investment and consumption, labour markets, pensions, taxation and the transfers of wealth, property and care from one generation to another. Population ageing will continue to affect health and health care, family composition, living arrangements, housing and migration.

Throughout Asia, the family has traditionally been the primary source of care and material support for the elderly, who in many cases live with or near their adult children. Most governments of countries and territories in Asia are interested in preserving this family-oriented support system in some form (Chen *et. al,* 1989; Chan, 1999; ESCAP, 1999). The Indian family system is often held high for its qualities like support and care of elderly. The responsibility of adult children for their parents' well being is not only morally, socially recognized in India but it is a part of the legal code in many states in India. The urbanization, modernization and globalization have brought about major structural and functional transformation in the family, the primary care agency (Jainuna, 1991; Ramamurthi, 1992; Vijaykumar, 1995; Chakraborty, 1997; Gokhlae *et al*, 1998). Therefore, all over, a rapidly aging population continues to stretch the ability of families to provide support for the elderly (Jiang, 1995; Kaplan and Chadha, 2004). Considerable attention is being paid to both formal and informal systems of social and economic support and care of the elderly and their interaction with demographic change (World Bank 1994).

Method

An attempt has been made to explore how elderly are living in India using National Family Health Survey -2 (NFHS -2) data. The paper aims at examining living conditions of elderly with respect to housing conditions, water and toilet facility, and standard of living, as well as provides comparative picture on the listed aspects of elderly residing in rural and in urban areas.

Information is limited in terms of more pinpointed variables of elderly; this paper makes an effort to create a nationwide picture of elderly and major issues of concern. It is a modest attempt at providing a cross sectional portrait of living conditions in India. Despite these limitations, it is the most recent nationwide dataset and will provide baseline information on elderly, as NFHS-3 data will be coming in soon, the comparison between the NFHS-2 and the NFHS-3 using same variable will shed light on the effectiveness of the policies implemented since 1998.

Results

In the NFHS-2, information is collected from 92486 households from 27 states of India. This sample includes 39966 individuals above 60 years of age.

In the survey one person reports ages of all household members and there is a possibility that they may not be as accurate. Single year age returns have shown heaping at the multiples of five. still 60 years has its importance, as it is the age at retirement for working population. This also is a landmark in life traditionally when people celebrate the 60th birthday. So 60 years as a cut-off it is expected to give fair amount of accuracy and hence the data can be analyzed to understand the living conditions of elderly.

Nearly thirty percent (i.e. 11819) of these elderly are from urban areas and remaining 70 percent are from the rural. Earlier trend appeared to be changing due to urbanization where trend in 80s early 90s indicated more than four times as many elderly living in the rural areas of India as in urban areas.

Table-1 gives the profile of the sample. Around 80 percent of the population is between 60 to 75 years of age who are known as young old, 15 per cent are between 75 to 85 years of age i.e. old and remaining almost 5 per cent are above 85 years of age known as oldest

old population. The older population is itselof aging. In fact, the fastest growing age group in the world is the oldest old. Elderly above 80 years of age are currently increasing at 3.8 per cent per year and comprise 12 per cent of the total number of older persons. By the middle of the century, one fifth of older person will be 80 years or more. As Indian Life expectancy is increasing we will experience same change in near future.

Table-1 : Percent distibution of elderly population by background characteristics, India, 1998-99

Background Characteristics	Urban	Rural	Total
Age Groups			
60-64	35.8	37.4	36.9
65-69	25.7	24.5	24.8
70-74	19.4	19.5	19.5
75-79	9.3	7.9	8.3
80-84	5.9	6.6	6.4
85.89	2.2	2.0	2.1
90-94	1.0	1.3	1.2
95 or more	0.7	0.8	0.8
Sex			
Males	50.6	53.2	52.5
Females	49.4	46.8	47.5
Ethnicity			
Hindu	74.8	79.1	78.0
Muslim	12.8	9.0	10.1
Christian	7.0	5.8	6.1
Sikh	2.9	3.7	3.4
Other	2.5	2.4	2.4
Marital Status			
Currenctly married	60.9	62.5	62.1

Separated/ divorced	00.6	0.7	0.6
Widowed	37.0	35.7	36.1
Never married	1.5	1.1	1.2
Education			
Illiterate	40.8	72.7	63.6
Primary	29.2	20.5	23.1
Middle School complete	7.5	3.0	4.3
High School and above	22.5	3.8	9.3
Standard of living			
Low	9.9	32.3	25.7
Medium	37.4	50.4	46.6
HIgh	52.7	17.3	27.7
Total	**11819= 100.0**	**28147= 100.0**	**39966= 100.0**

The sex ratio is favourable to males and there are only 906 females per thousand males above 60 years of age. After age groups are broken into two age groups, 60 to 75, 75 and more sex ratios are 913 and 878. It shows lesser women in older age groups. Men survive over women. Studies in various countries indicate trend towrds feminization of aging meaning females outnumbering males. During the NFHS-2, feminization of elderly was not started in India. However, the data obtained from Registrar General's Office based on Census of India 2001 shows 76.6 million elderly with 39.4 million females and 37.2 million males, meaning sex ratio being favourble to females, indicating beginning of feminization of ageing in India.

The survey covered various ethnic groups predominated by Hindus (78 per cent), Muslim (10 per cent) and other which found to be in proportion to the distribution of these groups in general population of India.

Education can make drsastic difference in the quality of life of elderly though indirectly. Better education leads to better employment opportunity and better standard of living, which would ultimately

make life easier in old age. Current survey reports 63 per cent elderly are illiterate in the country; 73 per cent of them residing in rural areas and 41 per cent in urban. Differentials in education by sex of the elderly are more visible with 80 per cent females and 48 per cent males. Further classification of elderly by place of residence shows that in urban areas 23 per cent males and 59 per cent females are illiterate whereas in rural areas they are 59 and 89 per cent respectively. Thus once again female elderly residing in rural areas forms the more vulnerable group.

In all 9 per cent of them are educated above high school level. The percentage of higher educated elderly in urban areas is much more (22.5 per cent) than that of rural (3.8 per cent). Nearly 30 per cent of urban elderly have education above middle school while only 6.8 per cent of rural elderly are studied up to that. In fact, it indicates the trend of migration among educated people. Probably better educated migrate and settle in cities.

The NFHS-2 gives information about the standard of living of the respondents. It is a summary household measure called standard of living index (SLI) is computed by assigning scores to information on type of house, toilet facility, source of lighting, main fuel used for cooking, source of drinking water, separate kitchen, ownership of house, ownership of agricultural and irrigated land, ownership of livestock and household durable goods.

Overall ¼ of the elderly belong of low SLI and similar proportion to high standard of living strata. However, rural-urban distribution of population across standard of living shows more favourable conditions for urban elderly. Only 10 per cent urban elderly are from low standard of living category, 37 per cent from medium and 53 per cent are from high vis-a-vis 32 per cent rural elderly from low, 37 from medium and 17 per cent from high standard of living category.

Marital status has profound impact on social position and overall welfare of elderly. In a ptriarchal family system, elderly males receive unconditional care and support from their spouse while for females, if

not care, at least financial support is available in the family. In the current survey 62 per cent of elderly are currently married and 36 per cent are widowed. There are no urban - rural diferentials by marital status of elderly. The proportion of widows is much higher in the country - 57 per cent - as compared to widowers who are just 17 per cent. Gender discrimination and inequality are carried into old age, making widows among the most vulnerable in society (Help Age Int., 2000).

In urban parts 60.5 per cent and rural 56 per cent females are widows. The corresponding percentage for males are 14 and 18 respectively. These figures indicate the favourable situation for males where majority of them are currently married in both urban (84 per cent) and rural (80 per cent) areas. Women often marry men older than themselves and in many societies they are less likely than men to marry again if they are divorced or widowed. For these reasons, women have a much higher chance of being widows in later life than men. It has been said that widowhood is a fact of life for women over 75 in less-developed countries. In India 78 per cent of women aged 70 and over are widowed, compared to 27 percent of men. Unmarried or widowed women have a higher probability of living in poverty than women who are married. It can be much more difficult for a woman on her own to earn a living, especially if she lacks family support or lives in a community where the status of women is low.

It is clear from Table-2 that, though about 90 per cent of the elderly stay with the family 10 per cent either stay alone or just two of them. Among those who stay alone, two third of them are females (371 males and 759 females). Among these 371 males 18.6 per cent are currently married but still are staying alone whereas the same percentage among women is just 1.8. Women who stay alone comprise of 94 per cent widows. Among men staying alone, widowers are 63 per cent. Family support system is and will continue to be foolproof insurance against all problems faced during old age.

Table-2 : Percent distribution of elderly population by number of family members, India, 1998-99

No. of Family Members	1	2	3 Or more	Total
Male	1.8	9.1	89.1	20965
Female	4.0	8.7	87.3	19001
Total	**2.8**	**8.9**	**88.3**	**39966**

As reflected in Table 3, distibution of elderly staying alone by sex there are more females than males. Majority of elderly are below 70 years of age belong to rural areas with low standard of living, having no education and are widowed. This is actually the most vulnerable group from support point of view.

Table-3 : Percent distibution of elderly population staying alone by background characteristics, India, 1998-99

Background Characteristics	Male	Female	Total
Age			
60-64	53.6	56.6	55.7
70-79	33.4	32.8	33.0
80-89	10.8	9.1	9.6
90 or more	2.2	1.4	1.7
Place of residence			
Rural	68.5	73.6	71.9
Urban	31.5	26.4	28.1
Standard of living			
Low	57.0	72.6	67.5
Medium	34.2	21.3	25.5
High	8.8	6.1	7.0
Education			
Illiterate	48.5	85.7	73.5
Primary	33.2	10.0	17.6

Middle School complete	7.0	0.9	2.9
High School and above	11.3	3.4	6.0
Marital Status			
Never married	12.4	1.6	5.2
Currenctly married	18.6	1.8	7.3
Separated/ divorced	69.0	96.6	87.6
Widowed			
Total	**371= 100.0**	**759= 100.0**	**1130= 100.0**

Housing conditions and household amenities

Any assumption about welfare of the elderly is basically routed in the family environment where elderly spent majority of their time and a lot depends on the housing conditions, living arrangement and household facilities, availability of care taker etc. In the present study majority (93.4 per cent) are staying in their own house and remaining in rented one. As in Table-4, proportion of rural elderly likely to stay in own house was more (97 per cent) as against urban (85.5 per cent). Nearly 70 per cent of urban elderly reported to have *pucca* house and almost same number of rural elderly reported to be staying in *semi-pucca* or *kachha* house.

Table-4 : Percent distibution of elderly population by house and household facilities

House and Household facilities	Urban	Rural	Total
Household ownership			
Own house	85.5	96.7	93.4
Rented/ Other	14.5	3.3	6.6
Type of house			
Pucca	69.1	21.9	35.8
Semi-pucca	23.2	41.9	36.4
Kachha	7.7	36.2	27.8

No. of rooms			
1	13.0	18.1	16.6
2	20.6	27.0	25.2
3	20.4	19.36	19.6
4	18.6	14.8	15.9
5 or more	27.4	20.8	22.7
Household facilities			
Electricity	93.8	57.6	68.3
Television	75.6	26.9	41.3
Refrigerator	42.2	6.9	17.4
Telephone	33.1	4.5	13.0
Source of drinking water			
Safe Water	75.9	28.7	42.6
Unsafe water	24.1	71.3	57.4
Type of toilet facility			
Own	71.4	24.6	38.4
Public	15.9	2.4	6.4
No facility	12.7	73.0	55.2
Total	**11819-100.0**	**28147=100.0**	**39966=100.0**

In all 68 per cent households have private electricity connection in whcih proportion of urban households is more compared to rural. Similar trend is observed with regard to ownership of television (75.6 per cent in urban, 26.9 per cent in rural), refrigerator (42.2 per cent in urban, 6.9 per cent in rural) and telephone (33.1 per cent in urban, 4.5 per cent in rural). Television has become a major source of entertainment for urban elderly. Access to telephone is considered important in case of emergency situation while refrigerator plays a role of providing more comforts in day-to-day life. Probably telephone and refrigerator may not sound appropriate to rural life style however in urban conditions all three gadgets have pivotal role in making life easier and comfortable. Electricity can be considered as basic need of today and almost half of rural Indian elderly are deprived of it. This once again indicates vulnerability of rural elderly.

Apart from this, access to safe drinking water and sanitation is considered most important from health point of view. Three fourth of the urban households have safe drinking water (75.9 per cent) and toilet (71.4 per cent) facilities. However, almost the same proportion of elderly from rural areas does not have access to these facilities. Though rural elderly are used to such life style without water and toilets, they would certainly find comfort if have these facilities within reach.

Discussion

Aging is the recent phenomena in populous Asian countries. The study has been carried out to explore more on socio-economic status of the elderly in India so as their living conditions. It is an attempt to understand how the aged in the country live.

During the NFHS-2 among the elderly population, young old elderly are proportionately more. This data set doesn't support feminization of elderly population like 2001 population census of India. Now onwards proportion of aged is going to increase more so as the females. More than one third of the elderly are widowed. The data reports sizably more widows in India than widowers. At present, just about 3 per cent of the elderly are staying alone. This percentage is bound to increase over the years. A typical elderly staying alone currently is a rural person between 60 and 70 years of age with no education and low standard of living. In reality, such a group would require more care and support.

With the increase in the overall educational levels, one can expect that elderly would be more educated compared to earlier ones. More education may get better living standards even for elderly and there is also a possibility that elderly would save for the life after retirement and can help themselves maintaining life style. Currently majority of them are illiterate and it would take a few decades to see educated elderly. Hence need to have different strategies to provide support to illiterate poor elderly and some opportunities for income generation to lead independent life.

Nearly 90 per cent of the urban elderly enjoy the comforts in day-to-day living. It is reflected in the kind of house in which they live.Majority of the elderly have their own house and also the bigger house in terms of number of rooms meaning having their own space, access to basic amenities and ownership of television, refrigerator and

electricity. However, nearly 35 per cent of rural and 10 per cent of urban elderly are deprived of such comforts and basic amenities like drinking water, toilet facilities and electricity. It indirectly indicates their financial status and living conditions during old age.

Nearly 3 per cent are staying alone and another 9 per cent have with them someone to care for. Thus 12 per cent are more vulnerable in terms of support and care available. Further analysis of staying alone shows that majority have low standard of living and are living in rural areas, mostly illiterate and nearly half of them in the age group 60-69 years. More so 88 per cent are widowed, divorced/ separated. All the percentages are sizably more for females. Such rural, illiterate group of women with low standard of living is most vulnerable in terms of diseases : availability, accessibility and affordability of health services as well as other support services. If 3 per cent of total elderly in India (that makes about 2.3 millions) are staying alone and most of them in adverse conditions, it gives alarming signal to the policy makers to develop very pin pointed activities targeting at such people rather than having one blanket policy.

It has been indicated that elderly need care. With the changing social structure would such care and attention be provided to elderly ? Whether it is possible for the aged to maintain the life style they had before ? With nuclear family set up can aged be accommodated in the family especially in urban areas ?

The NFHS-2 data doesn't provide data about the health and health care which is one of the significant aspects of elderly life. In case of ill-health more care is required as also the financial support. Thus to maintain the quality of life that elderly had enjoyed before something needs to be done by all elderly, family and the state.

Conclusions

In India, traditionally women are deprived in many areas including education, health and employment. Widowhood is further curse to deprived and elderly women. It makes them more dependent on others and then compromise on health issues and various aspects of life. Thus special attention to women staying alone without much support is strongly recommended.

These days elderly are victims of burglars and other criminal attacks on their lives. Protection and support in such conditions is also

matter of concern when we talk about elderly as a group in urban setting.

Many of the elderly can be fit to work. In the informal sector where retirement is not so formal they can work even after 60 years of age. However in formal sector especially in urban areas after retirement people seize to work. It restricts their income and thus affects life style to a larger extent. When they get compulsory free time, then there seems a strong need to able bodied elderly can be absorbed/considered for work so that they receive some payment to sustain them.

It is said that the only way to increase the dignity, respect and authority to elderly in the family and social sphere is to associate them with gainful income generation sources. At the same time, current and future social, health and psychological needs of older people should be urgently addressed through promotion of social awareness, health education programme.

The issue of old age social security needs more, deeper discussion and wider implementation of existing programmes to cover major population. It is an issue of national pride and human rights which is equally important and needs priority action.

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Retirement : An Emerging Challenge for the Planners

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ABSTRACT

Last few decades have witnessed : (a) an increase in the number of retired people in absolute terms and as proportion to the total population: and (b) the existing development pattern has led to multiplication of socio-economic problems' of the retirees'. The present paper aims to suggest steps to solve the various social problems and improve the overall well being of the society. To achieve this objective an attempt is' being made to analyze and identify; various social and psychological factors that influence the level of happiness of the retired people. A primary self reported happiness' survey is being undertaken with the help of a questionnaire using 0-10 numerical scale for a large part and using the descriptive statistics and ordered logit and probit econometric model for the analysis of the data. Preliminary investigations have revealed that retired people who have: (i) engaged themselves in various social, economic, religious activities: (ii) mentally prepare themselves for retirement well in advance and made the necessary plans in this direction; (iii) made efforts to reduce their expenditure and needs,' (iv) taken proper care of their health, and (v) tried to remain less dependent on others -are happier than those who have not, The above discussion suggests that the planners need to make efforts in these directions. The above findings and suggestions can be traced back to Vedic scriptures on the one hand and disengagement and activity theories on aging suggested by the sociologists on the other,

Further investigations are still going on to reach the final conclusions.

Keywords : Retirement, Development pattern, Happiness, Preparation for retirement, Disengagement, Activity well-being of society.

The last few decades have witnessed increasing concern being paid to overall well-being of the society in general and individual in particular rather than increasing the level of material prosperity as measured by Gross National Product (GNP). Significant number of social scientists like Gablaith (1958), Scitovsky (1996), Mishan (1968), Easterlin (1974), Meadows (1972) have expressed doubts regarding the reliability of GNP as a measure of well-being. Moreover, in the last few years emphasis of measure of well-being, has shifted from income to quality of life, happiness etc, as measures of well-being and efforts have been made by Veenhoven (1984 and 2000) and others to identify the determinants of happiness. The basic idea behind happiness studies being that overall happiness is the result of social, political, economic, psychological, physiological aspects and importance of anyone of these should not be underestimated.

In line with the above efforts the present paper aims firstly to identify the determinants of happiness of the aged in general and retirees in particular and use these in turn to suggest ways to increase the well-being of the retirees/aged, The idea is that with the increasing life expectancy and decrease in the birth rate, the number of retirees/aged people is increasing and so is the proportion of aged in the total population. Not only that the present trend is likely to continue in future as well. This problem has already become serious in the developed countries and is being noticed by the policy makers and social scientists in developing countries as well. The basic lesson for the policy makers being that the overall well being of the society can never be maximized if adequate attention is not paid to the major emerging proportion and section of the society. Consequently the second major purpose of the present paper is to highlight some of the possible steps which the policy makers can take to solve the problems being confronted by the policymakers of developed countries and the emerging challenge which the planners are likely to face in the developing countries. Therefore, the present study aims at identifying the degree to which the major social, psychological and physiological

aspects can influence the overall well-being of the retirees/aged suggesting thereby that direction in which the planners need to work for increasing the quality of human life.

Methodology

It needs to be mentioned at the outset that measurement of well-being is a complex task and there is no consensus on the methodology to be employed for its measurement. However, an attempt has been made in the present study to analyze subjective and objective components of well-being. For empirical analysis of the measurement of well being a primary survey of the elderly males of Haryana state of India was undertaken for collecting the relevant data with the help of a questionnaire. The questionnaire was designed so as to ascertain or capture the maximum possible information on various characteristics of the respondents, on their domains of life and their social, psychological and physiological conditions relevant for the present study. Most part of the questionnaire was structured to ascertain the perception of the retirees/aged individuals about various aspects of self reported level of well-being. The questions like: How happy you consider yourself to be?; After retirement have you engaged yourself in any social, political, economic or religious activity?; What you think is the status of your health and how much care you take of your health?; Did you make plans for your retired/old aged life? etc.

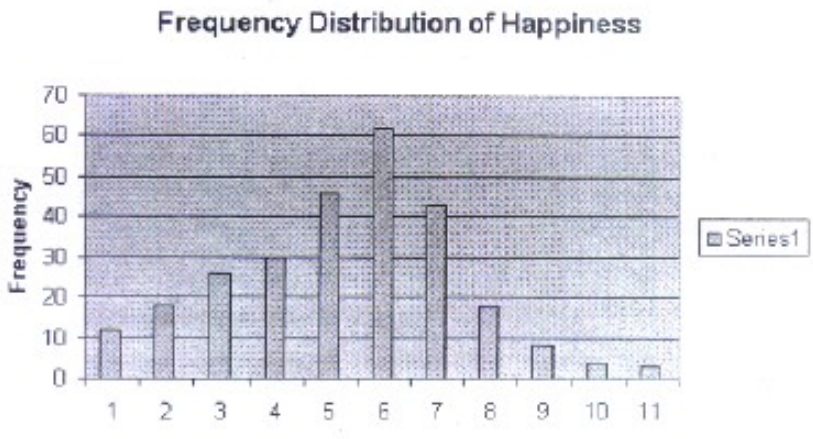
To avoid various problems and for statistical reasons a numerical scale of 0-10 has been used for the large part of the questionnaire. The usefulness of this type of scale has been recognized by Diener (1983) while discussing various scales. The subjects of the respondents were chosen on random basis but different regions were selected for survey so as to include a diverse range of retired/aged people while keeping the factors like climate, culture, language, etc. the Same. Hence the survey was limited to a smaller area to ensure the similarity of social, political, geographical and cultural conditions of all the respondents.

The descriptive statistics as well as econometric techniques have been used for analyzing the data and deriving results there from. Among the descriptive statistics mean, difference of mean, test of difference of means have been mainly applied. For empirical examination of the various structural relationships econometric analysis have been carried out with the single equation regression model. Most of the variables have been defined so as to vary between

0 and 10. The simple ordinary least squares could not be used since the dependent and independent variables were defined to take limited values. In practice the qualitative dependent variables are treated with Logit and Probit models. These two models are extensively used where dependent variable is a binary type or dichotomous. Since most of the variables in the present study have been defined to take multinomial values, the Logit and Probit models could not be used. A variation of these models called "ordered Probit model" is used. The use of this mode! is quite common in the studies of subjective well-being, Frey and Stutzer (2002).

Results and Discussion

The results discussed in this section are based upon 270 observations that were collected. It becomes clear from Table-1, that so far as self -reported happiness level is concerned almost 2/3rd of the respondents have reported themselves to be between 3-6 value on the scale of 0-10. The table reveals that 67.049 % of the respondents feel themselves between this range. 20.74 % of the respondents reported themselves to be below 3 and 12.22% reported themselves to be above 6 indicating that a majority of the retirees/aged people enjoy only medium level of happiness and proportion of extremely unhappy retirees/aged is relatively higher than the proportion of extremely happy ones.



Figure

Table 1: Distribution of self reported happiness

Rank on scale	Frequency	Cumulative frequency
0	12 (4.44)	12 (4.44)
1	18(6.67)	30(11.11)
2	26 (9.63)	56 (20.74)
3	30(11.11)	86(31.85)
4	46(17.04)	132(48.89)
5	62 (22.96)	194 (71.85)
6	43(15.92)	237(87.78)
7	18 (6.67)	255 (94.44)
8	08 (2.96)	263 (97.41)
9	04 (1.48)	267 (98.89)
10	03 (1.11)	270(100.00)

Note: Figures in parenthesis are percentage to total number of observations.

Table 2 : Marital status and happiness level

Category	Mean Happiness Level	Difference of means test
a. Macried with living partner	5.20	t = 40.64*
b. Divorcee/Widower	3.11	

* $p < .01$ one tailed

Table 2 indicates that retirees/aged who are married with a living life partner are happier than the divorcees/widowers. It is interesting to note that this factor is the most important one during retired/old age. This has a clear implication that efforts should be made through counseling and all other means to reduce the divorce rate among people of all ages. Not only that divorce at any stage mostly leads to decrease in welfare of individuals and children. It may be mentioned that at any age the extent of ones general satisfaction depends upon the extent to which one perceives the relationship with children, spouse, peers, and others to be meaningful and satisfying. The most disturbing

problem of the aged is lack of companionship. Mostly companionship is either provided by spouse and children. Lack of companionship results in psychological strains and other physiological disorders among the aged. Since by the time one retires the children are usually settled elsewhere, it is only the spouse that provides company. Consequently, the relationship between spouses is an important constituent of retiree/ aged individuals social and emotional life. Our results are consistent with Benerjee (2002 P. 284!). Well adjusted couples who self -discover themselves with greater affection and submission, had good adjustment and this influenced their psycho-social and physical well-being. Thus a satisfying husband-wife relationship is an important variable that contribute to happiness in old age.

Thus there is need for social intervention and for concerted efforts to rejuvenate and strengthen the family bonds especially between husband and wife and parents and children especially in societies where these ties have been broken and when the process of loosening of these bonds have started. Proper counseling should be or need to be directed to minimizing ruptures with children to keep their social relationships in constant repair. Prasad (1987).

Table 3 : Health Status and Ha iness Level

Category	Mean Happiness Level	Difference of means test
Suffering from chronic diseases	3.37	t = 22.43':’
With no chronic disease	4.83	

** $p < .01$ one tailed*

Table 3 reveals that retirees/aged suffering from some chronic disease are relatively less happier than those who are healthy. Health is wealth is a clear signal provided by these results. This is the second most important factor which can influence the happiness of the retirees/aged people. Since not much can be done to cure most of the chronic diseases despite many advancements in the field of medicine, efforts need to be made to make the life of these people more comfortable and reduce their sufferings as much as possible within the available means. This is the result which is in conformity with Sen’s findings (1998).

Table 4 : Preoccupation with some Activity' and Happiness Level

Category	Mean Happiness Level	Difference of means test
a. Engaged in some social /economic/ political/ religious activity	4.72	t = 12.61 *
b. No Engagement	3.87	

** p < .01 one tailed*

Table 4 clearly indicates that the retired/aged males who have engaged themselves in some type of social, economic, political or religious activities are happier than those who have not. Work is its own reward is clearly indicated by these results and this clearly leads to the policy implication that effort should be made to engage the retirees/aged people in some activity or the other. This is in conformity with Benerjee (2002).

"That individuals who kept themselves physically and mentally active were prone to feel more satisfied than those who did not. Therefore, it is useful to help old people develop a programme of activities like social work and extending various types of help in the household. And he further argues that those who survived longer were individuals who had kept themselves physically and mentally active."

Table 5 : Planning for retirement/old age and Happiness Level

Category	Mean Happiness Level	Difference of means test
a. Planned for retirement/old age	4.68	t = 12.34'1'
b. No plans	3.73	

** p < .01 one tailed*

Table 5 shows that those who have prepared themselves for old age/retirement especially by building a house and by adjusting their expenditure according to the anticipated income are happier than those who did not do so. Though this factor is important but relatively its degree is lesser than all the other considered factors.

Besides the above analysis, preliminary investigations with the help of ordered probit econometric model revealed that ultimately out of social, psychological and physiological factors, one's understanding with one's life partner is the most important variable followed by health, children and status.

Conclusions

So the lesson or challenges for the planners is to make concerted efforts in the direction of educating the people about the (1) role and need of improving the family ties and understanding. among the family members; and (2) usefulness of taking care of ones health. Moreover, people should be educated properly and well in time to face the challenges of retired/old age life.

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Impact of Globalization on Elderly : Issues and Implications

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ABSTRACT

Globalization has different meaning for different stakeholders. For some globalization brings new opportunities and increase in living standard, for others it may mean loss of jobs and increased migration. The elderly in this context suffer a double burden. This problem is grave as India is poised to become home to the second largest number of older persons in the world. Projection studies indicate that number of 60+ in India will increase to 100 million in 2013 and to 198 million in 2030. The paper analyses the demographic aspects of aging population of India over the last decade, and the challenges they face in the context of globalization. The last section focuses on the key interventions areas that need immediate action. The paper is based on census data and other macro/micro studies from government and non-governmental agencies. Combating the challenges faced by rapid graying of population requires action from a variety of sectors, including health, education, employment, social security, housing and justice. It is important that the state and civil society recognizes the rights and needs of the elderly and make suitable polices, legislations and effective implementation of health and security schemes, that already exist. Specific state interventions are required for the aged women, they being most vulnerable. Ageing of population is a desirable and natural aim for any

society, and according to WHO it should stand on three pillars- mainly, health and independence, productivity and protection.

Key Words: Globalisation, Safety net, Gender.

Aged people forms a large and vulnerable group suffering from high level of physical, economic and social insecurity. There are great socio-economic variations within the aged population which make the care for the aged more complex and challenging in India. Though aging is a common political concern in industrialized countries, in many developing countries aging is not yet seen as an issue. In developed countries, population ageing followed industrial revolution, enabling them to provide better facilities for care of the aged through higher income levels, which is not so in case of the developing countries. Developing countries are still poor and hence ageing population adds to resource crunch. Provision of welfare services for the aged is a drain on the meager resources of the country and often compete with other more pressing productive uses.

According to the UN estimates (Prakash IJ, 1999), the number of persons aged 60 years or older is estimated to be 629 million in 2002 and is projected to grow to almost 2 billion by 2050, when the population of older persons will exceed the population of children (0-14 years) for the first time in human history. The majority of the world's older persons reside in Asia (54 per cent), while Europe has the next largest share (24 per cent). One of every 10 persons is now aged 60 years or older; by 2050, the United Nations projects that 1 person of every 5 and, by 2150, 1 of every 3 will be above 60 years or older. The percentage is currently much higher in the more developed regions than in the less developed regions, but the pace of ageing in developing countries is more rapid and this transition from a young to an old age structure will be more compressed in time.

Countries with high per capita incomes tend to have lower participation rates of older workers. In more developed regions, 21 per cent of men aged 60 years or older are economically active, compared with 50 per cent of men in less developed regions. In more developed regions, 10 per cent of older women are economically active, compared with 19 per cent in less developed regions. Older persons participate to a greater extent in labour markets in less developed regions, largely owing to the limited coverage of retirement schemes and lack of resources in terms of investments for retired life.

Table - 1 : Comparative Account of Aged Population in the World

Country or region	Percentage of 60 + population to total Population		Percentage in labour Force		Sex Ratio (Men/100 Women)	Life Expectancy at age 60	
	2002	2050*	Male	Female		Male	Female
World	**10**	**21**	**40**	**15**	**81**	**71**	**20**
Developed Region	20	33	21	10	71	18	23
Less Developed Region	8	19	50	19	88	16	19
Asia	**9**	**23**	**48**	**19**	**88**	**17**	**20**
China	10	30	73	48	91	16	20
India	8	21	59	18	91	16	18
North America	**16**	**27**	**23**	**13**	**76**	**20**	**24**
U.S.A	16	27	23	13	76	19	24
Canada	17	30	19	8	80	20	24
Europe	**20**	**37**	**16**	**7**	**68**	**17**	**22**
Sweden	23	38	20	13	79	21	25
U.K	21	34	19	7	77	19	23

* *projection*

Source: United Nations: Population Ageing, 2002

The majority of older persons are women. Because female life expectancy is greater than male life expectancy, among older persons there are 81 men per 100 women in 2002. Among the oldest old, there are only 53 men for every 100 women. The ratio of men to women at older ages is lower in the more developed regions (71 men per 100 women) than in the less developed regions (88 men per 100 women), since there are larger differences in life expectancy between the sexes in the more developed regions.

The world has experienced dramatic improvements in longevity. Life expectancy at birth has climbed about 20 years since 1950, to its current level of 66 years. Of those surviving to age 60, men can expect to live another 17 years and women an additional 20 years. However, there are still large differences in mortality levels between countries. In the least developed countries, men reaching age 60 can expect only 15 more years of life and women, 16 years. On the other hand, in the more developed regions, life expectancy at age 60 is 18 years for men and 23 years for women.

About the Study

The paper analysis the demographic aspects of aging population of India over the last decade, and the challenges in context of globalization. The paper is based on census data and other macro/ micro studies from government and non-governmental agencies. A comparative analysis over the last decade has been done including the comprehensive study of the existing policies and programmes of the national and state government and existing civil society interventions in rendering services to the elderly.

Aging population in India

India boosts of being the youngest nation in the world, with nearly 40% of the population below 40 years of age. Yet what we forget is that with a comparatively young population, India is poised to become home to the second largest number of older persons in the world. Projection studies indicate that the number of 60+ in India will increase to 100 million in 2013 and to 198 million in 2030.

Special features of the elderly population in India are :-

(a) 80% of old population lives in the rural and semi rural areas

(b) 51% of the elderly population would be women by the year 2016

(c) There is a steady increase in the number of the older-old i.e. persons above 80 years

(d) 30% of the elderly are below poverty line

Improvements in public health and medical services has resulted in substantial control of mortality and the life expectancy, which rose from 32 in 1947 to 60 years in 2001. The Total Fertility Rate also declined alongside from 6 in 1950 to 3.6 in 1990. This has led to rapid ageing of Indian population. The aged population in India has grown by 26% in 1951 and 1961, increasing to 34.5% in 1971-81. The proportion of aged to total population has increased from 7.2 % in 1981 to 7% in 1991 and is expected to be 8.1 % in 2001. The decadal percentage growth in elderly population for the period 1991-2001 is be close to 40, more than double the rate of increase of general population.

Table - 2 : Growth of Elderly population in India, 1951-2016

	Population above 60 years (million)	**Proportion aged to Total population**
1951	19.61	5.43
1961	24.71	5.63
1971	32.7	5.97
1981	43.17	6.32
1991	56.68	6.7
2001	76.66	7.2
2006*	81.81	7.48
2011*	95.92	8.14
2016*	112.6	8.94

** - Projection*
Source: Office of Registrar General of India (1991 and 2001)

Census 2001 also shows a steady rise in the dependency ratio, which touched a new high of 75% in 2001, up from 72.75% in 1991. This means that the non-working section of the population is rising steadily compared to the working section, resulting in a situation where a smaller group of young people will bear the burden of a larger group of people comprising children and the elderly. However, there

was a marginal decline in the 0-14 age-group, down to 35.2% in 2001 as against 37.3% in 1991.

Today, India is home to 1 out of every 10 senior citizens of the world. Both the absolute and relative size of the population of the elderly in India will gain in strength in future. Among the total elderly population, 78 percent live in rural areas. Sex ratio in elderly population, which was 928 as compared to 927 (women per 1000 men) of total population in the year 1996, is projected to become 1031 by the year 2016 as compared to 935 of the total population. The data on old age dependency ratio is slowly increasing in both rural and urban areas. Both for men and women, this figure is quite higher in rural areas when compared to that of urban areas. More than half the elderly population were married and among those who were widowed, 64 percent were women as compared to 19 percent of men. Among the old (70 years and above), 80 percent were widows compared to 27 percent widowers. Men compared to women are found to be economically more active. Out of the main workers in the 60+ age group, 78 percent males and 84 percent females were in the agricultural sector. Since women's economic position depends largely on marital status, women who are widowed and are living alone are found to be most vulnerable (Bose, 2000).

Impact of Globalization

The globalization has different meaning for different stakeholders. For some globalization bring new opportunities and increase in living standard, for others it may mean loss of jobs and increased migration. The elderly in this context suffer a double burden. Because of globalization, the traditional joint family systems are breaking up as the young in the family migrate for better livelihood options, leaving the elderly to fend for themselves. The existing safety net breaks and in absence of state social and health security system, the aged become more vulnerable.

Some of the important implications of globalization and its impact on the aging population are as under:

1. Breaking up of Safety Net

Though the process of globalization has always been on, it is the fast pace of the process, which is affecting the societal structures and

life style. Traditionally, India has been a country where the aged have been most respected. However the trends are changing.

Today, the ability of the traditional family to provide care for their elders is under increasing stress. Joint family system is breaking up. Migration from the villages and towns to cities in the early seventies might be seen as the point where it all began. As more and more young people moved to the cities in search of jobs, money and brighter prospects, they left their old people behind. When they found their jobs, they remained in the cities, causing the first dent in the structure of the traditional joint family system. Even the joint families in the cities began breaking up into micro units - nuclear families.

However, the changing socio-cultural trends and increasing needs and workload on the younger generations, is forcing a phenomenal change in thinking patterns. This is leading to an increased danger of marginalizing the geriatric population due to migration, urbanisation, globalisation and the demands of economic competitiveness. Also older people in India also do not have access to the same level of income security and health care that their counterparts in the industrialised countries enjoy.

So India has more and more broken-down families, an increasing number of old age homes, inadequate social support systems and a dearth of effective policies in favour of the aged. As the 60-plus population swells, old age homes have come to be regarded as commercial enterprises and are mushrooming all over the country.

It is said that Eskimos leave the aged persons on glaciers to die because they outlive their utility. This is most unfortunate. However, the sad part is that similar extreme cases have been reported in India as well. Some of the tribes living in the hilly tracts of South India also look upon their elderly as a burden, a group whose usefulness has been exhausted. Therefore, the thinking goes, they are expendable and, social workers have said, are killed[1]. The increasing commercialization and globalization has a direct bearing on the relationships within the families, including lifestyle changes and has an impact on the solidarity within the family. This in turn breaks the safety net for the elders within the family.

2. Increasing Economic Burden

Another impact of the globalization is the increasing economic burden on the elderly. Because of the large number of elders population in India, and because of the fact that the young are expected to fend for the elderly, the economic burden on the youth and the old is equally increasing. The cost of living is soaring high, the medical expenses are rising. As old age dependency ratios are increasing, the private savings are tumbling and the workforce is declining further. Since capital and labour is required for the economic stability and the viability of pension schemes, the picture can become grave in the years to come. Industrialized and developed nations are already feeling the brunt of the declining capital and labour. This has already had impact on investments, funds and grants which are coming to developing and underdeveloped nation. This cascading effect will further put additional burden on the elderly. Today there are 30 pension-eligible elders in the developed world for every 100 working age adults. By the year 2040, there will be 70. In Italy, Japan, and Spain, the fastest-aging countries, there will be 100. In other words, there will be as many retirees as workers. This rising old-age dependency ratio will translate into a sharply rising cost rate for pay-as-you-go retirement programs — and a heavy burden on the budget, on the economy, and on working age adults in any country.

Traditionally, Indian population never used to save enough for the future as the children were expected to take care of the elders in the family. Now with these structures breaking up, the Indian workforce comprising mainly of the service class started saving for the years to come. However, the decreasing interest rates on the fixed deposits, investments and provident fund, which formed the core of the savings has put an additional burden on the elderly. Inflating prices and decreasing interest on investments made has impact on the living standards of the aged population.

The upper class - middle class divide is becoming more and more apparent in elderly population. On one hand there is a group of senior citizens from the upper class, who are using the benefits of globalization and are going on world tours on ‘special senior citizen travel packages’, there is a vast majority of people who are eating into their meager investments to live a decent life due to lack on any viable social security scheme[2].

3. Privatization of Services

With the advent of globalization process, and the commercialization of services, there has been an appreciable increase in terms of service providers in all sectors, including services for the elderly. For example, private pension schemes and old age homes are now mushrooming in the country. However, traditionally Indian aged have always have faith on the government run schemes especially in the context of economic security. The hassles of private pension and failure of the private pension companies is a constant fear within the minds of those who invest their hard earned money in these schemes. This often leads to an excess baggage of emotional and economic insecurity. The medical schemes are seen with equal suspicion and wariness. We are yet to see the impact of these schemes and their long term sustainability.

4. Migration implications

When the young migrate, for economic reasons or otherwise, both the young and the old, have to run independent households. Though the household income may not double, but the expenses do add up because of splitting of the household, adding on to the economic burden. However, the young are expected to provide for their immediate family, comprising of the children and spouse. The increasing cost of living in the city adds additional burden. The result is that they can afford to send only a little part of their earning to their aged parents. Apart from the economic implication, the emotional and medical implications add up to pronounce the effect many folds.

5. Declining fertility ratio

It has been seen that as countries assume the status of developed or industrialized nations, the fertility ratio declines. As recently as the mid-1960s, every developed country was at or above the so-called 2.1 replacement rate needed to maintain a stable population from one generation to the next. The Population Policy of India promotes population control. Currently, we are the youngest nation of the world, but equally true is the fact that we are poised to become home for the second largest number of older persons in the world. India can not ignore the problem of aging. Ageing can no longer be viewed as a natural phenomenon, but as a national issue of grave concern.

6. Gender Concerns

It is important to realise that there is feminization of the elderly population and 51% of the elderly population would be women by the year 2016. There are powerful economic, social, political and cultural determinants , with far-reaching consequences for health and quality of life, as well as costs to the health care systems. Women suffer a dual vulnerability, first because of being women and second because of their age. Most women are poorer than their male counterparts, less educated and mostly engaged in informal sector. Due to globalization, there is a shift of activity from unorganized to formal sector. This results in loss of livelihood options for females mainly, as 80% of the workforce is engaged in informal sector. Even in formal sector, new technology is pushing women workers away as they are not trained to handle the new machinery. Most training, if imparted is imparted mainly to the men workers. Most women have lower income after retirement than men and are faced with greater health challenges after retirement. Most insurance companies shy away from insuring women, especially those in informal sector of work.

Area specific concerns

The older population faces a number of problems and adjusts to them in varying degrees. These problems range from absence of ensured and sufficient income to support themselves and their dependents to ill health, absence of social security, loss of social role and recognition. The needs and problems of the elderly vary significantly according to their age, socio-economic status, health, living status and other such background characteristics. Among the several problems of the elderly in our society, economic problems occupy an important position. Some of key areas of concern are:

- Aged population in the rural areas needs special intervention since their proportion is higher than in the urban areas mainly due to out-migration of young population, which is posing threat to their economic and social security.
- Nearly 90 percent of the total workforces are employed in the unorganised sector. They retire from their gainful employment without any financial security like pension and other post retirement benefits

- The dependency ratio among the aged has increased marginally, which shows that over the decade the measures for economic security have not reached a wider section of the aged.
- Women are more likely to dependent on others, given lower literacy and higher incidence of widowhood among them. The most vulnerable are those who do not own productive assets have little or no savings or income from investments made earlier. Apart from the token measure that government provides in the form of widow pension, a more holistic approach is needed from the society as well as from the family so that they are able to enjoy a life of dignity and respect.
- The above factors push women into chronic cycle of poverty from where it becomes difficult to escape. It has been seen that women living in urban slums are now falling pray to this menace more strongly because though living in urban slums means that she has access to more resources in terms of employment opportunities as industrial worker or labourer, better access to schooling for her children and health facilities for the family, but it also means that she often has to live insecure living conditions which are often hazardous, there is lack of water and proper sanitation, loss of traditional support mechanism, and women actually become vulnerable to abuse and violence within the family and also outside it.
- The state-level pattern shows that Kerala is the only state in India that has reached the last stage of demographic transition with an increasingly ageing population. The states like Tamil Nadu and Goa, which are at the second stage, require special thrust to meet the challenge posed by the impending ageing of the population. Though the northern states are in a high fertility stage but the sheer number of the aged population is colossal and their needs cannot be neglected.
- Work participation rates are quite high in the economically poorer states is quite high, which reflects on the lack of economic security among the aged, forcing them to work even at their stage in life. On the other hand, prosperous states like Punjab and Haryana show high dependency and low work participation rate along with high longevity. This reflects on their high economic

security. Hence the aged population of the poorer states needs special attention in the form of financial and social security.

The Way Forward

As India is reaching the last stage of demographic transition, ageing population will pose a threat to the socio economic setup of the country. Combating the challenges faced by rapid graying of population requires action from a variety of sectors, including health, education, employment, social security, housing and justice. All policies need to support intergenerational solidarity, especially for those who are marginalized. There is an urgent need to devise and implement a special social security for all elders, especially women. In India, the lack of health security and adequate social security can result into greater poverty and misery.

There is a need to shift from the welfare approach to the rights based approach. We need to identify the minimum conditions for living with dignity for the elders. There is need to formulate policies that lead to respect, protection and fulfillment of the elderly and enable them to live in peace, develop and reach their full potential, even in the years of seniority. Both the civil society and the governments should take approach, which is based on empowerment, equality of entitlement and access, participation, accountability, dignity, justice and respect for the elderly.

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Greying Citizenship : The Situation of the Older Persons in India

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ABSTRACT

Older Persons constitute 8% of the total population of the country today and is expected to grow to 21% by the year 2050. Two points that need to be taken into account about this segment of the population are : proportion and heterogeneity. We will ignore these issues to our peril. Older people face three major challenges in life : economic, health and emotional security. It appears to be a homogenous group to a casual observer, but on closer examination the complexities will become clearer, various combinations of age, gender, socio-economic status, marital status and culture, result in various intricate, and it times, intransigent problems for the elderly. The issues concerning aged and aging in India are getting negligible attention mainly because of preoccupation with problems of youth, family centric complacence, relatively secure post retirement life of the intelligentsia and middle class; culture of suffering in silence, concepts like family honour, physical and psychological dependence/ vulnerability and ageism. In other words, there has been lack of initiative on the part of the government and the segment itself to put forth its demand vociferously. The government has adopted a minimalist attitude to the challenges of aging. With the premium on market orientation, elderly have suffered a lot. There ought to be meaningful measures to provide cushion to the elderly from harsh market-led decisions

particularly in income and health security. NGOs have been making some efforts to provide some services to the poor and disadvantaged elderly in small pockets in some sectors. Articulation and mobilization of opinion on the important issues is the first step in the journey to ensure equality to these grey and marooned citizens of the country.

Key Words : Older persons, Aging, Challenges, Abuse, Government, NGOs, care, older women.

Demographic Trends and Implications

Significant improvement in life expectancy levels was visible in the 20th century. In the last 50 years, 20 years were added to the average lifespan, bringing global life expectancy to its current level of 66 years. In the least developed regions, men reaching age 60 can expect only 14 more years of life and women, 16 more, while in the more developed regions, life expectancy at age 60 is 18 years for men and 22 years for women. While stating the obvious that older persons are growing in numbers - today only one out of ten persons is 60 years or above in the world and by 2050 one in every five would be in that age group; we must emphasis on the following features and understand the implications of these developments on our society and its members. First, the older population itself is ageing and the oldest old (80 years or older) is the fastest growing segment of the older population. They currently make up 11 per cent of the 60+ age group and will grow to 19 per cent by 2050. Secondly, majority of older persons (55 per cent) are women. Among the oldest old, 65 per cent are women. Third, majority of the world's older persons (51 per cent) live in urban areas. By 2025 this is expected to climb to 62 per cent of older persons. In developed regions, 74 per cent of older persons of older persons are urban dwellers, while in less developed regions, which remain predominantly rural, 37 per cent of older persons reside in urban areas. These developments have lasting impact on the old-age dependency ratio. In the first 50 years of the 21st century, old-age dependency ratio is expected to double in more developed regions and triple in less developed, regions.

India may not be an archetypal example of this demographic revolution but certain features would be significant for India as well. In the last 50 years of 20 century the population of older persons increased from 19.6 million to 77.6 million in 2000. In the next 50

years the population of older persons is expected to go up to 324 million. In 2002, 8% of the older population was over 80 years of age and by 2050 this proportion is expected to go up 15%. Life expectancy at 60 for men and women is 16 and 18 years respectively. This should be seen in conjunction with the fact that 75% of male elderly are currently married as compared to 42% females. Sex ratio in 2002 was 91 for 60 plus population and for the 80 plus population it was 81. Potential support ratio is expected to decline from 12 in 2002 to 4 in 2050. In India, 75% elderly are estimated to live in rural areas but it is important to consider the out-migration rate from rural areas to understand the life situation of rural elderly.

With age people become more dependent on their adult children whether for economic, physical or emotional support. 90% of the workers in India are in the unorganised sector are therefore have to depend on their own meagre savings and family resources for economic security in old age. With age their medical and health care expenditure increases and their own resources shrink thereby increasing their financial dependence on adult children. In addition, health deteriorates and their physical dependence on adult children also increases. It is important to look at the available statistics to understand the dimension of the challenge. 10% of the elderly in India - about 8 million people are in need of psycho-geriatric services. According to another estimate the number of people affected by age related dementia in Africa, Asia and Latin America is 22 million and by 2025, the number may exceed 80 million. 11% of AIDS cases are reported in people aged 50 or over. In most Asian and African countries, cataracts account for more than 50% of all blindness (Ubaidullah, M. *et al.,* 2003) The occurrence of Alzheimer's disease increases with the age over 65 years. In India, the occurrence of dementia range from 0.84% to 4.7% (1998). According to the 52nd Round of NSSO data about 55% elderly in urban areas were afflicted with chronic diseases. 34% reported joint problems, 22.6% reported blood pressure problems, 7.5% suffered diabetes and 6.1% suffer from heart disease[4]. Alzheimer's disease, dementia means complete dependence of the elderly on the family members, joint problems restricts mobility of the elderly and diseases like diabetes and cancer require regular medical supervision and complete care of the elderly. More than anything else, elderly parents need the family to provide emotional warmth and comfort in the last years of their lives. Roles

and status of the family members change but its foundation should remain the same i.e. love and affection and consequent security, both social and emotional; the members of the family nurture and cherish each other. However, many of the elderly parents face neglect, maltreatment and deprivation at the hands of the family in India. A research study conducted in Delhi on elder abuse found that the elderly were facing abuse in one form or the other at the hands of their own children. It is widely accepted that older persons are vulnerable to abuse, neglect and exploitation. This emanates from physical and emotional dependence of older persons on young adults in the family. Abuse is generally understood as willful infliction of injury, cruelty, intimidation resulting in physical harm, pain, mental agony or deprivation. Neglect is the failure to provide goods or services necessary to avoid physical or mental pain or harm. Exploitation means illegal or improper act or process of an individual to use the resources of the older person for monetary personal benefit. Older persons could be deprived of choices, status, finances and respect.

Common form of mistreatment was neglect and apathy towards older persons in the family. They were treated as 'piece of old furniture that had outlived its value'. Their emotional, health and other needs were completely overlooked by their 'caregivers'. Older parents were supposed to adjust to the life style of new generation and were excluded from important decisions about the family members and also at times about themselves. This led to extreme mental depression and loneliness in older persons. This form of neglect cut across all socio-economic strata. The position of the aged is expected to worsen because the natural tendency to divert the limited resources of the family towards the upbringing and development of the younger generation and this would be a practice among of economically weaker segments of society.

Deprivation was another common form of abuse, where the needs of the elderly were overlooked or underplayed. Their dietary, health and other needs are simply ignored in many cases. The elderly women in all groups in Delhi complain of deprivation in varying degrees. In another study in Agra, 24% respondents complained of lack of good diet, 18% of lack of proper clothing, 47.5% of lack of household equipments, 30.5% of lack of medical facilities and 63% of lack of

recreational facilities. This kind of deprivation was reportedly faced more by females than males (Prasad, C. 1983).

Exploitation was another form of abuse that older persons faced in the society. The adult children not only used the services of older persons for managing homes, taking care of grandchildren but also asked the elderly to pay the telephone, electricity and other bills of the household; while they themselves had restricted access to these facilities. Serious economic abuse was acknowledged, especially by way of dispossession of property. The participants themselves cited cases wherein the children took over the property while the older parent/s were alive and then confined him/her/them to one corner of the house.

Class and gender seemed to create some specific problems for the elderly. Participants of the lower and middle income group identified "economic vulnerability" as a major problem. This resulted in various forms of neglect and exploitation. Many of them had spent their life earnings on the education of their children and expected their children as social insurance for 010 age. After retirement these people were partially/fully dependent on their children and this economic vulnerability resulted in loss of dignity and humiliation. Most of them were rudely shaken to face the reality. The son and daughter-in-law treated them as a burden. Many of them were shunted from the house of one son to that of the other. This periodic rotation caused anguish among the parents and at times affected their health. Cases of exploitation in the form of service were also reported by some participants where particularly the mother-in-law had to perform all household chores and to the liking of the adult children.

Upper middle and higher income group identified lack of emotional support and emotional void in life as major problems and economic exploitation as a secondary problem. Most of them were highly qualified and highly placed professionals like doctors, engineers, bankers, academicians, researchers, who were given mandatory retirement at the age of 58/60years. Most of them belonged to families where the adult children are also highly qualified and well placed and had neither the time nor the inclination to provide emotional support to their parents. Families had no use for these older persons as the traditional duties of the grand-parents were mostly performed by outside agencies. They felt neglected, lonely and

isolated. They were neither allowed to participate in the decisions-making nor invited to take part in social functions. Their likes and dislikes were ignored and were expected to conform to the life pattern of life of their grand-children. From apparently minor matters like volume of TV, music programmes, food routine to other matters related to life style.

This group also identified economic abuse as a problem faced by older persons and quoted numerous examples where older persons had been cheated of their resources, confined to one small room in their own house, coerced to share money for the children's benefit. Elderly parents normally gave in to these pressures to avoid confrontation in the family.

In the lower middle class groups, neglect and maltreatment assumed a more obvious form. Most of them lived in small flats (60-100 square yards) accommodating 6-8 members, in such circumstances the elderly were forced to live under the staircase, in the kitchen or in the veranda. They were often without private space in their own home and could not live life according to their own wishes.

Vulnerability of elderly women to neglect, isolation, deprivation, exploitation and other forms of abuse came out very clearly in this research study. Though, ageing process is expected to enhance the status and role of women in many societies. Ageing women's apparent increase in status has been due to their greater involvement in activities reserved for men. The involvement of women in decision-making on family matters is quite common. It is generally observed that women become more effective in family affairs as the children grow old. Ross observed that position of mother as a consultant meant in reality that in most families, she shared the responsibility of making the major family decisions with the father (Geetha Gowri, R., *et al.,* 2003). However, women in the group complained of mistreatment at the hands of daughter-in-law, particularly those who were economically dependent or widowed. Their urgent needs were denied by the family even to the extent that they could not go to the doctors for their health needs. This not only meant depending on a family member to accompany them to the health facility but also spending money. According to them mostly the family was unwilling to do either. This also led to self-neglect in many cases. They tended to underplay their health problems for the sore reason of causing

inconvenience to the other family members by way of escorting them to the doctor and/or spending money by way of consultation fee and medicines. They further voiced that for widows the situation was even worse because in most cases these women were dependant on their son or daughter-in law. This in effect meant that it was the sole discretion of children to decide "whether she needed medical assistance".

Most of these women were reticent about the maltreatment meted out to them lest someone might go and tell this to the family and their behaviour might worsen. The loss of status was more pronounced for the widows as they were completely at the mercy of their children.

Women in the higher socio economic category put loneliness as the primary problem affecting the order persons. Some of them were living alone, depending completely on paid domestic helps. Their adult children were willing to provide financial support but refused to provide care and emotional support. The mental agony caused by this utter neglect was no less than financial dependence and also led to various mental health problems. In this case lack of adjustment from both ends i.e. adult children and the elderly was quiet evident as both wanted to assert their respective point of view. The educated and professionally qualified, wealthy mother in law did not see any reason to bow to the wishes of the similarly placed daughter-in-law.

As already stated, immigration presented an unusual dilemma before elderly. Those elderly who immigrate with their children to foreign land find it immensely difficult to adjust to the new environment, culture, values, life style, language etc. They feel alienated from their surroundings. Most of them long to return to their native land. A small study (Indira J. Prakash, 2003) conducted in Bangalore city revealed that nearly 2/3 respondents did not want to live with their children abroad. Most expressed the feeling that their age and lack of mobility in a foreign country made them totally dependent on children, both physically and economically. Those who chose to stay back were faced with an 'empty nest' syndrome. Most of them complained of lack of emotional support and care givers in the context of their failing health. 62% respondents expected instrumental help and emotional support from adult children during a crisis only between two to twelve days period. When these elderly parents live alone then they have to face the challenge of coping with day-to-day activities and also crisis situation like acute health problems. They

have to either deal with it single-handedly or have to seek help from neighbours or relatives. In most cases it is not only impractical but also demeaning to ask help from "others" when your own children are improving their economic prospects abroad.

Political Invisibility: Causes and Consequences

Democracy as a form of government depends on participation of its citizens. People are expected to mobilize and articulate their opinion on issues that concern them. Political participation is a mechanism through which needs and preferences of citizens are communicated to political decision makers and by which pressure is brought to bear on them to respond. Therefore, all those people or groups who are unable or unwilling to do this cease to matter to the system. In other words, without political participation the 'interest' of any segment of society cannot become state defined 'public interest'. Recognition by the state is important, as in India, we still consider it a progressive instrument that can intervene in society to restore equity and justice. The near omnipresent liberal bureaucratic welfare state with its decisions affecting and determining almost all spheres of public as well as private life cannot be denied. However, with deepening of roots of democracy in the country, many people had started questioning the idea of top down approach where state facilitated development programmes and begun talking of people's involvement and participation in these programme. This idea was picked up by global players and in the past decade policy makers have started increasingly relying on the concept of social capital to fashion development interventions that mobilize pre existing local social networks for varied policy goals. If this is the case then empowerment of those who are affected by these policies and political changes, is of paramount importance. Elderly are unable and at times unwilling to participate in the system for various reasons including physical frailty, extreme dependence and ethos. Another way in which issues or concerns get mainstreamed through championing of a certain issue by other than stakeholders, here also the elderly are at a disadvantage because the general view of the upper caste and upper class where family is still providing some kind of support to its elderly, these are family matters to be discussed and resolved within its precincts.

Culture plays its role in dissuading elderly to talk openly about the treatment meted out to them. In the study on elder abuse mentioned

above, many of the respondents did not want to talk about the maltreatment meted out to them by the son or daughter-in-law or the grandchildren, for the simple reason that they were too attached to them! The very thought that they will be washing dirty linen in public was repulsive! In this study, to the surprise of the facilitator, it was found that majority parents were trying to defend the behavior of their children by attributing it to changed culture, pressures of modern life style and other such reasons, many parents were blaming themselves for maladjustment and consequent conflict. This was the case for the middle class parents who still are caught in the "cross-fire" between tradition and modernity. They still wanted to retain the old values of family honour, underplaying conflict situations and sacrifice for the sake of children's comfort and most important premium on 'maturity' as manifested in ignoring or forgiving bad behaviour of adult children.

In some other cases this reticence resulted from extreme physical, emotional and at times economic dependence. In most cases, if the elderly did not have a choice but to depend on their children for support that varied from dependence for activities of daily living to economic dependence then they had no choice they hesitated to talk about it in open for the fear of reprisal by the children. This fear was more pronounced in case of elderly women. Most of the women in the al women group kept quiet about their needs and neglect of their needs by the family for the fear that someone from the group reported it to her son she would be in trouble.

Clearly, in case of elderly the pressure from the segment is at best minimal. The segments which can possibly provide leadership in this case are the elderly from urban middle class but are unable to play the role for the following reasons besides cultural inhibitions. If we look at the organizations that represent the interest of elderly in the country and analyse their composition we will find that they fall in two broad categories: Pensioners' associations and Senior Citizens associations. Their focus is too narrow '. the former concentrate on the economic gains of the pensioners, which incidentally form a minority of the total working class in India and the latter organizations cater to the local needs. Another point that goes against developing political consciousness among this group is the security that is being given to them by the system. Their health, economic and social well-being is guaranteed by virtue of their employment in government sector. The

elderly who belong to the poor and chronically poor households lack the time, resources, platform and inclination for political participation to press for their demands. Elderly women are doubly disadvantaged as women and as elderly and triply disadvantaged if they are widows. So, the question of their political participation does not arise. Surprisingly, even the women's movement in India is not actively taking up issues that concern elderly women. Their exclusive focus is on young girls and women.

This could possibly be due to involvement of many elderly women as perpetrator of domestic violence against younger women.

Another important factor in weak participation is lack of consciousness among the elderly of their rights as elderly. Horizontal bonding among them is overshadowed by so many other factors like family, children, class, caste etc. They do not think as elderly and act as a group.

It is clear from the facts mentioned above that there is negligible factors pressurizing the system or the government to examine the problems faced by aged in our country .But there is also no pressure from above so to say that can at least lead the way to change. The political classes do not articulate the concerns of the elderly for the simple reason that elderly are not politically organized. They are scattered and as mentioned earlier not conscious of their common Identity. So, they are electoral insignificant, hence overlooked by the political leaders. At the most governments have adopted a minimalist attitude towards them. If you look at the election manifesto of the national political parties you will know the order of priority these issues are for the leaders.

Ageism in one form or the other works against the elderly occupying the space in the political arena like the other groups of marginalized people. People retire at a certain age not when they want to give up work. This is the biggest example of ageism. Even socially it is acceptable to relive the parents of responsibility and consequent authority in the family that they were exercising till then. They are only considered recipient of welfare doles not fit partners in any activity. So, the whole thrust is to give them few concessions and privileges and feel happy that society has done enough to make them comfortable. Moreover, it is a young nation a developing nation and had to face plenty of challenges including improved child mortality

rate, children's health education employment etc. so, the elderly do not come in that list of recipients at all or if they come they are very low in the priority list.

Impact of Social Political and Economic Developments on the Aged

This brings us to the role of state intervention in society to change it or regulate it. Since independence or even before that thrust of social reform movement had been on progress of women. This has been reflected in policies that encourage women to educate and enter the field of paid employment. The undercurrent has been to encourage women to think as individuals and strive towards personal goals. Women are encouraged to educate take up a job and they marry later in life. After marriage they go in for a small family norm. The moderate success of these polices have resulted in transformation in family structure and function. Families are smaller; women are employed and marry at a mature age. The last two factors have resulted in younger women asserting their rights in the family and also level of integration with the in-laws is much less as compared to traditional family system. Combined with this are the laws made and subsequently amended to protect women like the Anti Dowry laws, stree dhan laws etc empower the police to arrest the in-laws on a simple complaint of harassment by in-laws for dowry. Whether this law has been used for the benefit of those women who require it is doubtful but certainly is a potent weapon in the hands of rouges who can use it to harass elderly in-laws.

In the economic field, the full play of market forces in the financial markets has resulted in lowering of interest rates. Interest is the mainstay of the income of many elderly who do not get any regular pension but invest their resources in such deposit schemes that yield secure returns. At an advanced age it is not advisable to invest in sectors that are prone to fluctuations or where return may be high but not secure like the stock market. In addition, the taxation policies of the government to deduct tax from the income accruing from interest; has also adversely affected the position of the elderly which is already precarious.

Though there are constitutional provisions that talk about social security for elderly, there are laws that deal with maintenance of destitute elderly parents by adult children. Government of India

adopted National Policy on Older Persons in the year 1999 (International year of the Older Persons). It is a comprehensive document that is divided into three sections: demographic trends; Principal Areas of Intervention and Action Strategies and Implementation. If you look at the document you will be forced to agree that it is a perfect document that analyses demographic trends and then decided principal areas which require intervention and then specifies all the bodies responsible for implementation. Ministry of Social Justice and Empowerment has been designated the nodal ministry to look after the issues of ageing and aged. Following bodies have been proposed to be set up for ensuring proper implementation of the NPOP:

- Inter-ministerial Committee
- National Council for Older Persons
- National Associations of Older Persons
- PR Institutions

The Principal Areas of Intervention and Action Strategies include an almost exhaustive list of concerns of the elderly. It includes: financial security, health care and nutrition, shelter, education, welfare, protection of life and property, other areas of action, releasing the potential, non-government organizations, family, research, training of manpower and media. However, the governmental effort seems to be minimalist, they have lacked in sustained effort to improve lives of the elderly on all these counts. It is not only the government that has adopted a passive attitude to the problem of elderly, but the NGOs and older persons' organizations have also not been able to build requisite pressure on the government to implement the NPOP in the right earnest.

Market forces or private sector is also not fully initiated in this endeavour. At the most pharmaceutical companies are in the filed doling out resources to help disadvantaged elderly. But, they are just touching tip of the iceberg. The real challenges that lie in the field of health security are accessibility and affordability of medical health facilities. Elderly require special geriatric care which can be available only in the tertiary hospitals, their medical expenses increases with age whereas their income decreases or remains static despite increase in inflation. However, the private hospitals are unwilling to provide concessions to these elderly and the insurance companies are unwilling

to foot their bill beyond 80 years and also the bills of diagnostic procedures during the coverage period.

In the area of emotional security we find fancy old age homes coming up in metro cities that cater to the rich and upper middle class elderly and also those with NRI children who just want to provide material comfort to their parents back home. Such facilities are mushrooming in town and big cities. But are these homes providing any meaningful support to the elderly remains to be seen.

Where Do We Go From Here?

There is an urgent need to mainstream issues concerning the aged and ageing in India. The needs and requirements of the elderly should not be overlooked by society. We need to fight ageism that is so deeply ingrained in the societal psyche and reinforced very powerfully by the media. Elderly should not be considered a spent force and consigned to the history books but seen as active members of the society contributing to its well being. Society and government should be sensitized to the fact that old age is also another phase of life with its special characteristics and needs just like childhood and youth. Though the losses in this phase of life are more than in any other phase in life but still all is not lost. The younger people should get to know how the world appears to the elderly; because that is the future of the youth. Most importantly, the elderly should be encouraged to get out of this 'retirement mentality' and think about old age as an opportunity to complete so many unfinished tasks and may be expand their horizon and look beyond the self and the family and work for community. Active participation is the mantra for being ensuring independence, dignity, self fulfillment and then become entitled for care. But, until that happens on a mass scale NGOs should take the lead in mobilizing elderly to take up their case in various forums and also articulate their interest in various policy forums. Once awareness is spread to considerable sections in society and elderly are mobilised they will form their own groups to struggle for their rights. These are ways of empowering the elderly to participate in the democratic process and once that happens then democratic channels of participation should facilitate participation of this group of people in governance.

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Book Review

Positive Aging: A Guide for Mental Health Professionals and Consumers

By Robert D. Hill. WW Norton & Co., New York, 2005. 256p. Price $27.95

Recently some American psychologists, led by Martin Seligman, have launched a movement of "positive Psychology." It has been picked up by several disciplines and professions dealing with human and social affairs. There is a strong growing shift in "positive" direction. The present volume is a valuable contribution, reflecting this shift, in an important area–aging.

It may be useful to have a historical perspective on this shift, especially in the context of the Indian culture. Psychology and other behavioural sciences, by and large, are the product of a Western tradition and the Industrial Revolution. These have been borrowed by other cultures.

Behavioural sciences have two basic roots that developed in the West. In the Christian tradition, universal sin is emphasized and Jesus Christ is perceived as doing penance for the sin of humanity, as shown through the Crucifix. As a result, Western culture is largely guilt culture, rather than shame culture. While this has contributed to excellent efforts in community service, it has also emphasized the need to purge society of evil. The medical profession did this by treating patients for various kinds of illnesses, and clinical psychology followed the same tradition of 'curing' mental diseases.

The second root of behavioural sciences is the Industrial Revolution in the West. The Industrial Revolution led to unprecedented achievements, but at the same time over-emphasized the qualities generally attributed to men (achievement, drive, hardiness, toughness, aggression, etc.), thus bringing about a male-dominated society. Some Western thinkers have recently started questioning such a biased emphasis on 'manly' qualities, and concepts

such as that of 'emotional intelligence' have been proposed to balance this bias. As a result, several authors have addressed the need to develop a positive approach. For example, Seligman–who did pioneering research in helplessness–came up with the concept of 'learned optimism' (Seligmen, 1995). More recently, 'flow' (as contrasted with 'rumination') has been emphasized (Csikszentmihalyi, 1993).

Until recently, 'clinical psychologists gave almost all of their attention to the diagnosis and treatment of pathologies, and social psychology became preoccupied with biases, delusions, deficiencies and dysfunctions of human behaviour. For example, a search of contemporary literature in psychology as a whole found approximately 200,000 published articles on the treatment of mental illness; 80,000 on depression; 65,000 on anxiety; 20,000 on fear; and 10,000 on anger; but only about 1,000 on positive concepts and capabilities of people. Over the years, the tendency has been to view positivity with doubt and suspicion–a product of wishful thinking, denial, or even 'hucksterism' (Sheldon and King, 2001, p. 216). A group of psychologists has now started to develop what is called 'positive psychology'. The aim of positive psychology is to shift the emphasis away from what is wrong with people to what is right with them, from vulnerability to resilience.

Contrasted with the Western tradition, Eastern tradition has always emphasized the need to integrate the 'masculine' qualities with those traditionally attributed to women. The concept of androgyny, now becoming popular in the West, has always been a part of Indian tradition. It is interesting to note that thousands of years back we already had the concept of *ardhanareeshwara*, depicting *Shiva* as half man and half woman, symbolizing that even God is not complete without an integration of the masculine and feminine. In India, great emphasis is thus laid on values and characteristics generally attributed to women, such as compassion, caring, peace and non-violence. Mahatma Gandhi represented this basic tendency of the Indian psyche effectively in modern times. The same qualities are being emphasized today in the West in concepts like emotional intelligence. Similarly, in Ayurveda the emphasis was on achieving well-being rather than merely curing illness.

Now American psychologists are also laying more emphasis on the understanding and promotion of positive attributes such as contentment, flow, optimism and hope. The *American Psychologist* has published two issues on positive psychology in 2000 and 2001. The *Journal of Humanistic Psychology* also published a special number in 2002 emphasizing the need for positive thinking in psychology. There is thus a fairly strong movement towards positive psychology (Seligman, 1998). As Seligman states in the introductory chapter of the special issue of *American Psychologist* (Seligman, 2000). "The field of positive psychology at the subjective level is about valued subjective experience: well-being, contentment, and satisfaction (past), hope and optimism (future), and flow and happiness (present). At the individual level it is about positive individual traits– the capacity for love and vocation, courage, interpersonal skill, aesthetic sensibility, perseverance, forgiveness, originality, future-mindedness, spirituality, high talent, and wisdom. At the group level it is about the civic virtues and the institutions that move individuals toward better citizenship: responsibility, nurturance, altruism, civility, moderation, tolerance, and work ethic".

In India, positive approach has been emphasized by some scholars. Pareek proposed a new basic need or motive, (the extension motive, which is the need to be relevant to others and to a larger cause (Pareek, 1968a) discussed its role in development (Pareek 1968b), and designed instruments to measure it (Pareek and Dixit, 1964).

In 1971, as part of another study the effect of teachers' influence styles (teaching behaviour) on pre-adolescents' positive mental health was investigated in a project supported by the Indian Council of Medical Research (Rao & Pareek, 2006). Pareek has also proposed hope (as contrasted with fear) as a basic dimension of organizational variables such as motivational behaviour, interactional style, power, and developed instruments to measure these. He has proposed the concept of 'organizational ethos.' (Pareek, 1994). Khandwalla (1994) has proposed the concept of the pioneer-innovative (PI) motive relating to development and industrialization. Others have recently suggested the concept of SQ (spiritual quotient), parallel to IQ and EQ (emotional quotient).

The volume under review is a welcome addition to the growing literature in the "positive" tradition. Drawing on the concept of

"positive psychology", positive aging, in this volume has been proposed, like happiness, to be a state of mind as much as it is any specific form of action or strategy. "To be happy and healthy in old age involves discipline in reframing perceptions and cultivating positive emotions to cope with the realistic dilemmas of aging."

The book presents different aspects of positive aging and has suggested tools that practitioners as well as geriatric counselors can use to help older adults maintain a positive aging outlook even in the presence of age-related decline.

The book opens with the presentation of a framework for positive aging. Distinguishing it from other terms that describe the aging process, it is proposed that the essence of positive aging is the psychological nature of growing old and the possibility to adopt lifestyle patterns and ways of thinking that can promote well-being in old age. The related terms used in the literature are: *normal aging, successful aging,* and *positive aging.* As positive aging is essentially a psychological construct or a state of mind, it is obtainable either in the presence of health or in illness. However, it requires deliberate effort to engage a positive aging mindset. The author's goal is to discuss how to cultivate positive aging while coping with the personal challenges of growing old.

Aging is a part of individual development. Some models of adult development are supportive of positive aging. The book has provided an overview of three prominent theories of aging and adult development: Erikson's life stages of psychosocial development, continuity theory, and Baltes et al.'s theory of selection, optimization, and compensation (SOC). Erikson has proposed a 8-stage theory of development (Trust vs. Mistrust, Autonomy vs. Shame and Doubt, Initiative vs. Guilt, Industry vs. Inferiority, Identity vs. Confusion, Intimacy Vs. Isolation, Generativity vs. Self-Absorption, Integrity vs. Despair). Erikson's theory implies that the eight stages of development occur in evenly spaced intervals across the life span, and that the progression toward maturity moves forward from each stage in the next. According to him, the last stage (Integrity vs.. Despair) occurs from 70 plus. The other important theory, which the author has extensively used for discussion of aging and suggestions of interventions to deal with the problems of aging, is the selectivity, optimization and compensation theory (SOC). This theory is focused

on specific forces that can be isolated to facilitate to review aging. According to the author this is the most comprehensive and empirically grounded theory of adult development and aging. These models of aging provide a framework descriptive of positive aging. Developmental theories, in terms of positive aging, as a psychological state, emphasise meaning, adaptation, and skill development that enhance the qualitative experience of growing old. Well-being in old age requires a person to find meaning in his or her own aging experience, adapt to changes as these emerge in late life, and develop skills that can be used to slow or prevent age-related deterioration. It may be mentioned here that the Indian concept of stages of development is quite similar to that of Erikson, except that in India only four main stages have been proposed (Brahmacharya, Grahasthashram, Vanaprastha and Sanyasa). These stages are proposed as the process of development and maturation, and transaction from one stage to the next is suggested as a way of making that stage meaningful and satisfying. In this sense, the Indian concept is a positive concept of aging. In fact, the Indian concept implies maturation rather than aging.

One chapter of the book has been devoted to the age-related decline and its effects, describing decline in old age on a continuum of *successful, normal, impaired,* and *diseased* aging, highlighting the heterogeneity of normal aging. These can be distinguished on the basis of their differential decline trajectories and the age-range confidence intervals at the point of death. The author has discussed and explored qualitative distinction between age-related and disease-related decline, as well as strategies (particularly memory strategies), like "selective optimization compensation" (SOC) for dealing with age-related deficits. The author has emphasized the importance of wisdom as a consequence of age-related change and as a life skill that can be acquired for achieving positive aging. Wisdom as a life skill emerges for some people from years of experience. Wisdom is a form of knowledge or learning that is achieved as a result of learning from life's challenges and opportunities. The author has suggested strategies for promoting wisdom in old age, including how the effective application of SOC can cultivate wisdom in later life.

The author has reviewed assessment approaches for common old-age issues, including cognitive deficits, depressive and anxiety

symptomatology, functional independence, and well-being and life satisfaction. The various assessment devices discussed include Global Deterioration Scale (GDS), the Mini-Mental Status Examination (MMSE), the Dementia Rating Scale (DRS), the Short Portable Mental Status Questionnaire (SPMSQ), The Geriatric Depression Scale (GDS). Other instruments have been discussed to assess adaptive functioning and quality of life in old age. The relationship between assessment and positive aging has been examined.

This author has also examined assessment tools used to identify areas of deficit and strength in older persons with respect to mental status, mood, functionality, and life satisfaction, describing specific instruments and the rationale for employing them in the assessment process. The geriatric health-care provider should have at his or her disposal instruments to guide interventions that can promote positive aging in later life.

Some personality traits are a stable aspect of a person's intrapsychic world and influence how he or she interacts with the everyday world, including the consequences of personal decisions across the life course. The traits highlighted in the book are neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. While personality traits are not amenable to change, counseling strategies may be effective in altering some of the external manifestations of behaviour or cognitive processes that result from these traits. For the purpose of developing a general approach to counseling, maladaptive stylistics should be identified, including rigidity, negativity, worry, self-absorption, and regret—either as beliefs or assumptions that represent a barrier to positive aging. The author has described each maladaptive stylistic as qualitatively distinct; however, the stylistics reflect an inflated sense of self as deserving exclusive focus from others. Each of these maladaptive characteristics produces a biased form of selective attention on oneself. Appropriate counseling strategies can be used to help older persons who manifest behaviours consistent with rigidity, negativity, worry, self-absorption, and regret.

One chapter is devoted to psychotherapies. It reviews several traditional psychotherapy modalities, including psychodynamic, behavioral and cognitive behavioral therapy, family systems, existential therapy, and group counseling, to address mental health

concerns in old age. The author has discussed a positive aging strategy for addressing the needs of older adults from special populations, including those who represent diversity with respect to gender, race, sexual orientation, and socioeconomic status.

The author has taken up two mental health issues common in old age, depression and anxiety. Although only a small percentage of older adults would show clear symptoms, the symptoms of these disorders are likely to be encountered by most people at some time during late life. Older adults are vulnerable to specific events that could stimulate symptoms including age-related cognitive decline, loss of social support, role changes, and a decline in available resources. Several approaches to counseling suggested are supported by empirical data that indicate that they are effective in addressing such issues and can promote positive aging: psychodynamic therapy, cognitive behavioral therapy, family systems therapy, and existential therapy (including life review). The author also discusses different ways of delivering therapy, including individual and group formats. The author has advocated the role of sociocultural differences, including gender, ethnicity, and sexual orientation to make therapy meaningful to the broader cross section of older persons who represent individual and cultural diversity.

The author has examined disability in old age and how it affects the aging process. Reframing the issues of chronic disability and caregiving from a positive aging perspective. The author has described a positive aging approach for dealing with disability, including the concept of active life expectancy (ActLE) and how this term is related to a positive aging framework for addressing age-related disability. Examining cognitive impairment, as a special form of disability, the author has dealt with issues of caregiving, suggesting a positive aging strategy for optimizing quality of life and well-being in caregiving. The role of extended care environments, has also been examined, including a framework for gauging disability in terms of balancing impairment with "levels of care." The Eden Alternative has been suggested as an example of a positive aging approach to long-term care.

A new approach to counseling has been advocated in this book. According to the author, well-intentioned counseling interventions frequently fail because they are not consistent with the kinds of coping

strategies that an older adult may have developed over the years. The book gives some novel approaches to change and adaptation that could be useful as "counseling and psychotherapy adjuncts" with respect to models of positive aging. The concept of *positive spirituality* has been introduced, and its relationship to positive aging has been explored. Life-span skills such as forgiveness, altruism, and gratitude consider the whole person as actively shaping his or her world. These meaning-based life-span strategies are useful tools for dealing with some of the more difficult issues facing older adults. SOC highlights each of these meaning-based concepts. Although a person may be exposed to these concepts at a very early age, the mature manifestation of forgiveness, altruism, and gratitude in repairing a relationship or reconciling personal loss can enhance quality of life as well as the well-being of those with whom the person is involved. Erikson's contribution to the resolution of dilemmas at each development stage is significant in helping the individual to resolve tensions between the self and society. These life-span skills can help in the resolution of such crises as well as foster in- creased maturity in the process. Meaning-based life-span skills can help to optimize the inevitable declines experienced in old age, promoting, as an outcome, positive aging.

The final chapter deals with issues of grief and bereavement experienced in old age, and addresses the psychological realities in confronting one's own death and the dying process. It has examined the nature of loss from two perspectives; namely, the loss of loved ones through death and the experience of loss associated with one's own dying. In both instances positive aging can be a source of coping. One's social network (and the encouragement it provides with respect to the loss), and the reframing of loss through the cultivation of positive emotions are two potential areas for coping with such issues. The role of the professional counselor as an active agent who engages these kinds of positive aging strategies to address the issues of loss is critical. The role of the professional counselor may include functions like assessment, intervention planning, and implementation of intervention approaches that promote positive aging. Effective counseling strategies catalyse the strengths within the individual, and in his or her social network, in coping with loss-related challenges. Hospice is a good example of a positive aging approach to the needs of dying person.

On the whole, the book has presented a refreshing approach to aging, and has given concrete suggestions to help people concerned to make old age a meaningful experience, and to accept aging and death as a part of the maturation cycle. Such a positive approach is likely to reduce the need of *therapeutic" approach.

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