Generativity, Resilience and Mindfulness: Psychological Correlates of Physical Health and Subjective Wellbeing Among Young Elderly

Pre-Submission Ph.D. Synopsis

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Abstract

Globally India is projected to climb up to the first rank with an estimated 16.64% share of the total world population by 2050. Within the country, the population of the '60 and above' demographics is estimated to increase from 7.6% of the total population in 2000 to 20.6% in 2050. The growth in elderly population is a result of economic wellbeing, better medical facilities and reduction in fertility rates. These figures indicate population ageing to be a major concern with profound economic, political and social implications for the country. Urbanization and migration of working age population has affected our age-old joint family system leading to the elderly experiencing loneliness, emotional neglect and lack of physical support (Elderly in India 2016, MOSPI). Internal and international migration which constitutes majorly a working age population is causing increase in dependency ratio among the elderly (The International Migration Report, Dec 2017, United Nations, DESA).

According to the World Population Ageing 1950-2050, UN Population Division, DESA, 2015 report, increase in parent-support ratio from 0.9% to 1.9%, as against decrease in the potential-support ratio from 14.7% to 12.4% from 1975 to the year 2000 highlights the need of independence among the elderly. The World Health Organisation has recognized well-being as an inevitable component of healthy ageing. 'Healthy living and wellbeing at all ages' is third out of seventeen Sustainable Development Goals adopted by all United nations member states to be attained by 2030; which encompasses the elderly population as well(UNDP,India,2015).

The past research has focused on health and wellbeing as major contributors to successful ageing; however there is a paucity of research undertaken in the Indian context. Considering the same as a research gap the present research seeks to examine the precursors of successful ageing through physical health and subjective wellbeing in the Indian context. The research would focus on the young elderly i.e. older adults between 60 and 70 years, as they are physically & mentally fit with reduced family and work responsibilities who are willing to adopt new learning and who have a longer runway in terms of their remaining life. This would result in maximization of benefits to the elderly and society at large.

Various philosophical and psychological perspectives have proved that the maintenance and enhancement of the wellbeing is highly dependent on the quality of the consciousness. Mindfulness is one of the attributes which nurtures consciousness by non-judgmental

observation of every phenomenon, resulting in behaviour regulation and wellbeing. Generativity, as an attribute is very pertinent to the young elderly stage of life, connects individual to the society and also acts as a significant predictor of life satisfaction and wellbeing. Most elderly face the adversity in some form. Resilience nurtures personal qualities which help to cope with adversity successfully. The role of nutrition, exercise and spiritual engagement in health and wellbeing of older adults is elucidated in the prior studies. Thus, the researcher has studied these factors in Indian context.

Living arrangements encompass type of family and the kind of relationship of the elderly with others which contribute significantly to the ageing process and psyche of the elderly. It is manifested in their physical health and perceived wellbeing. In the same context, the sample in the present study consisted of 103 institutionalised elderly and 349 non-institutionalised elderly. Generativity, resilience, mindfulness, physical health and subjective wellbeing with respect to living arrangement of elderly were studied in the Indian context.

Based on the findings of past literature, it was hypothesized that, 'Generativity, mindfulness and resilience will have significant effect on the physical health and subjective wellbeing of young elderly'. It was also hypothesized that 'There will be a significant mediating effect of nutrition, exercise and spiritual engagement on the relationship between generativity, mindfulness, resilience and physical health and subjective wellbeing of young elderly'. The research used Explanatory Sequential Design which is a Mixed method design to test the hypotheses. The research was carried out in two phases.

In Phase I of the research, quantitative design was used to study the effect of generativity, resilience and mindfulness on physical health and subjective wellbeing among the young elderly. The standardized psychometric tools such as Five-Facet Mindfulness Questionnaire-15 by Baer et al., Generativity Behaviour Checklist by McAdams & Ed de St. Aubin, Connor- Davidson Resilience Scale by Connor & Davidson and Subjective Wellbeing Inventory by Nagpal & Sell were used to collect the data. The Pilot study using a survey method was conducted on 15 young olds. On the recommendation of the participants from the pilot study, the tools were translated in Hindi and Marathi languages and number of filler items of the Generativity Behaviour Checklist were omitted to make the tool comprehensive. The main study consisted ofadministration of the standardized psychometric tools and self-constructed checklists on 452 elderly between 60 and 70 years from Mumbai and Pune city. The researcher studied relationship between subjective wellbeing and physical health in the above sample. The analysis of the results by linear regression revealed subjective wellbeing

as a significant precursor of physical health among the elderly. The other hypotheses will be testified by using appropriate statistics in further research.

Phase II of the research was carried out in two parts.

In Part (A) of Phase II of the research qualitative design was used to understand perception of young elderly towards physical health and wellbeing. Based on the responses, the researcher identified 30 participants who scored high on either generativity, resilience and mindfulness. With the help of probes, semi-structured interviews of these identified participants were conducted to understand their perception of generativity, resilience, mindfulness, physical health and subjective wellbeing. The content analysis of the participants' responses generated various sub themes of generativity, resilience, mindfulness, physical health and subjective wellbeing. In further part of the research, major themes will be generated by the researcher.

Due to COVID-19 Pandemic, the institutionalised elderly experienced social disconnect to a large extent. The researcher felt the need to interact with them on individual basis and help them to cope with it in the best possible way. As a part of the study the researcher interacted with the institutionalised elderly from Vatsalya, the Home for Senior Citizens, Mumbai.

Thus, in Part (B) of Phase II of the research, through telephonic interactions the researcher made each elderly aware of the importance of being generative, resilient and mindful which would lead to happiness and graceful ageing. The outcome of 37 sessions conducted by the researcher revealed acceptance of the situation and developing generativity and mindfulness with more conscious efforts.

Key words: Generativity; Resilience; Mindfulness; Physical health; Subjective wellbeing; Successful ageing and Young Olds

CHAPTER 1: Introduction

1.1 Population ageing as a global concern

In today's modern era, advancements in medical technology have resulted into longevity on a global level. A demographic transition of reduced mortality and fertility, with lengthening life expectancy is shifting relative weight more to older cohort. Global average life expectancy has increased by 5 years between 2000 and 2015, which is the fastest increase since 1960. In developing regions, average life expectancy at age 60 is expected to increase by 22% and at age 80 it is projected to increase by 28% by 2050 (World Population Ageing 1950-2050, UN Population Division, DESA, 2015).

Total population of the world has increased 3 times from 1950 to 2000 (2.56 billion to 6.08 billion) & is projected to be 9.35 billion by 2050. The Indian population growth also shows a similar trend (0.37 billion to 1.01 billion) and in 2050 the estimated figure is 1.57 billion (UN Population Division, DESA, 2015).

India ranks 2^{nd,} sharing 17.73% of the total world population and is projected to be rank 1 by 2050 with 16.64% of the total population. Population of 60+ is estimated to increase from 6% in 1990, 7.6% in 2000, 9% in 2019 to 20.6% in year 2050 of the total population. Similarly, the population of 80+ is estimated to increase from 0.6% of the total population in year 2000 to 3.1% in year 2050(World Population Ageing 1950-2050, UN Population Division, DESA, 2015). In 2019, 1 person out of 11 is above 65 years and by 2050, it is projected to be 1 person out of 6 people. (World Population Ageing Report Highlights, 2019)

The United Nations agreed cut off is 60+ years to refer to old or elderly population. Within the elderly cohort, 60 to 70 years is young old or elderly who are still active and can perform normal activities independently, 70 to 80 years is old or elderly who can work independently with difficulty and hence have reduced activities, 80+ is oldest old or elderly who work independently with greater difficulty and hence not very active (WHOReport,2015; Alterovitz&Mendelsohn,2013). According to the most recent United Nations population projections, older persons aged 60 years or over will outnumber children in 2047 (UN Population Division, DESA, 2013).

The above figures indicate population ageing as a global phenomenon and hence, a major concern. Growing socio-economic developments are leading to various transformations at familial, societal and national levels. Even India is not unique in terms of adapting to such

demographic changes easily. The growth in elderly population is a result of economic wellbeing, better medical facilities and reduction in fertility rates with has profound economic, political and social implications for the country (Elderly in India 2016, MOSPI)

The burgeoning elderly population faces challenges on multiple fronts. Reduced income, higher health-care costs, limited social security, loss of social role and recognition, reduced opportunities for creative and productive use of free time, family relationships and living arrangements are some of these challenges which need the attention of the policy makers, society and the family.

The Government of India has also recognized the problem of population ageing and hence some provisions have been made by the policy makers to ensure well-being of the elderly. The National Policy on Older Persons (NPOP) was announced in January 1999 to reaffirm the commitment to ensure the well-being of the older persons. The Policy is amended in 2011 which addresses majorly the issues of oldest old and older women. The Policy envisages the State support to ensure intergenerational interaction, financial and food security, health care, shelter and other needs of older persons, equitable share in their development, protection against abuse and exploitation, and availability of services to improve the quality of their lives as well as social security. Public-Private partnership models need to be developed wherever possible to implement health care of the elderly (National Policy For Senior Citizens, 2011; Senior Citizen's Guide 2016). The Ministry of Health and Family Welfare provides preventive, curative and rehabilitative services to the elderly (Annual Report of Ministry of Social Justice and Empowerment, GOI, 2012-13).

Conventionally, longevity **i**s considered as a boon in life, provided people in old age are taken care of physically, emotionally and financially. The elderly suffer high rates of morbidity and mortality due to infectious diseases. They need to be cared in variety of settings, right from intensive therapy to long term rehabilitation. The demographic transition in India shows unevenness and complexities within different states. This has been attributed to the different levels of socio-economic development, cultural norms and political contexts. (Mane, 2016)

Industrialization with resultant urbanization and migration of working age population has affected our conventional joint family system. The result of which is the experience loneliness, emotional neglect and lack of physical support among the elderly (Elderly in India 2016, MOSPI). The 2001 Census counted about 191 million people or 19 percent of the total

Indian population as internal migrants (Abbas & Varma, 2014**).** The number of Indian-born persons residing abroad was 17 million in 2017, with a median age of migrants 39.2 years. Around ¾ of all international migrants were of working age between 24 & 64 years in 2017. Because international migrants comprise a larger proportion of working age persons compared to the overall population, a net inflow of migrants lowers the dependency ratio (The International Migration Report, December 2017, United Nations, DESA)

In developing countries like India, where economic and social support is still very limited, the traditional support system of family and community has worked very well till date. However, the break-up of the joint family system due to the above mentioned factors has weakened this support. More specifically, social life transition from family to outside the home, education and international travel seem to have profound influence on individual's attitudes, values & beliefs across multiple domains, leading to a thought that children are not necessarily responsible for elderly care (Compernolle,2015).

The living arrangement becomes an important constituent of overall wellbeing of the elderly & provides some indication of the level of actual support available to them. Living arrangements of the elderly population in India shows that approximately 78% of elderly population live with their family, 14% with the spouse & the remaining stay alone or have other living arrangements (Gouda & Shekhar,2016). Living arrangement not only covers the type of family, but also the kind of relationship the elderly share with family members. Even though large number of elderly are staying with the spouse and children, it does not ensure that they share healthy relationship with their children and find them dependable (Rajan &Kumar, 2003). Economic issues, followed by a dilemma of continuing with conventional joint family system by a forced choice or living alone, is a major cause of depression in late years of life (Cohen et al.,2018). The findings of a case study by Sandhyarani and Rao in 2014 on elderly in the institutional care revealed the importance of the reason in the institutionalised elderly. When the elderly are forced, they feel severely socially disconnected affecting their interest in living the life as a whole.

Decreased fertility rate, nuclearization of families and internal/international migration due to economic reasons result into drastic change in the social and family structure. As a result, frequently children are unable to provide care and support to the elderly in the family. The dependency ratio among young people has decreased from 70.6 in 1975 to 54.4 in year 2000 and is projected to further decrease to 33.9 and 30.0 in years 2025 and 2050 respectively. On

the other hand, dependency among the elderly has increased from 6.8 in 1975 to 8.1 in the year 2000 and is estimated to be 12.1 and 22.6 in 2025 and 2050 respectively (World Population Ageing 1950-2050, UN Population Division, DESA, 2015).

Parent-support ratio which was 0.9 in 1975 and 1.9 in year 2000 is expected to increase to 3.3 by 2025 and 6.7 by year 2050. At the same time, the Potential support ratio has declined from 14.7 in 1975 to 12.4 in year 2000 and is expected to be 8.2 in 2025 and reduce further to 4.4 by 2050. Adding to these figures, Ageing index is expected to zoom from 22.7 in year 2000 to 53.6 in 2025 and further to 105.0 by 2050.

The above figures indicate the magnitude and speed of population ageing in India requires development of a holistic support system to ensure successful ageing.

1.2 Ageing

The concept of ageing was first proposed by Pearl in 1924. Ageing is a natural, universal, progressive process with many physical, cognitive and degenerative neurological changes. As the concept of ageing is perceived from various dimensions, there is no single definition available. According to the biologist's viewpoint, ageing is a persistent decline of in the age-specific fitness components of an organism due to internal physiological deterioration (Rose et al 2012), ageing results from accumulated molecular and cellular damage, affecting physical and mental capacity of an individual. It leads to more vulnerability due to illness and eventually death (WHO report, Newsroom). Psychological aspect of ageing focusses on slower speed and intellectual performance, difficulties in cognitive and sensory activities, difficulties in perception

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perception and with the adjustment to a new situation (morgan,2004; dziechciaż, 2014).

1.2.1 *Theories of Ageing*

Modern biological theories of ageing are broadly categorized in two types- Programmed theories which view ageing as sequential switching on and off of certain genes or decline of immune system functioning leading to vulnerability to diseases or hormones regulating the endocrine system. Genetic programming theories suggest that genetic code of the body has built-in- time limit for the reproduction of new cells. While the Damage theories suggest that genetic code of the body has built-in- time limit for the reproduction of new cells or mainly focus on 'wear and tear' of the body organs or 'cellular degeneration'(Jin,2010).

Social theories of ageing emphasize on distinctive relationships between the elderly and the society.eg. According to Disengagement theory given by Cumming and Henry, aging is an inevitable mutual withdrawal or disengagement, resulting into decreased interaction between the elderly and others. While the Activity theory proposed by Havighurst in contrast proposes that staying active and maintaining social interactions is a key to successful ageing (Feldman, 2015).

Functionality as a determinant of ageing. Ageing brings physical, emotional and psychological limitations resulting into growing dependency on others due to which ageing is perceived as a negative phenomenon. But the Gerontologists define ageing on the basis of 'functionality' rather than chronology which refers to self-reliance, independent in self-care, decision making as well as being socially connected and contribute to the society (World Population Ageing Report 2019 Highlights). They view elderly as those who continue to change, grow in some areas and decline in others and hence, their 'functional age' should be considered while addressing them as 'old' (Feldman 2015). In this perspective, 'healthy ageing' is when an individual is taking appropriate health precautions, conscious of his / her diet and exercise, and keeps himself physically and mentally active.

According to Erik Erickson, old age is a stage of evaluation, elderly person is bound to take an overview of his aspirations and achievements. If there is minimum discrepancy between the two, it gives a feeling of satisfaction and a sense of 'integrity' which is a sign of successful ageing.

1.3 Successful Ageing

Functional ability is a common thread in the terms like ‘healthy ageing’, ‘active ageing’ and ‘successful ageing’. According to WHO Report (2020), active ageing is the process of optimizing opportunities for health, participation in order to enhance quality of life as the people age. Robert Havighurst (1961) coined the term ‘successful ageing’ referring to ‘adding life to the years’. Rowe & Kahn (1987) differentiate between normal and successful aging in terms of the role played by the external factors; which is neutral if not positive in successful ageing and in normal ageing such factors are prominently highlighted.

Bio-medical approaches: absence of chronic illness and associated disabilities and more physical independence, physical health. Psycho-social approaches: life satisfaction, social participation and psychological resources like resilience, subjective well-being. Commonly focus on Maintenance of optimal mental, social and physical well-being and functioning in older adults

Clinically, successful ageing is an absence of chronic illness and its associated disabilities and thereby, more physical independence. Recently, subjective wellbeing is also being included as a clinical parameter of successful ageing, as it correlates with positive health outcomes like increased health concerns, good habits, lifestyle changes and health-related behavior like exercise leading to increased longevity. Thus, elderly need to redefine themselves as they enter into this stage of life and adapt to the new roles (Cho et al, 2014; Kanning & Schlicht,2008).

Successful ageing is an interactional effect of lifestyle behaviour, social environment and genetic factors (Jeste et al. Depp &Vahia,2010).Manipulating the latter two factors is beyond one’s control, the elderly can take preventive and or curative measures to plan and execute effective lifestyle habits to ensure successful ageing. Few of such measures are physical exercise, calorie restricted but healthy diet, generating social support and managing stress through coping skills such as resilience and mindfulness.

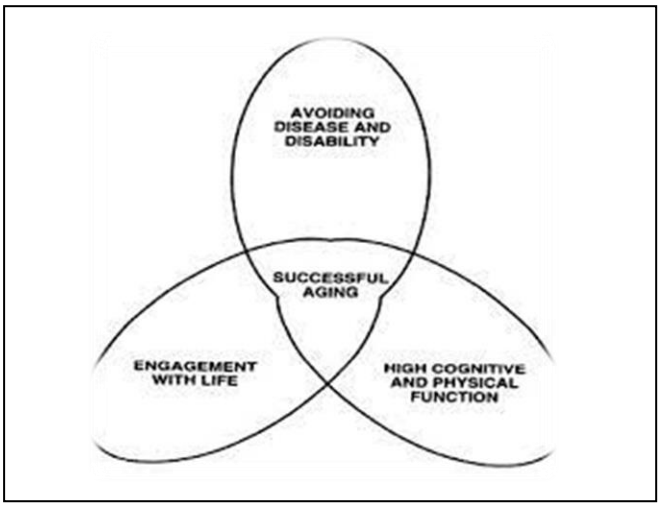
1.3.1 *Theories / Models of Successful Ageing*

Rowe & Kahn’ model of successful ageing (1997), is a multi-dimensional concept encompassing the avoidance of disease and disability, maintenance of high physical and cognitive functioning and sustained engagement in social and productive activities. The

factors are hierarchical to some extent, although the definition of successful ageing is incomplete without the third component (Rowe and Kahn, 1997).

Figure 1

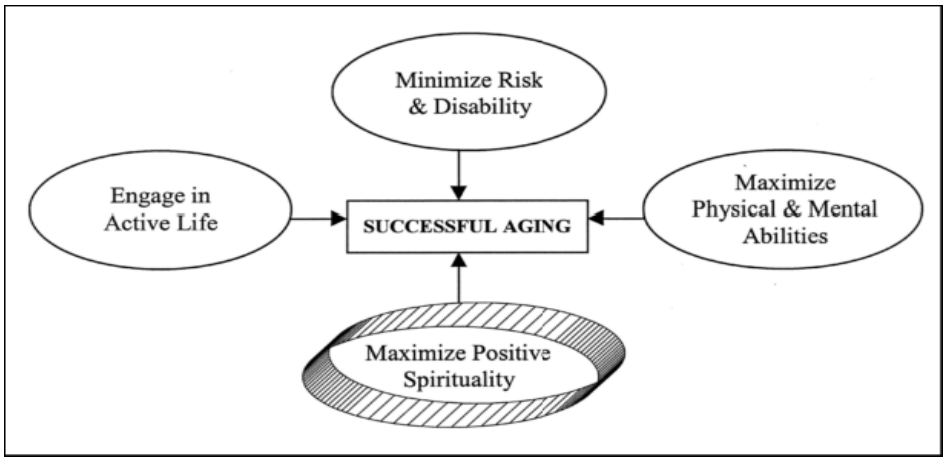
Rowe & Kahn' model of successful ageing,1997



(Source: https://www.researchgate.net/figure/Successful-aging-factors-Rowe-Kahn-1997_fig1_327941288)

Figure 2

Rowe & Kahn' Model of Successful Ageing Revisited, 2002



(Source: The Gerontologist, 42(5), pp.615)

According to Crowther and Parker (2002) 'positive spirituality' is the fourth component of successful ageing proving the addition of spirituality to interventions, focused on health promotions, was received positively by older adults. Positive spirituality involves

internalizing relations with the 'sacred' which promotes welfare and wellness of others. Voluntary involvement in social and productive activities as well as positive spirituality are the constituents of successful ageing which reduces risk for diseases and disabilities in later years of life promoting social engagement creating a vicious circle.

Collaborative approach to successful ageing by Bowling (2005) and Fernández-Ballesteros(2008) emphasize optimization of life expectancy and minimization of physical and mental deterioration and disability. Success is perceived in terms of survival, lack of disability, life satisfaction, social engagement, productivity, quality of life and the absence of disease.

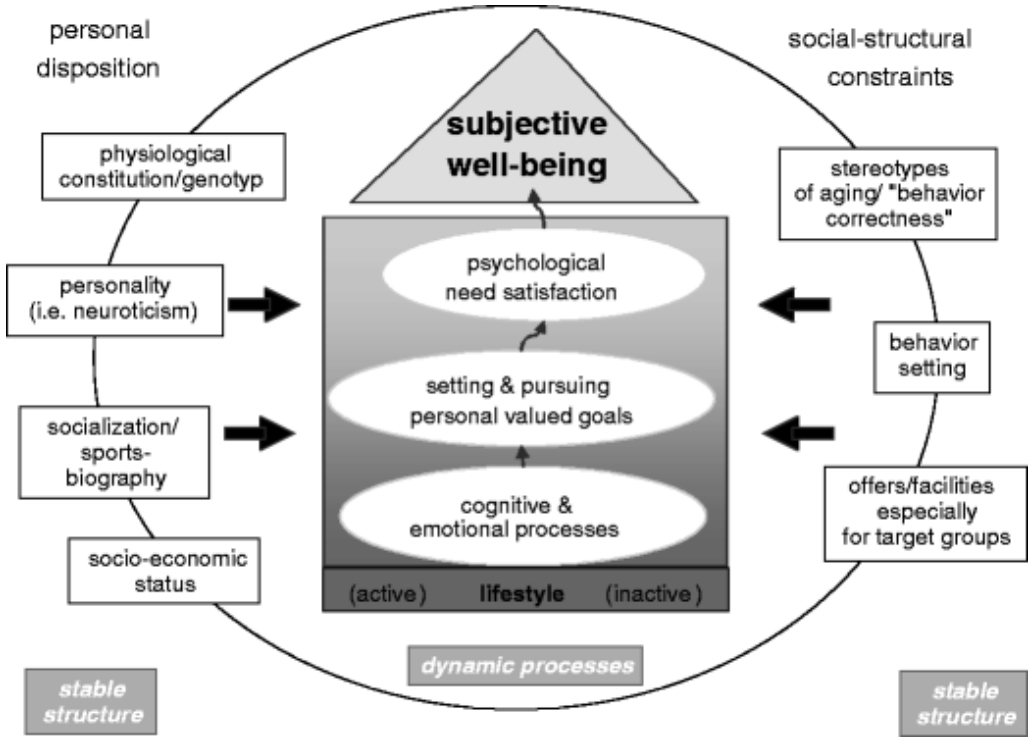
Two factor model of successful ageing by Pruchno et al(2010) suggests objective success such as freedom from illness, absence of pain and ample functionality and subjective success constitute successful ageing. Objective measurements of successful ageing are primarily, good physical health, independence, activity and financial security. Subjectively, successful ageing is experiencing satisfaction with one's life, balance between positive and negative states of mind, sense of control over one's life and social interests.

Selective Optimization with Compensation model of successful ageing proposed by Baltes (1998) signifies the role of psychological factors in ageing. The processes of selecting and focusing on one's resources from major domains while compensating the losses in the same results into successful ageing. Acceptance of the losses and disengagement from unrealistic goals are important parts of the compensation process. In the later years of life, the losses are prevalent, optimal utilization of resources is equally important to the process of compensation.

Bio-psycho-social model of successful ageing by Kanning&Schlicht (2008) consider subjective wellbeing as a criterion of the process of successful ageing and physical activity plays a crucial role in the entire process. As physical activity leads to increased physiological and cognitive effects, it automatically enhances subjective wellbeing in the older adults. Sometimes due to biological and/ psychological dispositions and socio-cultural factors curb successful ageing through impaired subjective wellbeing. The model gives holistic view of successful ageing comprehensively.

Figure 3

Bio-psycho-social model of successful aging with subjective well-being as a criterion of a successful aging process



(Source: Eur Rev Aging Phys Act (2008) 5, pp.80)

1.4 Physical Health in Old Age

The ancient concept of health connects individual to the environment is found in many Indian, Greek, and Chinese writings. In the 5th century BC, Pindar defined health as "harmonious functioning of the organs", emphasizing the physical dimension of health, the physical body and the overall functionality, accompanied by the feeling of comfort and absence of pain. Plato coined the term 'healthy mind in healthy body' indicating mind-body connect. Hippocrates explained health in connection with environmental factors and lifestyle and introduced the term 'positive health' with a focus on the role of human constitution, diet and exercise. Darwinian understanding of health tied health with strength and being fittest to adapt to the environment with tolerance and resistance. The modern concept of health is more

holistic in nature encompassing physical, mental, social and spiritual functioning within the environment ranging on a continuum from wellness to illness (Svalastog,2017).

World Health Organization (1948) defines health as "not only a state of the absence of diseases but also a complete state of physical, mental and social wellbeing" indicating well-being as an integral part of health. In 1986, the definition of health is further clarified by the WHO as "a resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities" emphasizing the physical component in health.

Physical Health which reflects in physical fitness refers to the ability to carry out daily tasks with vigor and alertness, without undue fatigue and with ample energy to enjoy leisure time activities and to meet unforeseen emergencies (Zoeller,2013).

1.4.1 Theories of health behaviour

Theory of reasoned action by Ajzen and Fishbein(1980) focus on the belief, intention, plan and commitment components to build and/or maintain health. According to the theory reasoned action, individual's intention & commitment to self or others is important to perform health behaviour. Performance or no-performance of health beahaviour depends upon individual's intention and willingness to do so. Health behaviour will be a combined effect of both – an individual's attitude toward the action as well as his subjective norms regarding the same determine the intention & commitment (Fishbein,2008).

Theory of planned behaviour by Ajzen(1988) an extension of the theory of reasoned action considers health behaviour necessarily as a planned and purposeful behaviour in which perceived behaviour control plays important role. It is the degree to which person 'believes' that he has a control over particular behaviour which acts as additional component that influences his intention to perform health behaviour

The reasoned action model to explaining and changing behavior is a sequential reformulation of the models of health behaviour. The theory of reasoned action proposes behavioural and normative beliefs considering attitude towards behaviour and subjective norms lead to intention and change in behaviour. The theory of planned behaviour has added control beliefs and perceived behavioural control in the intention and change in behaviour. The reasoned action model consists of biographical factors, belief factors and attitude towards behaviour,

perceived normative pressure and perceived behavioural control, each having two sub factors such as instrumental and experiential attitude, injunctive and subjective norms and perceived behavioural control in terms of capacity and autonomy; which lead to intention to change in health behaviour. Finally, the actual behaviour occurs considering skills and environmental constraints (Yzer,2017).

Self-efficacy beliefs determine whether health behaviour change will be initiated, sustained and the duration of the change. It also focuses on the individual's judgement of one's capacities to maintain health. Greater Outcome expectation enhances self-efficacy in health behaviour. Competence-based theories such as Social cognitive theory by Bandura (1997) suggest the role of personal sense of control in the change of health behaviour. Greater sense of control affects immediacy, intensity and consistency in the same.

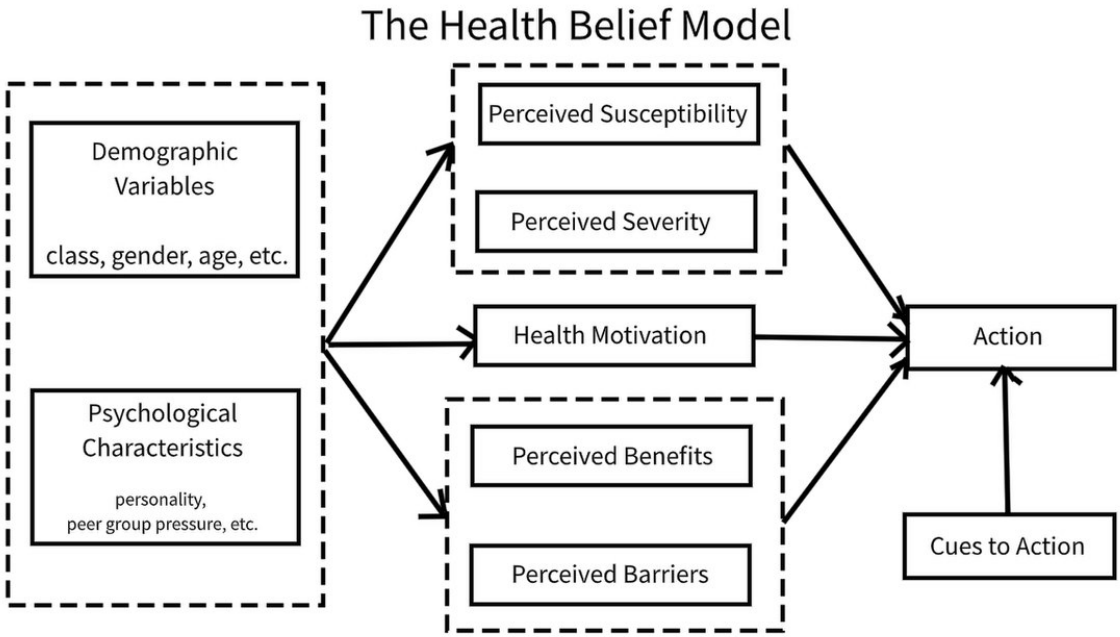
Self-regulation theories of health behaviour explain how individual's control over thoughts, emotions and actions result into health behaviour. It could be preventive, rehabilitative and / as a part of the cure. Consistent attention to the behaviour and focus on the goal promotes self-control resulting into health behaviour. Carver and Scheier's model of self-regulation focuses on how daily activities or patterns of behaviour are led by selecting goals(abstract/concrete/specific/general); which could be related to the individual's life goals. On the other hand, Leventhal's commonsense model of self-regulation suggests health behaviour as a product of cognitive, affective or behavioural response to health-related threats. It further leads to problem-focused and emotion-focused self-regulation in health behavior (IResearchNet).

Transtheoretical model of health behaviour change by Prochaska and Vilicer (1997) predicates change in the health behaviour through six major stages such as -Pre contemplation, contemplation, preparation, action, maintenance and termination. The model considers change in behaviour as a process than an event and hence represents temporal dimension along with decisional balance, self-efficacy and temptation.

The Health belief model of health behaviour was developed by the U.S. Public Health Service to understand the reason for lack of adopting disease prevention behaviour. The model posits whether the individual performs health behaviour or not depends upon the degree to which negative health outcome is perceived by him to be 'threatening' and the degree to which health behaviour can effectively reduce the negative health outcome is perceived by him/ her. Both these beliefs act as the precursors of behaviour change towards maintenance of health.

Figure 4

The Health Belief Model of health behaviour



(Source: Predicting health behaviour, McGraw-Hill Education (UK),2005,pp.31)

1.5 Wellbeing in Old Age

Wellbeing is a multidimensional construct and hence it is difficult to define in a true sense. Traditionally wellbeing is what is 'good' for a person, happiness which is a short-lived state of a person in a day-to-day life or an undefined feeling of contentment in the whole life (Roger,2017). Wellbeing is something beyond an absence of suffering (Diener,1984; Seligman & Csikszentmihalyi,2000). Wellbeing is neither the absence of mental illness nor it is an antonym of ill-being, but it implies personal growth and happiness (Ryan &Deci,2001).

Arristippus, Greek philosopher in 4th century BC coined the term 'hedonic wellbeing' which focuses on maximizing pleasurable experiences and minimizing unpleasurable as a goal of every individual's life. A measure of subjective wellbeing, which has three components such as life satisfaction, presence of positive mood and absence of negative mood is one way to evaluate hedonic wellbeing. Within the hedonic approach, wellbeing is experienced on affective and cognitive dimensions. Affective components encompass positive and negative affect and cognitive components of wellbeing refer to life satisfaction.

Aristotle looked at the wellbeing from a broader perspective, i.e. seeking happiness through satisfying those needs of human nature which lead to human growth or eudemonic wellbeing. Actualizing one's potentials & optimizing personal experiences in one's life gives eudemonic wellbeing. Positive psychological functioning such as autonomy, self-acceptance, personal growth, meaning and purpose in life, environmental mastery and positive relatedness were proposed to conceptualize eudemonic well-being. Another Greek philosopher, Epicurus, opines that seeking virtue gives pleasure, reduces the pain and thus, results into eudemonia(Ryan &Deci,2001;Gao,2018;Tesar& Peters,2020). Waterman(2010) suggested that eudemonia occurs when the individual's activities are consistently the reflections of his deeply rooted values.

1.5.1 Subjective wellbeing

Every individual has a right to decide his own parameters of good life. This subjective democracy of one's quality of life is labelled as 'Subjective wellbeing'. It refers to experiencing high level of pleasant emotions, low level of negative emotions and high life satisfaction making the life rewarding for the individual (Diener, Lucas, & Oishi 2002).

Subjective wellbeing is a subjective evaluation at cognitive and affective level of one's life, irrespective of the objective facts. It is a global judgment of one's life as a whole and not related to any specific event or experience (Diener,2000; Ryan, Huta &Deci,2008).

Subjective wellbeing is truly a subjective opinion of one's life based on criteria set by the individual, which may undergo changes due to dispositional and situational factors. Optimal use of one's potential, efficient adaptation to changing circumstances in life and moving from self-orientation to others are considered as the parameters of subjective wellbeing in later years of life (Ryan &Deci, 2000).

The World Health Organisation has declared wellbeing as integral part of health.

1.5.2 *Theories of Subjective Wellbeing*

Happiness can be 'engineered' by fostering freedom to make choice in life, informing people about important effects of happiness and taking conscious efforts on life-coaching. Wellbeing and happiness are the terms used interchangeably in the research on wellbeing. According to Dutch Sociologist, Veenhoven, happiness signals good physical and mental health, voluntary work, healthy interpersonal relationships as well as longevity. According to him, life satisfaction is parallel to happiness and subjective well-being is a

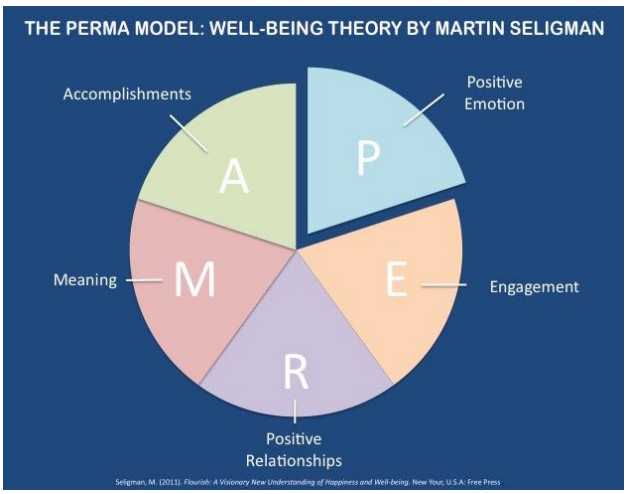
holistic approach which encompasses the life as a whole and does not pertain to any specific domains of life. (Veenhoven,2006).

The PERMA model by Martin Seligman there are five basic elements of happiness such as Positive emotions, Engagement, Relationships, Meaning and Accomplishments in life. Maximizing them with conscious efforts results into happiness. Positive affect influences the physical heath in terms of decrease in the number of pain symptoms and morbidity and enhancing longevity among elderly population (Pressman &Cohen, 2005,Diener&Chan,2011).

Wellbeing and positive affect are suggested to be the parallel terms contributing to various desirable characteristics, resources, and successes correlated with happiness (Lyubomirsky, King & Diener, 2005; Snyder& Lopez; Huppert, 2014).

Figure 5

PERMA model of Subjective Wellbeing



Seligman and Royzman (2003) claim that there are different theoretical perspectives to view happiness or wellbeing. **Hedonism approach** emphasizes experience of pleasure over a pain; **Eudemonism approach** is a result meaning or purpose in life. According to Desire theory of happiness, fulfillment of 'Wants' or 'Desires' is a cause of happiness, irrespective of the amount of pleasure or displeasure one gets out of action. While Objective list theory equates happiness with a list of 'truly valuable' things or objects that individual possesses in life. They may be material comforts, cordial relationships, education, career success or even good conscience.

Theory of Authentic happiness by Seligman can be analyzed into three different elements- Positive emotion, Engagement and Meaningfulness. Normally everyone strives for experience of positive emotion; engagement is about flow and hence could be beyond pleasure which gives good life but not necessary an experience of positive emotion every time. is which ultimately gives pleasure in life. The meaningful life takes the individual beyond the oneself, towards the society, religion or community at large. Authentic happiness allows the 'full life', a life that satisfies all the three criteria of happiness (Seligman, 2011).

3-P model of SWB proposed by Durayappah (2010) categorizes components of SWB under temporal states- the Past, Present and the Prospect. Although they are interconnected with each other, each state is responsible for the global evaluation of subjective wellbeing. As the events occurred in the Past, the current proceedings and something yet to happen in future independently influence life satisfaction at specific time, subjective wellbeing can also be considered in the Past, Present and Future; 'how happy I was? How happy I am? And How happy I will be?' The 3-P model tries to unite hedonic and eudemonic approaches to wellbeing in every temporal state of wellbeing.

The Top-down approach to subjective well-being holds individual's perception responsible for the experience of happiness. Thus, happy individual is happy because he perceives and enjoys pleasures in life and not necessarily because of happy experiences. The traits like optimism and high-level self-esteem and personal control enable him to feel happy in every situation, perceive it as a challenge rather than threat and thus show high resilience (Lu,1999). Subjective wellbeing is considered to be stable across the lifespan and the personality traits such Agreeableness &Openness are found to show positive correlation, while Neuroticism shows negative correlation with it (Ryan &Deci,2000). Lyubomirsky & Ross(1999) and Suh et al(1996) showed how people with high subjective wellbeing tend 'to see through rose-coloured glasses' and 'turn lemon into lemonade' and find positivity leading to experiencing positive emotions in the event which may be perceived differently by the people with low subjective wellbeing.

The Bottom-up theory of subjective well-being considers happiness as a summation of pleasurable and unpleasurable moments or experiences, which are derived from satisfaction in particular domains of life such as family life, marital life, financial situation and other materialistic belongings. Ball & Chernova (2008) revealed that, both absolute and

relative income are significantly positively correlated with happiness. Quantitatively, changes in relative income have much larger effects on happiness than changes in the absolute income. Baird, Lucas & Donnellan (2010) who studied life satisfaction across the life span and could see that life satisfaction declines at the end of life span, particularly when objective circumstances worsen. On the whole, the findings support Bottom-up perspective of Subjective wellbeing, in which appraisal of life satisfaction at least partially depends on objective conditions.

Diener used the terms –'Top-down' and 'Bottom-up' to describe 'cause' and 'effect' of happiness (Bechtel,2007).

The Life-span theory of socio-emotional selectivity is given by Carstensen in 1995, According to the theory, as people move into their final years of life, they become more conscious of the time left in their life. Despite adverse objective factors like reduced physical health, reduced financial status, death of close people, an accumulated wisdom from earlier experiences enables them to experience many things positively. Hence, they might actually get happier and more satisfied as they grow older. They focus more on emotional aspects of social interactions.

The Broaden- and-Build theory of positive emotions by Fredrickson (1998) proposes that positive emotions share the ability to broaden people's momentary thought-action repertoires and build their enduring personal resources, ranging from physical and intellectual resources to social and psychological resources. These emotions enable the individual to build effective coping resources. Being happy and positive in one's outlook towards life has number of tangible benefits like living healthier and longer. (Fredrickson, 2001; Wright & Cropanzono, 2004, Cohn, Fredrickson, Brown, Mikel & Conway, 2009).

1.5.3 Health &Wellbeing in Old Age

Physical illness brings functional limitations and negative affect strengthening the relation between physical health, functionality and subjective wellbeing (Ryan &Deci,2000). Other than slow physical decline, there are numerous benefits of positive affect at cognitive, physiological and behavioural levels among the older adults. Sharpening of the cognitive functions like attention, creativity and intuition, speedy recovery from cardiovascular aftereffects are few of them. The findings of the research are supporting the Broaden- and-Build theory of positive emotions (Fredrickson & Branigan, 2005).

1.6 Mindfulness

The concept of mindfulness was originally derived from Sanskrit word, Smriti and Pali word, Sati. Unlike to its conventional meaning, mindfulness signifies the Present. Sati was one of the techniques that, Buddha developed to calm the senses and stabilize the mind which enables Sati to guard and protect the mind. Sati wisely refuses the unwanted thoughts and welcomes only those which help to cultivate healthy mind.

Various philosophical perspectives like mental state theories, theories of self-regulation and the hedonic tradition in Psychology have proved that the maintenance and enhancement of the well-being is highly dependent upon the quality of the consciousness. Mindfulness is also an English translation of 'vipassana', which means 'observing in a special way'. Hence, mindfulness meditation is also known as 'insight meditation', an age-old practice derived from Theravada Buddhism (Guanaratana,2002).

Theravada Buddhism and Mahayana Buddhism are two stands that focus on the core beliefs and devotion to the life and teaching of Buddha, with some different perspectives. Theravada Buddhism, largely followed in South East Asia is closer to the original Indian form of Buddhism. As Mahayana Buddhism is spread in the North through Tibet and China. Finally, both the views take a path to reach a common goal 'wisdom and compassion for all'. Mindfulness is one of the Eight-fold path of Buddhism.

In 1881, Rhys Davis coined the term 'mindfulness' for Sati and then it was accepted first by Theravada Buddhism and then all over the world. Mindfulness according to Buddhist traditions plays a central role in the cessation of suffering by increased awareness and responding skillfully to the mental processes that lead to mental and emotional distress and maladaptive behavior (Bishop, 2004). Based on the definition of mindfulness given by Bishop et al., Hayes et al. (2004,pp.256) give a two-component definition; focusing on the self-regulation of attention and approaching every experience with curiosity and acceptance. 'The awareness that emerges through paying attention on purpose, in the present moment, and non-judgmentally to the unfolding of experience moment to moment' refers to mindfulness by Kabat-Zinn (2003, p. 145).

Mindfulness has its roots in Eastern philosophy and Buddhism. It is cultivated by paying close attention to your moment to moment experience by not getting caught up in one's ideas, opinions, likes or dislikes (Kabat-Zinn,2013).

It is most commonly defined as the state of being attentive to and aware of what is taking place in the present (Brown &Ryan,2003,pp.822). There are various conceptual definitions given by other researchers too. According to Langer & Moldoveanu (2000, pp.2),'mindfulness is a process of drawing new distinctions, which result into greater sensitivity to one's environment, more openness to new information, creation of new categories for structuring perception and enhanced awareness of multiple perspectives to problem solving.'

According to Jha, Krompinger, & Baime (2007,pp.110) 'mindfulness refers to an attention that is receptive to the whole field of awareness and remains in an open state so that it can be directed to current sensations, thoughts, emotions and memories.' 'Mindfulness is a general receptivity and full engagement with present moment; mindlessness occurs when attention and awareness capacities are scattered due to past memories or future plans or anxieties' (Black, 2009,pp.1).

Mindfulness is a state of physical and mental being and experiencing every moment with receptivity and openness promoting active search for novel experiences. It enables to re-perceive one's thoughts and emotions and view them as passing mental events. Overcoming the rigidity and promoting openness to experience, reduced evaluations of self, and others are added benefits of mindfulness (Shapiro et al.,2016).

1.6.1 Approaches to Mindfulness

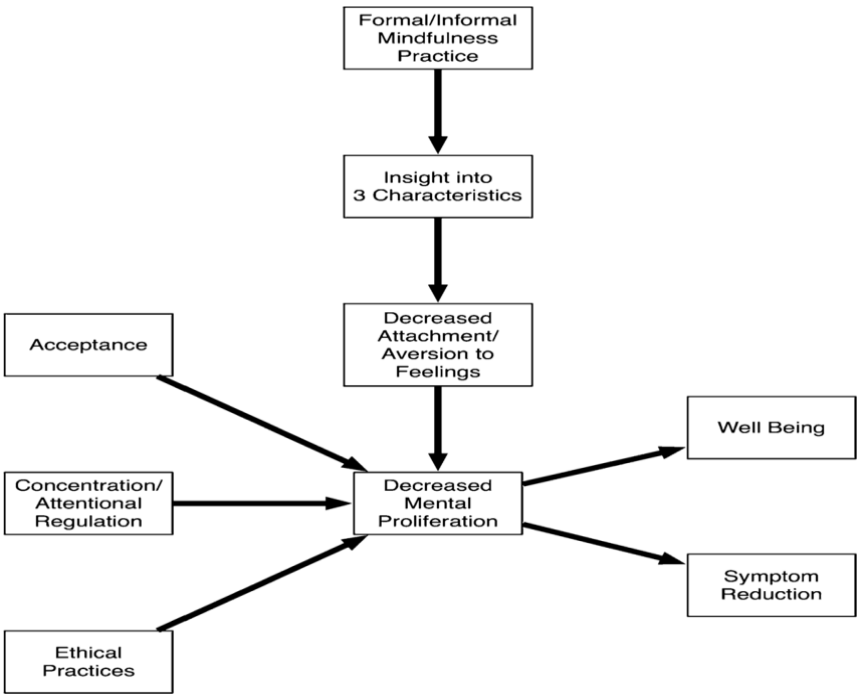
The Traditional approach and the Contemporary approach are two conceptualizations of mindfulness. Traditional also refers to spiritual approach focuses on the liberation from suffering as an integral process of life. Thus, cultivation of attention and concentration leading to wise judgment and action through meditative practice is necessary.

The Contemporary approach / Buddhist modernism adopt meditation practices to develop effective coping styles. It encourages different perspectives and interpretations of mindfulness. It is a shift from transformative power of experiencing suffering to using mindfulness more as a therapeutic means to enrich one's emotional well-being. It has led to a Mindfulness- Based Intervention, a technique developed by Jon Kabat-Zinn (1979),which constitutes Buddhist philosophy, Contemplative practice and a Psychological experience (Monteiro, Musten& Compson,2014). From Buddhist tradition, mindfulness is being aware of one's awareness (Reid,2011). Mindfulness (Sati) is one of the central factors of Buddhist mediatation, other than clear comprehension. Although originally Sati refers to 'memory', Buddha presented a new term as 'lucid awareness' (Bodhi,2011). Regular practice of

mindfulness helps to take care of one's emotional needs and overall health which ultimately lead to an experience of positive emotions and happiness. Mindfulness helps the individual to take better care of one-self by being calm even in distress (Nehru, Sharma, Kumar & Nehra,2013).

Figure 6

Buddhist Psychological Model of Mindfulness



(Source: Mindfulness,SpringerScience+Business Media, LLC,2011)

In the **Eastern perspective**, meditative approach focuses on openness to experience, while secular meditative approach addresses the interaction between the mind and environment, which is referred to 'mindfulness meditation'. The individual experiences enhanced quality of his attention, awareness of interconnectedness, observation, deeper thinking and non-judgmental acceptance of negative thoughts and emotions due to a mindful state. Trait mindfulness refers to individual's baseline mindfulness. Various cross-cultural studies, including Indian culture reveal significantly moderate to high negative correlation with neuroticism and significantly moderate to high positive correlation with conscientiousness and extraversion (Chen et al.,2014; Menon, Doddoli, Singh& Bhogal,2014; Hurk et al, 2011).

The Western perspective of mindfulness is conceptualized by Langer in 1989. He defines mindfulness as a 'state in which one is open to novelty, alert to distinctions, sensitive

to context, aware of multiple perspectives and orientation in the present'. The Dual mindfulness-mindlessness theory by Langer (1992) involves the concept of socio-cognitive mindfulness. According to the theory, mindfulness is a state of constant awareness of the context and content of information, which allows the process of drawing novel inferences. While, mindlessness is an extreme rigidity, based on past experiences in categorizing the information. Such socio-cognitive mindfulness involves goal-directed cognitive tasks, other than non-judgmental observation of inner experiences (Chen, Scott & Benckendorf,2013).

Mindfulness on one hand is a **Process** and also an **Outcome**. As a process, mindful practice is a systematic practice of intentionally attending in an open, caring and discerning way that involves knowing as well as shaping the mind. As an Outcome, mindful awareness is knowing oneself deeply that manifests as 'freedom of mind' (Shapiro, 2009).

A model of mindfulness proposed by Shapiro, Carlson, Asten & Freedman (2006) gives **Intention, Attention** and **Attitude** as three different components/axioms which are essentially the building blocks in the process of mindfulness. Accordingly, intentional attention leads to re-perception, change in the existing thoughts and positive action. The mechanisms such as self-regulation, values clarification, cognitive, emotional and behavioural flexibility also result into the positive outcomes in the individual.

Brown & Ryan consider **mindfulness as a single factor**, i.e. paying attention to present moment. Several researchers perceive it as a **multidimensional construct**. Baer et al (2006) have identified five facets of mindfulness- Observing our sensations, perceptions, thoughts and emotions; Describing these experiences in words; Acting with Awareness; being Non-judgmental of thoughts, feelings and experiences and Non-reactive to the experiences and letting them go as a natural process. Hence, according to the Five facet approach, mindfulness refers to a 'capacity to Observe, Describe and Act with awareness with Non-judgmental and Non-reactive attitude'.

Baer et al (2008) found four dimensions, describing, awareness, non-judging and non-reactive predicting wellbeing among college students; while the dimension, observing, did not. The present study confirms the same findings, even among the elderly. Cash &Whittingham(2010) found two facets, Describing and Non-judging as significant predictors of wellbeing among non-meditators as well as experienced meditators.

1.6.2 Measurement of Mindfulness

Mindfulness proves to be effective therapeutic technique for various psychological issues and hence, the need for its assessment was felt necessary by many researchers. Most of the measurements are the self-report measures showing the befitting effects amongst the meditators most common. However, there is a lack of consensus in the perspective to look at mindfulness as whether it is a single or multifaceted construct. Brown and Ryan as well considered mindfulness as a single factor, i.e. awareness of and attention to present events and experiences (2003, 2004). Thus the Mindful Attention Awareness Scale (MAAS) was developed by them which gives a single total score of mindfulness.

Mindfulness can be better understood by a multi-faceted approach as it constitutes various components. In the same context, Baer, Smith & Allen (2004) developed Kentucky Inventory of Mindfulness Skills (KIMS), based on four- facet approach to mindfulness such as Observing, describing, acting with awareness and accepting without judgment, with for different scores. Bishop et al (2004) proposed two-component model of mindfulness- self-regulation of attention thereby leading to orientation to experience measuring the state & situational specificity of mindfulness. Freiburg Mindfulness Inventory (FMI) developed by Buchheld, Grossman, & Walach,2001 measures four factors / components of mindfulness such as present-moment attention, non-judgemental and non-evaluative attitude towards self & others, openness to negative mind states & process oriented insightful understanding indicating one dimensionality of the construct(Buchheld, Grossman &Walach, 2001).

As a product of study on different aspects of psychological health due to mindfulness training, Baer et al.(2006) developed an instrument, Five Facet Mindfulness Questionnaire of 39 items, with Observing, Describing, Acting with awareness, Non judgementalness and Non reactivity to inner experiences; yielding five different scores along with a global score of mindfulness. A short version of FFMQ-39 consisting of 15 items(FFMQ-15) was developed by Baer et al.(2008) showing positive correlation among all the factors; however Observation facet was found to be sensitive to changes with meditation practice and thus varying relationship with other facets of mindfulness(Baer et al.,2008).

1.7 Generativity

Erik Erikson coined the term **'**Generativity' (1950) which refers to the 'concern for establishing and guiding the next generation'. In his Psychosocial theory of personality development, generativity is defined as 'a desire to transcend one's knowledge, experience,

skills, abilities and interests to the newer generation' (Erikson,1963,pp.267).The virtue of 'care' for others emerges as an outcome of successful generative behaviour; leading to 'ego integrity' in the following stage of life. Erikson emphasizes on the psychosocial and sociocultural components in the actual generative behaviour. Generativity acts as a mediator in the relationship between education, occupation, socio-economic status and health and wellbeing (Keyes & Ryff,1998).

Generativity is specifically the helping behaviour towards next generation. Generative people develop concern, especially for the next generation and contribute to different segments like family, community and society. It strengthens the intergenerational bonds resulting into more understanding and develop empathic attitude among the younger generation towards the elderly. Although generativity x stagnation crisis is a hallmark of middle adulthood, it is expressed in the form of action right from a role of a parenthood during young adulthood which continues further in late adulthood; particularly if it is reinforced or acknowledged by the younger generation (Feldma,2015).

Generativity is a combination of instinctual and psychosocial urges, which reflects in activities such as giving birth, caring and showing concern towards the next generation on a regular basis and in the form of social engagement a well. Kotre(1996,pp.10) redefines generativity as 'a desire to invest one's substance in the forms of life and work that will outlive the self in the form of fertility, child rearing, teaching skills or creative work. With the help of investment, individual achieves physical or symbolic relationship with the next generation.

Mc Adams & de St Aubin (1992,pp.1004) define generativity as 'a multidimensional construct with psychosocial features constellated around personal and cultural goal of providing for the next generation'. Generative behaviour is a need, a drive, a concern, a task or an issue which connects the person and a social world.

1.7.1 Theories/ Models of Generativity

In the **Psychosocial theory of development**, any psychological phenomenon in individual's life is a product of reciprocal interplay of biological, behavioural, experiential and social factors. Each psychosocial stage is accompanied by crisis, the resolution of which nurtures healthy development. Generativity x Stagnation is the developmental crisis of middle adulthood stage. Although it originates in the early adulthood, it continues in later years of life in the form of parenting and grand parenting respectively.

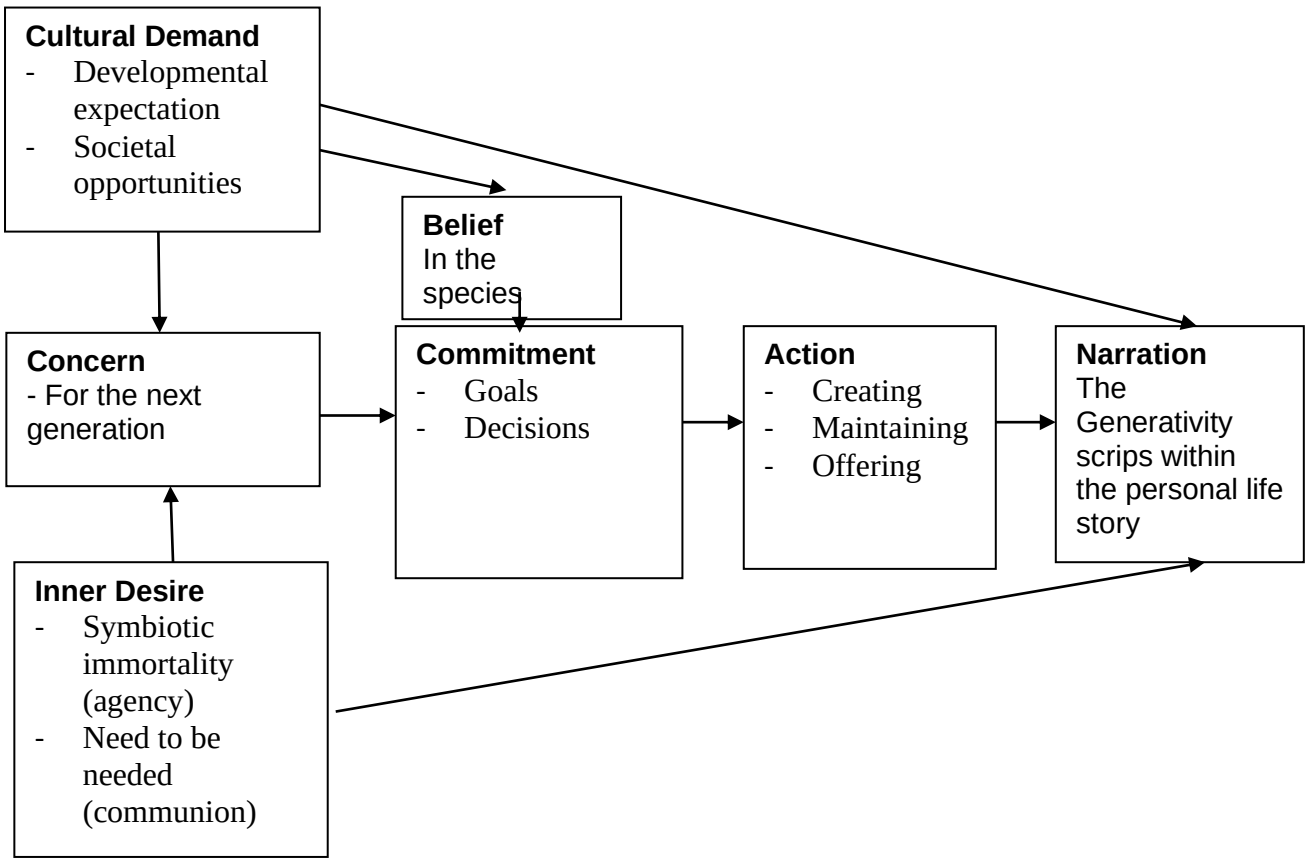
In the **Generativity theory**, Kotre separates generativity into four types, such as biological generativity in which the target is the infant and generativity is expressed through right from intention of parenthood, giving birth and nursing the infant. Parental generativity is expressed to a child through various behaviour such as nurturing, disciplining and introducing him to the social world. Technical and cultural types are majorly targeted towards the successors by imparting teaching skills in an unspoken manner and; as well as by creative and innovative practices explicitly make them a part of the 'culture'. Apart from these types, Kotre has given two modes of generativity, such as agentic(action towards oneself) and communal (action towards others) (Kotre,1996; Rubinstein, Girling, Medeiros, Brazda& Hannum,2015).

Generativity represents the older generation's concern to establish and guide the next generation, those who will replace them. The concern is expressed in a generative action, 'care', a natural desire to make contribution to ensuing generations. According to Erikson, as the young-old leaves the stage of middle adulthood, he is in a state of stable identity and well-developed bonds of intimacy in family, friendship and society in general. Only then he is psychosocially capable to make commitments to the society as a whole and its continuation through the next generation. Generativity promotes its continuity from one generation to the next, benefiting the social system as a whole. At the same time, it gives a sense of personal fulfillment to the individual.

According to **Mc Adam's model**, generativity is a result of interactions of different psychosocial factors like Cultural demands, Inner desire, Concern, Belief, Commitment, Action and Narrative. From these, Concern, Belief, Commitment act on thought level resulting into action; while others act as motivators like Cultural demands and Inner desire. Intense inner desires can directly lead to generative Action; however, they are so much intertwined that, generative concern results from the individual's inner desire to help and guide others depending upon the cultural demands. These demands are capable of shaping our belief system. Generative Commitments are usually the plans and goals which are helpful to the next generation. While generative actions can be right from parenting the children, babysitting, teaching, training younger generation in some specific skills, helping someone financially to achieve his/her goals, caregiving, helping the family in a household work and so on. When an elderly is aware of his concerns, commitments and actions which add to his life story as a whole, it is referred as Generative narrative(Mc Adams & Aubin, 1992).

Figure 7

Features of Mc Adams's Model of Generativity



(Source: Journal of Personality and Social Psychology,62(6),pp.1005)

1.8 Resilience

The term 'resilience' has various contours, from 'recoil or rebound' in mid-17th century to 'the process of adapting well in the face of trauma, tragedy, threat or other significant sources of stress' given by the American Psychological Association in 19th century as the term is being used in biological science, social science, social ecological system and so on.

According to Luthar et al.(2000,pp.543),resilience refers to a 'dynamic process encompassing positive adaptation within the context of significant adversity'. According to Masten(2001,pp.228),resilience refers to a class of phenomena characterized by good outcomes in spite of serious threats to adaptation or development. As much as the presence of some adversity is essential, quality of adaptation is also equally important to test resilience in the individual.

Connor-Davidson (2003,pp.76)define resilience ‘which embodies the personal qualities that enable one to thrive in the face of adversity’. As the resilience is a measure of stress coping ability, it fluctuates with different biographical characteristics as well as situational factors. Previous successful or unsuccessful adaptations determine the individual’s coping capacities to internal/ external stressors in future.

The American Psychological Association(2020)defines resilience as ‘the process and outcome of successfully adapting to difficult or challenging life experiences, especially through mental, emotional, and behavioral flexibility and adjustment to external and internal demands’. Resilience should be considered on a continuum and not on a binary approach, as it changes not only from individual to individual but across various domains in one individual (Pietrzak & Southwick,2011).

The most common terms in the above definitions are adversity and the process of adaptation which emphasize healthy and positive functioning in adversity; failing which the individual experiences high level of stress reflecting into anxiety, depression, burnout or even suicidal ideation. Resilient individual overcomes an experience of emotional pain or distress, by ‘bouncing back’ from such difficult situations. Virtues like accepting a change as a part of life, optimism and moving towards the goal by nurturing positive view of oneself help an individual to be resilient. Good relationships with close family members and friends as well as change in the interpretation of the stressful situation strengthens resilience. Resilience in the form of ‘accepting and coping with the adversity positively’ needs to be perceived as a core element of successful ageing (Cosco, Prina, Perales, Stephan & Brayne,2013).

Although many operational definitions of successful ageing consider physical health, involvement in work of one’s interest and wellbeing as major indicators, their primary focus is on absence of disease or any adversity in life. However, most of the elderly experience adversity in some or the other form such as loss of spouse or friend, change in social identity or one’s own illness. But when in the process of adaptation basic human systems are nurtured, automatically the individual becomes resilient to face the challenges successfully (Masten,2001).

1.8.1 Models of Resilience

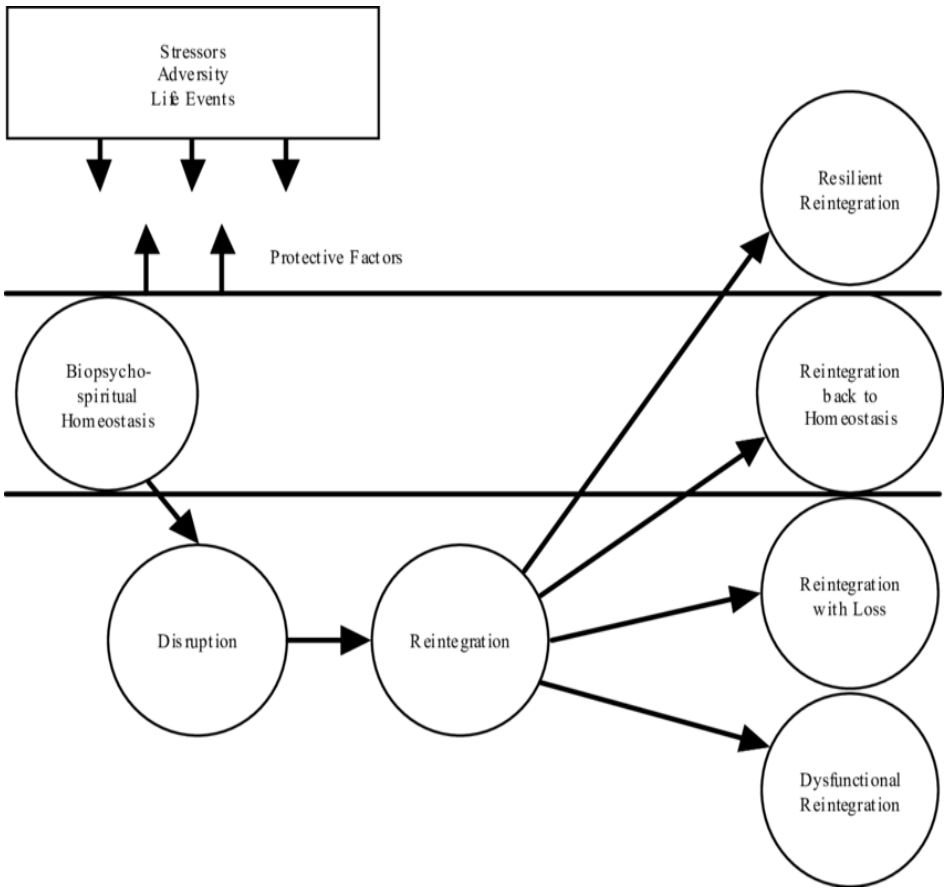
Resilience being a multi-dimensional construct, which varies as per the dispositional characteristics like age, gender or cultural origin. At the same time, life circumstances and the context are also equally influential in nature. Resilience embodies personal qualities that

enable one to thrive in the face of adversity. It is quantifiable and influenced by health status. Resilience is modifiable with interventions. Greater improvement in resilience shows higher level of global improvement (Connor and Davidson, 2003). Their scale of measuring resilience is based upon the Resiliency model proposed by Richardson and colleagues (1990).

The premise for **the Resiliency model** is the bio-psycho-spiritual balance, i.e. adaptability of the body, mind and spirit to current life circumstances which is a responsible factor in the variation of resilience. In spite of stressors being always present in life, individual's ability to cope with them depends upon his successful or unsuccessful adaptations to previous adversities, along with one's own resilient qualities such as self-esteem, self-efficacy and social support. In case, the adversities are not met successfully, there is a state of disintegration; however resilient qualities make resilient reintegration possible. Resilience can also be viewed as a successful measure of stress-coping ability (Richardson,2002).

Figure 8

The Resiliency model by Richardson(2002)



(Source: The Meta theory of Resilience and Resiliency,2002,pp.311)

There are three models of resilience which explain the effect of stress on adaptation process, and how positive factors play a role in overcoming negative outcomes, which arise out of risk factors (Ledesma,2014).

The Compensatory model looks at resilience as a factor that neutralizes exposure to risk. Risk and compensatory factors independently determine the outcome. Active approach to problem solving, positive perception despite the adversity, ability to get other's attention and strong reliance on faith to maintain positive view towards life are few of the characteristics of the resilient individual. **The Challenge model** suggests that if an individual perceives adversity as a challenge more than a threat, it prepares him to face the adversity successfully. According to the **Protective factor model,** protective factors and risk factors interact with each other, which reduces probability of negative outcome and moderates the effect of exposure to risk. Life skills, various job skills, emotional management skills act as protective factors in individual's life (Flemming & Ledogar,2008; Fergus & Zimmerman, 2005).

Variable- oriented model and **Person-oriented model** view the process of resilience with a different lens. Variable- oriented model tries to reflect independent contribution of risk factors or assets to the outcome. If the assets/resources are strengthened directly to one's life or even by improving the environment, then normative levels can be maintained, counter balancing the negative effects of high adversity.

On the contrary, Person-oriented model focusses on personal attributes such as better competence, greater conscientiousness, positive perceptions, higher cognitive test scores, which can be improved by age as well as intervention.

1.9 Nutrition in Old Age

Nutrition is eating healthy and adequate diet which is important for everyone across the age. It consists of nutrients that work as preventive as well as cure in case of physical health and health-related issues such as functioning of various systems and/ sensory processes. The body requirement of these nutrients changes in the later years of life. In later years of life, with reduced activity and change in metabolism, ability to absorb certain nutrients and amount of diet also decrease. And hence, nutrient-rich diet becomes essential.

The older adults need more of protein content other than minerals and vitamins. Nutrition in later years of life works as a supplementary cure in multiple physical health parameters such as muscular strength, stamina, physical balance, bone density. Apart from medication, nutrition is considered to be an important part of treatment of the elderly. Adequate amount

of specific nutrients such as vitamins and minerals is used in the treatment of few age-related neurocognitive disorders like dementia. Nutrition plays a vital role in the neurotransmission as well as the secretion of various hormones which is responsible for maintaining homeostasis and controlling and coordinating the activities of the body.

1.10 Exercise in Old Age

Physical activity is defined as any body movement of the skeletal muscles that result in energy expenditure. An exercise is one of the physical activities other than sports or any activity done by an individual in his daily living, work life or leisure. Exercise is that subcategory of physical activity which is planned, structured, and repetitive aimed towards improvement or maintenance of physical fitness.

Exercise is a protective factor for various non-communicable diseases such as cardiovascular disease, stroke, diabetes, and some types of cancer and is also associated with improved mental health, delay in the onset of dementia and improved quality of life and wellbeing. The requirement of frequency and duration of exercise changes with age and an elderly is advised to adhere to the prescribed to avoid adversities (Langhammer,2018).

In later years of life, regular exercise is proved to be beneficial to control the speed of reduction in body flexibility, agility, endurance and physical stamina which result into reduced bodily functioning. Enhanced muscle tone, bone density, flexibility in joints are few of the notable benefits of exercise other than improved functioning of heart and lungs; thus preventing cardiovascular and respiratory illness, commonly found in old age.

1.11 Spirituality in Old Age

The term “search for the sacred’’ is considered to be widely accepted description of Spirituality. Primarily, it is a positive state of mind having a universal strength of transcendence lying outside and inside of the self. It is a faith in some supernatural power ranging from non-consideration, to a belief, resulting into devotion and finally surrenders to the transcendent (Koenig, 2012). Various spiritual practices are the reflections of such beliefs.

According to Mobery (2008), spirituality and religiosity are interchangeably used terms infusing all human life showing significant connection with health and wellbeing. Spiritual practice is one of the dimensions of spiritualty, which can be measured. Very often spiritual practices work as preventive measures to ensure health across the ages.

The evolution of spirituality in India has an almost 2500 years historical background. India is said to be a meeting place for number of religions. Sri Ramkrishna Paramhansa, one of the most prominent religious figures of India during 19th century, contemplated that finally all religions lead to the same end. He strongly emphasized integration of religious beliefs in the form of practices, rather than only teachings. Hence, spirituality is an Indian cultural phenomenon, a common thread across all the religions. (Bhawuk,2011)

1.12 Review of Literature

Various studies which have been reviewed have shed light on the relationship between generativity, resilience and mindfulness and the related dependent variables such as physical health and subjective wellbeing among the elderly. The following section gives us in depth understanding of the same.

1.12.1 Health & Well-Being In Successful Ageing

One of the most basic goals of every elderly is to live one's life well. Positive emotions are just a part of well-being as they can be transient in nature. But sustainable wellbeing involves individual feeling energetic, socially connected, resilient and finds meaning and purpose in one's life (Huppert,2014). Impairment in physical health and cognitive functioning in later years are found to be significant factors in the positive affect during later years of life(Cho, Martin & Poon, 2015).

In Indian context, falls is found to be a major cause(14% to 53%) of poor health in the late adulthood stage, resulting into functional disability, physical and economic dependency and if not fatal every time (Pitchai, Dedhia , Bhandari, Krishnan, D'Souza & Bellara,2019). Reduced physical strength, balance, sensory functioning and chronic illness are few major biological factors, along with the behavioural risk factors such as hurrying, reduced physical activity and multiple medications (Dsouza, Rajashekar, Dsouza & Kumar, 2014; Krishnaswamy & Gnanasambandam; Patil, Suryanarayana, Rajaram, & Murthy,2015).

Due to ageing, there is weakening of physical capacities and changes in the biomarkers, hence maintaining physical health becomes a challenge. Cardiorespiratory and muscular endurance, muscular strength, body composition and flexibility are the health-related elements of physical fitness; while agility, balance , speed, power, coordination, reaction time are all skill-related contributors. Both the components are important in the prevention of chronic disease as well as rehabilitation among elderly. They are particularly critical to independent function and better quality of their life (Zoeller,2013).

Positive affect and life satisfaction are more important components influencing the physical health (Cross et al.,2008). Wellbeing and ill being should not be considered as the antonyms, but the counterparts of each other. An experimental study by Howell et al. (2017) has demonstrated wellbeing having positive impact on short term and long term health outcomes as well as disease or symptom control. Conventionally, illness or lack of good physical health is related to negative emotions more than the positive emotions, affecting wellbeing.

Apart from these biomarkers, "subjective health" which is a perception of one's own health can be a determinant of wellbeing in later years of life. Chao, Martin, Margrett, Macdonald & Poon (2011) in their study on the relationship between physical health and psychological wellbeing among oldest old adults strongly claim that subjective health is one major determinant of psychological wellbeing in later years of life. Subjective health is the perception and evaluation of one's own health resulting from objective physical and mental health status, one's beliefs, attitudes etc. Secondly, physical health impairments and biomarkers had independent direct effects on subjective health and indirect association with psychological wellbeing in oldest old adults.

Good physical health, positive emotions and overall satisfaction with life are indeed complimentary factors leading to successful ageing.

1.12.2 Diet in Health &Wellbeing Among Elderly

Nutrition is one of the major contributors to physical health. Nutrition which consists of various nutrients like calcium, minerals, carbohydrates and the vitamins play important role in the physical health of the older adults. It works as preventive and also as a cure in case of many illnesses.

Calcium, minerals, carbohydrates, vitamins and health

Lack of adequate diet affects immunological and non-immunological defenses and increases frequency, intensity and the occurrence of acute as well as chronic diseases. However, consumption of fruits and vegetables in a substantial amount on a daily basis contributes to the wellbeing across the age (Mujcic & Oswald, 2016). As fruits and vegetables are considered to be major source of antioxidants such as ascorbate, tocopherol, and carotenoids which significantly reduce the risk of age related degenerative diseases like cancer, cardiovascular disease, immune-system decline, brain dysfunction, and cataracts and promote physical health among the aged (Ames, Shigenaga & Hagen,1993).The inclusion of whole-grain foods, legumes, vegetables, fruits and monounsaturated *and* polyunsaturated fats from

vegetable oils, seeds, nuts, whole grains, and fish are important for cardiac health exclusion of refined starches, red meat, full-fat dairy products, beverages high in added sugars in the diet has been associated with decreased risk of a variety of chronic diseases. Such dietary measure also helps in controlling obesity and Type II diabetes (Skerrett & Willett, 2010).

Vitamin C, also known as ascorbic acid plays a vital role in vascular and metabolic functioning. Its role in the functioning of the nervous system and treating chronically ill patients is a known fact (Grosso, Bei, Mistretta & Marventano,2013). Citrus fruits, green and red peppers, strawberries, tomatoes, broccoli, sprouts, Indian gooseberry (amla) and other leafy vegetables are the rich source of Vitamin C. The deficiency of vitamin C is reflected in overall discomfort, uneasiness in the absence of any direct determinant, fatigue and lethargy resulting into impaired physical mobility, social interests. More frequently vitamin C deficiency is caused by certain demographic factors like very young or old age, low SES, poor diet, excessive exercise and medical conditions such as hypertension, diabetes, obesity(Lykkesfeldt,2014). Successfully fighting with the infections, allergic reactions, protecting the immune system are few more benefits of Vitamin C along with responsible for converting amino acid into serotonin (Chambial, Dwivedi, Shukla, John, & Sharma,2013).

Vitamin D and Calcium which is present in fortified milk products, cereals, eggs, certain type of fish in tolerable upper limit level is always suggested for women and the elderly to maintain bone density and thus physical activity. Deficiency of Vitamin D and Calcium is associated with mineralization defects in children (Chang & Lee,2019)and osteoporosis among adults, reduced physical strength and stamina, high possibility of falls among the older adults and higher mortality. Although exposure to sunlight is said to be a good source of vitamin D, elderly are found to be deprived as their activity is frequently indoor in nature. Hence, the dietary supplements rich in Vitamin D and calcium play important role in the overall physical health of the elderly. (Nair & Maseeh,2012). If sufficient intake is not possible through the dietary measures, Vitamin D supplement is advised to the treat various disorders such as cancer, hypertension, multiple sclerosis, rheumatoid arthritis, osteoporosis, muscle weakness and diabetes (Zhang &Naughton,2010).

Serotonin and Health and Positive Emotions

Nutrition plays a vital role in the neurotransmission as well as the secretion of various hormones which not only helps in maintaining homeostasis, but also controls and coordinates the activities throughout the body. E.g. the endorphins which are generally released after

exercise are responsible for experience of happiness. They work as a pain killers and also block the flow of Cortisol, a stress hormone, which causes ageing. Endorphins are the hormones which fluctuate according to the individual's age, life style, circumstances, health status, diet etc.

Serotonin, a neurotransmitter, relays signals between nerve cells regulating their intensity. It influences most brain cells both directly and indirectly. It is believed to play a key role in the central nervous system (CNS) and in the general functioning of the body and especially the gastrointestinal (GI) tract. Most of the body's serotonin is found in the GI tract, where it regulates bowel function and movements. It also plays a part in reducing the appetite while eating. Serotonin is a mood stabilizer and very sensitive to diet as compared to other neurotransmitters. Different pharmacological and non-pharmacological methods (such as diet) are effective in regulating the level of serotonin. (Young, 2007). A Serotonin rich diet results in adequate serotonin levels in the body providing a natural high and euphoria**.** Therefore, serotonin is commonly known as a 'feel good' hormone. It plays a role in the treatment of depression as well as susceptibility to depression and suicide. Serotonin affects our appetite, sleep and mood as well as activity level. Some of the most common low serotonin symptoms are depression, fatigue and disturbed sleep, which impair social participation, resilience and physical health. Happiness seems to add to your life as well as life to your years. Happiness or feeling good is found to be positively related to social engagement and longevity (Delamonthe, 2005)

Serotonin receptors are found to mediate reflex control of GI motility, bowel function and also pain in some situations. Serotonergic agents are found to be efficacious in treating chronic constipation, diarrhea and irritable bowel syndrome. (Camilleri,2009)

Tryptophan, an amino acid, is responsible for synthesis of serotonin. It is commonly found in diet such as nuts, red meat, milk products and also leafy vegetables. Other than physical benefits like regular sleep, smooth motor functioning, bowel control and it's functioning, Serotonin also has benefits in maintaining mental health of the individual. Normal Serotonin level makes the individual less anxious, more calm, focused and happy. Protein synthesis and Kynurenine synthesis are the two major metabolic pathways of tryptophan, which are responsible for mood as well as development of cognitive functions in neurological disorders. Serotonin plays a crucial role in allowing tryptophan to reach different parts of the CNS essential for wide range of brain functioning including regulation of sleep and appetite, apart from mood and cognition. Tryptophan –rich diet acts as a cognitive and mood enhancer, which is considered as a therapeutic target for neurocognitive disorders, promoting wellbeing

(Stone & Darlington,2013; Gibson et al., 2016; Jenkins, Nguyen, Polaglaze &Bertrand,2016; Scaccia,2017).

Serotonergic transmission deficit is significantly related to the development of major depression. Serotonergic activity is found to be associated with deterioration of memory impairment and memory-enhancing effects (Meltzer, Smith & DeKosky,1998)
Increase in brain serotonin protects against the onset of various physical and mental disorders. Serotonin and mood share a bidirectional relationship. Healthy diet, exercise, exposure to sunlight and meditation are considered to be natural non-pharmacological serotonin boosters. Further, in healthy people serotonin is found to increase agreeableness, decrease quarrelsomeness and improve mood (Young, 2007).

1.12.3 Exercise in Health &Wellbeing

Each physical activity requires different dimension of physical strength and /or endurance. If the individual is involved in the activity, respective strength or endurance is maintained in the normal process. Automation has brought numerous changes in the individual's lifestyle, including the nature and number of activities, across the socio-economic class of the society. Hence, in the current times, the individual has to consciously do specific tasks to maintain most of the dimensions of physical strength and or endurance, if not all, as it contributes to his/her physical health. Regular physical activity for thirty minutes of moderate intensity such as walking, climbing stairs on a very regular basis helps to maintain muscular strength, if not physical fitness (DiPietro,2001).

Exercise and Health

Sedentary lifestyle is one of the potential deterrent in the healthy ageing process. In a comparative study on young –old and old-old in health-related quality of life, although the significant inverse relationship is found between duration of sedentary lifestyle on a daily basis and health-related quality of life among old-old (Kim,Lee,2019), it would always be advisable to plan some concrete measures to avoid the same in young-olds. Sedentary time is positively associated with frailty syndrome among older adults, in which physical health parameters such as physical stamina, strength, balance, muscular endurance get impaired significantly. Thus, increasing regular physical activity is suggested to be essential strategy to avoid or delay this syndrome (Rodríguez-Gómez et al,2021).

Physical exercise is proved to be beneficial for the elderly on physical, cognitive and affective levels. In the early years of life, exercise helps to build the muscular and aerobic strength, while in old age, it acts as a maintenance mechanism to control age-related deterioration or prevent from few degenerative diseases like Osteoporosis, cardiovascular diseases, hypertension, diabetes etc. Experimental studies have proved that, physical exercise helps the individual manage issues related to memory impairment and other behavioural and psychological symptoms, apart from leading daily activity routine independently. Exercise not only decreases morbidity and mortality among older adults, but adds quality to their life. Exercise is proved to be a supplementary therapy for the elderly suffering from depression (Singh, Clements & Singh, 2001; Stewart, Richards, Brayne &Mann, 2001; Judge, Kenny & Kraemer,2003; Lautenschlager, Almeida, Flicker & Janca, 2004; Lautenschlager & Almeida,2006). An experimental study on older adults showed significant increase in oxygen consumption and muscle strength due to regular exercise for a period of 6 months (Cress, Buchner, Questad, Esselman, de Lateur, & Schwartz,1999).

Falls cause of dysfunctionality in old age, if not fatality A comprehensive programme of strengthening, balance, and/or endurance training effectively reduces falls and fall risks in older adults. Exercises alone are effective in reducing fall rates in older adults in community and home –based elderly(Dsouza et al.,2014).

Exercise and Positive Emotions

An intervention study of effect of physical exercise on health shows significant reduction of sudden changes in the mood states, specifically the 'fatigue' and stress biomarkers like saliva cortisol among the institutionalised elderly (Tada,2018). Physical activity on a daily basis is proved to be a 'protective factor' among elderly against Alzheimer's and other types of dementia (Laurin, Verreault, Lindsay, MacPherson & Rockwood,2001), depression(Strawbridge, Deleger, Roberts & Kaplan,2002). Physical activity has been an effective primary and secondary preventory measure in various chronic diseases and premature death (Warburton, Nicol & Bredin,2006).

When basic parameters of physical health are in a normal range, when there is an absence of any chronic disease and individual is in a position to do his routine activities independently and voluntarily, it definitely helps to keep positive mood and make him feel satisfied. Rather, all these factors form a vicious circle. Steptoe, Deaton & Stone (2015) found bidirectional relationship between physical health and subjective well-being, older people suffering from chronic illnesses show increased depressive mood and impaired hedonic and eudemonic

wellbeing. General wellbeing which includes the presence of positive emotions enhances the individual's physical, psychological, intellectual and even social resources. It also reduces vulnerability to experience stress and brings change in one's perceptions leading to good health and longevity (Wright & Cropanzano,2004).

Exercise, Health and Wellbeing

Physical exercise and diet help in secretion of these hormones, which in turn, leads to maintenance of physical health and mobility contributing to subjective wellbeing. Specifically, exercise is considered as an effective stress coping mechanism and a mood elevator among normal people and also those suffering from depression. Fox (1999), in his study on the influence of physical activity on mental well- being found sufficient evidence for effectiveness of exercise in reducing State and Trait anxiety, clinical depression as well as improving physical self-perceptions and also self-esteem; though among older adults, evidence was weak for exercise improving cognitive functions like Reaction Time. Hence, the researchers concluded that moderate regular exercise should be considered as a viable means of treating anxiety and depression and improving mental wellbeing in the general public. A review study done by Penedo &Dahn(2000) confirm that exercise, physical activity and physical activity interventions have beneficial effects across several physical and mental health outcomes, including better functional capacity, mood states and quality of life. It is highly useful in reducing stress and improving self-esteem among the olds (Khazaee-Pool et al.,2015)

Physical exercise and the surrounding together have shown significant positive effect on bio and psychological markers such as blood pressure, self-esteem and mood of the elderly, although exercise alone significantly reduced blood pressure, increased self-esteem and enhanced positive mood (Pretty et al.,2005). A review paper by Arent et al.,(2000) showed exercise as a precursor (in experimental studies), correlate (Correlational studies) and enhancer (Gain studies) of mood among older adults. Physical activity helps to reduce anxiety, intense tendency of mood swings among the elderly suffering from terminal illness as well as not having any physical illness (Kah Poh Loh et al, 2019).

As the fluctuation in brain serotonin level is associated with ageing, moderate aerobic exercise, brisk walking have shown the beneficial effects in terms of increasing the level of

serotonin and tryptophan in the blood plasma. It is also effective in controlling anxiety and depression (Melancon et al.,2014).

1.12.4 Spirituality, Health &Wellbeing

In order to survive successfully in today's competitive world, everyone tries to be competent enough to prove one's potentials to the fullest, aspiring better Quality of Life. Health and wellbeing are two important components of better QOL. In the process of attaining the same, there may be deterrents such as stress, frustration, conflicts. Couple of past researches have highlighted the role of cultural norms and values in the wellbeing. India, being a multi-religious country, religion has been a central preoccupation, across the age; especially among the elderly (Goswami,2014).

Spirituality plays important role across all ages in the Indian context, but prominently in the lives of elderly. It helps to strengthen inner resources, brings broader perceptive outlook in problem solving along with social connectedness (Saleem & Khan,2015) plays critical role in the palliative care as well(Bhatnagar,2008).

Spiritual practices and Ageing

Spirituality is one of the important elements of the holistic care of the terminally ill patients, as it nurtures psychological values such as faith, hope and compassion enhancing the healing process (Simha et al.,2013). An engagement in spiritual practices on a regular basis helps elderly to age gracefully as they learn to build community with spiritual and cultural interests and also render some services to the society (Noronha,2014).

Spiritual practices and Generativity

Irrespective of the socio-economic status, Spirituality is found to be associated with charity & generosity, particularly towards the members of Outgroups such as immigrants or members from other religions (Shariff & Norenzayan,2007; Batara et al,.2016;Preston&Ritter,2013). Spirituality in collaborative efforts promote not only number but also the quality of interpersonal relations, social integration and support influencing physical health and longevity in old age (Musick et al.,2000; Tay et al,.2014). Even the culture influences life satisfaction and wellbeing to a large extent. On the whole they lead to stronger social relationships and happiness in life (Diener & Seligman, 2002).

Spiritual practices and Resilience

Although spirituality typically declines during adolescence years, youth involved in spiritual practices on regular basis were found to be more socially connected, goal-directed and effective in emotional management(Wright et al,.2018), reduced anxiety and effectively using coping strategies (Cotton et al, 2006). Religiosity/ spirituality acts as protective factors among youth enhancing their resilience under stressful conditions(Lee & Neblett,2019). Spirituality is used as a tool to promote and maintain resilience in late life in five key domains: reliance on relationships, spiritual transformation, spiritual coping, power of belief, and commitment to spiritual values and practices (Manning et al,.2019). Participating together in spiritual practices helps to build resilience was reported by adolescents (Smith et al,.2013) strengthens hope and meaning in life, reduce severity and relapse rate of the symptoms among elderly while experiencing grief, loss and uncertainty (Udhaykumar & Ponnuswami,2012).

Spiritual practices and Health and Wellbeing

Fry (2010) has found that an involvement in religion, participation in spiritual practices and sense of inner peace with the self as significant predictors of wellbeing among elderly.

Spirituality is more personal, subjective in nature, free from rules and responsibilities laid by the religion and therefore has more application in different settings, either to strengthen the mental health or protect from any physical/ metal illness. Spiritual engagement promotes positive emotions such as forgiveness, altruism and gratefulness enhancing social support and connectedness eventually leading to physical health and longevity (Koenig,2012). Spirituality can be defined as the internal, personal, and emotional expression of the sacred and is measured by spiritual well-being, peace and comfort derived from faith, spiritual connectedness, and/or spiritual or religious coping (Cotton et al,.2006).

Very often spiritual practices work as preventive measures to ensure health across the ages. Spiritual practices vary in a wide range, from prayer, speaking in tongue, meditation to journaling to visiting holy places. Spiritual Meditation group had greater decreases in anxiety and more positive mood, spiritual health (Wachholtz & Pargament,2005). Role of spiritualty in pain management was proved to be alarming increase in pain tolerance. Spiritual practices like prayer, participation in religious services, spiritual resources and meditation influence lower pain intensity, pain perception, reduced pain frequency and pain duration and eventually suffering (Sollgruber et al,.2018). Number of health benefits of engagement in spiritual practices such as strengthening immune and endocrine functioning, overall mortality

and reducing cardiovascular diseases, dementia and pain disorders are reported (Koenig,2012)

Many a times these practices have therapeutic value as well. Particularly, prayer is considered as an important resource for coping with problems in life. They help to release many negative emotions like psychological distress, death anxiety etc. (Mobery,2008). Spiritual practice helps the individual to go beyond the materialistic world and find the purpose of life (Hamilton, 2017). Individuals with active coping prayer styles in the form of seeking calmness, focus in life, acceptance and assistance show greater perceived control over state and low level of trait anxiety (Harris et al,.2005).

Spiritual health is another dimension contributing to individual's overall health and well-being. It is a dynamic state of being, which is reflected in the quality of relationships in major domains of life, such as personal domain that is relating to self, communal domain that is relating to others, environmental domain is relating to nature and transcendental domain that is relating to someone beyond human level (Fisher,2011). Despite the individual's religious status, spirituality is significantly associated with subjective wellbeing across the stages of adulthood (Villani et al,.2019)

Krause (2002) in his study on 1200 elderly participants found a chain of positive effects on their health and wellbeing. Elderly attending the church activities regularly seemed to have more cohesive networking, spiritual and emotional support strengthening social bonding and faith in supernatural power / God. Such elderly were found to be more optimistic, satisfied with their life and enjoying better physical health.

Forgiveness is one of the common and central concepts imbibed from childhood across the religions and cultures. By involving in various religious/ spiritual practices, individual tries to gain self-control, learn emotion management and also compassion for others along with oneself. In the process of reviewing one's past during the later stage of life, elderly experiences importance of forgiveness in his state of happiness and life satisfaction. The courage to forgive at thought and behavioural level is promoted by in-depth involvement in religious/ spiritual practice such as prayer (Krause & Ingersoll-Dayton,2001).

As interdependence being a core value of collectivist culture, wellbeing of an individual does not depend only on personal achievements and happiness but different parameters of social comfort as well. In the collectivist cultures like India, many spiritual practices nurture the

values like compassion for others and altruism resulting into personal, social comfort and life satisfaction.

1.12.5 Wellbeing and Health

Amongst various approaches to wellbeing, the Hedonic approach is found to be supported in the following studies.

Fulfillment of basic needs like hunger and pursuit of sensation and pleasure and achievement of these ultimate goals results into happiness was suggested by Hebb and De Sade, respectively (Airaksinen,2019; Hauskeller,2014). Lyubomirsky &Ross (1999) and Suh et al (1996) showed how people with high subjective wellbeing tend 'to see through rose-coloured glasses' and 'turn lemon into lemonade' and find positivity leading to experiencing positive emotions in the event which may be perceived differently by the people with low subjective wellbeing.

The findings below support the Eudemonic approach to wellbeing:

Wellbeing is a multidimensional construct with three broad dimensions- at cognitive level evaluation of satisfaction with general or specific areas, affective evaluation is the consideration of moods in specific situation, while eudemonic wellbeing results from satisfaction of the basic psychological needs and self-determination (Dolan at al,.2011). Wellbeing in objective terms is derived from attainment of health, education, social security, social and financial status and so on. While in subjective terms wellbeing is the perception of an individual towards his/her life, which may or may not be related with the objective parameters of wellbeing. It is truly a subjective opinion of one's life based on criteria set by the individual, which may undergo changes due to dispositional and situational factors. But most commonly, optimally using one's potential and efficient adaptation to changing circumstances in life and moving from self-orientation to others are considered as the parameters of subjective wellbeing in later years of life. Parallel to this, satisfying needs of competence, autonomy and relatedness which are innate psychological needs enhances self-motivation and wellbeing across the age (Ryan & Deci,2000).

The relation between physical health, functionality and subjective wellbeing is clear , as the illness would naturally lead to functional limitations and negative affect (Ryan &Deci,2000). Positive affect protects the individuals against physical decline in old age. There are numerous benefits of positive affect at cognitive, physiological and behavioural levels. Various cognitive functions like attention, creativity, intuition get more sharpened. Physiologically speedy recovery from cardiovascular aftereffects of negative affect is

possible because of positive emotions (Fredrickson & Branigan,2005). These findings of the research are supporting the Broaden-and-Build theory of positive emotions

Wellbeing in Older Age

Individual with high subjective well-being 'experiences' more positive emotions and 'feels' contented with one's life in terms of family life, social life, financial status as well as career or occupation. The importance of these domains differs from individual to individual and also from one developmental stage to another. In late adulthood, fulfilment of one's responsibilities, less discrepancy between one's aspirations and achievements in life, good physical health and financial security lead to subjective well-being. When comparisons between the expectations and the achievements are adequately met, elderly experience life satisfaction. Family and social relationships, health, ability to adapt indeed add to the life satisfaction and an experience of positive emotions among the elderly (Senser,2010; Llobet et al,.2011).Although weak but positive relation is found in financial security, more assets and less debt and subjective wellbeing among older adults(Hansen et al,.2008), participation in social activities playing important role between financial security and subjective wellbeing among Chinese older adults (Li et al,.2017; Yeo & Lee,2019). Financial independence, social support and freedom to make one's decisions are equally important factors affecting life satisfaction among the elderly(Barragan,2015).

Longitudinal study on ageing by Okely & Gale (2016) has shown that how wellbeing helps to avoid the onset of chronic diseases such as arthritis, cancer, stroke, diabetes, myocardial infarction, and chronic lung disease among the older adults. Longevity is found to be an outcome of hedonic as well as eudemonic wellbeing particularly in community dwelling Chinese elderly. Greater purpose in life is associated with more positive outlook towards life, that may help an individual to encounter the negativity which is a bi product of chronic illness (Boyle,2009)

Penninx et al.(1998) and Feller et al.(2013) who studied the impact of positive affect and attitudes on the development of chronic disease observed people with less life satisfaction being more prone to suffer from cancer. While people with intense negative affect showed high incidence for coronary disease, however positive affect did not guarantee an absence of the same(Nabi et al., 2008).

Wellbeing and Successful Ageing

The above theoretical approaches are broadly categorized in two groups, where subjective well-being is either a Cause or Effect. Diener & Chan (2011) in their research claimed that positive feelings predict health and longevity beyond negative feelings. However, there are converging lines of evidence showing subjective well-being influencing health and longevity. More than twenty studies done in last ten years show that, happiness predicts longevity in healthy population but may not cure illness in sick population.

Demographic factors and Wellbeing

Higher age, being married, having higher education, high income are few of the precursors of life satisfaction among the elderly (Agrawal et al, 2010; Malhotra, Ghosh, Singh &Tripathi). However, the situation is different amongst people across the ages in rural India. Surprisingly, in rural Indian population socio-economic status does not affect the Subjective Well-being (Linssen et al.,2011). Suar, Jha, Das &Alat (2019) found personality factors like emotional stability and quality of personal relations significantly affect the Subjective Well-being in young adults but may or may not influence old adults. Biographical characteristics like marital status is found to be significantly higher among married olds, although not in self-rated health (Raymo,2015).

Competence, high socio economic status & social integration act as important precursors of subjective wellbeing in later life, however quality of social contacts supersede merely the number of contacts (Pinquart & Sorensen,2000)

Wellbeing and Physical Health:

Various alternate therapies are experimented to test their effectiveness. Experiencing positive affect is one such effective measure. Wellbeing indeed connects with pathways to health in terms of controlling hypertension and cholesterol level and improving the immune function, endocrine activity and few physiological measures through alterations in health behaviour such as sleep, exercise and diet (Cross et al.,2018). Patients with mild to moderate Parkinson's disease showed significant improvement in the physical health parameters such as flexibility, agility and strength after 'Parkinson's disease wellbeing programme' held for 5 weeks. The wellbeing of the patients was enhanced through education and exercise during the intervention stage of the study (Horne et al.,2019).

Bidirectional relationship between subjective wellbeing and physical health is found in older adults. Retrospective studies show an evidence of impaired psychological wellbeing which is

related to increased risk of premature death, physical illnesses like coronary heart disease, diabetes and other chronic conditions. Regular physical activity is suggested to maintain cardiovascular health, muscle strength and flexibility which is consistently correlated with wellbeing.

They found bidirectional relationship between physical health and subjective well-being. They found in the research that, older people suffering from chronic illnesses show increased depressive mood and impaired hedonic and eudemonic wellbeing. Impaired psychological wellbeing is associated with increased risk of physical and mental illness and overall life stress. (Steptoe et al.,2015).

Sudden or repeated falls affects physical health in old age in the form of physical immobility, complete or partial dependency, if not death among older adults. The frequency of falls increases along with the age and other comorbidity, higher in institutionalised elderly than elderly staying at home. In the present study along with chronic illness, even few cognitive disabilities such as Dementia, Parkinsonism is investigated. As such cognitive impairments show double rate of prevalence of falls as compared to their counterparts (Agarwal et al.,2016).

Wellbeing and Sensory Functioning

Adequate functioning of sensory capacities is an important dimension of physical health as it reflects in numerous activities of the person in particularly later years of life. The loss of vision due to damaged optic nerve or retina can cause difficulties in day to day activities like reading, recognizing, socializing etc. It can also lead to partial or complete dependency and affect mobility to a large extent. Hence, relaxation techniques, stress reduction mechanisms are recommended to be adopted to prevent or manage the loss of vision (Brown et al., 2014;Sabel et al., 2018).

An impairment in the sense of hearing is another important cause of making the elderly socially aloof with lot of dependency and restriction on mobility leading to poor quality of life (Ciorba et al.,2012; Dalton et al.,2003). Other than sensory-neural hearing loss which is normally age related, tinnitus is a common hearing problem induced by stress across the age. Hence, stress management is said to be effective in managing with the hearing loss such as tinnitus indicating the role of stress again in sensory functioning. Sensorimotor performance shows decline during old age but can improve by training and exercise indicating that age-

related changes are treatable. Dance therapy is one of the powerful intervention as it works on cognitive, affective as well as physical levels. It is effective in acoustic stimulation as well as cognitive performance in elderly without affecting cardio-respiratory functioning (Kattenstroth et al.,2013).

Wellbeing and systemic functioning

Respiratory muscle strength decreases with age and hence shows functional changes as well, probably responding poor to moderately to medication. The older adults show reduced ventilator response to hypoxia or similar states, with more possibility of poor outcomes (Sharma & Goodwin,2006).

More than 40% of older adults show age –related digestive symptoms. The most common digestive-health problems are irregular or painful bowel movements, constipation which may eventually affect health (Conaway,2012).functional bowel disorders impair daily life and quality of life among elderly. Bowel related problems like constipation tends to affect moods, day to day activity and social life from moderate to a large extent (O'keefe et al.,1995; Munch et al.,2016).

Normally, lack of proper diet, exercise and insufficient quantity of fluids are the major causes of constipation or other bowel related problems. And thus, life style changes including more activity is highly recommended to the elderly along with dietary changes and increased physical activity to manage these problems. Adequate and appropriate diet, regular physical exercise are considered to be the mood additives which contribute to the functioning of physiological processes such as digestive functioning which eventually help to take care of bowel related problems (Mandal,2019). Particularly in older adults, psychological factors like anxiety, stress or even fear of bowel functioning cause disturbed bowel functions such as irritable bowel syndrome. Therefore, stress reduction is one of the effective measures suggested to manage the IBS (Kernisan,2018).

Wellbeing, stress reduction and health

Clinical reports and the current research suggests that ‘stress is both, a cause and consequence of vision loss’. Stress is found to be a determinant of hypoxia, retinal impairment, partial and selective blindness and so on eventually affecting the health and quality of life in older adults. Therefore, taking care of mental health and avoiding negative

impact of inevitable stress is highly suggested (Sandoiu,2018).an Australian longitudinal study on women's health highlighted the role of wellbeing in terms of lack of perceived stress in the life leading to less vulnerability to arthritis development (Harris et al.,2013). Stroke , cardiac and chronic lung disease were positively related with depression among the olds(Huang et al.,2009). Positive affect was found to be inversely associated with the incidence of stroke in case of older adults showed the role of emotional wellbeing as a protector of chronic illness(Ostir et al, 2001). Boehm & Kubzansky (2012) observed wellbeing to be positively associated with restorative behaviour and biological function other than hedonic wellbeing specifically related to cardiovascular health.

Wellbeing and Social Participation

Social participation is an important aspect of individual's wellbeing across the life. Elderly are more vulnerable to experience loneliness due to various changes at familial, social and occupational level such as change in the role and responsibilities, migration of children due to marriage or work, loss of spouse or age mate, major illness in one's life, retirement etc. affecting their social participation (Shankar et al, 2014). However, for the elderly, informal social networking and the quality of relationships is more important than merely the number of relationships is studied in Taiwanese sample by Hsu & Chang (2015). Lang (2001) studied role of regulation of social relationships in late adulthood. His findings revealed that proactively moulding the social world in accordance with one's age-specific needs contributes to one's subjective well-being.

Culture is one of the influential factors in the subjective wellbeing across the age. In the Indian context, demographic factors such as marital status (Venkatraman,1995), gender and geographical location seem to be related factors, favouring males particularly in the rural areas (Hoop et al.,2010; Sengupta, 2016). Higher age, subjective health, less loneliness, being married, higher education, higher income and working in a full time job seemed to improve the life satisfaction and reduce negative affect (Steverink et al.,2001; Agrawal et al,2010). An importance of emotions with low intensity and high clarity as well as emotional disclosure predicted higher subjective wellbeing (Saxena & Mehrotra,2010). In Indian context, the family acts as a strong social support in the life of the elderly. Living arrangement plays a crucial role in the health status and life satisfaction of the elderly. Elderly living in the family experience significantly higher life satisfaction in comparison with the elderly living in the old age homes (Amonkar et al.,2018)

1.12.6 Generativity, Health and Wellbeing

Generativity in Old Age

There are multiple benefits of the generative behaviour in the old age, such as by contributing to others' life, the elderly regain social identity in the post-retired stage, sense of purpose in his own life (Wethington,2000) as well as relief from personal life stress (Willigen,2000).

In their study on childhood adversity, midlife generativity and later life well-being, Landes et al.,(2014) explored long term effects of childhood adversity on successful ageing for individuals who achieved, or failed to achieve generativity in their midlife. The results showed that, for those who achieved generativity in their midlife were found to make better adjustment to ageing. Generativity moderated the adjustment to ageing successfully.

Generativity can be expressed in different ways by the elderly. They play a role of a caregiver, guide, friend or a mentor by giving ideas or creative solutions, helping the younger generation develop foresight towards upcoming threats in personal, social or work life. It not only helps the receiver but also to the doer to create positive image in others as well as for oneself. Participation in social networks through creative activities act as a protective factor among the elderly, enhancing their cognitive capacity. Social networking also helps elderly develop a sense of control benefitting brain health; regardless of their bio-psychosocial changes of ageing. (Mc Fadden & Basting, 2010). Generativity or generosity increases with age and is also considered to be a core aspect of well-being as it reduces the normal stresses of ageing. Particularly in old age when individual goes through 'role loss', generative action gives a rewarding experience to the individual (Midlarsky & Kahana,2007).

Cheng (2009) has revealed perceived respect from younger generations for generative actions of the old people as a significant predictor of well-being in later life. The generativity oriented activities will be meaningful and satisfying experience to the elderly, if they fulfill the requirements of younger generation. If these activities are perceived non meaningful by the younger generation, then the elderly need to redefine their act ions. Otherwise, it will lead to conflicts and disturbed relationships. (Cheng et al.,2008). If the elderly do not redefine the activity, it will lead to disinterest and disengagement with the activities for younger generation. In his research on generativity in later life, Cheng (2009) had hypothesized that, actions to benefit next generation would not lead to wellbeing unless they are perceived to be valued and respected. The findings revealed that, lack of perceived respect at baseline predicted decrease in generative concern.

Generativity and Life Satisfaction

Altruistic attitudes are important additional predictors, along with pro social behaviors in fostering life satisfaction and positive affect in old age (Kahana et al.,2013). The elders help each other even on informal level from advising how to resolve familial, health related, financial problems to daily activities such as shopping (Brown et al.,2003; Riche &Mackay,2007). Such activities act as social support to the receiver and a sense of satisfaction to the provider. However, favourable reactions of the receiver's nurture self-esteem and self-efficacy of the help provider eventually experiencing happiness and satisfaction.

In a review article by Kruse & Schmitt (2012), generativity was found to be a significant predictor of Optimism and Life satisfaction, irrespective of subjective health, financial resources and family status. Leading a good life in old age refers to social participation, opportunities to establish and maintain social relationships, engaging for the fulfillment of interests of oneself and others, thus contributing to further development of the society.

Generativity and Wellbeing

Generativity in old age is found to have positive correlates such as lower depression (Li &Ferraro,2005), high self-esteem and social connectedness, more longevity (Gruenewald et al.,2009). However, there are contradictory findings showing detrimental effects in the form of depression, anxiety, stress and psychological distress when the elderly play the role of caregivers (Grossman& Gruenewald,2017). Generativity benefits physical, psychological and social well-being in individual. There is a growing evidence showing that being generative, one gets impetus to initiate and maintain one's health related behaviour. It has positive impact on cognitive and social aspects of the elderly (Carlson et al.,2000). Civic participation among the elderly is highlighted for its social and community benefits fostering health and wellbeing among older adults, as observed by Serrat et al.,(2016) in a study on generativity and its impact on their well-being among older people's participation in political organisations.

In a qualitative study regarding the expectations of older adults from community volunteering activities, it was found that the elderly look at the life from a "payback" point of view. Hence, by cultivating generativity among themselves, volunteering to participate in social organizations helps them to sustain their self-esteem and sense of wellbeing. (Narushima et al.,2005; Gruenewald et al.,2012)

Generativity, Wellbeing and Successful Ageing

Studies on successful ageing suggest that generativity is an important factor in successful ageing process. Very often, elderly are involved in many such activities. But when it is not acknowledged by themselves or others, in terms of its importance, which could actually affect their self-esteem and subjective well-being. Generative concern has been found to be associated with meaning in life. Hence, it is considered to be an indicator of successful ageing. (Hofer et al.,2014). Lamond et el (2008) posited that those elderly who embrace generative opportunities and actively engage in the challenges of old age, adapt gracefully to the ageing process. They also posited role for the resilience process in successful ageing when older adults view their lives as healthy and satisfactory, despite age-related disease or disability.

Reasons for Generativity

There are various reasons for people to become generative. It is either when they think that others need them or that they are being useful to others. Some people wish to leave a legacy in some form or others genuinely feel the need to 'return to the society' and make a difference in others' lives. The above studies show that, generative actions help elderly to maintain their self-esteem, self-regard and experience happiness, leading to healthy ageing. At the same time, society benefits from this human capital in various respects, such as knowledge, experience and at times long lasting solutions to their problems.

Various forms of Generativity in Old Age

The elderly giving voluntary service to the community not only benefit themselves but also their family and community enhancing their functionality, sense of purpose in life, social connectedness, social cohesion resulting into health and well-being (Morrow-Howell et al.,2009). Social cohesion is a major trigger in developing determination towards generative behavior (Okun & Michell,2009; Wenner & Randall,2016).

Parenting and Grand parenting for the family or neighbourhood is one form of being generative leading to satisfying experiences. In a study done on the couples having children and those not having children, positive association was revealed between generativity and psychological wellbeing with no significant differences between the two groups. (Rothrauff & Cooney, 2008).

Providing financial support to the needy is another form of generativity. Research conducted by Bjalkebring et al.,(2016) shows that engaging in charitable activities enhances well-being. There is an age-related positivity bias in charitable giving. Older adults draw more positive

affect from both, planning and witnessing an outcome of monetary donations. Hence, older people are found to be engaging in monetary charity more than younger ones.

Suffering is a state which may commonly occur in the life of elderly in different expressions. It may be real or concrete in the form of physical or emotional pain, loss of identity; or may be imaginary in nature, in the form of awareness of one's own death, uncertainty, change in relationships etc. In such circumstances, Generative act, particularly creative in nature, may act as means to repair the 'self' in concrete as well as imaginary crisis. (Medeiros, 2009).

Culture and Generativity

Generativity consists of two factors: generative concern and the will to make social contribution. Sagara &Yuko (2017) found gender difference in both factors in Asian cultures. Men showed higher generative consciousness while women had higher will to make social contributions. It suggests that the difference in the social share is due to gender influence among middle-aged people which continues in later life. Generativity is better understood in the background of different contextual variables that influence the behaviour across the life span. Old age is heavily dependent on the cultural norms and current realities but also uniquely experienced by the individual in life (McAdams& Ed de St. Aubin,1992). Their roles and responsibilities to a large extent are shaped by the culture. Generative acts may ensure continuation of one's self in some form or the other (de Medeiros,2009).

1.12.7 Mindfulness, Health and Wellbeing

Benefits of Mindfulness

Several studies have emphasized the effectiveness of mindfulness in various life settings. Brown & Ryan studied the effectiveness of mindfulness for sports persons and at workplace. Results indicate diverse outcomes such as physical health, psychological wellbeing, improved performance, enhanced relationships. (Brown & Ryan, 2004; Brown et al.,2007).

Mindfulness, Positive emotions and Wellbeing

Mindfulness means paying purposeful non-judgmental attention to the present moment. Such attention nurtures greater awareness, clarity in thoughts, feelings and attitudes enabling acceptance of reality. It also helps to realize the richness and depth of possibilities for growth and transformation. Mindfulness helps to appreciate feelings such as joy, peace and happiness. Being mindful is actually an empowering experience as it opens the channels of

our own deep reservoirs of creativity, imagination, clarity, determination and wisdom which are paths to achieve happiness (Kabat-Zinn, 2005).

In an experimental study, an intervention group i.e. who practiced Mindfulness skills showed statistically significant positive correlation with wellbeing. And in the follow up stage of 3 months after intervention, statistically significant negative correlation was seen with overall stress (Kuyken & Weare et al, 2013). Ortner et al. suggest that mindfulness meditation practice may help individuals disengage from emotionally upsetting stimuli, enabling attention to be focused on the cognitive task at hand (Ortner et al.,2007).

Barnes et al (2010) in their longitudinal study of mindfulness as a Trait, have found higher relationship satisfaction and greater capacities to respond constructively to relationship stress. While state mindfulness was found to be related with better communication quality which plays important role in relationship satisfaction. Enhanced self- awareness, positive emotional states and self-regulated behavior are additional correlates of mindfulness in normal as well as chronically ill people. The results of the study show that mindfulness also leads to well-being. (Brown& Ryan, 2003).

Mindfulness through 'Mindfulness meditation' is one of the attributes which nurtures consciousness by non-judgmental observation of every phenomenon, resulting into the behaviour regulation and well-being (Brey,2012; Brown et al.,2015).

Mindfulness and reduction of Psychological Problems/ Therapeutic technique

Previous research findings reveal that mindfulness results into various benefits such as reduction in psychological problems and emotional reactivity. It helps to enhance behavioural regulation and subjective well-being. (Keng et al.,2011; Ramasubramanim,2016). Mindfulness, as a therapeutic tool has been found effective in a clinical setting. Mindfulness - based cancer recovery programmes have resulted in reduced symptoms of stress, altered level of cortisol, decreased blood pressure, and immune patterns consistent with less stress, less mood disturbance and enhanced quality of life among the cancer survivors. (Kabat-Zinn,2014, Brown & Ryan, 2003).

Epstein (1999) has suggested that mindfulness practice helps the patients in optimizing health in both prevention as well as recovery from illness. Gradually, the patients bring changes in the diet, daily routine and overall lifestyle voluntarily. Enriched interpersonal relationships and social connectedness are found to be additional benefits for the patients suffering from chronic illness.

Crane et al., (2012) explored immediate effects of Mindfulness Based Stress Reduction (MBSR) in chronically depressed participants with suicidal tendency. After the intervention of MBSR their life goals were examined, which showed that the goals expressed by them were more specific, relevant and achievable in nature. In a study on primary health-care professionals, strong negative correlation was found between Mindfulness, perceived stress and medium positive correlation between Mindfulness and subjective well- being (Atanes et al, 2015; Shapiro et al, 2005). Thus, the researches indicate that apart from its therapeutic value, mindfulness is a helpful in overall well-being of people leading to healthy adjustment in life.

Meditation is found to be one of the best techniques to cultivate mindfulness. Meditation refers to a family of self-regulation practices which focus on training attention and awareness. It brings the mental processes under voluntary control fostering wellbeing of the individual. When the root cause of ill health and unhappiness, are negative affect and repetitive negative thoughts, meditational practices are of immense help. Meditation may elicit positive emotions, minimize negative affect and rumination and enable effective emotion regulation. (Davis& Hayes, 2011). According to Siegel (2007a), mindfulness meditators develop the skill of self-observation which neurologically disengages automatic pathways created from prior learning and enables present moment input to be integrated in a new way.

Mindfulness and Physical Health

Although findings in the present study do not show significant effect of mindfulness on chronic illness as a dimension of physical health, Naik et al.,(2013) have found significant effect of mindfulness on physiological level in the form of improved functioning of immune system, lowered blood pressure, lowered levels of blood cortisol and increased resistance to stress-related diseases.

Electrolytes play an important role in the nervous system and motor functioning. Imbalance of Electrolytes can lead to disruption of normal body functioning or even life threatening. The symptoms of Electrolytes imbalance range from moderate to severe degree. Overall fatigue, excessive weakness, cardiac disease, kidney malfunctioning are to name a few. Age related changes in homeostatic mechanisms are found more in older persons.

Physical inactivity, certain health problems and more importantly stress are the major causes of Type II diabetes, commonly found in older people. Stress is a potential factor influencing bold sugar level. It has been a proved fact that stress can induce both hyperglycemia and hypoglycemia affecting physiological functioning and behaviour. However, the duration and

nature of stress also matter in determining its effect. The impact of stress on diabetes depends upon psychosocial factors such as one's perception of the stressful situation and or psychological, social support. In case of which, individual benefits in the presence of both (Surwit et al., 1992; Lloyd et al.,2005). The studies show that such issue can be effectively addressed by promoting lifestyle and behaviour changes in 'diabetes prevention programme'. The Diabetes Attitudes Wishes and Needs Programme (DAWN programme) has highlighted the role of psychosocial and behavioural barriers in the treatment of the disease (Belinda,2005;Skovlund,2005).

Thyroid hormone has important neural implications. Different symptoms like depression and anxiety are closely associated with thyroid dysfunction, both hypo and hyperthyroidism showing the effects on cognitive, affective and behavioural level. Therefore, addressing such psychiatric manifestations will show augmenting effects in the treatment of subclinical thyrodism (Saxena et al.,2000; Bathla et al,2016).

Lipid levels are also influenced by lifestyle and behavioural factors or conditions in individual's life. Low cholesterol concentration (HDL) is found to be associated with anxiety and depression and more importantly vulnerability to stress. On the other hand, physical activity, positive emotion, aesthetics, actions, and deliberation were associated with triglycerides (Roh et al.,2014). High amount of cortisol release is a product of stress leading to increase in blood cholesterol and triglycerides apart from blood sugar and blood pressure. In an experimental study conducted by Peterfalvi et al. (2019)on the clinical patients with and without history of early life stress observed the significant negative association between the severity of early life stress and HDL, whereas early life stress being significantly positively related with Triglycerides.

Direct benefits of mindfulness meditation are found by Naik et al.,(2013) on physiological, psychological as well as spiritual levels. Enhanced functioning of immune system, lowered blood pressure, lowered levels of blood cortisol and increased resistance to stress-related diseases are some of the physiological benefits. While the individual benefits psychologically by reduction in emotional reactivity and distracting thoughts and an improvement in control over rumination of negative thinking, mental flexibility, and empathy. The individual also develops more capacity for intentional responsive behaviour. On the other hand, increased self-insight, acceptance of others are the spiritual benefits, the individual enjoys.

Mindfulness has proved to be effective across the age groups, as a preventive as well as curative measure. The findings of a study on elderly done by Black et al(2015) reveal

significant impact of mindfulness meditation in improving quality of sleep and thereby reducing day time impairments due to disturbed sleep among the elderly. This will enhance the overall subjective wellbeing and boost their physical health. (Geiger et al, 2015)

Zaragoza and Prakash (2017) have observed that mindfulness meditation may control the decline of attentional control abilities among old adults and allow them to capitalize their emotion regulation abilities. Mindfulness meditation on a regular basis increases the physical and mental awareness, helps to filter healthy thoughts and enhance stress coping skills (Mallya&Fiocco,2015) and wellbeing among elderly with potential role of emotion regulation among the elderly (Mandal et al.,2011)

The results of a study done by Malinowski et al.,(2017) show that engaging in just over ten minutes of mindfulness practice five times per week resulted in significant improvements in behavioral and electrophysiological measures related to general task performance. However, the study did not find the expected specific improvements in executive control and emotion regulation, which may be due to the training instructions or the relative brevity of the intervention. Overall, the results indicate that engaging in mindfulness meditation training improves maintenance of goal-directed visuo-spatial attention and may be a useful strategy for counteracting cognitive decline associated with aging.

The most fundamental development in medicine over the past decades is the recognition that health is a characteristic of two interconnected domains - the body and mind. This paradigm shift is trying to find as how various factors like one's lifestyle, patterns of thinking and feeling, relationships and environmental factors influence body and mind and effectively the health. (Kabat-Zinn, pg172).

The mindfulness-based interventions are being proved to be effective in reducing psychological symptoms such as anxiety and depression and promoting positive psychological qualities (Shapiro & Walsh, 2003; Bostanov et al,2018).

Mindfulness and Physical health:

Globally, lifestyle habits such as smoking, consumption of tobacco/ gutka is one the leading cause of death across the age. By 2030, particularly in developing countries the number of such deaths is projected to be 10 million, and hence a growing public health concern.. Despite various measures taken by the policy makers like restrictions or bans on its publicity and

behaviour, easy availability to cessation therapies is found to be effective (Brewer et al.,2011; Jha et al.,2009)

Although wellbeing is not found to be directly related with physical health, alcohol related hypertension may show negative impact in the form of increased risk of stroke leading to death. Happiness seems to be related to habits like smoking, drinking or consumption of tobacco, particularly in young age. Unhappiness was found to be leading to later smoking in adolescents. Similar to heavy smoking, heavy drinking was found to be associated with unhappiness but not moderate drinking (Veenhoven,2007).

Neuropharmacological study (Brewer,2019) claims that when smoking or drinking is induced by stress, the prefrontal cortex shuts down. In such situations, changing the habit loop with the help of mindfulness techniques works by making the individual aware of immediate effects of smoking/ drinking such as 'burning feeling' while inhalation/consumption breaking the habit loop. In an experimental study conducted by Spears et al. (2019) shows promising effect of in-person Mindfulness-Based Addiction Treatment (MBAT) for smoking cessation as well as lapse recovery along with text messages between the sessions in the treatment. Strong retention was achieved 76% among 2/3 of the participants at the end of treatment, and 89% among majority of the participants was seen at 1-month follow-up distinctly showing the effect of mindfulness on lifestyle habits like smoking and drinking. The similar findings are found by Brewer et al.(2011) showing not only the significant reduction in smoking but the retention of the same as well.

Mindfulness Training for Smokers (MTS) proves to be effective in reducing the frequency of smoking and alcohol use, if not complete cessation in young adult smokers with alcohol abuse (Davis et al,2013). Mindfulness treatment is found to be a positive intervention for substance use disorders showing significant small effect on its reduction and medium effect on reducing craving (Li et al., 2017)

Mindfulness and Wellbeing

Mindfulness has been considered the heart of the Buddhist meditation, the power of which lies in its practice and application. The aim of traditional Buddhist Mindfulness training is basically to enhance human wellbeing through alleviating suffering. Intention, attention and attitude are said to be the three building blocks of Mindfulness which are interwoven and hence, they occur simultaneously. Meditator's intentions shift along a continuum from self-regulation to self-exploration. (Shapiro, 1992). Attitude towards attention is very important. Intentionally attending with openness and non-judgementalness lead to significant shift in

one's perspective, which is called "re-perceiving" that increases the objectivity to one's internal and external experiences enhancing health and well-being. This is a hallmark of mindful practice.

Mindfulness provides simple but powerful route for getting oneself unstuck, back into touch with our own wisdom and vitality. It helps to take charge of the direction and quality of our life, including relationships with oneself, within family, work and to the larger world. Mindfulness enlightens to understand areas in our lives more deeply that we were out of touch or unwilling to look at. It may be encountering unpleasant thoughts or deep emotions like grief, sadness, anger, fear etc.

Indian context

In Indian context, the research has shown high positive relationship between Mindfulness and the big-five personality traits (Menon & Singh,2014), overall physical health and the quality of mental health(Ahmadi et al.,2014).Physiological, psychological and spiritual levels are enhanced by Mindfulness, apart from individual and interpersonal benefits is researched by Naik et al., in 2013.

1.12.8 Resilience, Health And Wellbeing

Factors which lead to the development of Resilience

Physical fitness and regular physical activity by inducing physiological and psychological changes plays immensely important role in individual resilience (Deuster&Silverman,2013). According to Maddi and Kobassa (1979), hardiness is a pathway to resilience. Hardiness comprises of challenge, commitment and control. In adverse situations, challenge makes the person believe that life is naturally stressful; commitment nurtures his involvement in the problem and finally control helps him to turn the situation to his advantage (Maddi,2013). According to Masten (2001) resilience comes from everyday magic of ordinary, human resources in the minds of individuals, their families and communities. Constant interactions between the genotype and the individual's environment result into changes in neural circuitry as well as capacity to react to stress in terms of adaptability and self-regulatory behaviour. As a result, resilience develops from social support and psychological mechanism such as optimism, self-efficacy and positive emotions. Cognitive reappraisal, emotional and behaviour regulation and social support from family and friends play an instrumental role in

enhancing the resilience in old age. It allows the elderly to respond positively to stressful situation and recover quickly in the illness (Feder et al.,2019). Resilience arises from various dynamic interactions within and between the individual and environment. The factors differ from individual to individual, or from situation to situation. It may come from normative human resources like oneself or family or other social interactions. But it has a profound implication for promoting competence and human capital in society. (Masten, 2001). Number of factors such as exercise , physical activity or aerobic fitness act as boosters of resilience through top down control of bottom up processing in the brain promoting well-being. Neuroplasticity is noticeably enhanced reflecting better emotional and behavioural regulation due to age appropriate physical activity on a regular basis(Belcher et al.,2020).

Resilience in Old Age

The Compensatory model of resilience, which explains a situation where resilience factors counteract in an opposite direction of risk factors. Risk factors and compensatory factors independently contribute to the outcome (Fleming & Ledogar,2008). Optimism, self-esteem, empathy, determination, perseverance are some of the compensatory factors identified in the process. (Ledesma,2014). Adversities faced by an individual vary across life span. For the elderly, physical limitations due to health issues, chronic illness, illness in the family, loss of a spouse or in the close relationships, loneliness, restricted income, reduced interest of others' in one's life can be some of the adversities. Hence, to cope up with these adversities the elderly need to show resilience for healthy adjustment. Among elderly, resilience was found to be fostered by their inner strength, external support and their problem solving skills (Maneerat et al.,2011).

Elderly are considered to be psychologically resilient when they do not succumb to adversity. They exhibit capacity for successful adaptation characterized by managing stressful events or recuperating the levels of objective and subjective wellbeing. (Fontes & Nari, 2015).

Resilience may depend upon the level of impact of the adversities in one's life. According to the Protective model of resilience, social participation, social support, social resources reduce the effect of adversities. In a study on thirty two elderly with one or more adversities in life, Hildon et al (2008) found that resilient participants exhibited individual and social resources, especially in the form of maintenance of social roles and support. Resilience is conditional on the level of adversity and not well connected to socio-demographic characteristics. Qualitative analysis of resilience among elderly done by Blane et al (2011) revealed that

resilience is strongly connected to individual's interpersonal relationships despite adversities like long-lasting illness or financial deprivation.

Resilience is a key factor in improving health and attenuating problems caused by chronic diseases in elderly. In a phenomenological study, different indicators of resilience such as acceptance, patience and trust in God, social support, assertion to physical independence and hope for improvement were found among elderly (Hassani et al.,2017; Vahia et al, 2011).

In a qualitative study by Janseen et al (2011) conducted on older people receiving long-term community care, three major domains were identified as the sources of resilience. Individual domain consisted of one's qualities, beliefs about one's competence, efforts to exert control and capacity to understand and analyse one's situation, pride about one's personality, acceptance of help and support. The second domain being the interactional domain, is the way elderly cooperate and interact with others to achieve personal goals, empowering informal relationships and most important is the power of giving. Broader socio-political level, accessibility of care, availability of material sources are some of the factors in contextual domain which lead to the development of resilience among elderly (Janseen et al.,2011).

Resilience, Wellbeing and Successful Ageing

As the resilience enables the individual to perceive the adversities more as "challenges" than the "obstructions", those elderly who accept these challenges experience successful ageing. This view supports the Challenge model of resilience. According to this model, an exposure to both low and high levels of risk factors are associated with negative outcomes, but moderate level of risk is largely associated with less negative outcomes.(Fleming & Ledogar,2008). In such situations, increased resilience plays an important role in promoting successful ageing. (Jeste et al.,2013).

Affect regulation in adversities is a positive correlate leading to wellbeing. It is found to be a central component of resilience among the elderly. (Kessler& Staudinger, 2009). It will lead to change in the perception of the adverse situation by, either experiencing less stress in the stressful situation or reacting in an adaptive manner. (Montpetit et al, 2010).

Resilience is a very dynamic construct and hence it should be considered on a continuum, with differing degrees across multiple domains of life rather than taking a binary approach towards as present or absent. An individual who effectively copes with stress in personal life

and academic setting, may fail to do so in social world or at workplace. (Southwick et al.,2014)

Resilience enhances self- efficacy which helps in strengthening coping ability in the individual to experience life satisfaction (Tagay et al.,2016). Resilience cycle outlined by Patterson and Kelleher (2005) suggests that most resilient individuals experience a rollercoaster effect as they go through adversity and make attempt to come out in a four-cycle phase, beginning with deterioration, adaptation, recovery and growth. (Ledesma, 2014)

Resilience is reflected by the individual right from perception, interpretation as well as coping with the adversity in one's life. The resilient individual makes conscious efforts to identify the possible difficulties in one's present or future life, interpret them as challenges resulting into thoughtful attempts to cope with them. Although resilience is perceived to be a quality shown by an individual largely in adverse situations, it is also considered to be one of the potential factors maintain the physical and psychological balance (Bonanno,2008).

Resilience and Mental Health: Diet, exercise and Spirituality as mediating variables

As resilience and mental health are positively associated in the context of physical health or illness (Jeste et al, 2013; Farber& Rosendahl,2018; Laird et al.,2019), number of factors such as diet, exercise and involvement in spiritual practices are found to be important in the relationship.

Diet is one of the drivers in good physical and mental health, particularly in the old age. Nutritional fitness in terms of type and variety of diet as well as dietary habits play important role in building physical and psychological resilience. Consumption of diet rich in serotonin &Omega -3 fatty acids is found to have positive health outcomes (Flórez et al.,2014). Different nutrients like minerals, vitamins induce high level of serotonin which is important in brain metabolism and is negatively associated with mental illnesses. An exposure to sunlight, diet and exercise are considered to be non- pharmacological methods to increase the level of Serotonin, which is responsible for better neurotransmission.

An engagement in spiritual practice, individual tries to develop some support system, find meaning and purpose in one's life. The nature and severity of adversity, personal characteristics such as sensitivity and temperament, faith and availability of spiritual practices cumulatively determine individual's readiness to reconstruct his/her thoughts, change the perceptions and act accordingly reflecting resilience.

Spirituality is used as a tool to meet challenges easily by the elderly. The spirituality nurtures in the individual values such as faith, forgiveness, belief in oneself and others, compassion, kindness, generalizing to other people, which improves his quality of life and interpersonal relationships. (Foy et al.,2011). Spirituality is as much associated with subjective well-being as the resilience, giving strength to experience, survive and thrive in the adversity (Manning,2013).

Resilience, Personality and Successful Ageing

Resilient individuals are aware of their strengths and weaknesses and hence, their self-esteem is high. Being resilient, a person is usually optimistic which helps him to face the adversities like chronic illness or surgery. It also leads to greater longevity. Such personality traits may play an important role in developing resilience which determine the way individual perceives and processes the traumatic experience (Smith, 2006)

Elderly with high resilience tend to be more positive in their outlook, optimistic towards life, view the stressful situation as controllable event, experience meaning in life thereby reducing psychological distress. (Zhang et al, 2017). Based on a longitudinal data of elderly, Resilience and longevity are found to be significantly associated among the young-old and oldest –old adults. (She & Zeng, 2010).

Resilience fosters the process of adaptive selection which particularly allows the elderly to save their physical, psychological, cognitive resources and cultivate only those which result in affective closeness and increased comfort. (Terrill & Gullifer, 2010). Research examining resilience suggests that, older adults are capable of highly resilient behavior despite socio-economic background, personal experiences and declining health. Resilient individuals are prone to increased longevity, successful aging as well as reduced depression. (MacLeod et al.,2016).

Increased life expectancy has increased many chronic illnesses among elderly population affecting their resilience, wellbeing and subjective health. The sample in the study conducted by Singh et al consisted of three categories- normal elderly, elderly from medical geriatric and elderly from psycho-geriatric wards. The findings revealed significantly higher levels of resilience and wellbeing among normal elderly than the other two groups. Resilience was also found to be higher in those with higher hardiness, optimism and resourcefulness. (Singh et al, 2016).

Resilience, Health and Wellbeing

Resilience is found to be positively related in the promotion of health and wellbeing. Hopkins et al (2015) tried to understand the patterns of risks, resources and adaptation, impacting physical health. They observed that resilient youth had significantly low self-reported asthmatic symptoms and career-related health problems than less resilient youth. The study also identified protective role of social connections influencing not only psychosocial functioning but also physical health. (Hopkins et al.,2006).

For an individual to be resilient, one needs to overcome the set behavioural responses and deal with the adverse conditions in a novel way. Mindfulness, which is, a flexible state of mind, open to active search for novel experiences, would help the individual override these set behavioural responses. In normal as well as adverse circumstances, being aware of every moment is beneficial for both, body and mind. Couple of times ruminating the Past, particularly unpleasant experiences, disturbed interactions, as well as worrying about the future take away our mental peace , with which living in the Present becomes very difficult. Such repetitive instances affect health and also impair cognitive, affective and behavioural functioning. But if the resilient individual is more aware of the moment and ready to accept the life with challenges, gradually the perceptions towards adversities change helping the individual experience well-being. Rumination, which is a process of repetitive negative thinking and which can be a risk factor for various psychological disorders can be reduced by metacognitive awareness. Resilience and mindfulness are found to be significantly positively related leading to well-being (Pidgeon & Keye,2014).

Across the fields

Resilience is being studied across diverse fields like human development (Masten,2001), organizational culture (Everly,2011), sport performance (Sarkar& Fletcher, 2014), and even healthcare (Nemeth et al, 2008); and is also in the settings like personal life to clinical and across the age groups.

1.13 Research Gap

According to life span development and WHO report, old age is defined as a period 60 years and above. As functionality is focused more in defining the old age, this stage is divided into three sub stages- young old who are healthy and active, old olds who have some health problems and difficulties with daily activities and oldest old who are frail and in need of care. Globally, substantial research in the field of ageing with its physical and psychological

dimensions is found in the developed countries, in comparison with ours. The past researches have shown benefits of generativity, resilience and mindfulness in health and wellbeing across the life, including old age.

While there is a large body of existing research on this subject, newer studies may bring out nuances of the same determinants and/or arrive at different conclusions, particularly in the Indian context. Earlier studies and interventions may have been focused on the elderly in general, the present research would focus on the young old between 60 and 70 years, since this subset has the physical & mental ability and willingness to absorb and adopt new learning and a longer runway in terms of their remaining life. This would result in maximization of benefits to the elderly and society at large. The study also includes health parameters as measures of physical health.

The present study would focus on identifying areas of improvement with reference to generativity, resilience and mindfulness among the young elderly in Indian context, which would help formulation of suitable interventions in the respective areas. There are possibilities that unlike developed countries which have lived with stability on a much larger scale this segment of population in our country has been familiar with facing adversities throughout the life. So probably, resilience need not be worked upon. But interventions for developing generativity and mindfulness will need to be looked into. The findings may or may not be confirmed in present study. However, taking into account the findings of the research, interventions can be designed.

1.14 Rationale

Globally, economic well- being, better medical facilities and reduction in fertility rates have resulted into longevity. The problem of rapidly ageing population has already been observed in developed nations and been recognized as an emerging problem in developing nations like India and China, which have large share of the world population. Population of 60 years and above is estimated to be 22% of the total population by 2050 (World Population Ageing 1950-2050, UN Population Division, DESA, 2015). Population ageing has profound economic, political and social implications for the country (Elderly in India 2016, MOSPI).

Life expectancy at birth is projected to increase two times from 38.7 years (1950) to 75.4 years(2050). Dependency ratio in youth reducing from 54.4 to 30.0, while dependency ratio in elderly increasing from 8.1 to 22.6 are the by-products off increased longevity and reduced fertility. Internal and international urbanization migration of working age population

due to urbanization has affected our conventional family structure of joint family leading to the elderly experiencing loneliness, emotional neglect and lack of physical support (Elderly in India 2016, MOSPI).

The demographic transition in India shows unevenness and complexities within different states. This has been attributed to the different levels of socio-economic development, cultural norms and political contexts(Mane, 2016).The 2001 Census counted about 191 million people or 19 percent of the total Indian population as internal migrants living away from their families (Abbas & Varma, 2014**).** Approximately 17 million are the international migrants between 24 & 64 years of age in 2017, with a median age of migrants 39.2 years. The above figures depict practical difficulty in terms of reduced potential support ratio, leaving behind the physical fitness, independence in old age as a necessity than a privilege leading to healthy ageing.

The population ageing finds a prominent place in the studies carried out by the United Nations, based on the data collected from the member nations; however there are very few studies carried out in the Indian context.

Keeping the thrust on preventive measures than cure, the National Policy for Older Persons 2011 endeavours to strengthen integration between generations, facilitate interaction between the old and the young as well as strengthen bonds between different age groups. It believes in the development of a formal and informal social support system, so that the capacity of the family to take care of senior citizens is strengthened and they continue to live in the family. It considers elderly as a responsibility of the family, community, government and the private sector; and the institution as the last resort. The Policy ensures support from the State government in case of their economic insecurity; however meeting their psychological needs is equally important.

While the population would age by efflux of time, it would be more advantageous for the nation that most of the population experience successful ageing. Clinically, successful ageing refers to an absence of chronic illness and associated disabilities, high cognitive and physical functional capacity and meaningful social engagement (Rowe&Kahn,1997).Various researchers have added few more components into this definition. Mac Arthur foundation study shows how lifestyle choices dominate over the heredity in determining health and vitality in ageing (Rowe&Kahn,1998). Recently, over the last two decades, subjective well-

being is also being included as a clinical parameter of successful ageing, as it correlates with positive health outcomes (Aldwin et al.,2013).

As the quantum of graying population is increasing in India, with a projected increase in the Ageing index, Dependency ratio and the Parent support ratio among the elderly as well as reduction in the Potential support ratio, there is a need to analyze the factors contributing to subjective wellbeing and health, which would result into successful ageing. The past literature in the field indicates various physical, psychological and social factors leading to successful ageing. Apart from demographics such as age, gender, educational level, marital status, subjective health, the ecological factors like satisfaction with spouse, frequency of social contacts with family and friends contribute to successful ageing (Jang, 2020).Physical factors are such as obesity, healthy body-mass index (Luo et al.,2020), absence of alcohol and substance abuse (Rao et al., 2019) and fewer chronic diseases(Prasad,2012) are considered to be the prerequisites of successful ageing. People with mature and adaptive defenses, high level of resilience (Foster,1997), psychological wellbeing (Steptoe et al.,2015),purposefulness in life (Musich et al.,2018) and low rate of depression (Huisman et al.,2017) are few psychological indicators of successful ageing. Social factors like happy married life, number of social contacts as well as strong perceived social support are found to be the determinants leading to successful ageing.

Apart from the above factors, increased social participation and valued social role are found to enhance the 'feel good' factor and the sense of satisfaction contributing to health and subjective wellbeing (Douglas et al.,2017).Especially in the elderly popultion, proactively moulding the social world in accordance with one's age-specific needs contributes to one's subjective well-being.

The past research in the field suggests the factors like generativity, resilience and mindfulness as major determinants of health and well-being leading to successful ageing. Generativity is a multidimensional construct in the form of a need, a drive, a concern, a task which links the person and a social world. It is a need, a drive, a concern, a task or an issue(Mc Adams & Aubin, 1992).The elderly benefit from generative behaviour in numerous ways such as regaining social identity, sense of purpose in his own life (Wethington,2000) and relief from personal life stress(Willigen,2000). Generativity in old age is positively correlated with high self-esteem and social connectedness, more longevity (Gruenewald et al.,2009) and lower level of depression(Li &Ferraro,2005).

Resilience is the coping ability of an individual in adversity. According to Richardson and colleagues (1990), the bio-psycho-spiritual balance, i.e. adaptability to body, mind and spirit in current life circumstances is the responsible factorfor variation in resilience. It is considered to be successful measure of stress-coping ability. Resilience is proved to be beneficial in multiple ways such as it enhances self-efficacy which helps in strengthening coping ability in the individual to experience life satisfaction(Tagay et al., 2016); respond positively to stressful situation and recover quickly in the illness(Feder et al., 2019); different adaptive behaviour including identifying opportunities, adapting to constraints, and bouncing back from misfortune (Cohn et al.,2011).Resilience is a very dynamic construct and therefore should be considered on a continuum, with differing degrees across multiple domains of life.
Mindfulness helps to appreciate feelings such as joy, peace and happiness. Being mindful is actually an empowering experience as it opens the channels of our own deep reservoirs of creativity, imagination, clarity, determination and wisdom which are paths to achieve happiness.(Kabat-Zinn, 2005). Mindfulness through 'mindfulness meditation' is one of the attributes which nurtures consciousness by non-judgmental observation of every phenomenon, resulting into the behaviour regulation and well-being (Brey,2012;Brown et al.,2015; Geiger et al.,2016) and acts as a protector in stressful situations(de Frias, 2015). Mindfulness has proved to be effective across the age groups, as a preventive as well as curative measure. The findings of a study on elderly done by Black et al(2015) reveal significant impact of mindfulness meditation in improving quality of sleep and thereby reducing day time impairments due to disturbed sleep among the elderly. This will enhance the overall subjective wellbeing and boost their physical health (Geiger et al, 2015).

Hence, the present study seeks to examine these factors in the Indian context, using Mixed methodology of research. On account of differences in living conditions which are significantly different from those living at home, the elderly from the institutions are included as separate cohort within the study. Specifically, through semi-structured interview method, behavioural characteristics reflecting generativity, resilience and mindfulness used by the elderly will be identified.

Awareness about Generativity would harness the vast experience, talent and skills of the elderly for the benefit of their next generation. Studies have proven that this leads to positive outcomes of good health and happiness and result in better life management and successful ageing for the elderly. The past research has identified resilience as a quality that is essential for successful ageing. The elderly face numerous physical, psychological, economic

challenges. Resilience within an individual helps develop qualities such as equanimity, perseverance, self-reliance, existential aloneness which enhance the potential of maintaining positive adaptation in the face of adversities. Mindfulness is the third important element of the three-pronged approach to be examined in this research in health and subjective well-being of elderly. Mindfulness is basically an integrative body-mind based approach, which brings a change in thought process, feelings towards experiences, enabling to cope with adverse situations and attain health and well-being.

As nutrition and exercise are major components of physical health and subjective well-being, whether a generative, resilient and mindful elderly with adequate diet and exercise show better parameters of health and subjective well-being will also be a part of the investigation in the present research. Similarly, spirituality is a belief system experiencing a deep sense of meaning and purpose in life. It strengthens the internal resources in the individual through his personal efforts and choice, along with social connectedness. Thus, whether an engagement in spiritual practices result into better health and subjective well-being in a generative, resilient and mindful elderly will also be analyzed.

Young elderly is the population between 60 and 70 years of age, who are just retired from their career life with reduced family responsibilities. The possibility of experiencing a big vacuum in life cannot be ruled out with them. At the same time, they are physically, mentally and socially active, as compared to later stages of old age. If the above mentioned factors are analyzed in young-old stage, necessary intervention can be planned to make them self-reliant and thus, to build a community of successfully ageing in our country. Thus, the present study seeks to examine these factors as precursors of successful ageing through physical health and subjective well-being in the Indian context.

Population ageing is not a very unique phenomenon in highly developed nations. Hence, such nations have already experienced different issues related to ageing. It has led to the evolution of government policies designed specifically to address the issues of the elderly and have also influenced societal norms and behavioural patterns. Although in India, the concept is being recognized more recently. It is a time for the researchers to bring out these issues, particularly in unique context of diverse population, where it is projected to be the most populous nation in the world. The Government policies and programmes, specifically aimed at the elderly are at nascent stage in India. Thus, a focused research on this topic would facilitate proper evolution of the interventions in a right direction.

The research was conducted in two phases. The objectives, hypothesis, research design, Phase-wise sample description and procedure are given below.

Chapter 2: Method

The research was conducted with the following objectives:

2.1 Objectives of the Study

1. To study the effect of generativity, resilience and mindfulness on physical health and subjective wellbeing among young elderly
2. To investigate the relationship between generativity, resilience and mindfulness among young elderly
3. To study the effect of nutrition, exercise and spiritual practices on physical health and subjective wellbeing in young elderly.
4. To examine how nutrition will mediate the relationship of generativity, resilience and mindfulness with physical health and subjective wellbeing of the young elderly
5. To find out how exercise will mediate the relationship of generativity, resilience and mindfulness with physical health and subjective wellbeing of the young elderly
6. To understand how engagement in spiritual practices will mediate the relationship of generativity, resilience and mindfulness with physical health and subjective wellbeing of the young elderly
7. To understand the physical health and the subjective wellbeing among institutionalized and non-institutionalised young elderly
8. To study whether family type, pursuing hobby, involvement in social activities affect generativity, mindfulness and resilience, physical health and subjective wellbeing of the young elderly
9. To investigate whether gender, socio-economic status, educational status and working status will affect physical health and subjective wellbeing among young elderly

The following research design was used in the study.

2.2 Research Design

The present research used explanatory sequential design. It is a fixed mixed method design in which the Quantitative and Qualitative design was planned by the researcher and carried out in two phases. The Quantitative and Qualitative strands in the research have been independent as far as the research questions; data collection data analysis was concerned. They will be mixed during the interpretation of the findings.

Phase I- Quantitative study

Phase II- Qualitative design

(a) Semi-structured interviews

(b) Interaction with the institutionalised elderly.

Following the interviews in Phase II of the research, the researcher realized the need to interact with the institutionalised elderly to make them understand about the importance of generativity, resilience and mindfulness in their health and happiness. Hence, in (b) the interaction was scheduled and executed in 37 sessions.

2.3 Phase I – Quantitative design

Based on the review of literature and objectives of the study, the following hypotheses were formulated.

2.3.1 Hypotheses

H1. There will be a significant positive correlation among generativity, mindfulness, resilience, physical health and subjective wellbeing among young elderly

H2. Generativity, mindfulness and resilience will significantly affect the physical health of young elderly

H3. Generativity, mindfulness and resilience will significantly affect the subjective wellbeing of young elderly.

H4. There will be significant difference between institutionalised and non-institutionalised young elderly across-

a) Generativity

b) Mindfulness

c) Resilience

d) Physical health

e) Subjective wellbeing

H5.a) There will be a significant mediating effect of nutrition on relationship between generativity, mindfulness, resilience and physical health of young elderly

b) There will be a significant mediating effect of nutrition on relationship between generativity, mindfulness, resilience and subjective wellbeing of young elderly

H6.a) There will be a significant mediating effect of exercise on relationship between generativity, mindfulness, resilience and physical health of young elderly

b) There will be a significant mediating effect of exercise on relationship between generativity, mindfulness, resilience and subjective wellbeing of young elderly

H7.a) There will be a significant mediating effect of spirituality on relationship between generativity, mindfulness, resilience and physical health of young elderly

b) There will be a significant mediating effect of spirituality on relationship between generativity, mindfulness, resilience and subjective wellbeing of young elderly

H8. There will not be any significant difference between young elderly pursuing hobby and not pursuing in the generativity, mindfulness, resilience, physical health and subjective wellbeing

H9. Young elderly engaged in social activities will not significant differ from their counterparts in the generativity, mindfulness, resilience, physical health and subjective wellbeing

H10. There will not be any significant difference between young elderly males and females in the generativity, mindfulness, resilience, physical health and subjective wellbeing

H11. There will not be any significant difference among the groups of elderly with their different educational status in the generativity, mindfulness, resilience, physical health and subjective wellbeing

H12.There will not be any significant difference among the groups of elderly with their different socio-economic status in the generativity, mindfulness, resilience, physical health and subjective wellbeing

H13. There will not be any significant difference among the groups of elderly with their different working status in the generativity, mindfulness, resilience, physical health and subjective wellbeing

H14.There will not be any significant difference between young elderly staying in different types of family in the generativity, mindfulness, resilience, physical health and subjective wellbeing

2.3.2 Population

The population for the study was the urban young elderly between 60 and 70 years from Mumbai and Pune city.

2.3.3 Sample

The sample for the phase I of the study consisted of non-institutionalized and institutionalized elderly from Mumbai and Pune city. For institutionalized elderly, the age limit was extended

up to 75 years as in many government and non-government organizations the retirement age is 60-65 years, and also 60 years age is comparatively young for being institutionalized. Many people in this age range may still be financially self-sufficient, healthy and independent to take their own decisions. In India, it is not yet a trend to get oneself institutionalized by own choice, if he or she is healthy and independent.

The inclusion criteria used in the study were 'young elderly without any major psychopathological problems and any locomotive disability'; while the 'young elderly suffering from any acute health problems at the time of data collection' were used as the exclusion criteria.

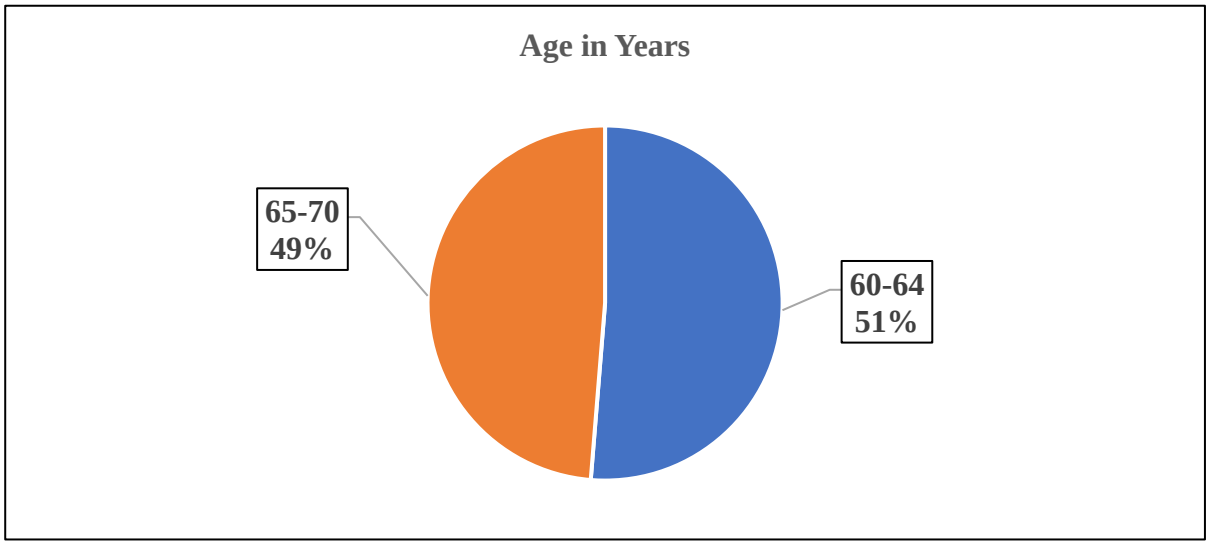
2.3.3.1 Sample description for non-institutionalized elderly

The sample for the present study consisted of 452 male and female from the young elderly cohort between 60 and 70 years from Mumbai Metropolitan and Pune city who were willing and consented to participate in the physical health assessment measures. As Pune is geographically close to Mumbai, it is a preferred destination for post-retirement settlement. Additionally, affordable property prices, conducive and peaceful climate, more institutional and medical facilities for the elderly are the attractions for the post-retirement shift to Pune or the elderly population.

The demographics of the non-institutionalized elderly sample is given below:

Figure 9

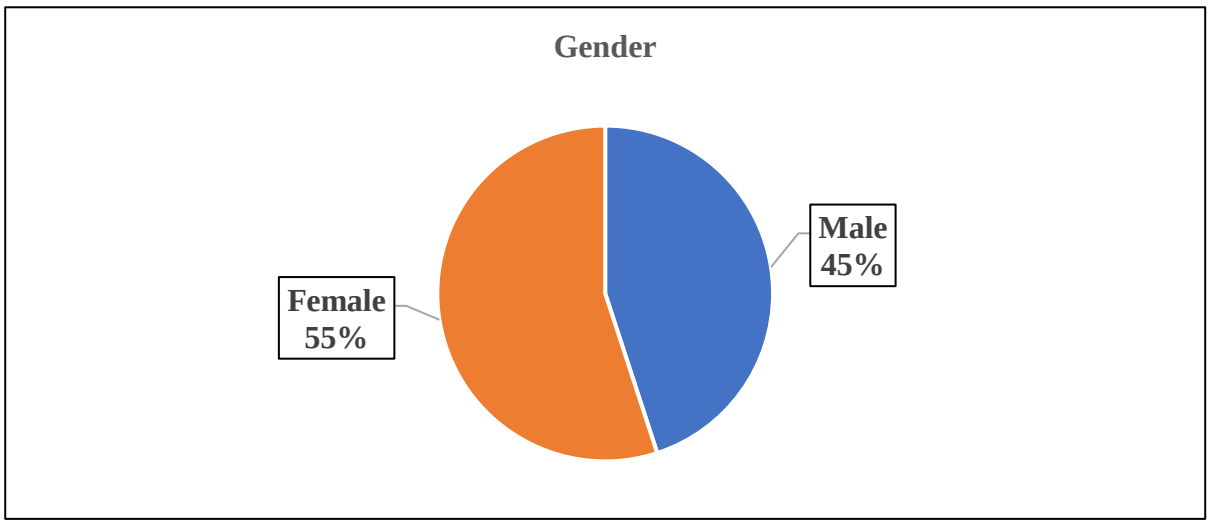
Sample breakup according to Age group



The sample for the study belongs to 60 to 70 years who stay in the family (Non-institutionalised). According to the figure, 51% young olds are between 60 and 64 years while 49% are between 65 and 70 years.

Figure 10

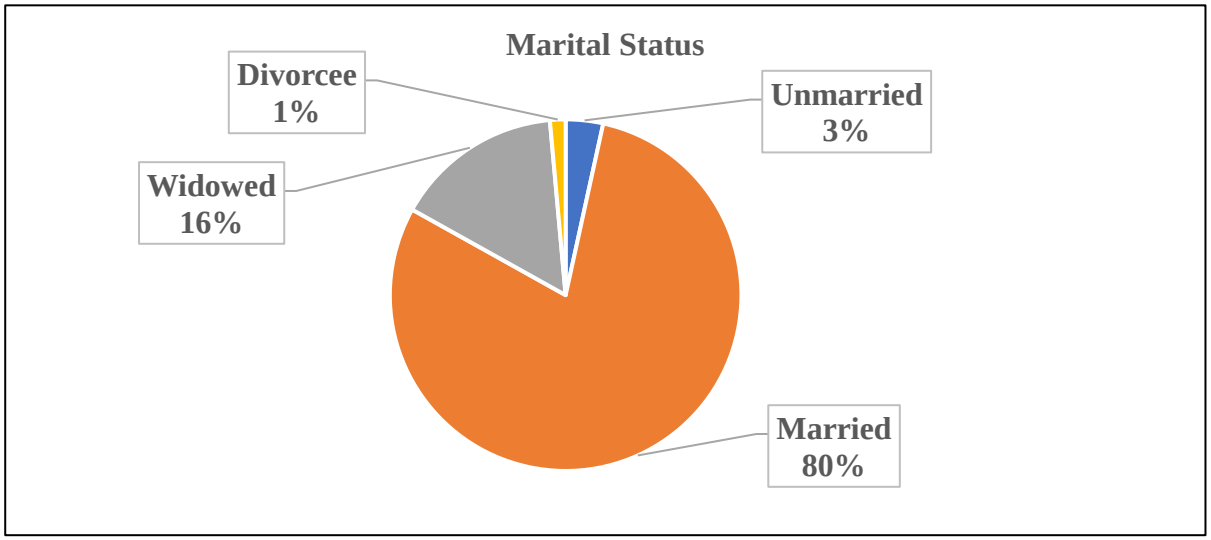
Sample breakup according to Gender



The figure number 2 shows that 45% old males and 55% old females participated in a study

Figure 11

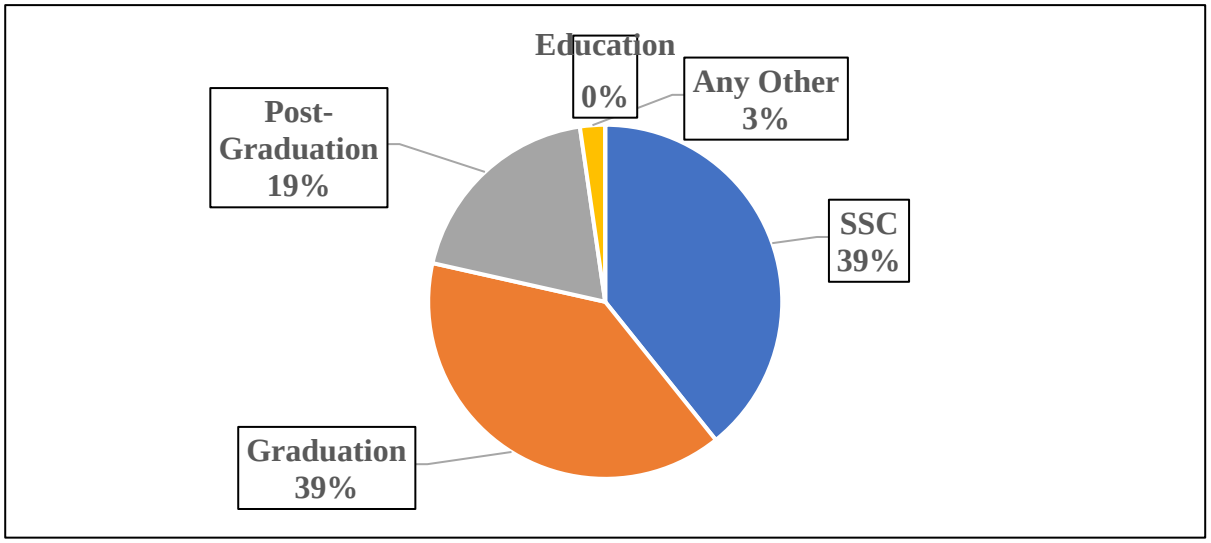
Sample breakup according to Marital status



The above figure indicates that maximum number of participants in the study was married 80%, 16% were widowed, 3% were unmarried and 1% were divorcee among the non-institutionalised elderly.

Figure 12

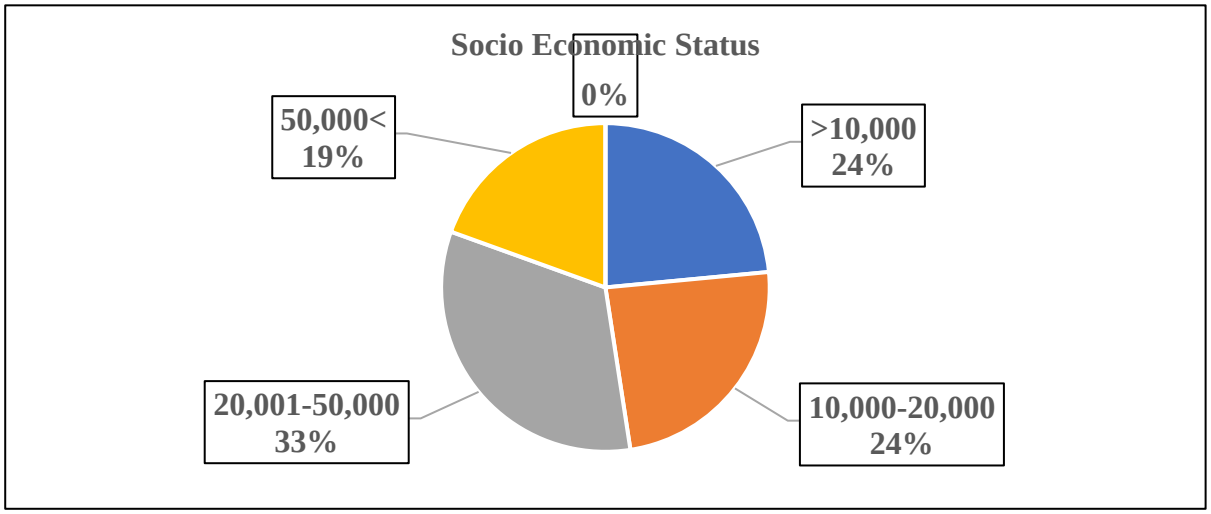
Sample breakup according to Educational status



Equal number of participants in the study are qualified with SSC or HSC level as well as graduates 39%, 19% have completed their Post-Graduation and 3% are Diploma or Certificate –holders.

Figure 13

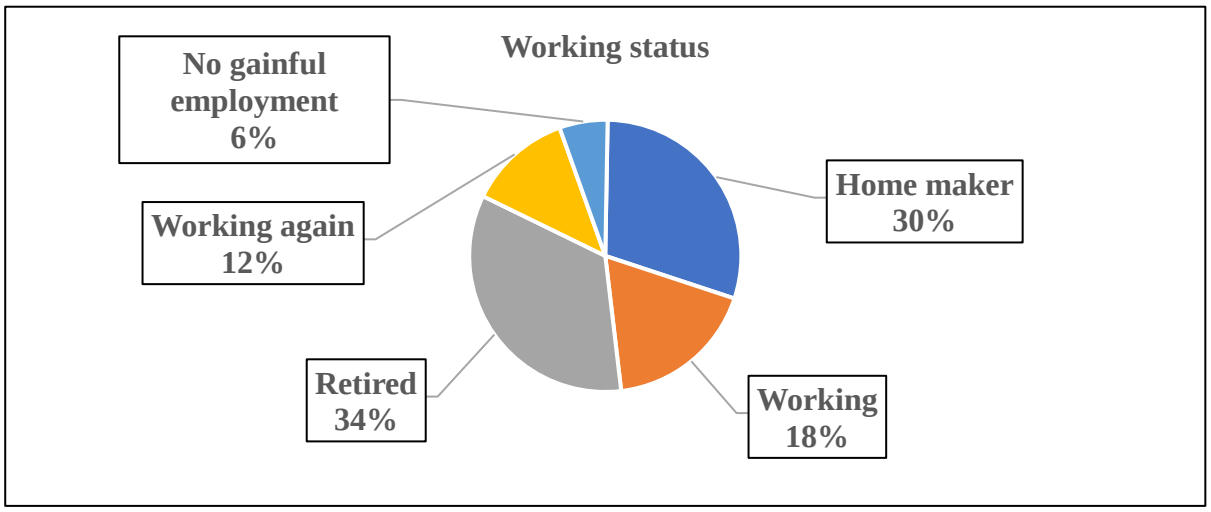
Sample breakup according to Socio economic status



The sample belonged to a wide range of socio economic status from less than Rs.10,000 to more than Rs.50,000 per month. The above figure shows 33% of olds have income between Rs.20,001 and 50,000, while equal number of olds 24% have income between Rs.10,000 and 20,000 and 19% belong to Rs.50,000 and above income level.

Figure 14

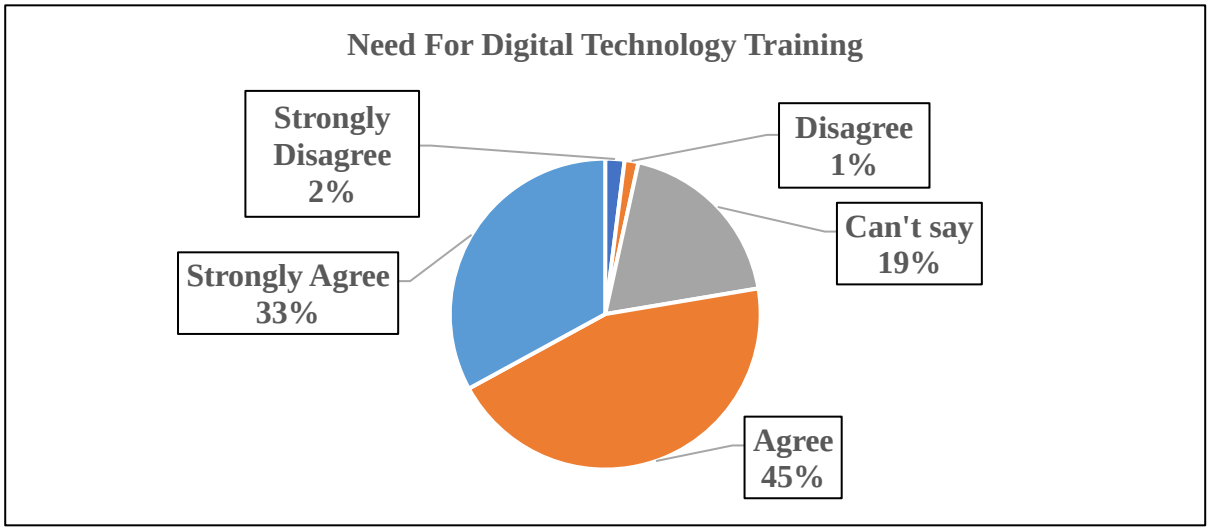
Sample breakup according to Working status



The figure above shows 34% of the sample are retired while 30% are the home-makers. 18% of them have continued working in their respective professions such as doctors, advocates, charted accountants or having own business. 12% of the olds have taken a new job after their retirement, while 6% are occupied but not in any gainful employment.

Figure 15

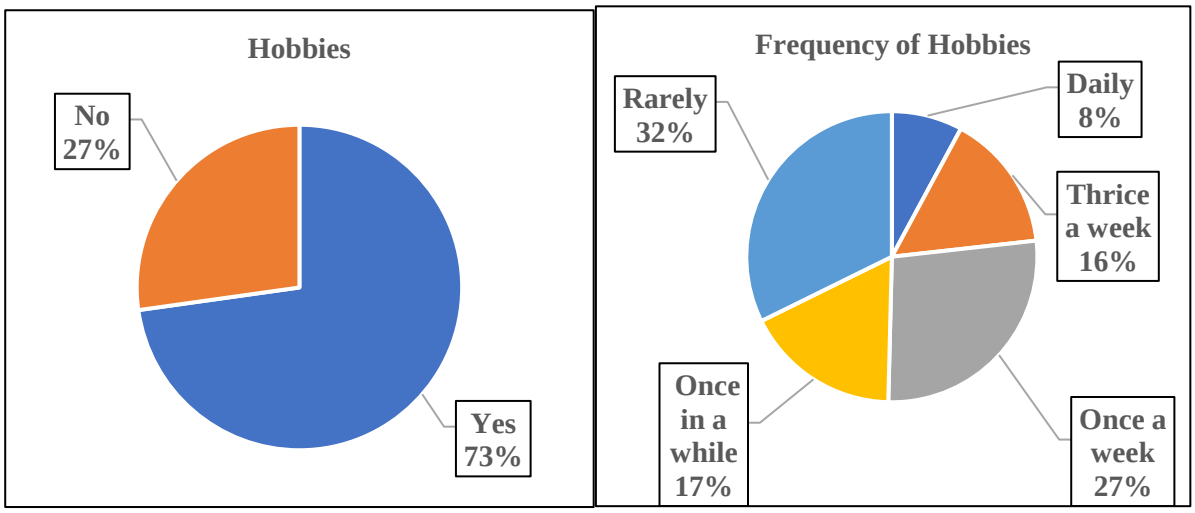
Need for Digital Technology Training



45% non-institutionalised young olds strongly agree, 33% agree to the need of training in digital technology, while 19% were not able to give any opinion and the rest 3% did not feel the need for the training.

Figure 16 (a & b)

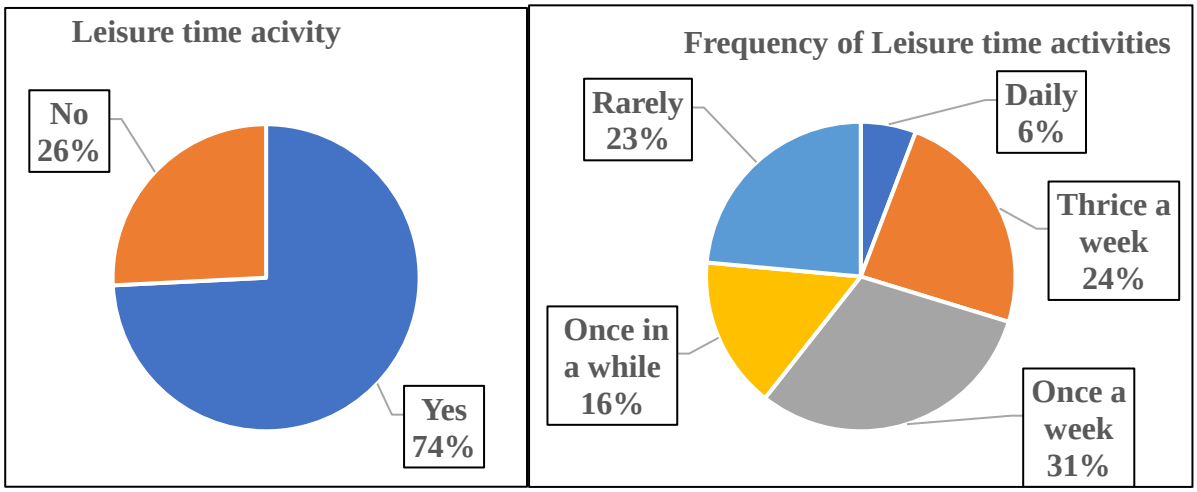
Sample breakup according to pursuing hobby, with frequency



Considering large proportion (73%) of the young olds pursue some hobby, the frequency of their pursuance was also found out. The findings revealed that only 8% are involved daily, while 16% and 27% are involved on thrice a week and once a week respectively.17% of the sample pursues hobby once in a month or two; and 32% are rarely involved in any hobby.

Figure 17 (a & b)

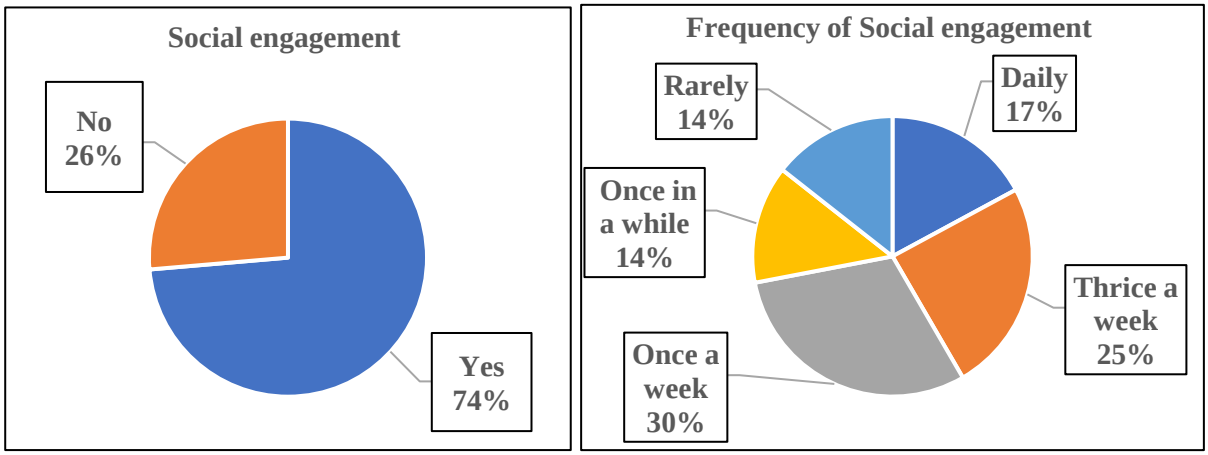
Sample breakup according to involvement in leisure activity, with frequency



The non-institutionalised young olds are involved in leisure activity in a large number (73%). Majority of them, i.e. 34% do once a week, 24% thrice a week and only 6% on a daily basis. Once in one or two months involvement is shown by 16%; while 23% of them rarely do some specific activity in leisure time.

Figure 18 (a & b)

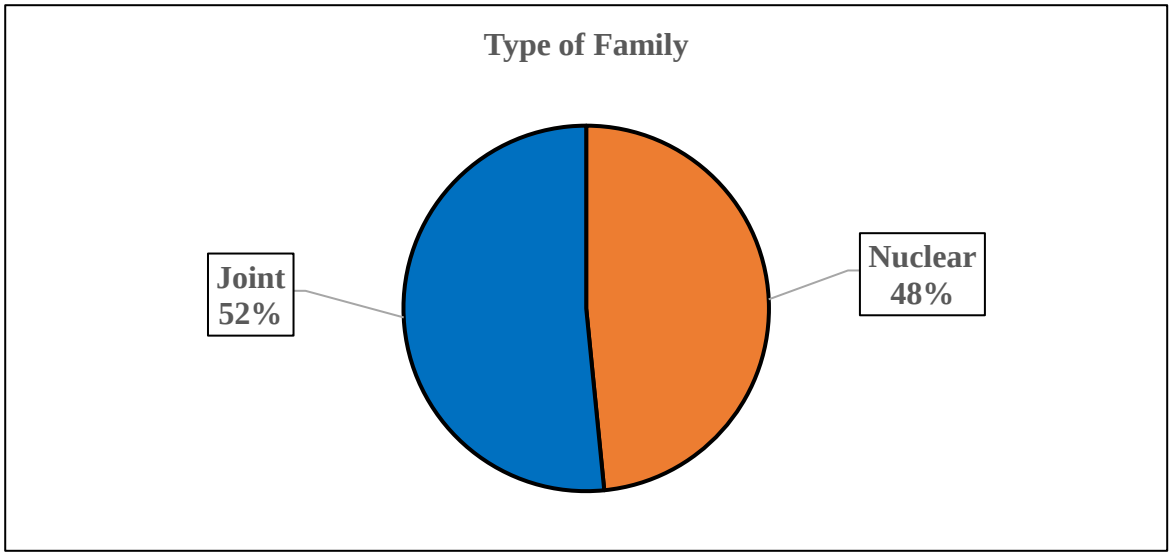
Sample breakup according to social engagement, with frequency



On the whole from 74% of the young elderly who are socially engaged, 17%, 25% and 30% are engaged on daily, thrice a week or once a week basis. And 14% are involved in social activity either rarely or once in a while.

Figure 19

Sample breakup according to Type of family



The above figure shows 48%of the non-institutionalised elderly live in a nuclear family.

2.3.3.2 Sample description for institutionalized elderly

The sample in the Phase I of the research also included the institutionalised young elderly in the age group of 60 to 75 years. In all, 103 elderly willingly and enthusiastically participated in the research. The institutions from Mumbai and Pune were identified covering majority of the wards of the city. The old age homes and assisted living institutions from these areas were identified to collect the data from the institutionalized elderly. In case of the institutionalised elderly, an organizational permission was obtained prior to the individual participant's consent to respond to the questionnaire and performing the physical tasks required in the research adhering to the ethical code of conduct mentioned above.

The institutions from which the elderly were selected and the number of participants from each institution in the research is given below-

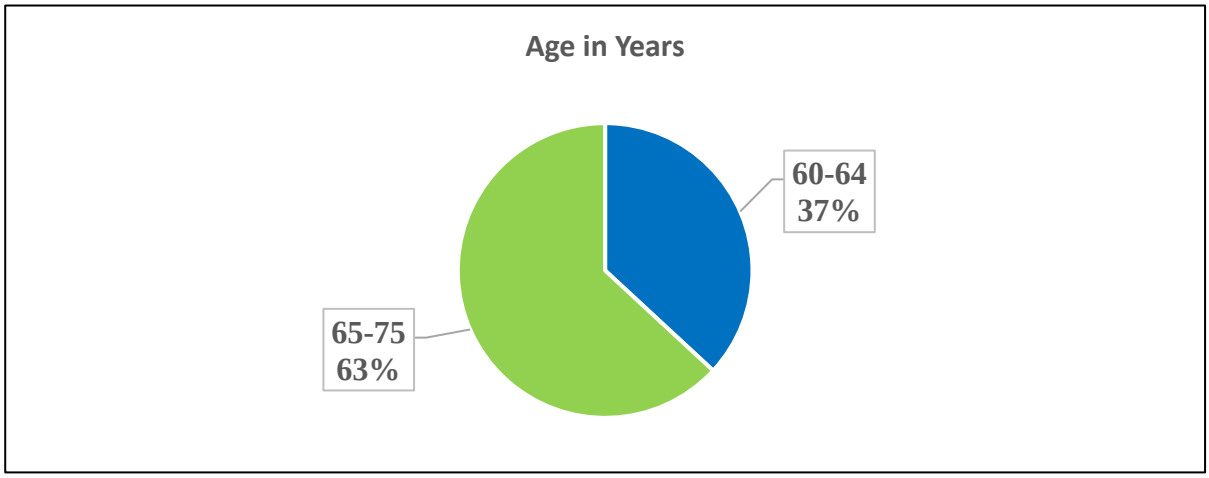
1. Vanaprasthashram, Vatsalya, Home for senior citizens, Sanpada, Navi Mumbai (07)
2. Vanaprasthi, Bhiwandi,Anagaon, Dist. Thane(12)
3. RamkrishnaNiketanVruddhashram, Nere, Panvel, Mumbai (14)
4. Mira Ghar, Home for senior citizens, Kamshet, Dist. Pune (09)
5. Sneha, Rajgurunagar, Dist. Pune (11)

6. Aadharwad Vruddhashram, Bhor, Dist. Pune (12)
7. Niwara Vruddhashram, Pune (34)
8. Rainbow Daycare Centre, Pune (04)

The details of the demographics of the institutionalised elderly are given below-

Figure 20

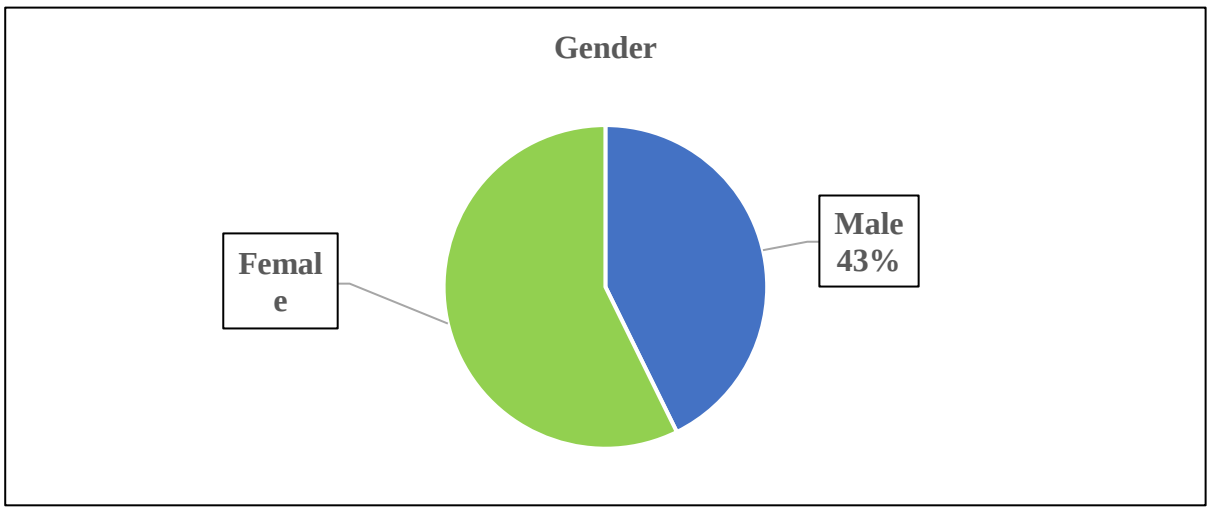
Sample breakup according to Age group



Out of the total sample for the study, 103 elderly were the institutionalised elderly. According to the figure, 37% young olds are between 60 and 64 years while 63% are between 65 and 75 years.

Figure 21

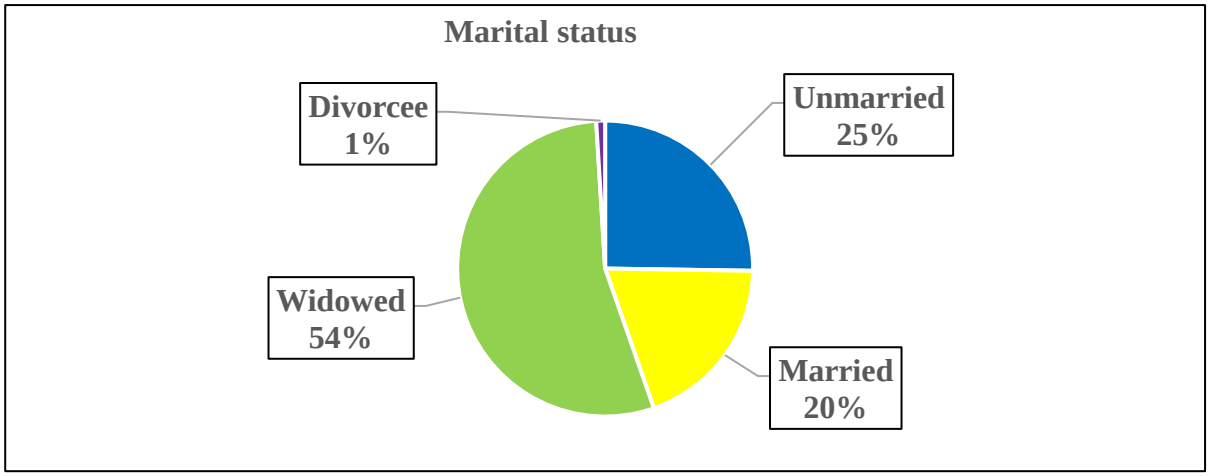
Sample breakup according to Gender



The figure number 2 shows that 43% old males and 57% old females from the institution participated in a study

Figure 22

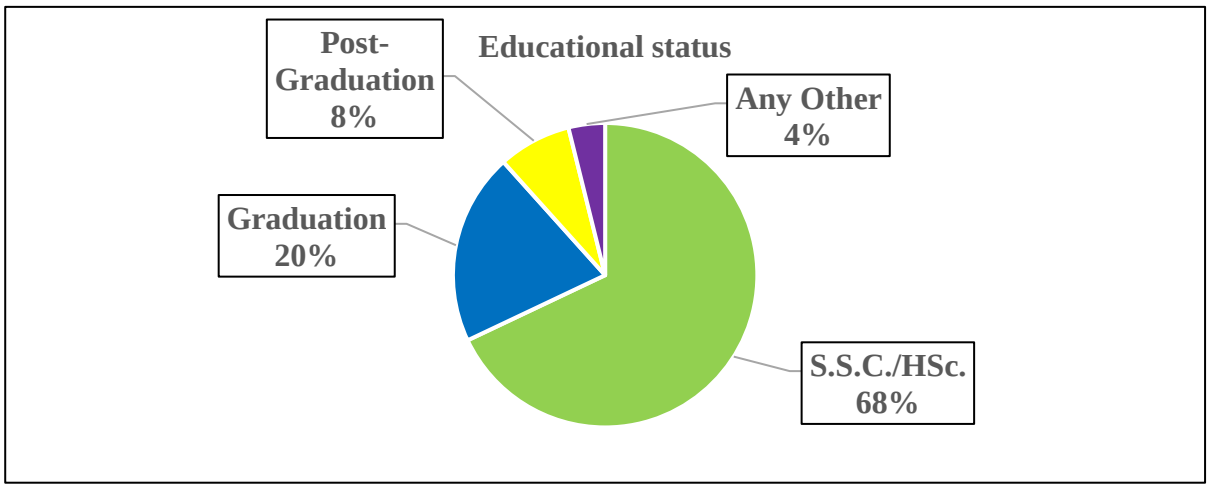
Sample breakup according to Marital status



The figure above shows 54% of the institutionalised elderly are widowed, 25% are unmarried, 20% are married but staying in the institution and 1% of them are the divorced elderly.

Figure 23

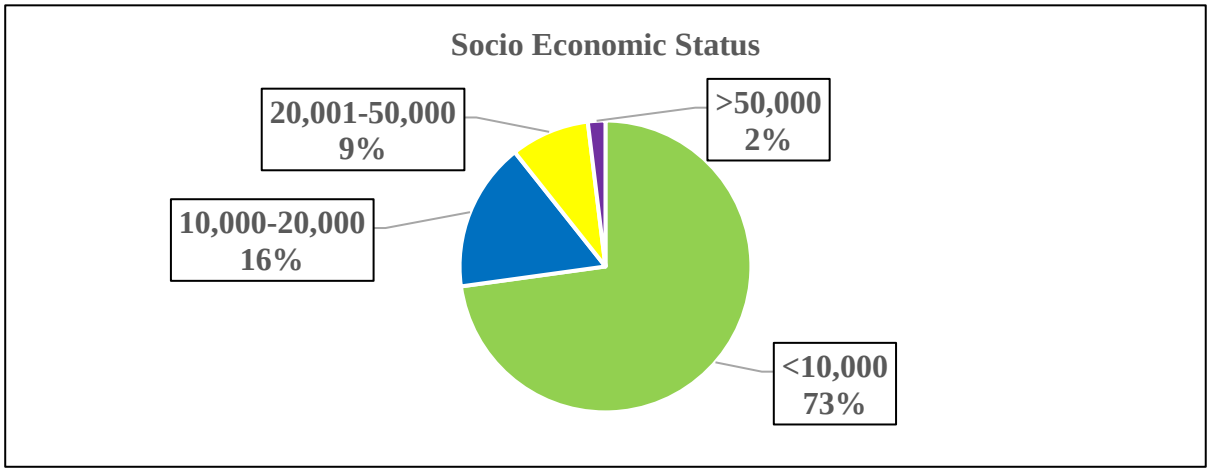
Sample breakup according to Educational status



The above figure depicts the division of sample on the basis of their educational qualification. Majority of them 68% are the SSC or HSC qualified, 20% are the graduates, 8% have completed their Post-Graduation and 4% have done diploma or certificate course.

Figure 24

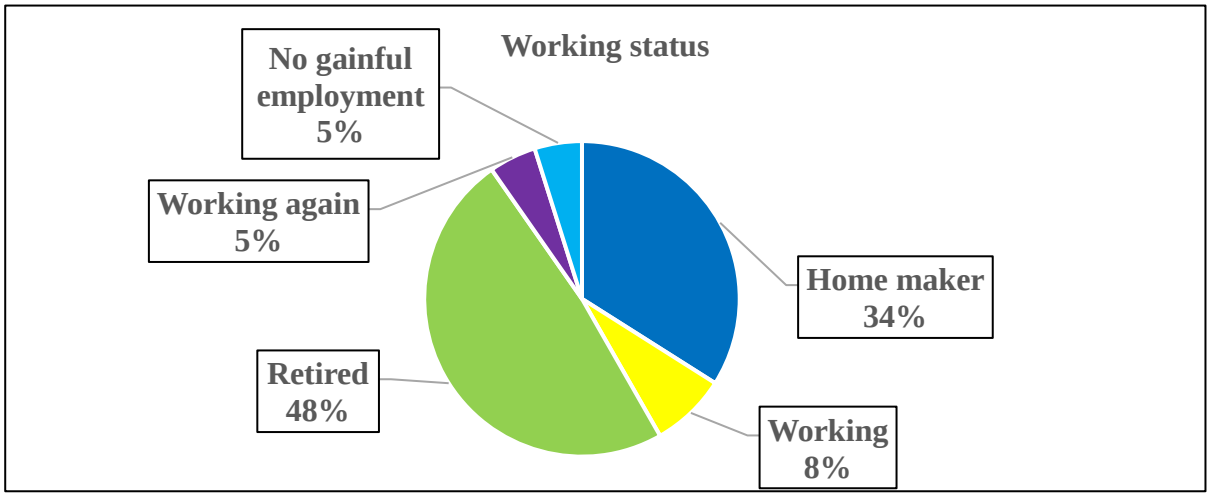
Sample breakup according to Socio economic status



Although 30% of the institutionalised olds are not charged as they are from the institution run by the Government of Maharashtra, the above figure shows that 73% young olds belong to a category less than Rs.10,000 income per month. From the rest, 16% have an income between 10,000 and 20,000; 9% have an income between 20,001 and 50,000 and 2% belong to a category more than Rs.50,000 per month.

Figure 25

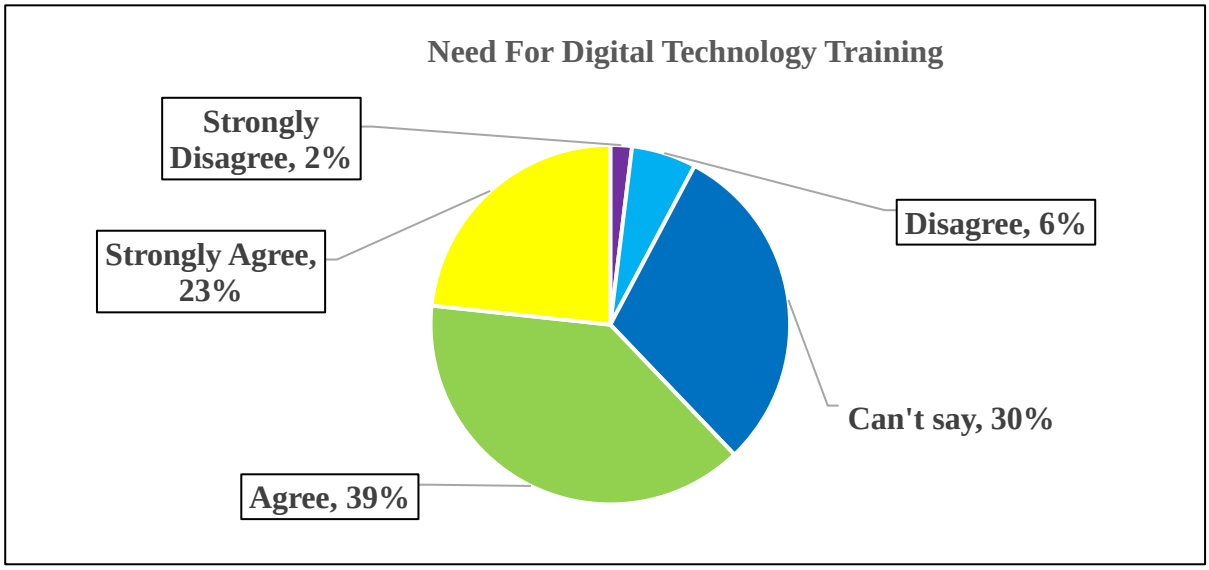
Sample breakup according to Working status



Even amongst the institutionalised olds, 8% are found to be working in continuation (mostly as the managers of the respective institution), 5% are retired but working to earn for the livelihood, while 5% are working on the honorary basis. However, 48% are retired from the service and 34% elderly were the home-makers.

Figure 26

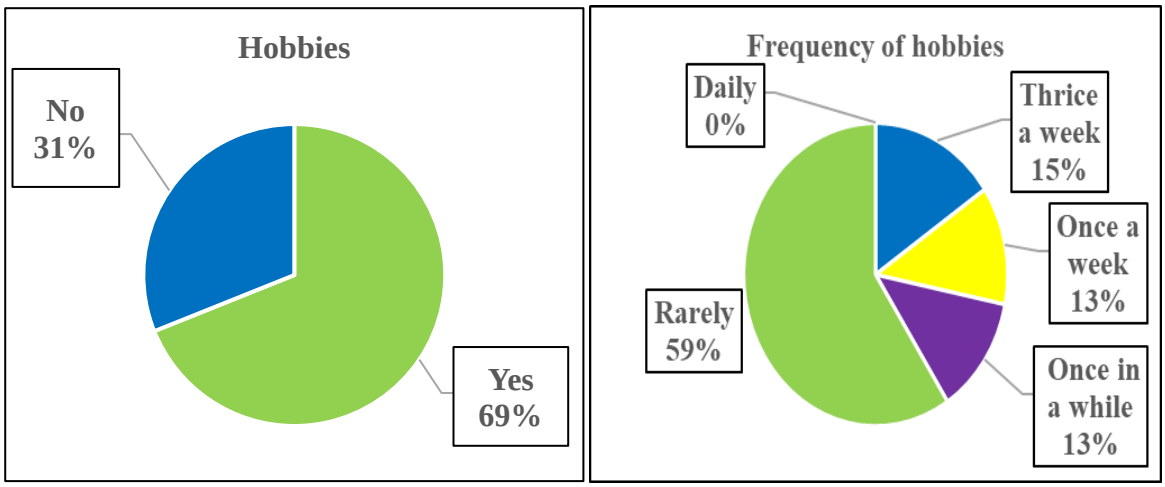
Need for Digital Technology Training



The figure above shows the percentage of institutionalised olds felt the need for the training in digital technology. Accordingly, 39% strongly agree the training is required, 23% agreed, 30% had no firm opinion, ; while 6% disagreed and 2% strongly disagreed to the need of training.

Figure 27 (a & b)

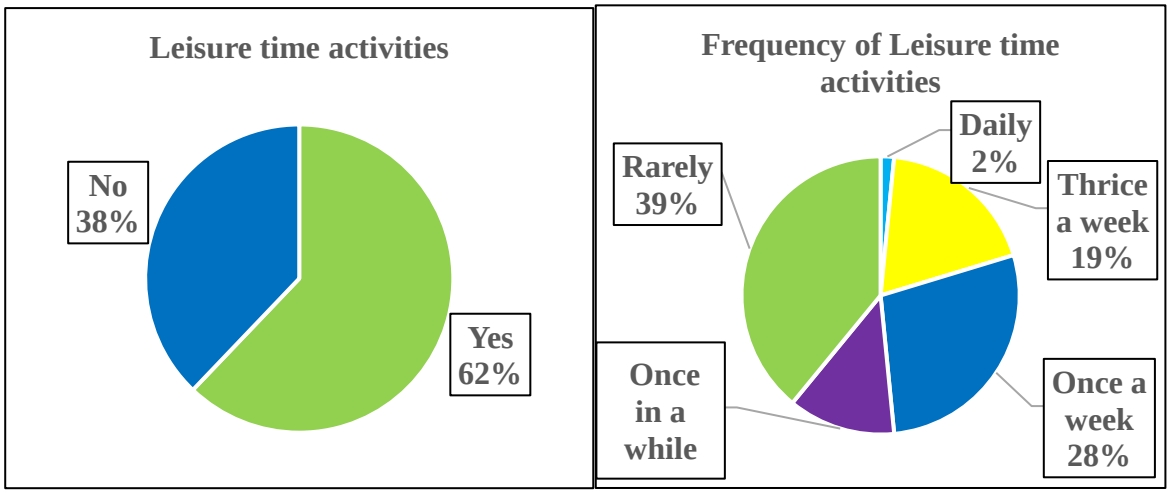
Sample breakup according to pursuing hobbies, with frequency



Amongst institutionalised elderly, 69% pursue their hobby. However, no one is pursuing on a daily basis. Out of them 59% are rarely involved, 15% thrice a week and 13% each on once a week or on at least once in a month basis.

Figure 28 (a & b)

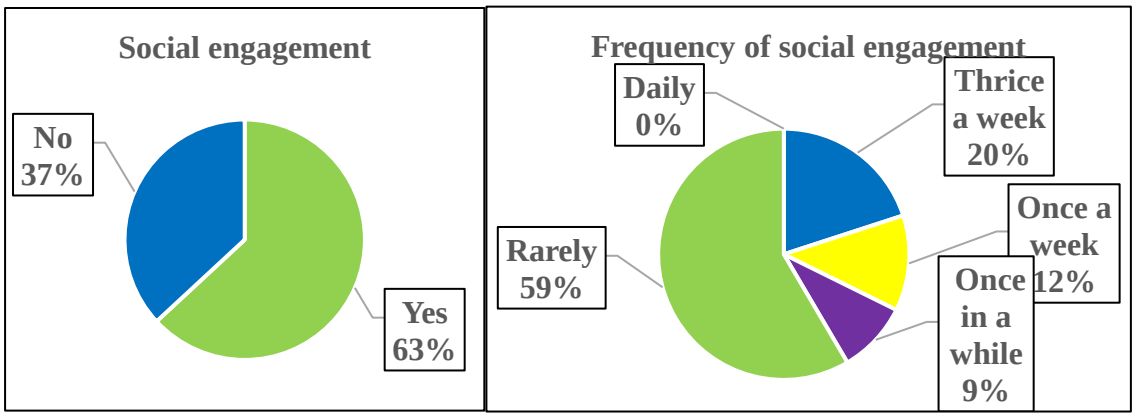
Sample breakup according to leisure time activity, with frequency



The above figures show 62% of the institutionalised olds are involved in some leisure time activity of their choice. Amongst them 39% are rarely involved,19% thrice a week and 28% on a weekly basis, 12% engage themselves once in a while and only 2% are involved on a daily basis.

Figure 29 (a & b)

Sample breakup according to social engagement, with frequency



The findings indicate that despite staying in the institution, 63% are socially engaged. Out of them, 59% of the institutionalised are rarely engaged in social activity, 20% are involved thrice a week, 12% are involved once a week and 9% are involved once in a while. And no institutionalised elderly is involved on a daily basis.

2.3.3.3 Tools / Measures

Through standardized psychometric tools, the constructs such as generativity, resilience, mindfulness, subjective wellbeing and physical fitness parameters were measured.

Generativity Behaviour Checklist developed by McAdam and St Aubin (1992) based on Mc Adam's model of generativity. It is a measure of 'generative behaviour' with the help of 50 specific behaviour made in the past two months(In the Indian context, the period of two months is a short period to check the occurrence of behaviour and evaluate the individual on the construct, generativity; the duration is revised to last 6 months in the present study).As there are 10 'filler' items mentioning the acts which are not related to generativity and scores on these items is not to be considered in the total score, they are not included in the present study to make the tool more comprehensive. Each act in the GBC corresponds to one of the behavioural manifestations of generativity—creating, maintaining or offering. The participant is to mark 0 if not involved in a particular behaviour even once, mark 1 if involved in a particular behaviour once in the last six months and mark 2 if involved more than once in the last six months. Higher the score shows higher Generativity. The Generativity Behaviour Checklist has high convergent validity with Loyola Generativity Scale($r = .59$, $p < .001$) and Generative themes ($r = .45$, $p < .001$). The Cronbach alpha reliability score was found to be .74 in the sample of the current research.

Five Facet Mindfulness Questionnaire-15(FFMQ-15): 15-item Five-Facet Mindfulness Questionnaire developed by Baer et al. (2008), a short form of the 39-item FFMQ is a self-reported measure of dispositional Mindfulness. It includes the same five facets as the long form: Observing, Describing, Acting with Awareness, Non-Judging of inner experience, and Non-Reactivity to inner experience. The test consists of 15 items on five different dimensions developed on a five point Likert scale ranging from Never or Very rarely true to Always or Very often true (1-5). Each Facet is being measured by 3 items. The factor structure of the FFMQ-15 was consistent with FFMQ-39, internal consistency with alpha coefficients ranging from .75 to .91. There were large correlations between total facet scores of the short and long forms of the scale. There is a reverse scoring for 7 items. Total FFMQ score is obtained along with individual score on each dimension. The Cronbach alpha was found to be .74 for the present sample of the research.

Connor- Davidson Resilience Scale (CD-RISC) is a measure of Resilience developed by Connor and Davidson in 2003, which comprises of 25 items. Each item is rated on a five point scale (0-4), with higher scores reflecting greater resilience. CD-RISC demonstrated good psychometric properties. The factor analysis of the scale yielded five factors. Factor 1 reflects the notion of personal competence, high standards and tenacity. Factor2 corresponds with trust in one's instincts, tolerance of negative affect and strengthening effects of stress. Factor 3 relates to the positive aspects of change & secure relationships. Factor 4 relates to

control and Factor 5 to spiritual influences. The scale homogeneity with Cronbach alpha for the full scale is .89 and .80, .75, .74 and .69 for the factors 1 through 4 respectively. Test Retest reliability was found to be .87. The scale proves to have a good Construct and Predictive validity, particularly on Asian population. It also distinguishes between those with greater and lesser resilience indicating good dis ruminant validity. The Cronbach alpha for the present sample was found to be .75.

Subjective Wellbeing Inventory (SUBI)-

Subjective Wellbeing Inventory (SUBI) is constructed by Nagpal & Sell in 1992. It consists of 40 items measuring the feelings of wellbeing/ill-being as perceived by an individual in different aspects of life. The scale measures 11 factorial dimensions of life like General wellbeing positive affect, Expectation- achievement congruence, Confidence in coping, Transcendence, Family group support, Social support, Primary group support, Inadequate mental mastery, Perceived ill-health, Deficiency in social contacts & General wellbeing negative affect. The Participant is expected to choose from Very much (1), To some extent (2) and Not so much (3) on every item. Positive items which primarily measure individual's stable personality traits, the values are 3, 2, &1; while for negative items measure the influence of life circumstances and its values are 1, 2, &3. The total score ranges from 40-120. Higher the score shows better subjective Wellbeing. The mean score of normal Indian sample is 90.8 with 9.2 SD. The scale is being used in number of unpublished studies carried in India and Sri Lanka. The factor analysis of the scale showed stability in content of factors and also stability over time. The scale has 0.79 test-retest reliability along with inter-rater reliability and inter-scores reliability and also 0.86 validity. The Cronbach alpha was found to be.74 for the present sample of the research.

Senior Fitness Test –

Senior Fitness Test specifically designed for older adults by Rikli and Jones(2001) is a measure of physical fitness parameters such as Flexibility, Agility, Balance, Speed of work, Aerobic endurance and Muscular endurance. As per the test manual, scoring for each parameter is done, for male and female participants individually.

The parameters are measured with the help of various physical tasks, such as--

Flexibility is measured by Chair Sit-and-Reach task in which the participant was asked to sit on the chair and try to touch the toes. The task primarily measures upper body flexibility.

Agility is measured by 8-Foot Up –and Go task. In this task, the participant was asked to sit on a chair comfortably and after the 'ready' signal given by the researcher, was asked to get

up and walk for 8 feet distance. The time taken to react and complete the given task was measured.

Physical balance and lower body strength is measured by 30-second chair-stand exercise in which the participant was asked to sit on a chair comfortably and after the 'ready' signal given by the researcher, was asked to get up without any support and stand , repeat the action till the researcher gave the 'stop' signal. The number of stands in 30 seconds was measured indicating the degree of physical balance in the elderly

Speed of work was inferred by the time taken by the participant in the 8-Foot Up –and Go task using the formula Distance/ Time.

Muscular endurance is measured by the Arm curl task, which counts the number of bicep curls completed in 30 seconds. According to the tool, the participant is expected to perform the task by lifting the weights i.e. 2.5kg and 3kg for females and males respectively. But for practical and convenience purpose, the researcher slightly manipulated the task and asked participant to create resistance in the arm.

Aerobic endurance was measured with the help of 2-minute walk test in which the participant was asked to either climb the stairs or do spot jogging continuously for maximum for 2 minutes. Those who found difficult to do so were allowed to discontinue the task in the interest of their health. The number of full steps completed in 2 minutes was a measure in a task.

Checklists – Diet, Exercise, Spiritual practices, Physical health parameters

With an objective to study how nutrition, exercise and engagement in spiritual practices will mediate the relationship of generativity, resilience and mindfulness with physical health and subjective wellbeing of young elderly, the checklist for measuring dietary habits, exercise and spiritual practices were prepared by the researcher.

Based on the past research, understanding the role of vitamins, minerals and neurotransmitters like serotonin which is important in old age, the checklist containing specific diet rich in the respective nutrients was prepared in consultation with two nutritionists in Mumbai city.

The review of past literature suggest an important role of certain physical activities and spiritual practices in maintaining physical health and fitness and wellbeing of older adults, the checklists for the exercise and the spiritual practices were prepared. The checklist for the physical health parameters was prepared in consultation with the physicians from Mumbai and Pune city.

In the beginning of each checklist, the participant was asked to rate the importance of diet, exercise and spiritual practice in his/her health and happiness on a 5 point Likert scale (1-5) from Strongly Disagree(0) to Strongly Agree(5), respectively. It was followed by the participants to rate the frequency of consuming or practicing each specific food item / specific physical activity / specific spiritual practice on a 5 point Likert scale (0-4) from Never(0), Once in 15 days(1), Weekly(2), Thrice a week(3) to Daily(4) basis.

The list of specific food item / specific physical activity / specific spiritual practice is given below.

Figure 30

Checklists for Diet, Exercise and Spiritual Practice

Checklist for the physical health parameters measured the physical health in two parts-

Part A

1.Systemic/ sensory parameters- respiratory problems, bowel movements, and problems related to vision and hearing.

2.Life style habits - smoking, sniff, drinking, gutka, supari was noted down.

3.Chronic medical condition- cardiac problem, hypertension, arthritis, dementia, parkinsonism, stroke paralysis, thrombosis , kidney malfunctioning or any other

4.Biomarkers - The deficiency or excess level of Lipid profile along with functioning of endocrine glands, blood sugar as the biomarkers

Part B (Investigator's assessment)

BMI

Blood pressure

Pulse rate

Hours of sleep

Physical fitness (measured by the Senior Fitness Test)

The tools were translated in Marathi and Hindi by the respective language experts to consider the possibility of language barrier among the respondents. The conceptual and linguistic equivalence was maintained by doing back & forth translations.

2.3.4 Procedure

Code of Ethics was followed by informing the participant the purpose of the study and importance of their contribution to the same. The letter of consent for providing the information asked in the questionnaires and participate in moderate level of physical activities was duly obtained by the researcher with the participant's signature, date and place of stay.

The participant was assured about the confidentiality to be maintained about the findings of the study by the researcher.

The stepwise procedure was followed in the Phase I of the research.

Pilot study- In step I of the Phase I, a pilot study was carried out to analyse the feasibility of the quantitative measures of generativity, resilience, mindfulness, subjective wellbeing and the self-constructed checklists of nutrition, exercise, spiritual practices and the physical health parameters. It was conducted on 15 young elderly from Mumbai Metropolitan Region and Pune city. On the recommendations of these participants, the tools were translated back and forth in Hindi and Marathi languages by professional translators. On the basis of the

findings from the pilot study, except the tool measuring generativity, i.e. Generativity Behaviour Checklist, no change was made in the other tools. The Generativity Behaviour Checklist consisted of 50 items including 10 filler items which were not included in the final study to make the tool more comprehensive.

Main study- In step II of the Phase I, areas of Municipality of Mumbai Metropolitan and Pune city were identified. The researcher tried to represent all these areas through the sample collected for the study. In Mumbai metropolitan region, the sample obtained for the study was from Bhiwandi to Panvel district. In Pune city the researcher could obtain the data from the sample from Pimpri to Bhor district covering majority of the wards in Mumbai and Pune city.

Young adults were contacted from identified areas depending on the convenience of the researcher to contact them and based on their willingness to participate in the research. The researcher briefed each one of them the full procedure of research assessment including physical health measures and the time required to complete the procedure. The code of ethics was adhered as mentioned above before and during the process of data collection.

The demographic information with the help of a prepared questionnaire was collected from the participant. Prevalence of any disease was noted down, with its nature, duration, frequency and intensity.

Considering the comfort level of the participant, psychometric tools such as Generativity Behaviour Checklist, 15-item Five-Facet Mindfulness Questionnaire, Connor-Davidson Resilience Scale and Subjective wellbeing inventory were administered with intermittent short intervals.

The physical health parameters such as BMI, Blood pressure and Pulse rate of each participant in person were measured by the researcher. The participants were asked to perform on the tasks to measure physical fitness.

2.4 Phase II-Qualitative study

The Phase II of the research was carried out, to get more insight into the precursors of physical health and perceived well-being among young elderly, with the help of semi-structured interviews. To understand the nuances of practical implications among the institutionalised elderly, the researcher decided to get a hands-on experience through organisational attachment.

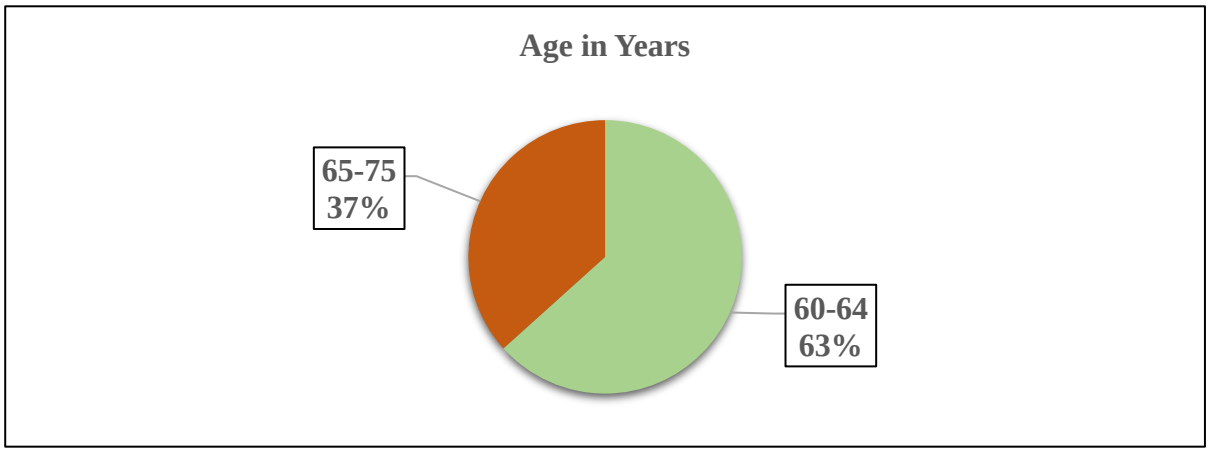
2.4.1 (A) Semi-structured interview

2.4.1.1 Sample description

This phase consisted of obtaining qualitative data from the participants. On the basis of the findings of the quantitative design, the researcher was interested to understand the older adults' perception about physical health and wellbeing. Additionally, the conditions which triggered generativity, resilience and mindfulness in their life was elicited by the participants. During Phase I of the research the participants who scored high on either generativity, resilience, mindfulness or subjective wellbeing or who shared some unique experiences in their life reflecting generativity, resilience or mindfulness were identified and finally 30 willing participants were interviewed based on the convenience of the participant and the researcher. The demographics of these participants is given below-

Figure 31

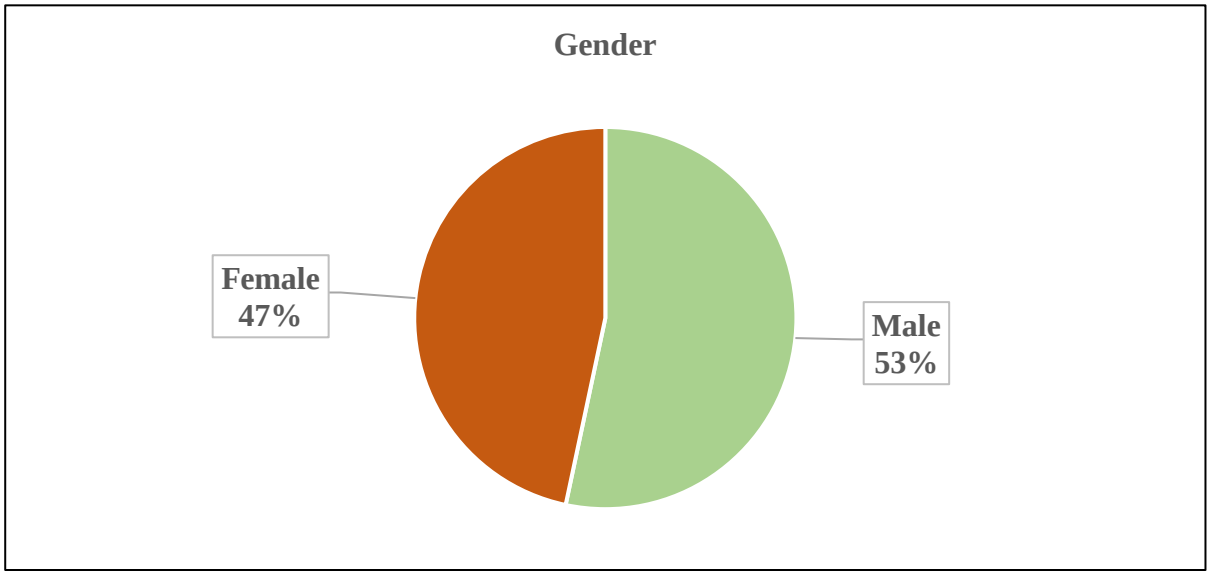
Sample breakup according to Age group



The above figure shows 63% of the elderly were between 60 and 64 years and 37% were between 65and75 years.

Figure 32

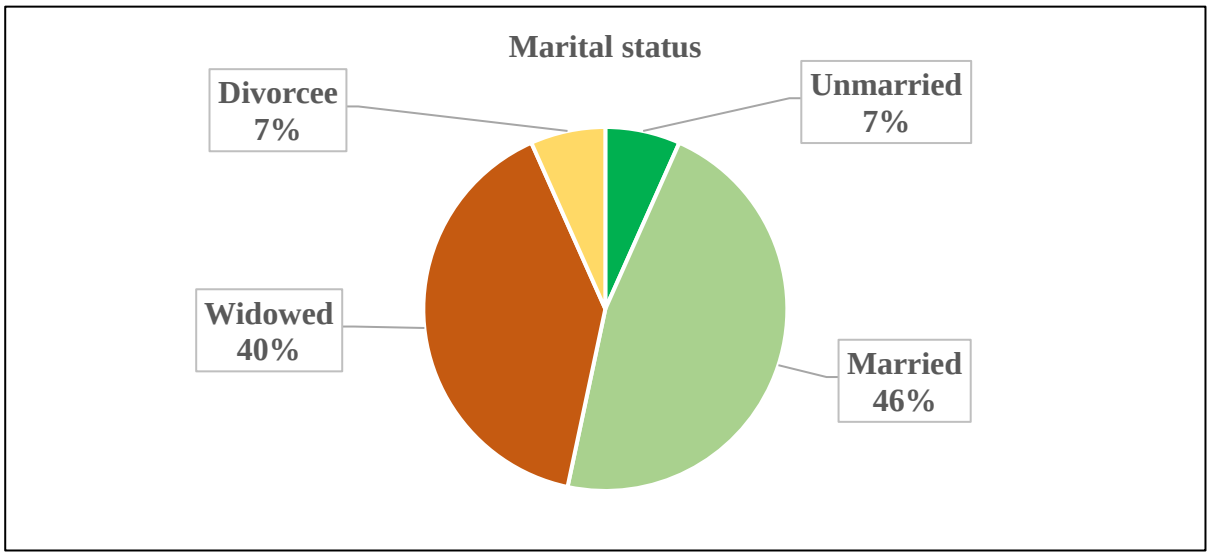
Sample breakup according to Gender



The figure number 2 shows that 53% old males and 47% old females participated in Phase II of the study

Figure 33

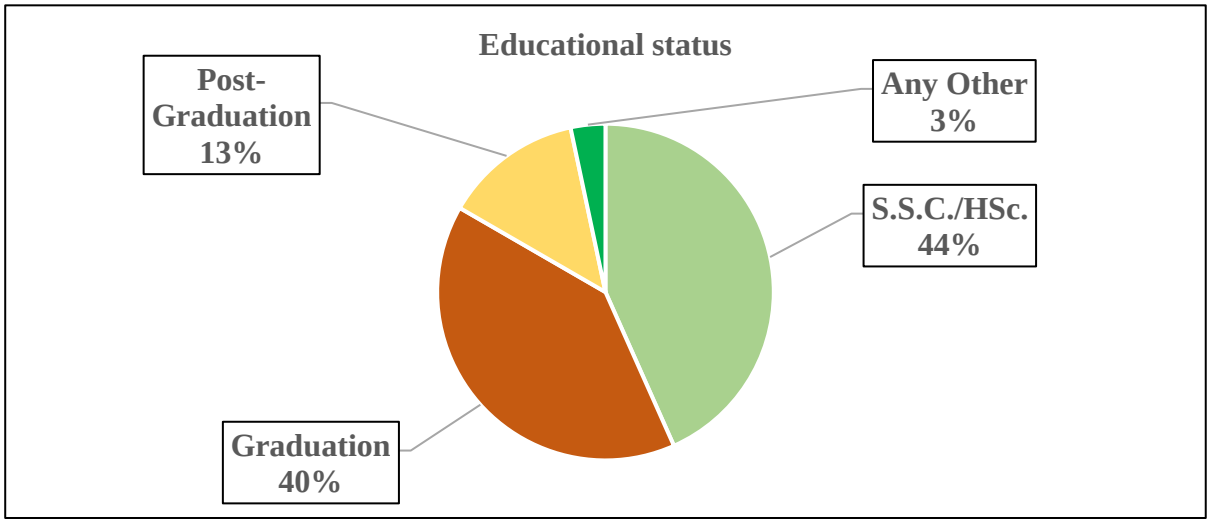
Sample breakup according to Marital Status



The above figure indicates that maximum number of participants in the study were married (46%), followed by 40% who were widowed, 7% were unmarried and 7% were divorcee.

Figure 34

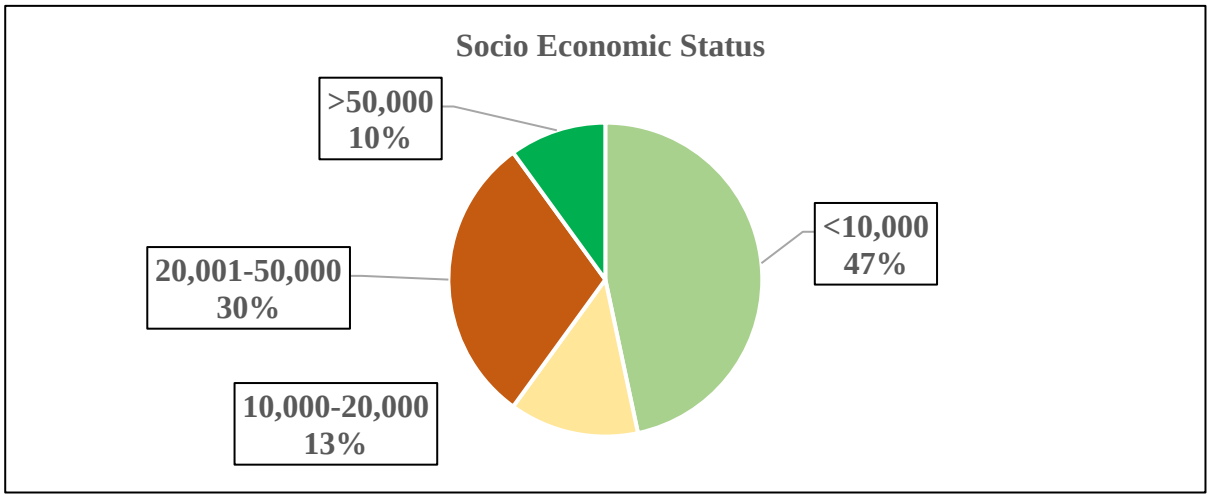
Sample breakup according to Educational Status



The above figure depicts the division of sample on the basis of their educational qualification. Amongst them 44% are the SSC or HSC qualified, 40% are the graduates, 13% have completed their Post-Graduation and 3% have done diploma or certificate course.

Figure 35

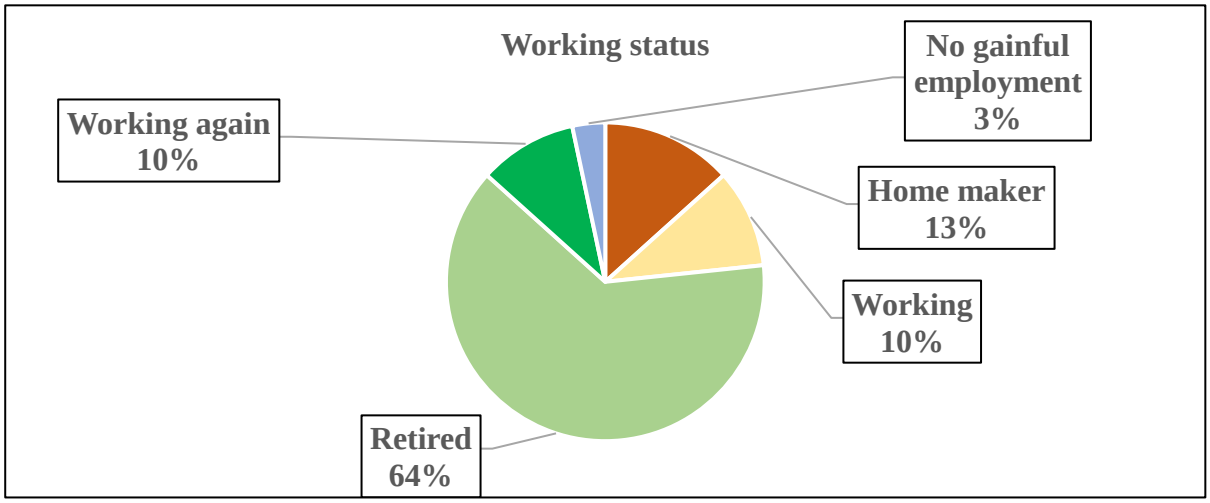
Sample breakup according to Socioeconomic Status



Regarding the socioeconomic status of the elderly participated in the Phase II of the study, above figure shows that 47% young olds belong to a category less than Rs.10,000 income per month. From the rest, 30% have an income between 20,001 and 50,000, 13% have an income between 10,000 and 20,000; and 10% belong to a category more than Rs.50,000 per month.

Figure 36

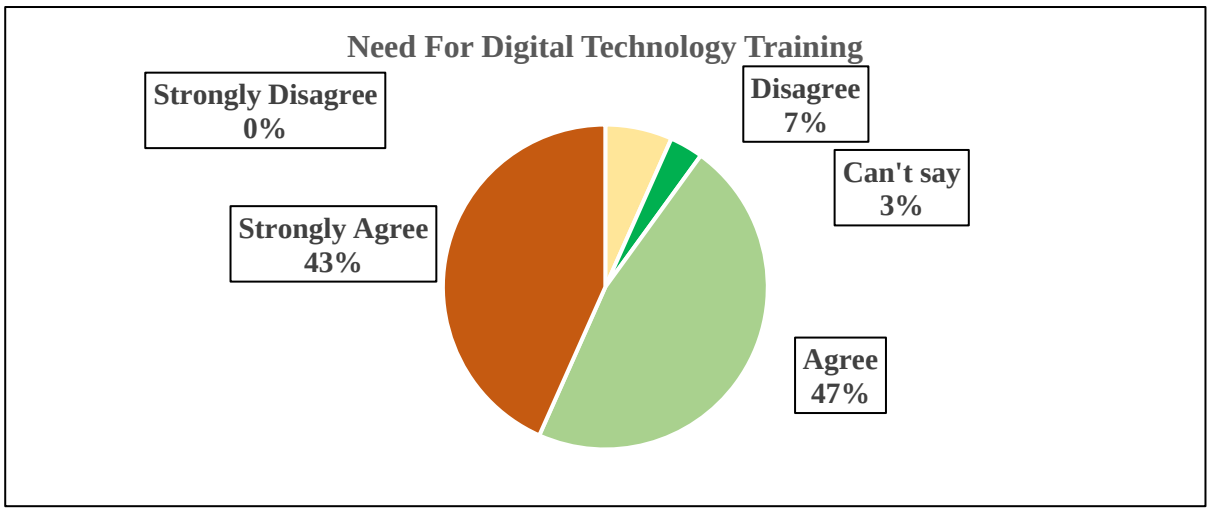
Sample breakup according to Working Status



From the sample in the Phase II of the research, majority of them (64%) are retired from the service, 10% are retired but working and earning again, 10% are working in continuation mostly as self-professionals, while 3% are working on the honorary basis and 13% elderly are the home-makers.

Figure 37

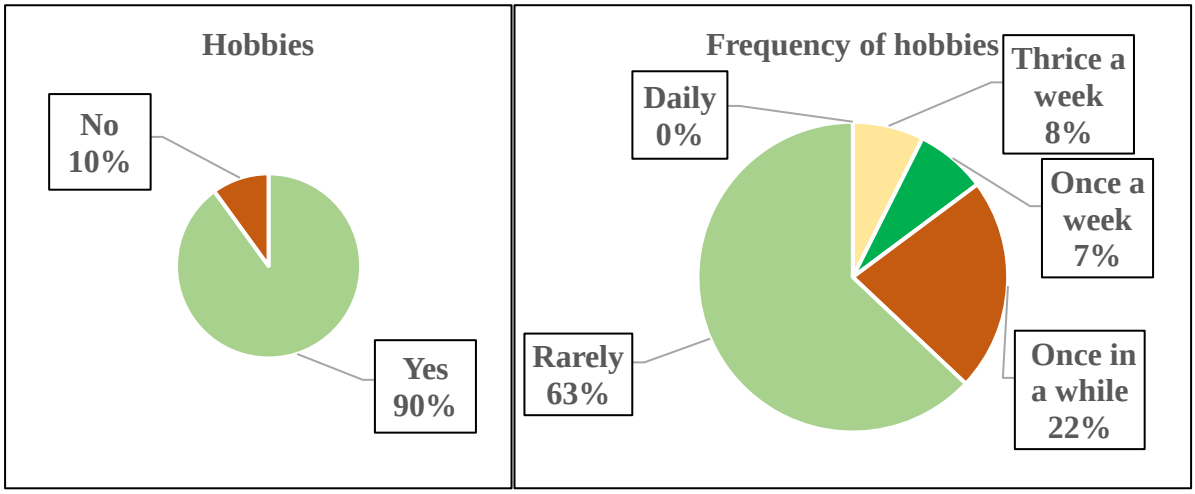
Sample breakup according to Need for Digital Technology Training



The figure above shows 90% of the elderly realized the need of digital technology training , out of them 43% strongly agreed while 47% agreed to the need, 3% had no firm opinion and 7% disagreed to the need of training in digital technology.

Figure 38 (a & b)

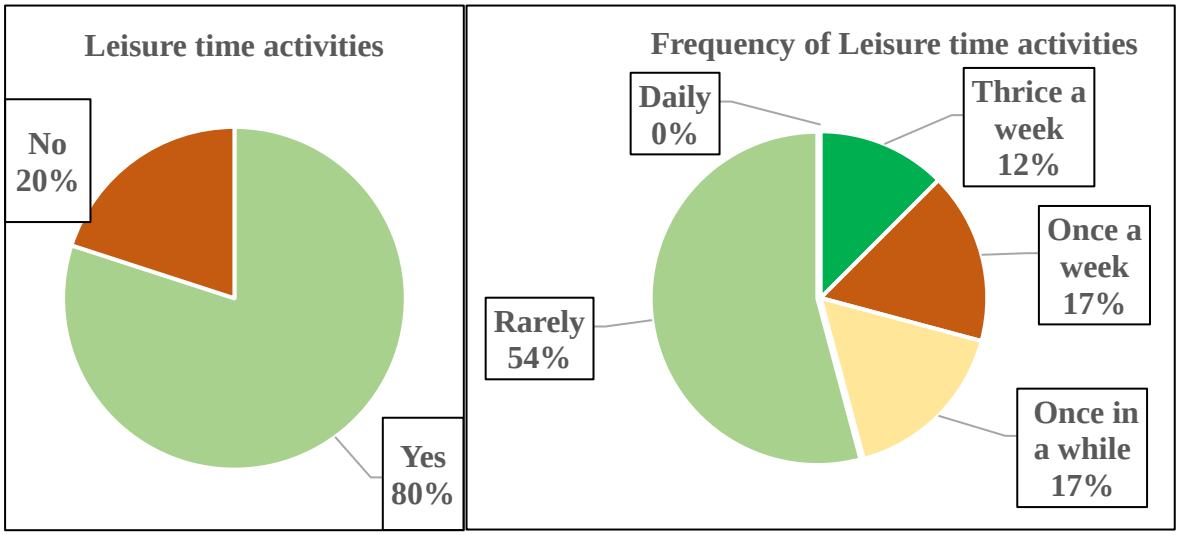
Sample breakup according to pursuing hobbies, with frequency



Amongst elderly participated in the Phase II of the study, 90% pursue their hobby. However, 63% pursue their hobby rarely, 22% once in a while, 8% pursue three times a week and 7% of them are involved once a week.

Figure 39 (a & b)

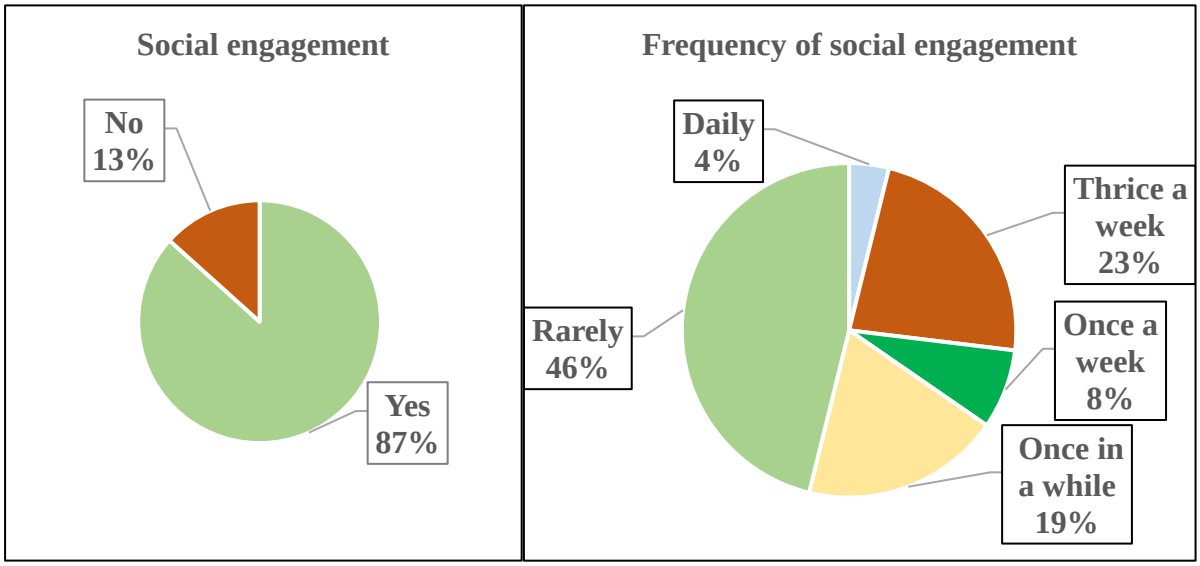
Sample breakup according to leisure time activities, with frequency



The above figures show 80% of the older adults in the study are involved in some leisure time activity of their choice. Amongst them 54% are rarely involved, 12% are involved thrice a week, and 17% are involved once a week or once in a while. And no one is involved in any leisure time activity on a daily basis.

Figure 40 (a & b)

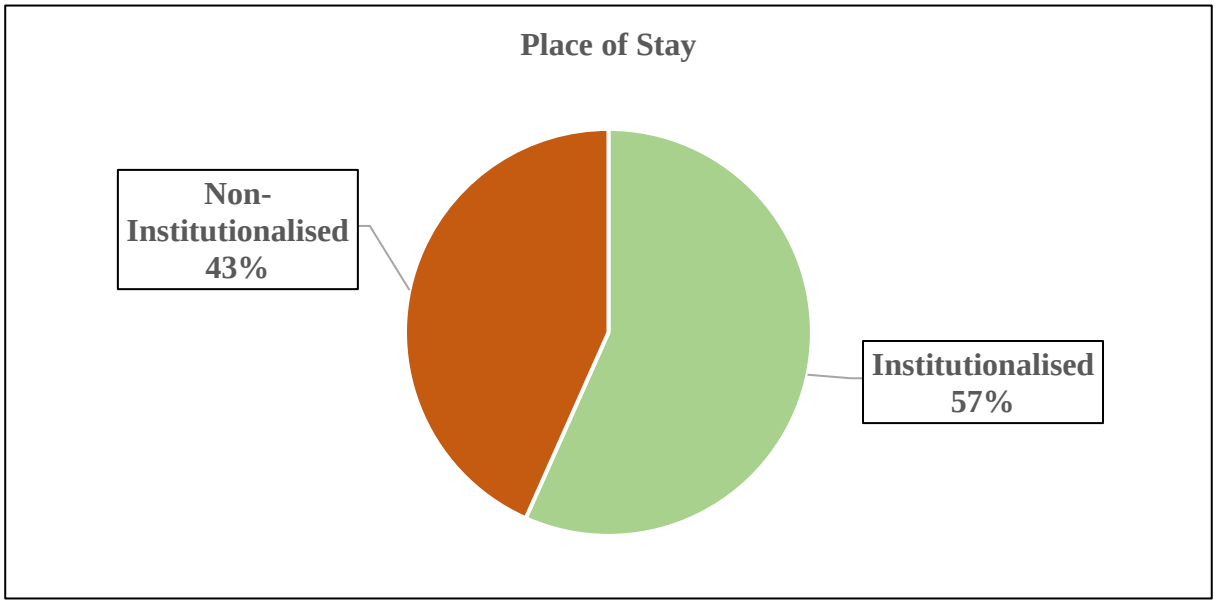
Sample breakup according to social engagement, with frequency



The findings indicate that 87% of the young olds are engaged into social activity and amongst them 4% on a daily basis, 23% are involved thrice a week, 8% are involved once a week and 19% are involved once in a while and 46% are rarely socially involved.

Figure 41

Sample breakup according to Place of Stay of the elderly



The above figure indicates 43% of the elderly are institutionalised and 57% of the elderly are non-institutionalised in Phase II of the research.

2.4.1.2 Tool

The following set of questions prepared by the researcher was used for data collection in Phase II of the research.

1. How do you define good physical health?
2. In your opinion, what is Happiness?
3. Can you name some factors, circumstances or experiences which give a feeling of satisfaction in your life?
4. When do you feel that people help each other?
5. What are the reasons which make you feel help others?
6. Describe the situations which make you help young people or the next generation.
7. How do you feel when you help others, particularly the next generation?
8. How do you engage yourself in the lives of your family members?
9. What are your tried and tested ways of addressing challenges or difficulties in your day to day life?
10. Looking back in your life, can you identify the traits or the factors, which have helped you in responding to the challenges or difficulties in your life?
11. What do you enjoy most in your idle hours? Being in the Past, Present or Future? How does it help you in life?
12. What makes you attend to your life experiences as it is, here & now?

2.4.1.3 Procedure

Code of Ethics: The consent from each participant for recording the conversation was obtained in addition to the above-mentioned code of ethics in Phase I of the research and was adhered to collect the data in Phase II of the research. In the content analysis of data of Phase II of the research, the names of the participants mentioned are changed to respect confidentiality of the participants.

The semi-structured interview technique was used to understand the perception of young elderly towards physical health and wellbeing. They were made to introspect about their life with reference to generativity, resilience and mindfulness.

The interview schedule was prepared based on the need to explain the findings from the quantitative study. The consent was obtained to record the interview for the purpose of verbatim transcript. The interviews were conducted with the help of twelve probing questions. Each question had some probes. The duration of each interview ranged from 20 to

40 minutes. However; the probes were customized depending on the responses of participants. The transcripts of responses to each question were prepared by the researcher for the content analysis.

2.4.2 (B) Organizational attachment

As a result of the interviews held with few institutionalised elderly, the researcher felt a need to understand whether they are aware of their day to day behaviour which reflects generativity, resilience and mindfulness. In case the elderly are not aware, the researcher tried to sensitize them in respective areas.

As a part of the study the researcher interacted with the institutionalised elderly for hands-on experience in the organisation, Vatsalya, the Home for the Senior Citizens, Mumbai. In the context of Covid-19 Pandemic, change in the lifestyle and restricted socialisation were commonly seen outcomes, particularly in the older adults' life. Specifically the institutionalised elderly experienced intense degree of loneliness with repercussion on their physical and mental health. With an objective that, personal interaction would benefit to improve the same and make them feel happy, an online telephonic interaction with each elderly was scheduled to dilute intensity of their social deprivation.

Due to the Pandemic, nine elderly between 66 years to 83 years (as reported by the participants) were available. With the informed consent by each elderly for the interaction, in all 37 sessions of 30 to 40 minutes each was conducted by the researcher. Being telephonic interaction and the researcher and the participants were unfamiliar with each other prior to the interaction, structured pattern any could not be designed. However, the following psychological concepts were theoretically shared with each one of them in day to day language.

a) Importance of health and happiness in life

b) Ageing : natural and inevitable process

c) Acceptance of various dimensions of ageing: happiness and satisfaction in life

d) Generativity: double-aged benefits

e) Resilience: need and importance in attaining happiness in life

Despite all demographic factors including living arrangements, the members in the institution were made aware of health and happiness as pillars of the life. And thus, maintaining one's physical and mental health is essential by taking some conscious efforts. Accepting old age and the universal process of ageing with its physical and psychological changes is a key to experience health and happiness.

During the interaction, in many elderly an urge and concern to help others was prominently revealed. The importance of being generative, without expecting any feedback as a sign of wisdom was shared with the participants by the researcher during the sessions. Considering the limitations of non-visual conversation with the participants, some participants expressed willingness to get into a mould of non-expectations. With due respect to the rules and policies of Vatsalya, the researcher could convince the elderly to change their 'concern' for the next generation into 'action' from the interactions with the younger generation of the Balikashram and young staff of the institution and seek happiness for oneself.

Each elderly was made to realise strong potential used to cope with the challenges / adversities in life, which they were not aware of. Through conversation, the researcher helped them to identify their own 'strengths' that have helped them to lead the life successfully. Many of the elderly were overwhelmed to know the treasure within them. The researcher asked them to write down, if possible at least one strength every day as even remembering one's own strengths would make them more resilient in life.

The researcher also shared 4 major principles of happy ageing with every elderly participant during the telephonic conversation.

* Living in the Present, rather than the Past or the Future
* Disciplining one's body
* Expressing gratitude to everyone
* Feeling relaxed

With two elderly, the researcher realised the limitation or unwillingness to open up, listen to the researcher and/or continue the conversation. Hence, wherever required, self-disclosure was done by the researcher which showed very good results. These participants not only responded but also initiated the conversation in later sessions. Expressing gratitude towards one's own body was highly appreciated by many elderly. They found this idea to be unique in nature. The researcher also tried to share the importance of age appropriate diet and exercise to maintain health and happiness in the life leading to successful ageing.

Mindfulness meditation with guided instructions was demonstrated to develop the above mentioned habits and the elderly participants were made to understand the importance of benefits of mindfulness meditation such as learning to live in the present moment, be non-judgemental towards oneself, accept oneself on as and where basis which promote happiness in a given situation were communicated. *The researcher explained these benefits of Mindfulness meditation in an extremely subtle manner, to avoid misinterpretation and misuse in social interactions.*

2.5 Variables

2.5.1 Socio-demographic Variables:

Age

Gender

Marital status

Educational status

Socio-economic status

Working status

Place of stay

Type of family(in case of non-institutionalised elderly)

Psychological Variables:

Generativity

Mindfulness

Resilience

Spiritual Practices

Subjective Wellbeing

Health Variables:

Nutrition

Exercise

Physical health

2.5.2 Operational Definition of Variables

Young elderly: In case of non-institutionalised, older adults between 60 and 70 years of age. In case of institutionalised, older adults between 60 and 75 years of age

Generativity as a multidimensional construct is a need, concern, task and a desire to transcend one's knowledge, experience, skills, abilities and interests to the newer generation, resulting into healthy psychosocial adjustment with each other benefiting the social system (Mc Adam & St Aubin,1992)

Mindfulness refers to nonjudgmental observation of the ongoing stream of internal and external stimuli as they arise (Baer, 2003)

Resilience refers to a dynamic process encompassing an ability to thrive and positive adaptation within the face of significant adversity (Connor-Davidson, 2003)

Physical Health which reflects in physical fitness refers to the ability to carry out daily tasks with vigor and alertness, without undue fatigue and with ample energy to enjoy leisure time activities and to meet unforeseen emergencies

Subjective wellbeing refers to cognitive and affective evaluation of one's life, irrespective of the objective facts which includes experiencing pleasant emotions, low level of negative emotions and high life satisfaction making the life rewarding for the individual.

Nutrition refers to the act of nourishing or being nourished with proper and adequate dietary measures

Exercise refers to an engagement in physical activity to sustain health and fitness

Spiritual Practices is a set of various behavioural patterns used by an individual to 'search for the sacred' and surrender to the transcendent. It could be chanting, prayer, meditation, fasting, visiting places of worship, attending spiritual discourse such as satsang, bhajan, kirtan

Educational status refers to the level of educational qualification obtained by the individual. High educational status is considered to be any graduation degree or above

Socio-economic status refers to the social standing or class of an individual or group, which is a combination of education, income and occupation. However, in the present study, Socio-economic status focuses on income per month.

Occupational background refers to current occupational status. Accordingly, the individual is retired or has continued to work somewhere or self-occupied with or without gains.

Type of family refers to the structure of the family. Joint family consists of the spouse, married children, grandchildren or even one's sibling. Nuclear family consists of only the spouse and unmarried children.

Social engagement refers to the self-generated activities such as volunteering to look after one's grandchildren, involvement in some charitable activities, working for some social cause, regular meetings etc.

The figure below is a conceptual frame-work of the research:

Chapter 3: Results – Quantitative Study (Phase I)

Based on the following objectives of the study outlined in Chapter 2, the data was collected with the help of standardized questionnaires and self-constructed checklists. The analysis of data was done by using appropriate statistics on SPSS. In the present chapter, the data is analysed for the following objectives:

To study the relationship between mindfulness, subjective well-being and physical health among young elderly.

Whether mindfulness and subjective well-being have effect on the physical health of young elderly was also investigated.

Pearson Product moment correlation(r) was used to test the relation between mindfulness, subjective well-being and physical health; and multiple regression analysis was carried out to find the pre-cursors of physical health among young elderly. The results were presented with 95% confidence interval and the significant level was set as 5% level.

Table 1. *Mean, SD and r value of the Psychological and Physical Health Variables*

Variables	n	Mean (SD)	Mindfulness	Subjective wellbeing	Systemic/ Sensory parameters	Lifestyle habits	Chronic medical condition	Biomarkers	Physical fitness parameters
Mindfulness	**436**	**52.67 (9.68)**	**-**						
Subjective wellbeing	**436**	**91.36 (15.60)**	**.64 ****	**-**					
Systemic/Sensory parameters	**436**	**12.48 (1.98)**	**.18 ****	**.26 ****	**-**				
Lifestyle habits	**436**	**29.10 (2.13)**	**.09**	**-.01**	**.04**	**-**			
Chronic medical condition	**436**	**21.17 (1.39)**	**.07**	**.15 ****	**.18 ****	**.07**	**-**		
Biomarkers	**436**	**30.60 (1.87)**	**.01**	**.15 ****	**.40 ****	**-.02**	**.22 ****	**-**	
Physical fitness parameters	**436**	**11.99 (3.72)**	**.23 ****	**.34****	**.32 ****	**-.02**	**.28 ****	**.25 ****	**-**

Note: *P<.05 , **P<.01

3.1 Relationship between mindfulness, subjective well-being and physical health parameters among young elderly

Table 1 shows significant positive relation between subjective wellbeing and mindfulness (.64**). However, subjective wellbeing is found to be significantly associated with all the different dimensions of physical health such as the physical fitness parameters, systemic /sensory parameters, absence of chronic medical condition and biomarkers except the lifestyle habits.

Mindfulness is a state of physical and mental being and experiencing every moment with receptivity and openness promoting active search for novel experiences. Such enhanced state of metacognitive awareness helps to re-perceive one's thoughts and emotions and view them as passing mental events. It helps to reduce rigidity and promotes openness to experience. While the non-judgementalness facet of mindfulness leads to acceptance of the situation and happiness(Shapiro et al.,2006).Regular practice of mindfulness helps to take care of one's emotional needs and overall health which ultimately lead to an experience of positive emotions and happiness(Sharma & Rush,2014). One of the outstanding effects of mindfulness is increased subjective wellbeing and behavioural regulation (Keng et al.,2011).

Rumination, absence of let go attitude are major cognitive processes in most common psychological illness. Mindfulness helps individual to get unstuck and consider every moment as a passing event in life which enables to live with satisfaction (Didonna,2009). In an experimental study done by Kuyken et al(2013)on mindfulness and wellbeing, the three months intervention of mindfulness meditation showed significant increase in the wellbeing. Mindfulness helps to disconnect from the emotional upset and allows focusing on a given task promotes satisfaction (Ortner et al.,2007).The present findings confirm the hypothesis which predicts significant relationship between mindfulness, subjective wellbeing and physical health of young elderly.

The research hypothesized that mindfulness and subjective well-being will significantly predict different dimensions of physical health such as physical fitness parameters, systemic/sensory functioning, lifestyle habits, chronic medical condition and biomarkers among the older adults. Multiple regression analysis was applied to predict mindfulness and subjective well-being with all dimensions of physical health among older adults.

Table 2.

Multiple Regression analyses

	Physical fitness parameters		Systemic/ Sensory parameters		Lifestyle habits		Chronic medical condition		Biomarkers	
	Std. Beta	**t value**	**Std. Beta**	**t value**	**Std. Beta**	**t value**	**Std. Beta**	**t value**	**Std. Beta**	**t value**
Mindfulness	**.02**	**.37**	**.02**	**.27**	**.16**	**2.55****	**-.05**	**-.73**	**-.14**	**-2.20**
Subjective Wellbeing	**.33**	**5.59****	**.25**	**4.15****	**-.11**	**-1.71**	**.17**	**2.81****	**.23**	**3.79****
F	**28.56****		**15.69****		**3.25***		**4.90****		**7.22****	
R	**.34**		**.26**		**.12**		**.15**		**.18**	
R2	**.12**		**.07**		**.02**		**.02**		**.03**	
Adjusted R2	**.11**		**.06**		**.01**		**.02**		**.03**	

Note: *P<.05 , **P<.01

3.2 Effect of mindfulness and subjective well-being on physical health parameters

The Table 2 shows subjective wellbeing to be a significant predictor of all the dimensions of physical health except lifestyle habits. However; the mindfulness significantly predicts only the lifestyle habits and not any other dimension of physical health. Wellbeing benefits physical health on a wider spectrum such as promoting physical fitness, coping with the chronic illnesses more effectively and managing physiological health parameters. Positive affect and life satisfaction are more important components influencing the physical health (Cross,2018). An experimental study by Howell (2007) has demonstrated wellbeing having positive impact on short term and long term health outcomes as well as disease or symptom control.

Subjective wellbeing not only reduces the possibility of illness, but also promotes positive health outcomes. Overall wellbeing enhances the functioning of immune system, improves pain resistance and protects the individual from cardiovascular illness buffering the impact of stress on health. Positive psychological wellbeing is significantly associated with reduced cardiovascular mortality in healthy population and reduced death rates in the diseased population which proves favourable effect of wellbeing on the survival(Chida& Steptoe,2008).

3.2.1 Physical fitness parameters

Findings displayed in Table 2 support the hypothesis that, 'mindfulness and subjective wellbeing will significantly affect physical fitness among the older adults'. The fitness parameters studied were flexibility, agility, balance, speed of work, aerobic and muscular endurance among the older adults.

Together, Mindfulness and Subjective wellbeing could explain 11% variance in physical fitness parameters of the older adults. However, the analysis showed that the subjective wellbeing significantly predicts the physical health, whereas mindfulness does not individually contribute significant variance in the physical health of older adults.

Happy people to be more concerned about their health parameters including weight, ease of movement through more activating effects leading to physical fitness and resilience and build more resources (Veenhoven,2006). It is reported that perceived wellbeing connects with pathways to health in terms of controlling hypertension and cholesterol level and improving the immune function, endocrine activity and few physiological measures through alterations in health behaviour such as sleep, exercise and diet (Cross,2018). An intervention study titled 'Parkinson's disease wellbeing programme' held for 5 weeks reports that, patients with mild

to moderate Parkinson's disease showed significant improvement in the physical health parameters such as flexibility, agility and strength post intervention. The wellbeing of the patients was enhanced through education and exercise during the intervention stages of the study (Horne,2019).

Falls cause of dysfunctionality in old age, if not fatality. A comprehensive programme of strengthening, balance, and/or endurance training effectively reduces falls and fall risks in older adults. Exercises alone are effective in reducing fall rates in older adults in community and home –based older adults (Dsouza, 2014).

Cardiorespiratory and muscular endurance, muscular strength, body composition and flexibility are the health-related elements of physical fitness; while agility, balance , speed, power, coordination, reaction time are all skill-related contributors. Both health-related and skill-related components are important in the prevention of chronic disease as well as rehabilitation among older adults. They are particularly critical to independent function and better quality of their life (Zoeller,2013).

3.2.2 Systemic / sensory parameters

The findings presented in Table 2 indicate significant effect of mindfulness and subjective wellbeing on the systemic / sensory parameters of physical health such as respiratory problems, bowel functioning, and the problems related to vision and hearing among the older adults supporting the hypothesis 'Mindfulness and subjective wellbeing will significantly predict Systemic/ Sensory parameters among the older adults'.Although, together mindfulness and subjective wellbeing could explain 6% variance, regression analysis shows subjective wellbeing significantly contributes to the systemic/ sensory parameters of physical health among the older adults and not the mindfulness.

Respiratory muscle strength decreases with age and hence shows functional changes as well, probably responding poorly to moderately to medication. The older adults show reduced ventilator response to hypoxia or similar states, with more possibility of poor outcomes(Sharma & Goodwin, 2006). Hence, various alternate therapies are experimented to test their effectiveness. Sensorimotor parameters show decline during old age but can improve by training and exercise indicating that age-related changes are treatable. Dance therapy is one of the powerful intervention as it works on cognitive, affective as well as physical levels. It is effective in acoustic stimulation as well as cognitive performance in older adults without affecting cardio-respiratory functioning (Kattenstroth ,2013).

More than 40% of older adults show age –related digestive symptoms. The most common digestive-health problems are irregular or painful bowel movements, constipation which may eventually affect health (Conaway,2012). Functional bowel disorders impair daily life and quality of life among older adults. Bowel related problems like constipation tends to affect moods, day to day activity and social life from moderate to a large extent(O'Keefe, et al.,1995;Munch, et al.,2016). Normally, lack of proper diet, exercise and insufficient quantity of fluids are the major causes of constipation or other bowel related problems. And thus, life style changes including more activity is highly recommended to the older adults along with dietary changes and increased physical activity to manage these problems. Adequate and appropriate diet, regular physical exercise are considered to be the mood additives which contribute to the functioning of physiological processes such as digestive functioning which eventually help to take care of bowel related problems(Mandal,2019).Particularly in older adults, psychological factors like anxiety, stress or even fear of bowel functioning cause disturbed bowel functions such as irritable bowel syndrome. Therefore, stress reduction is one of the effective measures suggested to manage the IBS (Kernisan,2018).

Clinical reports and the current research suggest that 'stress is both, a cause and consequence of vision loss'. Stress is found to be a determinant of hypoxia, retinal impairment, partial and selective blindness and so on eventually affecting the health and quality of life in older adults. Therefore, taking care of mental health and avoiding negative impact of inevitable stress is highly suggested (Sandoiu,2018).

Adequate functioning of sensory capacities is an important dimension of physical health as it reflects in numerous activities of the person in particularly later years of life. The loss of vision due to damaged optic nerve or retina can cause difficulties in day to day activities like reading, recognizing, socializing etc. It can also lead to partial or complete dependency and affect mobility to a large extent. Hence, relaxation techniques, stress reduction mechanisms are recommended to be adopted to prevent or manage the loss of vision (Brown,2015;Sabel et al.,2018).

An impairment in the sense of hearing is another important cause of making the older adults socially aloof with lot of dependency and restriction on mobility leading to poor quality of life (Ciorba,,2012;Dalton,2003). Other than sensory-neural hearing loss which is normally age related, Tinnitus is a common hearing problem induced by stress across the age. Hence, stress management is said to be effective in managing with the hearing loss such as tinnitus indicating the role of stress again in sensory functioning.

3.2.3 Life style habits

Although both mindfulness and subjective wellbeing together are explaining only 1% variance in the life style habits which is one of the dimension of physical health of the olds, the results in the Table 2 show mindfulness is leading to significant effect on the lifestyle habits and not the subjective wellbeing among the older adults supporting the hypothesis 'mindfulness and subjective wellbeing will significantly affect the life style habits of the older adults'. The past researches have shown benefitting effect of mindfulness in controlling or reducing the lifestyle habits such as consumption of gutka, supari, alcohol, habits like smoking, sniff etc. are effectively in adolescents and adults , but not specifically in the older population.

Globally, lifestyle habits such as smoking, consumption of tobacco/ gutka is one the leading cause of death across the age. By 2030, particularly in developing countries the number of such deaths is projected to be 10 million, and hence a growing public health concern... Despite various measures taken by the policy makers like restrictions or bans on its publicity and behaviour, easy availability to cessation therapies is found to be effective (Brewer,2011;Jha,2009).

Although wellbeing is not found to be directly related with lifestyle habits affecting physical health, alcohol related hypertension may show negative impact in the form of increased risk of stroke leading to death. Happiness seems to be related to habits like smoking, drinking or consumption of tobacco, particularly in young age. Unhappiness was found to be leading to later smoking in adolescents. Similar to heavy smoking, heavy drinking was found to be associated with unhappiness but not moderate drinking (Veenhoven,2006).

Neuropharmacological study (Brewer,2019) claims that when smoking or drinking is induced by stress, the prefrontal cortex shuts down. In such situations, changing the habit loop with the help of mindfulness techniques works by making the individual aware of immediate effects of smoking/ drinking such as 'burning feeling' while inhalation/consumption breaking the habit loop. In an experimental study conducted by (Spears et al.,2019) shows promising effect of in-person Mindfulness-Based Addiction Treatment (MBAT) for smoking cessation as well as lapse recovery along with text messages between the sessions in the treatment. Strong retention was achieved 76% among 2/3 of the participants at the end of treatment, and 89% among majority of the participants was seen at 1-month follow-up distinctly showing the effect of mindfulness on lifestyle habits like smoking and drinking. The similar

findings are found by (Brewer,2011) showing not only the significant reduction in smoking but the retention of the same as well.

Mindfulness Training for Smokers (MTS) proves to be effective in reducing the frequency of smoking and alcohol use, if not complete cessation in young adult smokers with alcohol abuse (Davis et al.,2013). Mindfulness treatment is found to be a positive intervention for substance use disorders showing significant small effect on its reduction and medium effect on reducing craving (Li et al.,2017).

3.2.4 Chronic medical condition

The hypothesis stating ‘‘mindfulness and subjective wellbeing will show significant effect on the chronic medical condition of the old’ is supported by the figures in the Table 3. Although, mindfulness and subjective wellbeing together could explain 2% variance in Chronic medical conditions of the older adults, regression analysis showed that the subjective wellbeing significantly predicts the Chronic medical condition, whereas mindfulness does not individually contribute significant variance in Chronic medical condition of olds.

Longitudinal study on ageing by (Okely,2016) has reported that wellbeing helps to avoid the onset of chronic diseases such as arthritis, cancer, stroke, diabetes, myocardial infarction, and chronic lung disease among the older adults. Longevity is found to be an outcome of hedonic as well as eudemonic wellbeing particularly in community dwelling Chinese older adults. Greater purpose in life is associated with more positive outlook towards life that may help an individual to counter the negativity which is a bi product of chronic illness (Boyle,2009).

The impact of positive affect and attitudes on the development of chronic disease was studied by (Penninx,1998; Feller,2013) found the people with less life satisfaction being more prone to suffer from cancer. While people with intense negative affect showed high incidence for coronary disease; however positive affect did not guarantee an absence of the same (Nabi, 2008).

An Australian longitudinal study on women’s health highlighted the role of wellbeing in terms of lack of perceived stress in the life leading to less vulnerability to arthritis development (Harris,2013). Stroke, cardiac and chronic lung disease were positively related with depression among the olds (Huang,2010). Positive affect was found to be inversely associated with the incidence of stroke in case of older adults showed the role of emotional wellbeing as a protector of chronic illness (Ostir,2001).

Wellbeing is positively associated with restorative behaviour and biological function other than hedonic wellbeing specifically related to cardiovascular health is revealed in a study

done by(Boehm & Kubzansky,2012).On the other hand, bidirectional relationship between subjective wellbeing and physical health is found in older adults. Retrospective studies show an evidence of impaired psychological wellbeing which is related to increased risk of premature death, physical illnesses like coronary heart disease, diabetes and other chronic conditions. Regular physical activity is suggested to maintain cardiovascular health, muscle strength and flexibility which is consistently correlated with wellbeing (Steptoe,2015).

Sudden or repeated falls affects physical health in old age in the form of physical immobility, complete or partial dependency, if not death among older adults. The frequency of falls increases along with the age and other comorbidity, higher in institutionalised older adults than older adults staying at home. In the present study along with chronic illness, even few cognitive disabilities such as Dementia, Parkinsonism is investigated. As such cognitive impairments show double rate of prevalence of falls as compared to their counterparts (Aggarwal et al.,2016).

Although findings in the present study do not show significant effect of mindfulness on chronic illness as a dimension of physical health (Naik et al.,2018) have found significant effect of mindfulness on physiological level in the form of improved functioning of immune system, lowered blood pressure, lowered levels of blood cortisol and increased resistance to stress-related diseases.

3.2.5 Biomarkers

The figures in the Table 2 support the hypothesis ‘mindfulness and subjective wellbeing will show significant effect on the biomarkers of the old’. However, mindfulness and subjective wellbeing together cause 3% variance, subjective wellbeing is the predictor of the biomarkers among the olds. The electrolytes play an important role in the nervous system and motor functioning. Imbalance of Electrolytes can lead to disruption of normal body functioning or even life threatening. The symptoms of Electrolytes imbalance range from moderate to severe degree. Overall fatigue, excessive weakness, cardiac disease, kidney malfunctioning are to name a few. Age related changes in homeostatic mechanisms are found more in older persons.

Physical inactivity, certain health problems and more importantly stress, are the major causes of Type II diabetes, commonly found in older people. Stress is a potential factor influencing bold sugar level. It has been a proved fact that stress can induce both hyperglycaemia and hypoglycaemia affecting physiological functioning and behaviour. However, the duration and nature of stress also matter in determining its effect. The impact of stress on diabetes depends

upon psychosocial factors such as one's perception of the stressful situation and or psychological, social support. In case of which, individual benefits in the presence of both (Surwit et al.,1992;Llyod, et al.,2005). The studies show that such issue can be effectively addressed by promoting lifestyle and behaviour changes in 'diabetes prevention programme'. The Diabetes Attitudes Wishes and Needs Programme (DAWN programme) has highlighted the role of psychosocial and behavioural barriers in the treatment of the disease (Belinda,2005;Skovlund& Peyrot,2005).

Thyroid hormone has important neural implications. Different symptoms like depression and anxiety are closely associated with thyroid dysfunction, both hypo and hyperthyroidism showing the effects on cognitive, affective and behavioural level. Therefore, addressing such psychiatric manifestations will show augmenting effects in the treatment of subclinical thyrodism (Saxena et al., 2000; Bathla,et al.,2016).

Lipid levels are also influenced by lifestyle and behavioural factors or conditions in individual's life. Low cholesterol concentration (HDL) is found to be associated with anxiety and depression and more importantly vulnerability to stress. On the other hand, physical activity, positive emotion, aesthetics, actions, and deliberation were associated with triglycerides (Roh et al.,2014) High amount of cortisol release is a product of stress leading to increase in blood cholesterol and triglycerides apart from blood sugar and blood pressure. In an experimental study conducted by (Peterfalvi,2019) on the clinical patients with and without history of early life stress observed the significant negative association between the severity of early life stress and HDL, whereas early life stress being significantly positively related with Triglycerides.

The researchers, during the assessment of physical parameters of old adults made some major observations which is worth mentioning as a strength of the research here. The assessment of physical health parameters, created significant awareness about the need and importance of maintaining physical fitness among the older adults. However, the research was carried out on the old people from urban areas could be considered as a limitation.

The above analysis is done to test few hypotheses of the research. The remaining hypotheses will be tested by using appropriate statistics further in the research.

Chapter 4: Results – Qualitative study (Phase II)

In order to enhance the understanding of physical health and subjective well-being among young elderly, data was collected with the help of semi-structured interview technique. The content analysis of the responses to each question, revealed the following subthemes:

4.1 What do young olds mean by physical health

Based on the content analysis done, the subthemes derived from the narratives about meaning of physical health are-- physical fitness, mental fitness, positivity, free from illness or any ailments, activity, physical independence, getting sound sleep, enjoying good diet, able to do regular exercise and sound bodily functioning.

Forty one percent of non-institutionalised elderly consider physical health as a state when the individual is free from any illness or any ailments

"When I get up in the morning, I feel fresh, energetic and have no pain or discomfort in my body, I feel healthy"(Avinash,Male,65yrs.)

" *When the individual is not suffering from any major illness, neither going through recurrent minor health issues like body ache or indigestion, he is healthy. Same time, he should also me stress free and happy"(Rajan,Male,62 yrs.,)*

The individual's capacity of doing his daily activities without feeling tired for sufficient period of time and with lot of energy and stamina indicates good physical health was mentioned by the 41% of non-institutionalised elderly

"One should be able to adhere to his daily routine without any difficulties. Can also help someone in need to do so like my wife. I help her in drying clothes as she is suffering from arthritis"(Sudhir,Male,70yrs.)

Thirty five percent of non-institutionalised olds perceived physical health in independence in personal care, health and hygiene.

"When I realize that I can do everything on my own without anyone's help or support, I believe I have a good health"(Meghana,68yrs.)

When the individual is able to relish good quantity and variety of diet and shows interest in maintaining his own physical health is a sign of good physical health was expressed by 35% of them.

"I love eating variety of food. I love cooking as well. Whatever I feel, I cook for myself and also serve others in the family. It talks about how healthy I am".(Anil T.,Male,70yrs.)

Relatively similar thoughts about physical health are shared by the male and female institutionalised elderly as well. *31%* institutionalised elderly considered capacity to do all activities without fatigue and on one's own as the parameter of good physical health.

"In my opinion, good health involves ability to do one's own work well, cleanly and independently. You need to do some physical activity which give you good exercise and feel healthy. I sweep the compound of Niwara every day after which I feel hungry and then enjoy whatever is served here happily"(Vasant,Male,65yrs)

Physical stamina to do exercise regularly as a sign of good health was also emphasized by 31% of them.

"As females, we never get time to take care of our health. But in ashram, I am able to spend as much time as I want and so I do some regular exercise in the morning which keeps me healthy"(Anuradha,Female,66yrs.)

"I consider myself healthy as I can do my work from morning to evening and can also help others without getting tired" (Shobha,Female,63yrs.)

Physical health is conceptualized by the olds as a capacity to do daily activities independently with energy and stamina and do exercise on a regular basis and when the individual is not suffering from any major illness.

4.2 What do young olds mean by happiness

On the basis of narratives of the elderly about happiness, the following subthemes were derived-seeking happiness from others' happiness, good relationships, family and social support, no expectations, relative concept—one's perception and one's experience, acceptance of the situation, high level of empathy so can enjoy with others, sharing with others , positivity, contentment / sense of fulfilment, beyond materialistic pleasures, equanimity are the subthemes reflected from the participants' responses.

Amongst 41% of non-institutionalised elderly, happiness was perceived to be a relative concept is one's own personal experience and the way one looks at his/her life.

"It's a personal experience, you cannot compare happiness of two people, even husband and wife"(Anil T.,Male,70 yrs.)

Happiness is something which is beyond any materialistic pleasures and hence difficult to define was strongly expressed by 41% of them.

"The thing what we want to do and are able to do is altogether a different experience in one's life. It is beyond anyone's description."(Avinash,Male,65 yrs.)

Thirty five percent of the elderly staying at home find happiness in good relationships with others in life.

"Objects give you comfort and not happiness. Interacting with others make me feel happy"(Meghana,Female,68 yrs.)

On the other hand, satisfaction in personal and work life, a sense of fulfilment as moments of happiness is perceived by 35% of them.

"Happiness is that you feel good in what you do, as per your choice. It may be your work or meeting people, something you look forward to."(Sunil, Male,63 yrs.)

Although 31% of the institutionalised elderly look at happiness as a relative concept and hence personal in nature, some may find in equanimity or devotion to God, others may find in doing something for others is narrated by them.

"I define happiness as when I see others and me both happy. You have to decide measurements of your happiness. It's yours and nobody can snatch it from you"(Arvind,Male,68yrs.)

"I am not only happy but in a blissful state of mind when I am with my Lord Krishna. That state is incomparable.(Jyoti,Female,63 yrs.)

Happiness is a 'feel good' factor within the individual and thus experiencing a feeling of contentment or satisfaction with one's life was perceived by 23% of institutionalised elderly.

"Remaining contended is a key to happiness. One should not look at others to feel happy or otherwise"(Suchita,Female,60yrs.)

Olds perceive happiness as a relative concept and which is much more than any materialistic pleasures**.** The source of happiness would differ from person to person such as serving others, serving God or maintaining good interpersonal relationships.

4.3 Where do young elderly seek life satisfaction

The subthemes derived on the basis of the participants' verbatim about the moments satisfaction in life were- helping others, seeing others happy because of my help, good married life, getting social support voluntarily when needed, personal growth in education or career, enjoying life(travelling), recognition received from authorities or imp people in life, doing something 'new' or creative, children following my values in life, receiving spiritual support, economic independence at a very young age, economically independent in old age, self-reliant, achieving goals in personal and work life, pursuing hobbies, overcoming challenges successfully and success of academic or career life of children.

From the non- institutionalised elderly, 53% recollected their personal achievements in different arenas of life. May it be in education, career, familial stability or marital life. Despite the age, one must keep some aspirations in one's life and achieving them to a large extent leads to an experience of satisfaction, which is again a personal experience.

"My moments of satisfaction are related to my personal achievements such as my MS and Ph D. degrees. I consider my CA degree and qualifying another competitive exam during my middle adulthood is indeed highly satisfying experience for me. I am 68 yrs. And pursuing my Masters course in Economics. I am proud of myself"(Rajan, Male, 62yrs.;Meghana, Female, 68 yrs.)

Probably in Indian context, 41% elderly living with the family related their satisfaction in life to the success of the children.

"Biggest part in my life is of my wife and daughter . Hence when my daughter has become a successful doctor today is the peak of my satisfaction in life. Re-living the time of her result gives me different level of satisfaction."(Avinash,Male,65 yrs.)

Good married life give an experience life satisfaction is expressed by 35% of the non-institutionalised olds.

"Good life partner with understanding and love is a satisfying experience for me".(Meghana,68 yrs.)

"Good married life is a key to satisfaction"(Anil K.68,yrs.)

Equal number of them, i.e. 35% shared economic independence in later years is also seen as a precursor of life satisfaction

"Even after my retirement, I am doing a part time job for two reasons—to keep me physically active and give me moment of satisfaction that I can do something productive even at this age".(Chandrashekhar,Male,69yrs.)

Pursuing hobbies, at times on a higher end at financial level give the moments of satisfaction to 35% of olds staying home

" When my wife allowed me to by a saxophone after retirement costing 4.5 lakh and I am pursuing my dream of playing saxophone since then is the highest moment of satisfaction for me."(Anil K.68 yrs.)

On the contrary to the precursors of life satisfaction of the institutionalised elderly, 31% of the institutionalised elderly were found to be satisfied by overcoming the day to day challenges successfully such as rearing the children alone or losing the child at later age.

"When I am working for the ashram I face number of difficulties, but when I am able to solve them well, I feel I am still capable of living"(Jayant,Male,68 yrs.).

"I believe I am like a gold which shines only when it is heated. I realized my potentials only because of the difficulties that I could solve successfully and independently"(Jyoti,Female,63 yrs.).

Even amongst institutionalised olds, 23% of them get satisfaction in their life out of success and progress made by the children in the life.

"The happiest moment of my life is my son was recruited in the police service. I need not worry about him now"(*Suchita,Female,60yrs.)*

Achievements in the life of oneself and children, happy married life along with economic independence in early and late years of life and ability to overcome daily challenges successfully are perceived to be the moments of life satisfaction by the young elderly

4.4 When do young elderly feel that people help each other

On the basis of the participants' observations of other people helping each other, the following subthemes were derived - health issues, familiar people ,difficult situations /crisis, when others 'ask' for the help, have 'concern' for the person, special segment of the society such as children or old or disabled, poor people/ low socio economic status, to get happiness, to give back to the society, imitating those who have been helping others, as an investment, with an expectation of 'return', when the help is acknowledged, we have a 'culture' of helping, high sense of self-efficacy(my help will fulfil the need of other person).

Forty one percent of the non-institutionalised elderly opined that people help each other only with an expectation of 'return'.

"In this world, there is no help without expectations. , 90% of the times this is a reality and 10% do help with no expectations"(Anil T., Male, Male, 70 yrs.)

When the individual has concern for others, he helps is shared by 24% of non-institutionalised olds.

"*When the individual has above average emotional quotient and who is in a positive frame of mind helps others. Otherwise, mostly people are selfish"(Sunil, Male, 63 yrs.;Sumir,Male,65 yrs.; Anil K.,Male,68 yrs.)*

Equal number of non-institutionalised male and female institutionalised elderly have noticed high level of empathy enables the individual to be generative, particularly in natural calamities.

"People do help in the calamity or when there is a health issue with other person. Nobody will volunteer , but when asked they do offer".(ArunK.,Male,64yrs.; Anuradha,Female,66yrs.)

Even amongst institutionalised olds, 23% shared that the concern for others enables the individual to be empathetic and thus generative, particularly in natural calamities or public places.

"In case of any natural disaster, I know people go out of the way and help each other. Even during COVID, people are extending their help towards some like us, the old age homes"(Vishnu,Male,72 yrs.)

However, 23% institutionalised elderly believe that people extend their help even to the strangers in their difficult times and show preference towards special segment of the society such as old people, children, sick or the disabled. They also observed high level of empathy amongst those who help others in the society.

"In this Kali yug, people do readily help each other specially for children or olds as they are dependent and not otherwise".(Bhimrao,Male,68yrs.).

Young olds find only those people help each other who have genuine concern for others, if not with an expectation of help in 'return'. However, institutionalised olds have observed empathetic people to be helpful, that too prefer to extend help towards small children or olds.

4.5 When do the young olds themselves help others

Based on their narratives about their own experiences of providing help, the subthemes were derived - when the help is asked for genuine reason, friends or familiar people, sense the 'need' of another person, health issue, selfish motive, humanitarian basis, social responsibility, help more when it is recognised, feel bad to see others suffering, feel happy to help, upbringing to help those in need

Amongst 35% non-institutionalised elderly found to extend selfless help in any form, physical, emotional or financial only in the genuine situations

"When I see someone in need and my help has given lot of relief to other person, I feel satisfied. I like to relish these memories".(ArunJ.,Male,70yrs.)

On humanitarian ground 35% of the non-institutionalised olds help others was revealed.

"I help on humanitarian ground. I adopt children for their education and make them independent is a great service to humanity"(Rajan,Male,62yrs.)

However, as the institutionalised elderly hesitate to ask for the help from other residents, 23% of them shared that they help others voluntarily and once realize the importance of their help, it is generalised on a larger scale. The help provided is usually for the health issue, disability, physical limitations or when they feel bad to see others' suffering.

"As I was in police service, I am used to sense others' needs and I believe it's my moral responsibility to help to my level best, physically or even financially to some extent"(Bhimrao,Male,68yrs.)

"I don't have any criteria to help. The moment I perceive someone is in a need, I try helping on my level. If not I make someone more capable than me to meet the expectations of the needy".(Vishnu, Male, 72 yrs.)

Non- institutionalised young olds offer their help to others on either humanitarian ground or in case of situation where their help is needed, preferably when 'asked' for it. On the other hand, institutionalised young olds not only volunteer but do it more frequently if acknowledged.

4.6 When do the young olds help younger generation on their own

The following subthemes regarding providing help to young generation were derived from the narratives of the participants. When the younger generation requires financial help or help in decision making, solving academic problem, resolving some conflict are various situations faced by the younger generation which make the elderly help.

Thirty one percent institutionalised elderly expressed their limitation of helping the younger generation due to the place of their stay. But the researcher would like to highlight remaining 69% who have considered the institution as their family and hence look forward to help the young residents of the Balika Ashram or even the service providers of young age. The help provided by them is either financial or imbibing values in the young minds or providing physical help in cleaning or cooking when it becomes the need of an hour.

"As a rule of the ashram we are expected to clean our plates after meals. Those who cannot do so due to any disability, I do it voluntarily for last many years and thus try to reduce burden on the young service staff. They feel touched to see me doing. Without using any words, I try to teach them sensitivity towards others through my action".(Shobha,Female,63yrs.)

Thirty nine percent of such elderly living in the institutions are sensitive to the young generation offering help on their own, if not indeed when 'asked' by the young generation.

"As I have been Yoga teacher, I taught Yoga to a young girl of the ashram who was overweight. Now, she looks so cheerful which makes me happy"(Kamal, Female, 69yrs.)

"I like to tell these girls of our ashram the importance of self-defence and try to inspire them for civil service. One student appeared for 12th exam has started her preparation. I feel satisfied to see her interest".(Bhimrao,Male,68 yrs.).

Social responsibility is considered to be a major cause of helping the younger people by 47% of the non- institutionalised elderly.

"At times, young people are not aware of the pros and cons of the situation. As a senior I feel it is my duty to at least offer the benefit of my experience".(Arun J.,Male,70 yrs.)

Equal numbers of elderly enjoy voluntarily imbibing the values in the younger generation which gives them immense satisfaction. Female elderly in particular mentioned that with such act on their part they believe their legacy will be maintained.

"I offer my guidance when I see any young person involved in misdeed, whether it is welcomed or not. I do not feel bad if someone does not give any feedback. Consider it as my moral responsibility towards building good society".(Nisha,Female,69 yrs.)

Forty one percent of them expressed apprehension of adverse perception of voluntary help and hence preferred helping only when 'asked' by the next generation.

"If they come to me, I advice without any hesitations or expectations. Otherwise I prefer not to offer on my own, as they may or may not like it."(Anil T.Male,70 yrs.)

Considering the limitations of helping the young, the institutionalised olds provide help in non-financial manner, nonetheless everyone happily volunteer to provide value education for their wellbeing. While the non- institutionalised olds are apprehensive about perception of their help, they enjoy helping to leave to add value to the life of the young generation.

4.7 What do the young olds feel when they help the younger generation

The derived subthemes from the narratives of the participants were-- happy, satisfied, feeling of contentment, done my duty out of humanity, 'paying back' opportunity, seeing others happy is altogether a different experience, increase in self -esteem and self-efficacy to see they are confident about me and my help is so valuable, feel socially connected, become young with them and thus feel enthusiastic and energetic

From the non-institutionalised elderly 35% shared intense feelings of satisfaction, contentment by helping the young generation.

"I feel happy that we are adding values to the lives of next generation."(Rajan, Male,68yrs.; Meghana,Female,68yrs.)

31% of them feel socially connected through such interactions and thus, look forward to the same. They benefit in terms of enhanced self-esteem and self-efficacy to see the salience of their help.

"I feel satisfied, get a sense of fulfilment. Rather, it gives me an opportunity to remain socially connected".(Avinash,Male,65yrs.)

Amongst the institutionalised elderly, 23% feel happy to see the younger people stress-free with their help.

"I feel extremely happy and satisfied. I am aware of my limitations and do not venture to cross them. Seeing them relieved makes me feel happy"(Jayant,Male,68yrs.)

Although 23% of them considered helping young generation as a sign of humanity.

"I feel satisfied to help them, try to bridge the gap between the two generations"(Kamal, Female,69yrs.)

"Whether they ask or not, I believe I should guide them as I am senior to them in age and experience."(Shobha,Female,63yrs.)

By helping the younger generation, feelings of contentment satisfaction are experienced by the institutionalised and non-institutionalised elderly.

4.8 How do the young elderly engage in the lives of family members

Based on their narratives about contribution to the family, the subthemes-- voluntary engagement, household work, outdoor work, looking after old parents or in-laws, grandchildren, taking care of sick at home or in relation, need-based, cooking

As 50% of the institutionalised elderly consider the institution as their family, they contribute to the day to day functioning of the institution to their level best.

"I am always ready to do anything in ashram as I consider it as my home henceforth. I do not feel any work is below my dignity".(Suchita,Female,60 yrs.)

"Whatever is need-based ,I do it in ashram, whether cooking or shopping or cleaning. It keeps me active".(Jyoti,Female,63yrs.)

Contribution to different activities of the institution such as cooking, cleaning, shopping etc. was mentioned by 23% of such elderly.

"As I know a little bit of electrical and plumbing work, whenever required I try to sort out on my level. I used to do regularly at home and even now when I visit my home such jobs are kept pending for me. I do it happily in ashram as well as at home."(Jayant,Male,68 yrs.)

"Cooking is my passion. And I help the staff of ashram every day. So that they can count on me for cooking the breakfast or dinner every day."(Jyoti,Female,63yrs.)

However, 59% of the non- institutionalised elderly help the family in any kind of outdoor work like shopping, work related to bank or any other work place.

"I always extend my help to anyone in the family and try to do in the best possible way. I consider my relatives and neighbours also as an extension of my family and thus offer my service to them voluntarily".(Arun,J.,Male,70 yrs.)

From the non- institutionalised elderly 53% contribute to the family in the household work is shared even by the male elderly, although many female elderly count on helping the household work in a natural manner.

"I happily do any light job such as helping my daughter in law in the kitchen and not cooking because of my arthritis or dusting in the house."(Bhagyashree,Female,70yrs.)

"I am retired now, Cooking and looking after the house is my contribution to the family now."(Anandi,Female,65yrs.)

Volunteering need-based help is seen in 35% of the non- institutionalised elderly.

"Even when I go to my son's place in Mumbai, I feel sorry to see him and daughter-in-law struggling with the job and household work. I happily take up the responsibility to cook for all and do the cleaning work as well'.(Anil T.,70yrs.)

Providing need-based help in daily life is found to be a primary concern among both non-institutionalised as well as institutionalised elderly; however males prefer outdoor jobs while females prefer the indoor activities.

4.9 What have been the tried and tested ways of the young olds to face the challenges and difficulties in life

Based on the narratives of the elderly participants about their tested ways to face challenges were —accept and face the situation, taking social support(family and friends) with trust, remain positive, self- confidence, self-efficacy (give my 100%), faith in god or supreme, keep myself calm and cool, perseverance, reflections on the past experience

In case of challenges or difficulties in day to day life, 71% of the non- institutionalised elderly prefer to take support from the family and friends with complete trust in their help. They consider social support as an effective stress coping mechanism.

"I give full credit to my wife and friends who pulled me out of the most difficult situation in life"(Sudhir,Male,70 yrs.)

"I seek support from others to overcome challenges in life. Consulting the friends in difficult situation does not lower my standards. I do take their help".(Sharad,Male,68 yrs.; Anil K., Male,68 yrs.)

Fifty mine percent of them show courage to face the situation and fight with the same in any form using the fullest capacity.

"I feel there is no option left but to face the challenges boldly and bravely. This attitude of mine gives me strength to fight with the situation, come what may."(Arun,J.,Male,70yrs.)

"I think about the situation , plan action in my mind and then execute it"(Sunil,D.Male,63yrs.)

A belief in one's capacities which give courage to fight under any circumstances was expressed very strongly by 53% of them.

"I knew what I could do for my mother in law when she suffered from heart attack and I did everything to save her life"(Sampada,Female,64yrs.)

Perseverance as a basic value system of the life is practiced consciously by 53% of the non-institutionalised elderly.

"I always believe in fighting or if not trying till the end of my capacity. Sometimes knowing the possibility of failure, I don't give up so easily."(Nisha,Female,69yrs.)

Faith in God or supreme power and being positive are found to be added virtues amongst 47% of the non- institutionalised elderly while facing the challenges in life.

"There is no substitute to His help and blessings. Trust Him and He guides you on a right path".(Sunil,Male,63yrs.)

Even amongst institutionalised elderly, 46% were found to look up to the social support in the face of adversity in life.

"I face difficulties with positivity and happiness. Listening to others helps a lot to solve our problems."(Bhimrao,Male,68 yrs.; Anuradha,Female,66yrs.)

Importance of being positive as important pillar of facing the difficult times in life was also expressed by 46% of them.

"Self-confidence, positivity and trust in others have always helped me in overcoming the difficult times in life'.(Vishnu, Male,72yrs.)

Young olds opt for facing the situation with perseverance, positive attitude and with the help of others' support whenever necessary. Along with trust in oneself young olds show trust in the Almighty.

4.10 What qualities the young olds find in themselves while responding to the challenges and difficulties in life

The qualities mentioned by the participants are given below as the subthemes-- potentially happy, strong determinism, positive, take support from family and friends without hesitation, faith in god or supreme, give my best, perseverance, patient, maintain good relations with others, remain calm and composed, pursue my hobby intensely which gives me strength and positivity, trust in my capacities, perception of challenge as 'life is under my control', physical and mental fitness, financially sound(to face major illness), belief in facing the

situation and not running away, flexibility in perception and thinking about the situation, learn from past experiences or mistakes, not to think about the consequences of the action but do it boldly, mindfulness and regularly practicing yoga and meditation, ability to 'anticipate', think with a peaceful mind and review, plan and act, do not react immediately

While facing the challenges or difficulties in life, 53% of the non- institutionalised elderly keep themselves calm and cool which brings clarity in their thoughts allowing them to think and act in multidimensional manner.

"I do not get angry and lose my patience. I have complete faith in God as well as my wife. Trust in my efforts, I always believe my past life as a good learning experience for me".(Sudhir, Male, 70yrs.)

47% of them try their level best, be perseverant until the goal is achieved, also value the importance of support from the family and friends to successfully overcoming the difficult times in life.

"I never consider challenge as a hurdle in my life. I take and try to face in the best possible way. I trust my capacities and I know that I am not deficient in getting anything."(Avinash,Male,65yrs.)

"I keep trying and never give up. It's not my temperament".(Nisha,Female,69yrs.; Chandrashekhar,Male,69 yrs.)

"I show a lot of patience and it has helped me in leading a good life so far."(Hirachandra,Male,70yrs.)

35% of the non-institutionalised olds believe that making a change in one's perception and looking at a problem as a challenge than difficulty gives them a feeling of control over one's life and builds internal strength.

"Just change the way you look at a problem and you feel positive, get energy to solve it."(Meghana,Female,68yrs.)

However, 35% of the elderly consider one's failures as a ladder of learning experience and do not succumb to the difficult times easily.

"The life is a mixture of success and failures. You learn to accept both. I consider failure a step towards success."(Anil,K.Male68yrs.)

Trust in one's capacities and maintaining good relations help in facing the situation and not running away from the same is shared by 39% of the institutionalised elderly.

"I am confident about my qualities. I also have a strong social circle who come to my help whenever I need."(Kamal, Female, 69 yrs.)

At the same time, 39% of them also expressed a need of being deterministic in conquering he difficult times in life.

"I remember my old friends who have been a great support for me in difficult times, We are still connected. I try to develop my inner strength and decide to come out of the difficult situation."(Vasant,Male,65yrs.)

Institutionalised and non-institutionalised elderly find similar qualities in themselves while facing the challenges in life. Control over one's thoughts and emotions, being positive and perseverant and looking at the adversity as a challenge, while trust in one's capacities and being deterministic in life help the olds to overcome the adversities in life are mentioned by the olds

4.11 What do the young olds prefer- to stay in the Past, Present or Future?

The following are the Subthemes derived from the narratives of the respondents

Present---- Able to-- take decision, feel happy, feel satisfied, accept the situation or reality, live every moment, plan and think about the future, make me feel 'having control on my life'

Past---- Taught me a lot, get strength to remember peasant memories

Future--- Because I can dream to do something constructive for the society

More than 92% of the institutionalised elderly preferred to stay in the 'present' in their idle hours. 39% of them mentioned that being in the Present allows to live every moment and develop a sense of control over one's life.

"Being in the 'present' helps me taking decisions easily and independently. This period is in my hands and the life ahead. Allows me to act appropriately."(Arvind,Male,68yrs,Shobha, Female, 63yrs.; Vishnu, Male,72yrs.)

From the non-institutionalised elderly, 73% chose to remain in the 'present' in their idle hours. live and enjoy every moment of life, get a sense of control over one's life as well as get clarity in thoughts allowing better panning for future are few of the benefits mentioned by 41% of them.

"I like to live in the present as I live that moment. If I want I can make change in it."(Bhimrao,Male,68yrs.)

"It helps me to get satisfaction and happiness"(Pratibha,Female,65yrs.)

"I have control over my Present and not on the Past or Future".(Shobha,Female,63yrs)

The institutionalised and non- institutionalised elderly prefer to live in the Present to experience a sense of control over life and live every moment.

4.12 What are the qualities in themselves which allow the young olds to accept every moment as it comes in life

Based on the narratives of the participants, following are the qualities mentioned as the Subthemes—flexible nature, perception of present as a learning experience, potentially positive, accept the life as it comes, feel happy, feel connected, other's recognition to my work, temperament, social support, happy environment ,faith in god, feel satisfied even in difficult situation, satisfied married and work life

The above mentioned are the qualities mentioned by the participants which allow them to attend to their life experiences as it is, here & now.

From the non-institutionalised elderly, 25% found the qualities such as perceiving the present as a learning experience allowing to accept the life more effectively as their qualities.

"I believe in Karma philosophy and it helps me to accept the life as it comes. I take it as a learning experience".(Sunil,Male,63yrs.)

Change in the living arrangements, from home to an institution have taught them to accept every change happily is mentioned by 25% of the institutionalised elderly.

"I am quite flexible by nature which helps me a lot"(Shobha,Female,63yrs;Pratibha, Female,65yrs)

Conclusion

To summarize, young elderly in the present research understand the role of cognitive and affective factors in health and happiness in late adulthood years of life. Physical and mental fitness and independence in daily life are accepted as the contributing factors to both health and happiness. Although health and happiness are interdependent, happiness is solely subjective in nature owing to the role of social support to a large extent. Happiness and life satisfaction are complementary to each other. However, the source of happiness is receiving support from other people and the source of life satisfaction is oneself giving support to others. Achievements in personal life and the life of family members as well as pursuance of hobbies are also highly valued by the elderly to enjoy the moments of life satisfaction.

The role of culture in generativity is highlighted by the elderly. As cognitive and affective factors independently result into generative action of the elderly, an acknowledgement given by the younger generation not only promotes generativity but also enhance self-esteem of the young elderly.

Resilient behaviour is an outcome of intrinsic and extrinsic factors, focusing more on the cognitive component by the young elderly. However, faith in God/ Almighty is highlighted as a determinant of emotional support other than developing a sense of control over one's life.

Living in the Present is preferred by the elderly for seeking happiness and allowing acceptance of oneself and the world outside. Despite knowing the importance of meditation to be mindful on a larger scale, it is used by very few elderly.

One's perception towards life, the importance of family life, familial and social support, pursuing hobbies, involvement in any concrete activity in leisure time and consciously planned social engagement, taking interest in others' progress is considered to be the capsule of healthy and happy elderly life.

Table 3

Summary Table

Sr. No.	Question	Subthemes
1	How do you define good physical health?	Physical fitness, Positivity, Free from illness / ailments, Activity, Independence, Get sound sleep, Enjoy good diet, ale to do regular Exercise, Mental fitness, Sound bodily functioning
2	In your opinion, what is Happiness?	Seeking happiness from Others' happiness, Act of helping others, Good relationships, Family and social support, No expectations, Relative concept—One's perception and one's experience, Acceptance of the situation, High level of Empathy so can enjoy with others, Sharing with others , Positivity, Contentment / sense of fulfillment, Beyond materialistic pleasures, Equanimity
3	Can you name some factors, circumstances or experiences which give a feeling of satisfaction in your life?	Helping others, Seeing others happy because of my help, Good married life, Getting Social support voluntarily when needed, Personal growth, (education, career), Enjoying life(travelling), Recognition received from authorities or imp people in life, Doing something 'new' or creative, Children

		following my values in life, Receiving spiritual support, Economic independence at a very young age, economically independent in old age, Self-reliant, Achieving goals in personal and work life, Pursuing hobbies, Overcoming challenges successfully, Success of children
4	When do you feel that people help each other?	Health issues, Familiar people ,Difficult situations /crisis, When others 'ask' for the help, Have 'concern' for the person, Special segment of the society such as children or old or disabled, Poor people/ Low SES, To get happiness, To give back to the society, Imitating those who have been helping others, As an investment, With an expectation of 'return', When the help is acknowledged, we have a 'culture' of helping, High sense of self-efficacy(my help will fulfill the need of other person)
5	What are the reasons which make you feel help others?	When the help is asked for genuine reason, Friends or familiar people, I sense the 'need' of another person, Health issue, Selfish motive, Humanitarian basis, Social responsibility, Help more when it is recognised, Feel bad to see others suffering, Feel happy to help, Upbringing to help those in need
6	Describe the situations which make you help young people or the next generation.	Institutionalised elderly---- Cannot help/ difficult to help being in the institution, If they 'ask' for the help, Offer voluntarily particularly imbibing the values, Do not help to nurture independence in them, Consider as a Social responsibility, Do not help because of past experience, Selective in helping(familiar and those who acknowledge)
7	How do you feel when you help others, particularly the	Happy, Satisfied, Feeling of contentment, done my duty out of humanity, 'paying back' opportunity, Seeing others happy is altogether a different experience, Increase in self -esteem and self-

	next generation?	efficacy to see they are confident about me and my help is so valuable, Feel socially connected, Become young with them and thus feel enthusiastic and energetic
8	How do you engage yourself in the lives of your family members?	Voluntary engagement, Household work, Outdoor work, Looking after old parents or in-laws, grandchildren, Taking care of sick at home or in relation, Need-based, Cooking
9	What are your tried and tested ways of addressing challenges or difficulties in your day to day life?	Fight or face the situation, Taking Social support(family and friends), Remain positive, Self-confidence, Self-efficacy (I give my 100%), Trust in my capabilities, Enjoy facing the challenges, Faith in God or Supreme, Look at the calamity as a challenge, Pursue my hobby which makes me positive, Trust in others' help, Keep myself calm and cool
10	Looking back in your life, can you identify the traits or the factors, which have helped you in responding to the challenges or difficulties in your life?	Potentially happy, Strong determinism, Positive, Take support from family and friends without hesitation, Faith in God or Supreme, Give my best, Perseverance, Patient, Maintain good relations with others, Offer my help when they are in need, Remain calm and composed, Pursue my hobby intensely which gives me strength and positivity, Trust in my capacities, Perception of challenge as ' life is under my control', Physical and mental fitness, Financially sound(to face major illness), Belief in facing the situation and not running away, Flexibility in perception and thinking about the situation, Self-confidence, Learn from past experiences or mistakes, Not to think about the consequences of the action but do it boldly, Accept the situation and not to escape, Mindful, Regularly

		practicing Yoga and Meditation, Ability to 'anticipate', Think with a peaceful mind and review, plan and act, Do not react immediately
11	What do you enjoy most? Being in the Past, Present or Future, particularly in your idle hours ? How does it help you in life?	**Present**---- Able to-- take decision, Feel happy, Feel satisfied, Accept the situation or reality, Live every moment, Plan and think about the future, Make me feel 'having control on my life' **Past----** Taught me a lot, Get strength to remember peasant memories **Future---** Because I can dream(to do something constructive for the society
12	What makes you attend to your life experiences as it is, here & now?	Flexible nature, perception of present as a learning experience, potentially positive, accept the life as it comes, feel happy, feel connected, other's recognition to my work, temperament, social support, happy environment ,faith in god, feel satisfied even in difficult situation, satisfied married and work life

Future Work

In the further part of the research, the researcher intends to do the following:

The data of quantitative study will be analysed by descriptive and inferential statistics

The global themes will be revealed by further content analysis

The precursors of physical health and subjective well-being among young elderly will be understood

The implications of the research will be presented.

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APPENDIX

APPENDIX - A

TOOLS

Research on the Relationship between Generativity, Resilience, Mindfulness and Physical Health & Subjective Well-Being Among the Young Elderly

Dear Sir / Madam,

I am Ms. Madhuri Vaidya, working as a Head, Department of Psychology at Smt. P.N. Doshi Women's College,Ghatkopar,Mumbai.

Currently, I am pursuing Doctoral research at the Department of Psychology, Faculty of Education and Psychology at Maharaja Sayajirao University of Baroda. The area of my research is 'Physical Health and Well-being'. Your inputs in the following questionnaires will be highly useful in helping me understand major contributors to the same. The information will be treated as highly confidential and will be anonymised in the research.

Please note that there are no right or wrong answers in the questionnaires, so feel free to answer whatever is applicable to you. Although there is no time limit, spontaneous answers are encouraged.

Madhuri Vaidya

Letter of Consent from the Participant

I, Shri./ Smt. _____ hereby declare that, I have volunteered to provide the information asked in the questionnaires and participate in moderate physical activities for the purpose of the above study being conducted by Ms. Madhuri Anil Vaidya, who is pursuing her Doctoral research in Psychology from The Maharaja Sayajirao University of Baroda, Vadodara.

Signature:
Date:
Place:

Demographic Questionnaire

Please tick in the appropriate option from the following

Name		**Age** years	
Gender M/F		**Marital Status** Single/Married/Widowed/Divorcee	
Educational Status		**Economic Status / Income per month**	
SSC		<=Rs.10,000	
Graduate		Rs.10,000 -20,000	
Post Graduate		Rs.20,000 -50,000	
Any other, specify		>= Rs.50,000	
Occupational Status			
Homemaker		Retired	Y/N
Working (in continuity)		If Retired, since _____ years	
Doctor		**Retired & working again**	Y/N
Advocate		If Yes, please tick in the appropriate option	
Chartered Accountant		Full Time	
Business		Part Time	
Any other (Please mention the Profession)		Business / Consultancy	
If you are working and about to retire or just retired, do you wish to continue work as the second career? If yes, please specify nature of work	Y/N	**Retired and not in any gainful employment, but involved in –** (please tick in the appropriate option)	
		Honorary Social Service	
		Pursuing Hobbies	
		Supporting as secondary partner in business	
How much do you agree that the training in digital technology will enhance the scope of building a second career?		Strongly Disagree	
		Disagree	
		Can't say	
		Agree	
		Strongly Agree	
Family Type		**Place of stay**	
Nuclear		Institution	
Joint		Home (with family)	
If Joint, mention the number of members of the family		Home (with Spouse only)	
		Home Alone	

Do you get involved in any activities pursuing your hobby? If yes, please mention the activities & tick in the appropriate space below.			Y/N
Daily		Once in a while	
Thrice a week		Never	
Weekly			
Do you get involved in any leisure time activities ? If yes, please mention the activities & tick in the appropriate space below.			Y/N
Daily		Once in a while	
Thrice a week		Never	
Weekly			
Do you volunteer to get involved in any social activities such as meetings, social gatherings or kitty parties etc.? If yes, please mention the activities & tick in the appropriate space below.			Y/N
Daily		Once in a while	
Thrice a week		Never	
Weekly			

Generativity Behaviour Checklist

Instructions:
Below is a list of specific behaviour or act. Over the past six months, it is likely that you may have performed some of these behaviour or acts. It is also likely that you have not performed many of them as well during this time. Please consider each behavior to determine whether or not you have performed the behaviour during the past six months. If you have performed the behaviour, please try to determine how many times you have performed it. For each behaviour, provide one of the following ratings in the space given.

If you have not performed the behaviour in the last six months, write **0**
If you have performed the behavior once in the last six months, write **1**
If you have performed the behavior more than once in the last six months, write **2**

1	Taught somebody a skill	
2	Served as a role model for a young person	
3	Gave money to charity	
4	Volunteered work for a charity	
5	Listened to a person's personal problems	
6	Taught spiritual classes or provided similar spiritual instructions (for example; Chinmaya Mission, Art of living, ISKCON etc.)	
7	Taught somebody about right and wrong, good and bad	
8	Told somebody about my own childhood	
9	Read a story for a child	
10	Babysat for somebody else's children	
11	Gave clothing or personal belongings to a non-profit organisation or any NGO	
12	Was elected or promoted to a leadership position	
13	Made a decision that influenced many people	
14	Produced a piece of art or craft (e.g. pottery, quilt, woodwork or painting)	
15	Produced a plan for an organization or a group outside my own family	
16	Visited an unrelated person in a hospital or nursing home	
17	Made something for somebody and then gave it to them	
18	Drew upon my past experiences to help a person to adjust to a situation	

19	Picked up garbage or trash off the street or some other area that is not my property	
20	Gave a stranger directions about how to get somewhere	
21	Attended a community or neighbourhood meeting	
22	Wrote a poem or story	
23	Adopted a pet	
24	Did something that other people considered to be unique or important	
25	Attended a meeting or an activity at a place of worship	
26	Offered physical help to a friend or acquaintance (e.g. helped them move or fix a car)	
27	Contributed time or money to a political or social cause	
28	Planted or tended a garden, tree, flower or other plant	
29	Wrote a letter to a newspaper, magazine, Parliamentarian etc about a social cause	
30	Cooked a meal for friends (non-family members)	
31	Donated blood	
32	Sewed or mended garment or other object	
33	Restored or rehabbed a house, a piece of furniture etc.	
34	Assembled or repaired a child's toy	
35	Voted for a political candidate or some other elected position	
36	Invented something	
37	Provided first aid or other medical attention	
38	Participated in or helped a fund raiser	
39	Learnt a new skill	
40	Became a parent (had/adopted a child or became foster parent)	

FFMQ-15: 15- item Five Facet Mindfulness Questionnaire

Instructions: Below are the 15 statements. Please use the 5 point scale provided to indicate how true each statement is for you.Put ✓ in the box to the right of each statement, which represents your opinion of what is generally true for you.

Mark 1= Never / Very rarely true
2= Rarely true
3= Sometimes true
4= Often true
5= Always / Very often or true

Sr. No.	Item	Never/ Very Rarely True	Rarely True	Sometimes True	Often True	Always/ Very Often True
1	When I take a bath, I can feel the sensations of water on my body					
2	I am good at finding words to describe my feelings					
3	I don't pay attention to what I am doing because I am daydreaming, worrying or otherwise distracted					
4	I believe some of my thoughts are abnormal or bad and I should not think that way					
5	When I have distressing thoughts or images, without getting disturbed, I can just be aware of these thoughts					
6	I notice how foods and drinks affect my thoughts, bodily sensations and emotions					
7	I have trouble in thinking of the right words to express how I feel about the things					
8	I do jobs or tasks automatically without being aware of what I am doing					
9	I think some of my emotions are bad or inappropriate and I should not feel them					
10	When I have distressing thoughts or images, I am able just to notice them without reacting					

Sr. No.	Item	Never/ Very Rarely True	Rarely True	Sometimes True	Often True	Always/ Very Often True
11	I pay attention to sensations, such as the wind in my hair, sun on my face or raindrops on my skin					
12	Even when I am feeling terribly upset, I can find a way to put it into words					
13	I find myself doing things without paying attention					
14	I tell myself I should not be feeling the way I am feeling					
15	When I have distressing thoughts or images, I am able just to notice them and let them go					

Connor-Davidson Resilience Scale 25 (CD-RISC-25)

Instructions: Following are the 25 items. For each item, please Put ✓ in the box to the right of each item that best indicates how much you agree as it applies to you over the last month. If a particular situation has not occurred recently, answer according to how you think you would have felt.

Sr. no.	Item	Not at all True	Rarely True	Sometimes True	Often True	Nearly all the time True
1	I am able to adapt when changes occur					
2	I have at least one secure and close relationship that helps me when I am stressed					
3	When there are no clear solutions to my problems, sometimes fate or God can help					
4	I can deal with whatever comes my way					
5	Past successes give me confidence in dealing with new challenges and difficulties					
6	I try to see the humorous side of things when I am faced with problems					
7	Having to cope with stress can make me stronger					
8	I tend to bounce back after illness, injury or other hardships					
9	Good or bad, I believe that most things happen for a reason					
10	I give my best effort no matter what the outcome may be					
11	I believe that I can achieve my goals, even if there are obstacles					
12	Even when things look hopeless, I don't give up					
13	During times of stress or crises, I know where to turn for help					
14	Under pressure I stay focused and think clearly					
15	I prefer to take the lead in solving problems rather than letting others make all the decisions					
16	I am not easily discouraged by failure					
17	I think of myself as a strong person when dealing with life's challenges and difficulties					

18	I can make unpopular or difficult decisions that affect other people if it is necessary					
19	I am able to handle unpleasant or painful feelings like sadness, fear and anger					
20	In dealing with life's problems, sometimes you have to act on a hunch without knowing why					
21	I have a strong sense of purpose in life					
22	I feel in control of my life					
23	I like challenges					
24	I work to attain my goals no matter what roadblocks I encounter along the way					
25	I take pride in my achievements					

Checklist for Diet

Your diet or nutrition is important for your Health & Happiness (Tick as applicable)	**Health**	**Happiness**
Strongly Disagree		
Disagree		
Can't say		
Agree		
Strongly Agree		

How frequently do you consume the following items in your regular diet ? (Tick as applicable)	**Never**	**Once in 15 days**	**Weekly**	**Twice a week**	**Daily**
Milk					
Buttermilk					
Yogurt					
Cheese					
Tofu (Any Soya Products)					
Nuts (Cashew nuts / Walnuts)					
Seeds (Sunflower seeds / flax seeds)					
Fresh Fruits (Citrus fruits /Pineapple / Banana / Watermelon)					
Dry Fruits (Almonds / Black Raisins /Dates)					
Vegetables (Potatoes/ Sweet Potatoes/ Tomatoes/ Bell peppers)					
Leafy Vegetables (Broccoli / Spinach)					
Legumes (Green peas)					
Dark Chocolates					
Sprouts					
Fortified Cereals (Cornflakes / Musseli)					
Whole grains (Whole Wheat Bread / Multi grain atta / bread)					
Eggs					
Meat					
Fish					
Poultry					
Do you take any nutritional supplements (Yes /No) If Yes, please specify the frequency					
Vitamins					
Minerals					

Checklist for Exercise

Exercise is important for your Health & Happiness (Tick as applicable)	**Health**	**Happiness**
Strongly Disagree		
Disagree		
Can't say		
Agree		
Strongly Agree		

How frequently do you engage in the following type of exercise ? (Tick as applicable)	**Never**	**Once in 15 days**	**Weekly**	**Twice a week**	**Daily**
Walking					
Brisk Walking					
Jogging					
Cycling					
Climbing stairs					
Physical exercise at home					
Yoga					
Swimming					
Aquatic exercises					
Workout at Gym					
Household activity such as Cooking, Cleaning, Washing					
Aerobics / Zumba					
Playing any Sport (please specify)					
Any other					

Checklist for Spiritual Practices

Spiritual Practice is important in your Health & Happiness (Tick as applicable)	**Health**	**Happiness**
Strongly Disagree		
Disagree		
Can't say		
Agree		
Strongly Agree		

How frequently do you engage in the following type of Spiritual Practice/s ? (Tick as applicable)	**Never**	**Once in 15 days**	**Weekly**	**Twice a week**	**Daily**
Prayer					
Chanting					
Meditation					
Visiting places of worship (Temple/ Church/ Mosque)					
Attending Spiritual discourse					
Attending Satsang					
Attending Bhajan					
Attending Kirtan					
Fasting					
Journaling					
Sacred service/s					
Any other (Please specify)					

Physical Health Parameters

Height (in cm)		**Weight** (in kg)	
Hours of Sleep (in 24 hours)		**Type of Sleep** (tick as applicable)	
		Disturbed	
		Sound	
Respiratory Problems (tick as applicable)		**Bowel Movements** (tick as applicable)	
Frequently		Regular	
Occasionally		Constipation	
Rarely		Diarrhea	
Never		Frequent Motions / Irritable Bowel Syndrome	
Vision Problems (tick as applicable)		**Hearing Problems** (tick as applicable)	
None		None	
Mild		Mild	
Moderate		Moderate	
Severe		Severe	
Profound		Profound	
Lifestyle habits : Please rate- (Never 4 /Rarely 3 /Occasionally 2 /Frequently 1 /Always 0)			
Smoking		Snuff	
Gutka		Alcohol	
Supari		Others	
Are you on medication for the following conditions? Yes / No (If Yes, since ___ years)			
Cardiac problem		Stroke	
Hypertension		Paralysis	
Arthritis		Thrombosis (Blood Clotting)	
Dementia		Kidney Malfunctioning	
Parkinsonism		Cancer	
Any Other (Please specify)			
Do you take any medication for any of the following ?Yes / No (If Yes, since ___ years)			
Sodium - Low		Sodium - High	
Potassium - Low		Potassium - High	
Calcium-Low		Thyroid - Hypo	
Deficiency of Vitamin B6		Thyroid - Hyper	
Deficiency of Vitamin B12		Blood Sugar - High	
Deficiency of Vitamin C		Blood Sugar - Low	
Deficiency of Vitamin D3		Triglycerides	
Cholesterol HDL		Cholesterol LDL	

Physical Health Parameters: Investigator's Assessment

BMI		**Total No. of hours of Sleep**	
Below Average		(4-6) Below Average	
Average		(6-8) Average	
Above Average		(8 & more) Above Average	
Blood Pressure		**Pulse Rate**	
Reading I		Reading I	
Reading II		Reading II	
Reading III		Reading III	
Average = Low / Normal / High		Average = Low / Normal / High	
Flexibility		**Speed of work**	
Below Average		Below Average	
Average		Average	
Above Average		Above Average	
Agility		**Muscular Strength / Endurance**	
Below Average		Below Average	
Average		Average	
Above Average		Above Average	
Balance		**Aerobic Endurance**	
Below Average		Below Average	
Average		Average	
Above Average		Above Average	

Subjective Well-being Inventory

Instructions:

People are different. They live in a variety of situations and they do not feel the same way about life and the world around them. From a practical viewpoint, it is important to know how different persons feel with regard to their day to day concerns like their health or family. Such knowledge is necessary if an improvement in the quality of life of people is to be brought about.

This is a questionnaire on how you feel about some aspects of your life. Each question may be answered by any one of the given categories by putting a circle around the number which seems to represent your feelings best.eg. in the first question, if you feel that your life is very interesting, please put a circle around the response 1.At times, you may find that your feeling is not represented perfectly by any of the given response categories. In such case, just choose the one closest to what you think.

All information given by you will be treated as confidential and will be used only for research purpose.

1	Do you feel your life is interesting ?						
	Very Much	1	To some extent	2	Not so much	3	3
2	Do you think you have achieved the standard of living and the social status that you had expected ?						
	Very Much	1	To some extent	2	Not so much	3	
3	How do you feel about the extent to which you have achieved success and are getting ahead in life?						
	Very good	1	Quite good	2	Not so good	3	
4	Do you normally accomplish what you want to ?						
	Most of the times	1	Sometimes	2	Hardly ever	3	
5	Compared to the past, do you feel your present life is…						
	Very happy	1	Quite happy	2	Not so happy	3	
6	On the whole, how happy are you with the things you have been doing in recent years?						
	Very happy	1	Quite happy	2	Not so happy	3	

7	Do you feel you can manage situation even when they do not turn out as expected ?					
	Most of the times	1	Sometimes	2	Hardly ever	3
8	Do you feel confident that in case of crisis(anything which substantially upsets your life) you will be able to cope with it / face it boldly?					
	Very Much	1	To some extent	2	Not so much	3
9	The way things are going now, do you feel confident in coping with the future ?					
	Very Much	1	To some extent	2	Not so much	3
10	Do you sometimes feel that you and the things around you belong very much together and are integral parts of a common force ?					
	Very Much	1	To some extent	2	Not so much	3
11	Do you sometimes experience moments of intense happiness almost like a kind of ecstasy or bliss ?					
	Quite often	1	Sometimes	2	Hardly ever	3
12	Do you sometimes experience a joyful feeling of being part of mankind as of one large family ?					
	Quite often	1	Sometimes	2	Hardly ever	3
13	Do you feel confident that relatives and/or friends will help you out if there is an emergency, e.g. if you lose what you have by fire or theft ?					
	Very Much	1	To some extent	2	Not so much	3
14	How do you feel about the relationship you and your children have?					
	Very good	1	Quite good	2	Not so good	3	Not Applicable	4
15	Do you feel confident that relatives and/or friends will look after you if you are severely ill or meet with an accident?					
	Very Much	1	To some extent	2	Not so much	3

16	Do you get easily upset if things don't turn out as expected?					
	Very Much	1	To some extent	2	Not so much	3
17	Do you sometimes feel sad without reason?					
	Very Much	1	To some extent	2	Not so much	3
18	Do you feel easily irritated, too sensitive?					
	Very Much	1	To some extent	2	Not so much	3
19	Do you feel disturbed by feelings of anxiety and tension?					
	Most of the times	1	Sometimes	2	Hardly ever	3
20	Do you consider it a problem for you that you sometimes lose your temper over minor things?					
	Very Much	1	To some extent	2	Not so much	3
21	Do you consider your family as a source of help to you in finding solutions to most of the problems that you have?					
	Very Much	1	To some extent	2	Not so much	3
22	Do you think that most of the members of your family feel closely attached to one another?					
	Very Much	1	To some extent	2	Not so much	3
23	Do you think you would be looked after well by your family in case you were seriously ill?					
	Very Much	1	To some extent	2	Not so much	3
24	Do you feel your life is boring/uninteresting?					
	Very Much	1	To some extent	2	Not so much	3
25	Do you worry about your future?					
	Very Much	1	To some extent	2	Not so much	3

26	Do you feel your life is useless?							
	Very Much	1	To some extent	2	Not so much	3		
27	Do you sometimes worry about the relationship you and your wife/husband have?							
	Very much	1	To some extent	2	Not so much	3	Not Applicable	4
28	Do you feel your friends/relatives would help you out if you were in need?							

	Very Much	1	To some extent	2	Not so much	3		
29	Do you sometimes worry about the relationship you and your children have?							
	Very much	1	To some extent	2	Not so much	3	Not Applicable	4
30	Do you feel that minor things upset you more than necessary?							
	Very Much	1	To some extent	2	Not so much	3		
31	Do you get easily upset if you are criticized?							
	Very Much	1	To some extent	2	Not so much	3		
32	Would you wish to have more friends than you actually have?							
	Very Much	1	To some extent	2	Not so much	3		
33	Do you sometimes feel that you miss a real close friend?							
	Very Much	1	To some extent	2	Not so much	3		
34	Do you sometimes worry about your health?							
	Very Much	1	To some extent	2	Not so much	3		
35	Do you suffer from pains in various parts of your body?							
	Most of the times	1	Sometimes	2	Hardly ever	3		
36	Are you disturbed by palpitations / thumping heart ?							
	Most of the times	1	Sometimes	2	Hardly ever	3		
37	Are you disturbed by a feeling of giddiness?							
	Most of the times	1	Sometimes	2	Hardly ever	3		
38	Do you feel you get tired too easily?							
	Most of the times	1	Sometimes	2	Hardly ever	3		
39	Are you troubled by disturbed sleep?							
	Most of the times	1	Sometimes	2	Hardly ever	3		
40	Do you sometimes worry that you do not have close personal relationship with other people?							
	Very Much	1	To some extent	2	Not so much	3		

APPENDIX - B

CERTIFICATES OF PAPER PRESENTATION

TITUS II TEACHERS COLLEGE, TIRUVALLA, KERALA, INDIA

COUNCIL FOR EDUCATIONAL ADMINISTRATION AND MANAGEMENT(CEAM)

In Collaboration with

THE KERALA STATE HIGHER EDUCATION COUNCIL (KSHEC)

ONLINE INTERNATIONAL MULTIDISCIPLINARY CONFERENCE

PSYCHOLOGICAL WELLBEING IN COVID MILIEU: FUTURISTIC DYNAMICS

Certificate of Participation

This is to certify that Vaidya M.

has participated and presented the paper titled Comparative Study of Mindfulness , Resilience Subjective Well-being among Institutionalised and Non-Institutionalised Young Elderly *in the Online International Multidisciplinary Conference jointly organized by Titus II Teachers College, Tiruvalla, Kerala, India and Council for Educational Administration and Management (CEAM) in collaboration with The Kerala State Higher Education Council (KSHEC) on August 13-14, 2020.*

Dr. Anita Mathai
Principal & General Convener

Dr. M. S. Geetha
Conference Director

Dr. Rajan Varughese
Member Secretary, KSHEC

Dr. Sam Thomas Joy
Conference Coordinator

Dr. Sunila Thomas
Conference Coordinator

Dr. Nimmi Maria Oommen
Conference Secretary

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CERTIFICATE OF PRESENTATION

This is to Certify that

Prof./Dr./Mr./Ms. MADHURI ANIL VAIDYA

has presented a Scientific Paper entitled

Mindfulness, Generativity and Perceived Subjective Well-being among Young Elderly

in the Oral / Poster Presentation Session of the
World Congress of Gerontology and Geriatrics
5th International Conference on Healthy Ageing in the Changing World - 2019
held from 21st & 22nd November 2019
J.N.Tata Auditorium, Indian Institute of Science, Bengaluru, INDIA.

Dr. V.P. Rao
Convener
World Congress of Gerontology and Geriatrics
5th International Conference - 2019

Dr. Dominic Benjamin
Chairman
World Congress of Gerontology and Geriatrics
5th International Conference - 2019