

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

**A thesis submitted to The Maharaja Sayajirao University of
Baroda, Vadodara**

**In fulfilment of the requirements of the degree of
Doctor of Philosophy in Psychology**



By

Madhuri Anil Vaidya

Under the guidance of

Prof. Urmi Nanda Biswas

**Department of Psychology
Faculty of Education & Psychology
The Maharaja Sayajirao University of Baroda**

Table of Contents

Section no.	Content	Page no.
	Abstract	1-10
	<u>Chapter 1: Introduction</u>	11-72
1.1	Population ageing as a global concern	11
1.2	Successful Ageing	14
1.2.1	Theories / Models of Successful Ageing	15
1.3	Old Age and Physical health	18
1.3.1	Old Age, Physical health and Wellbeing	18
1.4	Old Age and Wellbeing	19
1.4.1	Subjective Wellbeing	20
1.4.2	Theories of Subjective Wellbeing	21
1.5	Generativity	24
1.5.1	Theories/ Models of Generativity.....	25
1.6	Resilience	27
1.6.1	Models of Resilience	28
1.7	Mindfulness	30
1.7.1	Approaches to Mindfulness	32
1.7.2	Measurement of Mindfulness	34
1.8	Old Age and Nutrition	35
1.9	Old Age and Exercise	37
1.10	Old Age and Spirituality	37
1.11	Review of Literature	38
1.11.1	Health & Wellbeing in Successful Ageing	38
1.11.2	Nutrition in Health and Wellbeing	40
1.11.3	Exercise in Health and Wellbeing	42
1.11.4	Spirituality, Health and Wellbeing	44
1.11.5	Wellbeing and Health	47

Section no.	Content	Page no.
1.11.6	Generativity, Health and Wellbeing	53
1.11.7	Mindfulness, Health and Wellbeing	56
1.11.8	Resilience, Health and Wellbeing	62
1.12	Research Gap	67
1.13	Rationale	67
1.14	Research Questions	71
	<u>Chapter 2: Method</u>	73-113
2.1	Objectives of the Research	73
2.2	Research Design	74
2.3	Phase I – Quantitative Design	76
2.3.1	Hypotheses	76
2.3.2	Variables Under Study	81
2.3.3	Operational Definitions of Variables	81
2.3.4	Sample	83
2.3.4.1	Sample Description for Non-Institutionalized Elderly	84
2.3.4.2	Sample Description for Institutionalized Elderly	89
2.3.5	Tools Used in the Research	95
2.3.6	Procedure	101
2.3.6.1	Pilot Study	102
2.3.6.2	Main Study	102
2.4	Phase II- Qualitative Design	103
A	Semi-Structured Interview	103
2.4.1	Sample Description - Part A	103
2.4.2	Tool Used - Part A	109
2.4.3	Procedure - Part A	110
B	Interaction with Institutionalised Elderly	110
2.4.4	Procedure - Part B	111
2.4.4.1	Difficulties Experienced by Researcher	111

Section no.	Content	Page no.
2.4.4.2	Observations of Researcher	111
2.4.4.3	Insights for Future	112
	<u>Chapter 3 Results – Quantitative Design</u>	114-153
3.1	Relationship Between Psychological Variables and Physical Health Parameters	114
3.2	Prediction of Physical Health Parameters and Subjective Wellbeing ...	117
3.3	Mediation Effect of Nutrition	119
3.4	Mediation Effect of Exercise	122
3.5	Mediation Effect of Spiritual Practices	126
3.6	Mean Differences in Psychological Variables and Physical Health Parameters-- t test	129
3.7	Mean Differences in Psychological Variables and Physical Health Parameters-- One-way ANOVA	136
3.8	Mean Differences in Psychological Variables and Physical Health Parameters— Chi Square Test	141
3.9	Integration of Quantitative & Qualitative data in the research	144
3.10	Crosstabulations of Pursuance of Hobbies and Engagement in Social Activities, across Sociodemographic Variables	147
	<u>Chapter 4: Results – Qualitative Design</u>	154-190
4.1	Beliefs and Perceptions with Verbatim	154
4.1.1	Perception of Physical Health	154
4.1.2	Perception of Happiness and Life Satisfaction	157
4.1.3	Perception of Prosocial Behaviour	161
4.1.4	Perception of Generativity	164
4.1.5	Perception of Resilience	168
4.1.6	Perception of Present- Preparedness	172
4.2	Beliefs and Perceptions - Thematic Analysis	175
4.2.1	Perception of Physical Health	175

Section no.	Content	Page no.
4.2.2	Perception of Happiness and Life Satisfaction.....	176
4.2.3	Perception of Helping Behaviour	179
4.2.4	Perception of Generativity	181
4.2.5	Perception of Resilience	184
4.2.6	Perception of Present Preparedness	187
	<u>Chapter 5: Discussion – Quantitative Analysis</u>	191-214
5.1	Discussion of Findings from Hypotheses Testing	191
5.1.1	H1: Relationship Between Psychological Variables and Physical Health Parameters	191
5.1.2	H2: Difference in Psychological Variables as a Result of Physical Health Parameters	194
5.1.3	H3: Prediction of Physical Health and Subjective Wellbeing by Generativity, Resilience and Mindfulness	195
5.1.4	H4: Mediation Effect of Nutrition	197
5.1.5	H5: Mediation Effect of Exercise	199
5.1.6	H6: Mediation Effect of Spiritual Practices	200
5.1.7	H7: Difference in Physical and Psychological Parameters - Hobbies	202
5.1.8	H8: Difference in Physical and Psychological Parameters - Engagement in Social Activities	203
5.1.9	H9: Difference in Physical and Psychological Parameters - Place of Stay	204
5.1.10	H10: Difference in Physical and Psychological Parameters - Gender	207
5.1.11	H11: Difference in Physical and Psychological Parameters - Type of Family	208
5.1.12	H12: Difference in Physical and Psychological Parameters - Educational Status	209

Section no.	Content	Page no.
5.1.13	H13: Difference in Physical and Psychological Parameters - Socioeconomic Status	210
5.1.14	H14: Difference in Physical and Psychological Parameters - Working Status	212
	<u>Chapter 5: Discussion – Qualitative Analysis</u>	215-230
5.2	Discussion of Findings from Semi-structured Interviews	215
5.2.1	Perception of Physical Health	217
5.2.2	Perception of Happiness	219
5.2.3	Perception of Life Satisfaction	220
5.2.4	Perception of Pro social Behaviour	221
5.2.5	Contexts of Pro social Behaviour Among Young Elderly	222
5.2.6	Contexts of Generativity Among Young Elderly	224
5.2.7	Feelings of Young Elderly Being Generative	225
5.2.8	Contribution of Young Elderly Towards Family.....	226
5.2.9	Strategies Used by Young Elderly to Face Challenges.....	226
5.2.10	Qualities of Young Elderly To Face Challenges	227
5.2.11	Present Preparedness Among Young Elderly	229
5.2.12	Qualities Among Young Elderly to Accept Life	230
	<u>Chapter 6: Summary, Conclusion, Limitations, Implications</u>	231-239
6.1	Major Findings	231
6.1.1	Phase I- Quantitative Design	231
6.1.2	Phase II- Qualitative Design	233
6.2	Conclusion	234
6.3	Limitations	236
6.4	Implications	237
6.5	Suggestions for future research	238

Section no.	Content	Page no.
	<u>References</u>	240-296
	<u>Appendices</u>	
	Appendix A	
	Tools Used	
1.	Questionnaire- English & Hindi	1-35
2.	Questionnaire- Marathi	36-58
	Appendix B	
	PhD Coursework Certificate	60
	Appendix C	
	Publications as a Part of PhD Work	61-92
1.	Subjective Wellbeing and Mindfulness as Concomitants of Physical Health among Older Adults in India	61-76
	Stechnolock Public Health and Research- Open access https://www.stechnolock.com/article/Subjective-Wellbeing-and-Mindfulness.pdf	
2.	Mindfulness, Generativity and Subjective Wellbeing among Older Adults (2021)	77-92
	An Indexed, Refereed and Peer-reviewed Journal of Higher Education, <i>Towards Excellence</i> , <i>UGC Human Resource Development Centre, 13(4), 29-44</i>	
	Appendix D	
	Certificates of Paper Presentations, as a Part of PhD Research	94-97
1.	International Conference on Human Development in a Globalizing World: Perspectives from South & South-East Asia (January 31- February 2, 2019)	94
2.	World Congress on Gerontology and Geriatrics	95

Section no.	Content	Page no.
	5 th International Conference on Healthy Ageing in the Changing World-2019 (November21&22,2019)	
3.	Online Multidisciplinary International Conference on Psychological Wellbeing in COVID Milieu: Futuristic Dynamics (August 13 &14,2020)	96
4.	International Conference on Healthy Ageing organized by Jain University &NIMHANS (March10-12, 2022)	97
	*Received the Best Paper Award	
	Appendix E	
	Certificate of Organizational Attachment / Interactions with institutionalised Elderly, as a Part of PhD Work	98
	Certificate of Appreciation – Vatsalya Trust, Mumbai	

List of Tables

The following is a list of tables in numerical order as they appear in the thesis.

Table no.	Title	Page No
1	List of Variables Considered for the Study-----	81
2	Description of the Tools Used -----	101
3	Recommendations Received From Participants in Pilot Study -----	102
4	Product Moment Correlation of the Psychological Variables and Physical Health Parameters.....	114
5	The Mean Differences in Generativity, Resilience, Mindfulness and Subjective Wellbeing Among Young Elderly -----	116
6	Prediction of Physical Health Parameters and Subjective Wellbeing By Generativity, Resilience and Mindfulness Among Young Elderly -----	117
7	Mediation Effect of Nutrition on Sensory/Systemic Parameters of Physical Health Among Young Elderly -----	119
8	Mediation Effect of Nutrition on Lifestyle Habits Among Young Elderly	120
9	Mediation Effect of Nutrition on Subjective Wellbeing Among Young Elderly.....	121
10	Mediation Effect of Exercise on Sensory/Systemic Parameters of Physical Health Among Young Elderly -----	122
11	Mediation Effect of Exercise on Lifestyle Habits Among Young Elderly	124
12	Mediation Effect of Exercise on Subjective Wellbeing Among Young Elderly	125
13	Mediation Effect of Spiritual Practices on Sensory/Systemic Parameters of Physical Health Among Young Elderly -----	126
14	Mediation Effect of Spiritual Practices on Lifestyle Habits Among Young Elderly	127
15	Mediation Effect of Spiritual Practices on Subjective Wellbeing Among Young Elderly	128

Table no.	Title	Page No
16	Mean Differences in Psychological Variables and Physical Health Parameters of Young Elderly Based on Pursuit Of Hobbies -----	129
17	Mean Differences in Psychological Variables and Physical Health Parameters of Young Elderly Based on Social Engagement-----	131
18	Mean Differences in Psychological Variables and Physical Health Parameters of Young Elderly Based on Place of Stay-----	133
19	Mean Differences in Psychological Variables and Physical Health Parameters of Young Elderly Based on Gender-----	134
20	Mean Differences in Psychological Variables and Physical Health Parameters of Young Elderly Based on Type of Family -----	135
21	Effect of Educational Status on Generativity, Resilience, Mindfulness, Physical Health Parameters i.e., Systemic/Sensory Parameters, Lifestyle Habits and Subjective Wellbeing of Young Elderly-----	136
22	Effect of Socio-Economic Status on Generativity, Resilience, Mindfulness, Physical Health Parameters i.e., Systemic/Sensory Parameters, Lifestyle Habits and Subjective Wellbeing of Young Elderly.....	138
23	Effect of Working Status on Generativity, Mindfulness, Resilience, Physical Health Parameters i.e., Systemic/Sensory Parameters, Lifestyle Habits And Subjective Wellbeing of Young Elderly-----	139
24	Mean Differences in Chronic Medical Condition, Biomarkers and Physical Fitness of Young Elderly Across the Educational Status-----	141
25	Mean Differences in Chronic Medical Condition, Biomarkers, a and Physical Fitness of Young Elderly Across the Socioeconomic Status	142
26	Mean Differences In Chronic Medical Condition, Biomarkers, And Physical Fitness of Young Elderly Across the Working Status-----	143
27	Integration of Quantitative & Qualitative Data in the Research----- Beliefs/Perceptions with Verbatim	144

Table no.	Title	Page No
28	Perception of Physical Health-----	155
29	Perception of Happiness.....	157
30	Perception of Moments of Life Satisfaction-----	159
31	Perception of People Helping Each Other-----	161
32	Contexts in Which Young Elderly Help-----	163
33	Contexts in Which Young Elderly Help Young Generation-----	164
34	Young Elderly's Feelings Being Generative-----	165
35	Contribution by the Young Elderly in the Family-----	166
36	Strategies Used by Young Elderly to Face the Challenges in Life-----	168
37	Qualities the Young Elderly Find in Themselves While Responding to Challenges	169
38	Where do Young Elderly Prefer to Live-----	172
39	Qualities That Allow the Young Elderly to Accept Every Moment as it Comes in Life.....	173
	Beliefs/Perceptions with Global Themes	
40	Perception of Physical Health-----	175
41	Perception of Happiness-----	176
42	Perception of Moments of Life Satisfaction-----	177
43	Perception of Prosocial Behaviour in Others-----	179
44	Context in Which Young Elderly Help Others -----	180
45	Context of Generativity Among Young Elderly-----	181
46	Feelings of Young Elderly Feel Being Generative-----	182
47	Engagement of Young Elderly in the Lives of Family Members-----	183
48	Strategies Used by Young Elderly to Face Challenges and Difficulties in Life.....	184
49	Qualities of Young Elderly to Face Challenges and Difficulties in Life --	185
50	Present-Preparedness Among Young Elderly-----	187
51	Qualities of Young Elderly to Accept Every Moment In Life-----	188

Table no.	Title	Page No
52	Categories of Perception	215

List of Figures

The following is a list of figures in numerical order as they appear in the thesis.

Figure No.	Title	Page No
1	Rowe & Kahn' model of successful ageing,1997 -----	15
2	Rowe & Kahn' Model of Successful Ageing Revisited, 2002-----	16
3	Bio-psycho-social model of successful aging with subjective well-being as a criterion of a successful aging process-----	17
4	Illness-Wellness Continuum by Travis-----	19
5	PERMA model of Subjective Well-being -----	21
6	Features of Mc Adams's Model of Generativity-----	26
7	The Resiliency model by Richardson -----	29
8	Buddhist Psychological Model of Mindfulness-----	33
9	Conceptual Framework of the Study -----	72
10	Flowchart of Explanatory Sequential Mixed Methods Design used in the research.....	75
Sample Breakup of Non-institutionalised Elderly- Phase I		
11	Sample breakup according to Age group -----	84
12	Sample breakup according to Gender -----	84
13	Sample breakup according to Marital status-----	85
14	Sample breakup according to Educational status -----	85
15	Sample breakup according to Socio economic status -----	86
16	Sample breakup according to Working status-----	86
17	Need for Digital Technology Training -----	87
18	Sample breakup according to pursuing hobby (a), with frequency (b) -----	87
19	Sample breakup according to involvement in leisure activity (a), with frequency (b).....	88
20	Sample breakup according to social engagement (a), with frequency (b)-----	88
21	Sample breakup according to Type of family -----	89
Sample Breakup of Institutionalised Elderly- Phase I		

Figure No.	Title	Page No
22	Sample breakup according to Age group -----	90
23	Sample breakup according to Gender -----	91
24	Sample breakup according to Marital status-----	91
25	Sample breakup according to Educational status -----	92
26	Sample breakup according to Socio economic status -----	92
27	Sample breakup according to Working status-----	93
28	Need for Digital Technology Training -----	93
29	Sample breakup according to pursuing hobby (a), with frequency (b) -----	94
30	Sample breakup according to involvement in leisure activity (a), with frequency (b).....	94
31	Sample breakup according to social engagement (a), with frequency (b)---	95
32	Checklist for Nutrition, Exercise and Spiritual Practices -----	99
	Sample Breakup of Elderly- Phase II	
33	Sample breakup according to Age group -----	104
34	Sample breakup according to Gender -----	104
35	Sample breakup according to Marital status-----	105
36	Sample breakup according to Educational status -----	105
37	Sample breakup according to Socio economic status -----	106
38	Sample breakup according to Working status-----	106
39	Need for Digital Technology Training -----	107
40	Sample breakup according to Place of Stay of the Elderly-----	107
41	Sample breakup according to Pursuing Hobbies(A) and With Frequency (B)	108
42	Sample breakup according to involvement in leisure activity (a), with frequency (b).....	108
43	Sample breakup according to social engagement (a), with frequency (b)-----	109
44	Cross tabulations of age and pursuance of hobbies(a) and engagement in social activity(b).....	147

Figure No.	Title	Page No
45	Cross tabulations of gender and pursuance of hobbies (a) and engagement in social activity(b).....	148
46	Cross tabulations of marital status and pursuance of hobbies (a) and engagement in social activity(b).....	149
47	Cross tabulations of educational status and pursuance of hobbies (a) and engagement in social activity(b).....	149
48	Cross tabulations of socio-economic status and pursuance of hobbies (a)and engagement in social activity(b)-----	150
49	Cross tabulations of working status and pursuance of hobbies (a) and engagement in social activity(b).....	151
50	Cross tabulations of type of family and pursuance of hobbies (a) and engagement in social activity(b).....	152
51	Representation of the Themes emerged from perceptions and attributes of elderly.....	190

Abbreviations Used in the Research

Sr No.	Abbreviation	Term
1.	APA	American Psychological Association
2.	BMI	Body Mass Index
3.	CD-RISC	Connor Davidson Resilience Scale
4.	CMC	Chronic Medical Condition
5.	FFMQ	Five Facet Mindfulness Questionnaire
6.	FMI	Freiburg Mindfulness Inventory
7.	GBC	Generativity Behaviour Checklist
8.	GOI	Government of India
9.	IBS	Irritable Bowel Syndrome
10.	KIMS	Kentucky Inventory of Mindfulness Skills
11.	MAAS	Mindful Attention Awareness Scale
12.	MMR	Mumbai Metropolitan Region
13.	MOSPI	Ministry of Statistics and Programme Implementation
14.	NHP	National Health Portal
15.	NPOP	National Policy on Older Persons
16.	ONR Biomarkers	Out of Normal Range Biomarkers
17.	PF	Physical Fitness
18.	PMR	Pune Metropolitan Region
19.	QOL	Quality of Life
20.	SES	Socio Economic Status
21.	SUBI	Subjective Wellbeing Inventory
22.	UN, DESA	United Nations Population Division, Department of Economic and Social Affairs
23.	WHO	World Health Organization
24.	WNR Biomarkers	Within Normal Range Biomarkers

Executive Summary

Introduction:

Globally, population ageing is a major concern with profound economic, political, and social implications. India is projected to climb up to the first rank in the population statistics, 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.

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 (MOSPI, 2016). Internal and international migration which constitutes majorly a working age population is causing increase in dependency ratio among the elderly (United Nations, DESA,2017). According to the World Population Ageing report 1950-2050(UN Population Division, DESA,2015) increase in the parent-support ratio from 0.9% to 1.9% and decrease in the potential-support ratio from 14.7% to 12.4%, from the year 1975 to 2000, highlights the need of independence among the elderly.

The World Health Organization has recognized wellbeing as an inevitable component of healthy ageing. 'Healthy living and wellbeing at all ages' is the third Sustainable Development Goal adopted by all United nations member states to be attained by 2030, which encompasses the elderly population as well (UNDP, India,2015). The decade 2021-2030 is declared as a 'decade of healthy ageing' in line with the global declaration by the World Health Organization (WHO Report,2020).

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 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 is a pertinent attribute as it helps to connect elderly with the society. Generativity acts as a significant predictor of life satisfaction and wellbeing. Facing challenges and difficulties in daily life and age-related adversity is a common phenomenon in the life of elderly. Resilience nurtures personal qualities which help to cope with these challenges and adversities successfully. The role of nutrition, exercise and spiritual engagement in health and wellbeing of older adults has been elucidated in the prior studies on the subject. Thus, the researcher has studied these factors in Indian context.

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 (Rajan & Kumar, 2003). It could be manifested in their physical health and perceived wellbeing. In order to understand whether living with family or in the institution makes difference in health and wellbeing of elderly, the sample in the present study consisted of 103 institutionalized elderly and 349 non-institutionalized elderly. Generativity, resilience, mindfulness, physical health, and subjective wellbeing with respect to these parameters were studied in the Indian context.

Ageing brings along several changes at physiological, psychological, sensory-motor level. They are coupled with dietary intake and habits leading to the greater possibility of chronic illness, consumption of medication and the sedentary lifestyle. Exercise promotes health by controlling speed of reduction in physical fitness and enhance muscle tone, bone density, flexibility in joints, improving the systemic functioning. This helps to prevent cardiovascular and respiratory illness, which are commonly found in old age (Cress et al., 1999; Rodríguez-Gómez et al, 2021). Spirituality is a positive state of mind having a universal strength to transcend the outer and inner self. A belief from non-consideration to surrendering to the transcendent (Koenig, 2012). Different spiritual practices are the reflections of such beliefs. The evolution of spirituality in India has an almost 2500 years historical background. In Indian context, very often spiritual practices work as preventive measures to ensure health across the ages (Goswami, 2014; Saleem & Khan, 2015).

Considering the importance of nutrition, exercise and spiritual practices, the research was carried out to study their mediating effect in the relationship of generativity, resilience, mindfulness and physical health and subjective wellbeing among the young elderly.

The objectives of the research are given below-

Objectives of the research

- 1.To study the relationship between generativity, resilience, mindfulness and physical health and subjective wellbeing among young elderly
- 2.To examine the effect of generativity, resilience and mindfulness on physical health and subjective wellbeing among young elderly
- 3.To examine how nutrition will mediate the relationship of generativity, resilience and mindfulness with physical health and subjective wellbeing of the young elderly
- 4.To find out how exercise will mediate the relationship of generativity, resilience and mindfulness with physical health and subjective wellbeing of the young elderly
- 5.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
- 6.To understand physical health and subjective wellbeing among institutionalized and non-institutionalized young elderly
- 7.To study whether type of family, pursuing hobby and engagement in social activities affect generativity, mindfulness and resilience, physical health, and subjective wellbeing of the young elderly
- 8.To investigate whether gender, socio-economic status, educational status and working status will affect physical health and subjective wellbeing among young elderly
- 9.To understand the perception of physical health and happiness of young elderly
- 10.To explore the sources of life satisfaction among young elderly
- 11.To find out the strategies used by the young elderly to face challenges in life
- 12.To understand the contexts in which young elderly help others / young generation
- 13.To explore the level of Present preparedness among young elderly

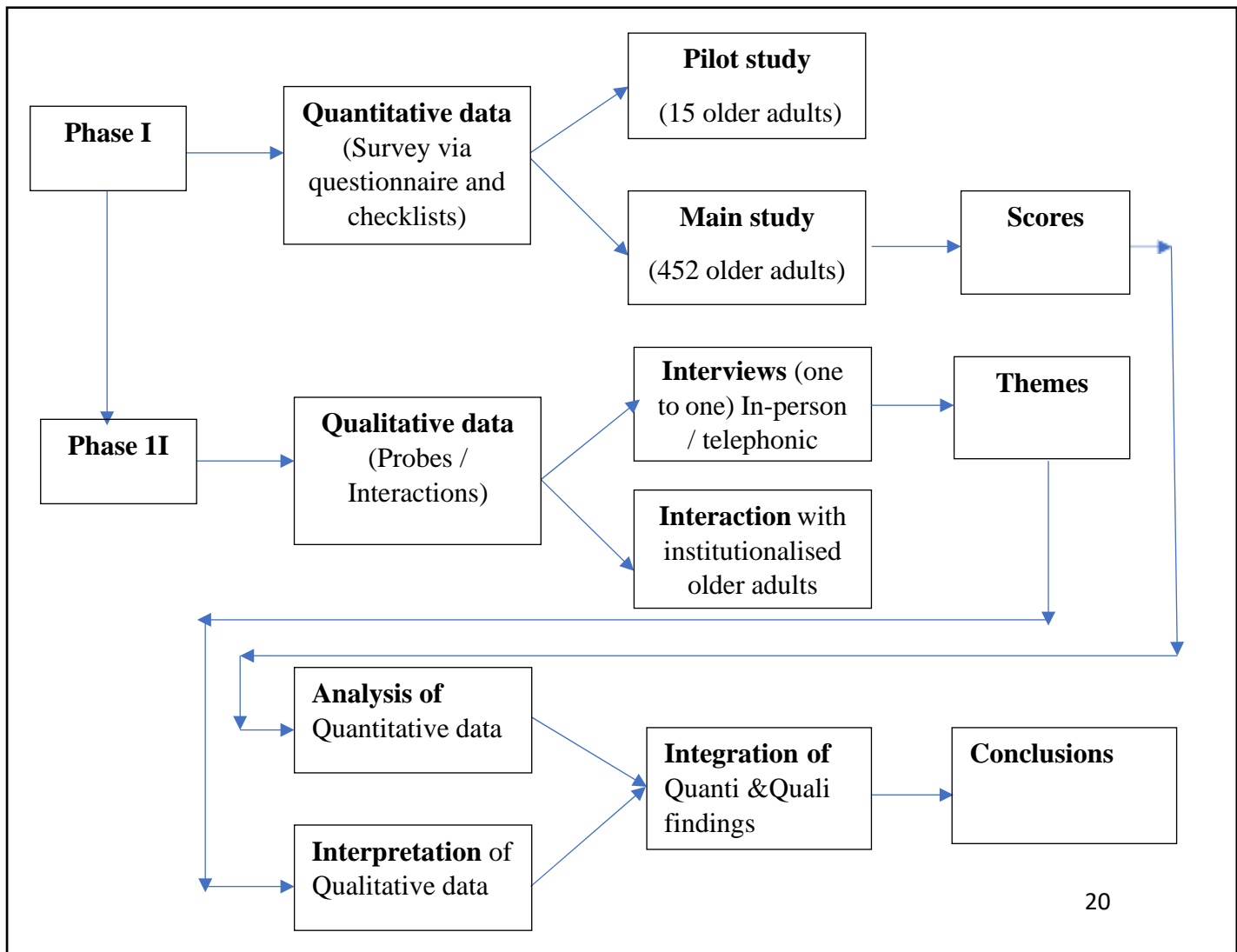
To attain the objectives, following research design was used in the study.

Research Design

Explanatory Sequential Two-Phased Mixed Methods Design was used in the research. It is a design with fixed mixed method, as the quantitative and qualitative designs were predetermined and planned in the conception stage of the research. Quantitative and qualitative strands in the research have been independent for the research questions, data collection and data analysis. Both the sequential strands are mixed during interpretation of the findings and drawing conclusion in the research (Creswell &Clarke,2018).

The purpose of using Mixed Methods Design is to get an insight into how personal experiences, beliefs and perceptions (qualitative data) help to explain the scores obtained on quantitative measures of the variables. It develops a strong understanding of the variables in the research by integrating quantitative results and qualitative data. This design enables to get more complete and corroborated approach towards understanding the research problem.

Flowchart of Explanatory Sequential Mixed Methods Design used in the research



Structure of the Research:

Phase I- Quantitative design

Phase II- Qualitative design

(a)Semi-structured interviews

(b) Interaction with the institutionalised elderly

Based on the review of literature and objectives of the research, the following hypotheses were conjectured.

Hypotheses

H1. There will be a significant positive correlation among generativity, mindfulness, resilience, subjective wellbeing and physical health parameters i.e. sensory/systemic parameters and life style habits among young elderly

H2. Young elderly high on chronic medical condition, ONR biomarkers and low on physical fitness parameters will significantly differ from elderly who score low on chronic medical condition, WNR biomarkers and high on physical fitness, across generativity, mindfulness, resilience and Subjective wellbeing of young elderly.

H3. Generativity, mindfulness, resilience will significantly affect physical health parameters i.e., sensory/systemic parameters and lifestyle habits and subjective wellbeing of young elderly.

H4. a) There will be a significant mediating effect of nutrition on the relationship between generativity, mindfulness, resilience and sensory/systemic parameters of physical health of young elderly

b) There will be a significant mediating effect of nutrition on the relationship between generativity, mindfulness, resilience and physical health parameters such as lifestyle habits of young elderly

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

H5. a) There will be a significant mediating effect of exercise on the relationship between generativity, mindfulness, resilience and sensory/systemic parameters of physical health of young elderly

b) There will be a significant mediating effect of exercise on the relationship between generativity, mindfulness, resilience and physical health parameters such as lifestyle habits of young elderly

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

H6.a) There will be a significant mediating effect of spiritual practices on the relationship between generativity, mindfulness, resilience and sensory/systemic parameters of physical health of young elderly

b) There will be a significant mediating effect of spiritual practices on the relationship between generativity, mindfulness, resilience and physical health parameters such as lifestyle habits of young elderly

c) There will be a significant mediating effect of spiritual practices on the relationship between generativity, mindfulness, resilience and subjective wellbeing of young elderly

H 7. There will not be any significant difference between young elderly pursuing hobbies and not pursuing across generativity, mindfulness, resilience, subjective wellbeing and physical health parameters such as sensory/systemic parameters, lifestyle habits, chronic medical condition, biomarkers and Physical fitness of young elderly

H8. Young elderly engaged in social activities will not significantly differ from their counterparts across generativity, mindfulness, resilience, subjective wellbeing and physical health parameters such as sensory/systemic parameters, lifestyle habits, chronic medical condition, biomarkers and Physical fitness of young elderly

H9. There will be significant difference between institutionalised and non-institutionalised young elderly across generativity, mindfulness, resilience, subjective wellbeing and physical health parameters such as sensory/systemic parameters, lifestyle habits, chronic medical condition, biomarkers and Physical fitness of young elderly

H10. There will not be any significant difference between young elderly males and females across generativity, mindfulness, resilience, subjective wellbeing and physical health parameters such as sensory/systemic parameters, lifestyle habits, chronic medical condition, biomarkers and Physical fitness of young elderly

H11. There will not be any significant difference between young elderly staying in different types of family across generativity, mindfulness, resilience, subjective wellbeing and physical

health parameters such as sensory/systemic parameters, lifestyle habits, chronic medical condition, biomarkers and Physical fitness of young elderly

H12. There will not be any significant difference among the groups of elderly with their different educational status across generativity, mindfulness, resilience, subjective wellbeing and physical health parameters such as sensory/systemic parameters, lifestyle habits of young elderly

H13. There will not be any significant difference among the groups of elderly with their different socio-economic status, across generativity, mindfulness, resilience, subjective wellbeing and physical health parameters such as sensory/systemic parameters, lifestyle habits of young elderly

H14. There will not be any significant difference among the groups of elderly with their different working status, across generativity, mindfulness, resilience, subjective wellbeing and physical health parameters such as sensory/systemic parameters, lifestyle habits of young elderly

Variables under Study

Socio-demographic Variables	Psychological Variables	Health Variables
Age	Generativity	Nutrition
Gender	Resilience	Exercise
Marital status	Mindfulness	Physical health
Educational status	Spiritual Practices	
Socioeconomic status	Subjective Wellbeing	
Working status		
Place of stay		
Type of family (in case of non-institutionalised elderly)		

Phase I- Quantitative design

Sample

Population- The population for the study was the urban young elderly between 60 and 70 years from Mumbai and Pune Metropolitan Regions.

Sample description- The sample for the Phase I of the study consisted of 452 male and female elderly from Mumbai and Pune Metropolitan Regions. In all, 297 male and female elderly from twenty five out of thirty five wards of Mumbai Metropolitan Region and 155 male and female elderly from five out of nine Pune Metropolitan Region were approached.

From the total sample, 349 were the non-institutionalized elderly between 60 and 70 years and 103 institutionalized elderly were between 60 and 75 years. For the institutionalized elderly, age limit was extended up to 75 years, as in many government and non-government organizations the retirement age is 60-65 years and 60 years is comparatively a young age 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.

Inclusion criteria were -young elderly between 60 and 70 /75 Years

Institutionalised / Non-institutionalised elderly

Exclusion criteria were- young elderly suffering from any acute health problems at the time of data collection and without any major psychopathological problems and any locomotive disability.

Tools Used in the research were-

Demographic information sheet

Generativity Behaviour Checklist

Five Facet Mindfulness Questionnaire-15

Connor- Davidson Resilience Scale

Subjective Wellbeing Inventory

Senior Fitness Test

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

Procedure

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

about confidentiality to be maintained about the findings of the study by the researcher.

The Phase I of the research consisted of -

Pilot study- Pilot study was carried out to analyse feasibility of the quantitative measures of generativity, resilience, mindfulness, subjective wellbeing and the self-constructed checklists of nutrition, exercise, engagement in spiritual practices and the physical health parameters. It was conducted on 15 non-institutionalised and 5 institutionalised young elderly from Mumbai Metropolitan Region and Pune city. Their recommendations were addressed and implemented in the main study.

Main study- Municipal Corporations and Councils within Mumbai and Pune Metropolitan Regions were identified. In Mumbai Metropolitan Region, the sample for the study was obtained from six out of eight Municipal Corporations spanning from Bhiwandi to Panvel. In Pune Metropolitan Region, both Municipal Corporations and outlying areas from Khed to Bhore under 3 Municipal Councils were covered.

Young elderly from the identified areas depending on the convenience of the researcher and their willingness to participate in the research were approached. The researcher explained to the participants entire procedure of the research, including physical tasks 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 and the prevalence of any disease was noted down, with its nature, duration, frequency, and intensity. Respecting the comfort level of the participant, psychometric tools such as GBC, FFMQ- 15, CD-RISC, and SUBI were administered with intermittent short intervals. The physical health parameters were measured through the checklists and the participants' performance on various tasks of physical fitness.

Phase II- Qualitative Design

Phase II of the Research was carried out in two parts. In Part I, semi-structured interviews were held with the participants on individual basis.

(A) Semi-structured interview

Sample description

During Phase I of the research thirty eight participants who were observed by the researcher to be high / low on wellbeing or either of the psychological attributes were identified and finally thirty participants who were willing to share more experiences from their life were interviewed according to the convenience of the participants. Amongst them, seventeen elderly were the non- institutionalised elderly and thirteen were the institutionalised elderly.

Tool Used

The Probes were used to understand beliefs and perceptions about health, happiness, life satisfaction, generativity, resilience, and present preparedness among the elderly.

Procedure of the Semi-structured interview

Code of Ethics: In this phase of the research, the consent from each participant for recording the conversation was obtained in addition to the code of ethics mentioned in Phase I of the research.

Adhering to the code of ethics, semi-structured interview technique was used to understand the perception of young elderly towards their physical health and wellbeing. The elderly participants were made to introspect about their life with reference to generativity, resilience and mindfulness. The interview schedule was prepared, communicated with the respondents in advance and adhered to the best of the researcher. 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. The duration of each interview ranged from 25 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.

Phase II- Qualitative design

(B) Interaction with the institutionalised elderly

During the interviews with the elderly from the institution, need was felt by the researcher to make one-to-one communication with them to understand their perceptions of the situation in the current context and their ways and means applied to face successfully and qualify to be happy and healthy.

It was difficult for the institutionalized elderly to cope with the challenges thrown at them due to Covid-19 Pandemic, due to the restrictions introduced by the institutions. Their increasing

feelings of loneliness led to temperamental changes, such as, feelings of, insecurity, anxiety, sadness, mood swings and concern for the uncertainty in future. The institution was equally observant of these changes within the elderly and reported reduced appetite and disturbed sleep amongst most of them.

Procedure

To understand the life of the elderly in the institution and know their coping strategies, online telephonic interaction with each elderly was scheduled. Due to the Pandemic, with nine elderly between 66 to 83 years were available. Consent was obtained for the interaction and its recording was obtained from each elderly. Within a span of 3 months, 37 sessions were held for 45 to 50 minutes each. With three elderly, sessions could be held on a video call, which was a rewarding experience for both, the elderly and the researcher.

Insights gained for the future from the interactions in the context of Pandemic are given below

What could be the sources of happiness?

Those who were technologically efficient started using the Public Address System, installed in the institution for spiritual readings. Some of them volunteered to do bhajan / kirtan at a common place, so that others can passively participate in the same.

How one can be generative, in a given situation?

Female elderly would volunteer to help young staff through different activities such as- doing kitchen work, knitting, or stitching for their children, sharing home-remedies for minor illness of their family members

Gratitude expressed by the staff used to promote such behaviour and enhance feelings of happiness, satisfaction among the elderly

What could be the strategies to develop resilience?

With the help of some Probes from the researcher, the older adults were happy to identify their strengths, which was a ‘treasure-hunt’ experience, resulting into high self-esteem and self-confidence.

‘Introspection in the past life helps to adapt in the present’ was learnt by the researcher during the interaction.

How can one keep oneself physically fit?

Considering limited outdoor physical mobility in the institution, few elderly learnt and practiced floor exercises on a daily basis to keep them physically fit.

Importance of disciplining one's body, in terms of regular diet and exercise. Controlling or managing healthy dietary habits is a key to remain physically fit was shared by few elderly.

To summarize, the interaction with the elderly highlighted various unique and proactive coping strategies used by them in a restrained Pandemic context. Getting socially connected by the telephonic conversations was quite reinforcing for them.

The data was analysed by using appropriate statistics such as multiple regression, hierarchical regression, independent group t test, one-way ANOVA and chi square. The results of Quantitative design are given below.

Major findings

A) Phase I- (Quantitative design)

- Pearson product moment correlation suggests significant positive relationship between generativity, mindfulness, resilience, and subjective wellbeing of young elderly.
- Sensory/systemic parameters of physical health are significantly related with mindfulness, resilience, subjective wellbeing but not with generativity.
- Lifestyle habits are neither related to any psychological variables, nor sensory/systemic parameters of physical health of young elderly.
- Chronic medical condition makes significant difference in resilience, mindfulness, and subjective wellbeing, but not in generativity. Young elderly without any chronic medical condition are more resilient, mindful and experience more subjective wellbeing.
- Elderly with biomarkers WNR significantly differ in subjective wellbeing from their counterparts and not in other psychological or physical health parameters. These elderly perceive significantly higher wellbeing than the rest of the group.
- Physical fitness is a significant factor in health and wellbeing among the elderly. Physically fit elderly are significantly more generative, resilient, mindful and perceive wellbeing.

- Generativity, resilience, and mindfulness together are significant predictors of both physical health parameters i.e., sensory/systemic parameters and subjective wellbeing among elderly. However, resilience is independently predicting both parameters of health and subjective wellbeing; mindfulness is predicting subjective wellbeing. Generativity, resilience, and mindfulness independently cause significant variance in health and wellbeing of young elderly.
- Generativity, resilience, and mindfulness show independent effect on subjective wellbeing.
- Significant mediating effect of nutrition is found on subjective wellbeing of the elderly; however not on any physical health parameters studied in the research.
- Although not significant, exercise is significantly playing a mediator role in the relationship between generativity, resilience, and mindfulness and lifestyle habits and subjective wellbeing, but not with systemic/ sensory parameters of the elderly.
- Engagement in spiritual practices does not cause any additional variance in the physical health sensory/systemic parameters of physical health and subjective wellbeing; however, mediating effect is found on the lifestyle habits of the elderly.
- Pursuing hobbies makes significant difference in generativity, mindfulness, resilience, subjective wellbeing and biomarkers of physical health among the elderly. However, physical fitness, sensory/systemic parameters, lifestyle habits and chronic medical condition do not get affected.

Elderly pursuing hobbies are more generative, mindful and resilient and tend to feel happy and satisfied than their counterparts. They do not show any biomarkers, indicating better physical health.

- Engagement in social activities makes significant difference in all the psychological parameters of the study among the young elderly. Physical health parameters are not affected by the social engagement in the present research.

Elderly engaged into any formal / informal social activity such as attending meetings of some NGO or community, participating in kitty party / *bhishi* are more generative, mindful, resilient and find happiness and satisfaction in life.

- The non-institutionalised elderly are more generative, mindful, resilient and perceive significantly higher wellbeing in life. However, institutionalised elderly have significantly better physical health as they have WNR biomarkers. They do not have such lifestyle habits, which would affect their health and wellbeing.
- There are gender differences in resilience, subjective wellbeing and physical health parameters such as lifestyle habits and biomarkers. However, male and female elderly do not significantly differ in generativity, mindfulness and physical health parameters such as systemic / sensory parameters, chronic medical condition and physical fitness.

Elderly males have WNR biomarkers, they are more mindful, resilient and tend to perceive wellbeing greater than the elderly females. On the other hand, elderly females are found to be more generative, although the difference is not significant. They show better health parameters such as lifestyle habits than elderly males
- The type of family affects only subjective wellbeing and no other psychological or physical health parameter. Elderly living in the nuclear family tend to perceive more wellbeing than elderly living in joint family.
- Psychological variables vary as per the educational status; but the elderly do not differ in any physical health parameter based on educational status. Highly educated elderly are more generative, mindful, resilient and tend to perceive wellbeing in life. Although the difference is not significant, their physical health parameters are better than the rest of the groups.
- The elderly from higher socioeconomic background are more generative, mindful and perceive greater wellbeing than the elderly from the rest of the socioeconomic status. However, they have such lifestyle habits, which would affect their health and wellbeing. Elderly from income between 10,000 and 20,000 are much more resilient.
- Working status of the elderly as self-professionals or those working post-retirement with or without financial gains have greater generativity, resilience, mindfulness, and subjective wellbeing. They benefit in systemic / sensory parameters of physical health, as well as have such lifestyle habits promoting good physical health.

In Phase II of the research, with the help of the Semi-structured interview, the beliefs and perceptions of thirty elderly were understood. Through the content analysis of the verbatim, global themes emerged, which are given below-

Major findings

B) Phase II- (Qualitative design)

- ***Physical health*** was perceived by young elderly as a state of absence of illness, being physically active and independent, tranquil mind and ability to enjoy good variety of diet and sleep
- ***Happiness*** was perceived to be a subjective phenomenon with unconditional acceptance of a situation. Confelicity, i.e. Elderly find happiness in others' happiness too.
- ***Life satisfying moments*** in the elderly's' life were personal achievements, success of family members, self-reliance, creative pursuits, altruistic pleasure and getting spiritual support.
- ***Generativity*** in other people was perceived as a selfish motive, symbolic social influence, situational demand and contingent to recognition by others.
- Empathic joy, emotional accuracy, emotional empathy and selfish motive could trigger generativity among the elderly
- Elderly in the present study prefer to provide customized help, help on demand to the younger generation. At times, it could be out of social concern
- Being generative towards younger generation, the elderly feel satisfied, socially connected, socially responsible and find happiness in others' satisfaction
- Elderly prefer to involve in the family by sharing household responsibility or helping in outdoor work.
- ***Resilience*** is experienced by facing the challenges / difficulties in life, elderly take support from family and friends, show complete faith in the Supreme and trust their intrinsic strengths.
- Ability to find support in the Supreme, self-efficacy, intrinsic strengths like strong determination, flexibility, positive perception, internal locus of control, fitness at physical, mental and financial level, taking social support and developing skill-based resilience are various qualities which the elderly find in oneself while facing the challenges /difficulties in life.

- *Present preparedness* is reflected by the elderly, as majority of the elderly choose to remain in the Present, so that can take decisions, improve one's mistakes, hope to make better future, feel 'control over life', and can live every moment of life.

Conclusions

The present study implies generativity, resilience and mindfulness together and independently act as the precursors of physical health and subjective wellbeing among the young elderly. It highlights the role of psychological factors in physical health of elderly.

Sensory/ systemic parameters and lifestyle habits are significantly affected by resilience and resilience and mindfulness, respectively. Chronic medical condition is important in resilience, mindfulness. Biomarkers are important in the subjective wellbeing and not in generativity, resilience, mindfulness.

Physical fitness through physiological benefits significantly protects elderly from stress and promotes generativity, resilience, mindfulness and perceived wellbeing in the elderly.

Subjective wellbeing: It is enhanced by generativity, resilience and mindfulness independently as well as with mediating effect of nutrition, exercise and engagement in spiritual practices among young elderly.

Mediating effect: All the mediating variables such as nutrition, exercise and engagement in spiritual practices do not show mediating effect on any physical health parameters. However, all of these variables show significant mediating effect on the subjective wellbeing of the young elderly.

Sociodemographic variables: Pursuance of hobbies is beneficial as it enhances generativity, resilience and mindfulness and subjective wellbeing. It helps the elderly to maintain his biomarkers adequately, which could contribute to his physical health.

Engagement in social activities is effective in promoting generativity, resilience and mindfulness and thus, enhance subjective wellbeing. Somehow, it does not affect physical health of young elderly.

Place of stay / living arrangement makes difference in all psychological variables. The non-institutionalised elderly are more generative, resilient and mindful and perceive greater wellbeing in life. However, in few parameters of physical health such as systemic / sensory parameters, chronic medical condition and physical fitness, non-institutionalised elderly do not differ from the elderly living in the institution.

Although, significant gender differences are found in resilience, subjective wellbeing and physical health parameters such as biomarkers and lifestyle habits; the mean scores of male elderly are higher than the counterparts in the remaining psychological and physical health parameters.

The type of family that the elderly live does not make any difference in any psychological and physical health parameters, except subjective wellbeing. Amongst the non-institutionalised elderly, who live in either joint family or live only with the spouse and unmarried children, significantly higher subjective wellbeing is found among the elderly living in nuclear family.

Educational status shows significant effect on all psychological variables, but not on physical health. Overall, highly educated elderly are more generative, resilient, mindful and tend to perceive more wellbeing in life.

Socioeconomic status also shows significant difference in all psychological variables and lifestyle habits of the elderly.

Working status is found to be a significant determinant of high generativity, resilience, mindfulness, subjective wellbeing, and physical health parameters such as systemic / sensory parameters and lifestyle habits.

To conclude, it requires a sincere attention of the Policymakers to take a step forward and create opportunities for the senior citizens to utilise their potentials to the fullest and allow the society to benefit from this social capital.

The present research had certain limitations, which are given below-

Limitations of the research

- The sample in the present research were only the urban elderly. An inclusion of elderly from rural background would probably get a different perspective to psychological and physical variables.
- The sample of non-institutionalised and institutionalized elderly was selected from a wide range of Mumbai Metropolitan Region and Pune Metropolitan Region. However, covering every ward was found to be practically difficult, particularly in the context of Pandemic. Hence, the present sample may not be a true representation of young elderly from Mumbai and Pune city.
- In Phase II of the research, during the Pandemic, seventy percent of the interviews were held telephonically. The interaction with the institutionalised elderly was done online. In-person interviews and interactions would have probably added nuances in the description.
- The mediating variables such as nutrition, exercise and engagement in spiritual practices as well as few dimensions of physical health were measured by the self-prepared checklists and not by the standardized measurements. Thus, the researcher's effect/ bias could not be completely avoided.
- The sample for qualitative design in phase two in the research was restricted to thirty. Probably, greater number would give better insights into the perception of physical health, happiness, life satisfaction, generativity, resilience, and present preparedness of the elderly.
- Along with the elderly, caretakers and staff of the institution could have been interviewed to get different perspective in the research.

Implications of the research

The present research has relevance in the contemporary times as it takes a proactive approach of examining the dynamics of wellbeing among old people in Indian context. The role of generativity, resilience and mindfulness in perceived wellbeing of the elderly is highlighted. The implications of the research are in diverse fields / groups, including enhancing health and wellbeing of the elderly. The findings will indeed help to create awareness amongst the caregivers of the home-based elderly, elderly care institutions, the society at large and the Policy makers and build healthy society.

Suggestions for future research

- A further study of the dimensions of mindfulness will help to understand the areas to work upon to cultivate optimal mindfulness
- Detailed analysis of the CD-RISC profile of the elderly would indicate strengths of elderly to face the challenges, and he/she can be made aware of the same to use consciously for greater benefits
- Extensive research on age-appropriate nutrition and exercise will be helpful to prepare a generic health-plan for the elderly population.
- The deterrents of consuming age-suitable intake and variety of diet, regular exercise and more importantly spiritual engagement should be known to reduce discrepancy between the elderly's opinion about their importance in one's health and wellbeing and practicing the same.
- Research on the e-practices in spirituality particularly for the elderly with physical limitations may be useful to promote spirituality.
- Nuances of the elderly-friendly institutions need to be understood considering diversity in various domains, which is a hallmark of our country.

References

- Abbas, R. & Varma, D. (2014, March 3). Internal labor migration in India raises integration challenges for migrants. *News- letter of Migration Policy Institute*.
<https://www.migrationpolicy.org/article/internal-labor-migration-india-raises-integration-challenges-migrants>.
- Adams-Price, C., Nadorff, D., Morse, L., Davis, K., & Stearns, M. (2017). The creative benefits scale: connecting generativity to life satisfaction. *The International Journal of Aging and Human Development*, 86(4). doi.91415017699939.
10.1177/0091415017699939
- Ahmad, V. & Mehdi, S. (2015). The relationship between mindfulness and educational status within the framework of the role of gender in high school students of Shiraz city. *Journal Management System. I*. 14-25.
- Agrawal, J., Murthy, P., Philip, M., Mehrotra, S., Thennarasu, K., John J., Girish, N., Thippeswamy, V., & Isaac, M. (2010). Socio-demographic correlates of subjective well-being in urban India. *Social Indicators of Research*. DOI. 10.1007/s11205-010-9669-5.
- Agarwalla, R., Saikia, A. M., & Baruah, R. (2015). Assessment of the nutritional status of the elderly and its correlates. *Journal of family & community medicine*, 22(1), 39–43.
<https://doi.org/10.4103/2230-8229.149588>.
- Ahmad, M. & Silfiasari (2019). Life satisfaction based on gender. *Advances in Social Science, Education and Humanities Research*, 304, 1-4.
- Airaksinen, T. (2019). Thomas Hobbes on intentionality, desire, and happiness, In *Vagaries of Desire: A Collection of Philosophical Essays*, Brill | Rodopi, (pp.163–180). DOI: https://doi.org/10.1163/9789004410305_010.

- Akar, Betul & Akyol, Pelin & Okten Hasker, Cagla. (2019). Education and prosocial behavior: Evidence from Time Use Survey. Retrieved from https://www.researchgate.net/publication/335661649_Education_and_Prosocial_Behavior_Evidence_from_Time_Use_Survey
- Alterovitz, S. & Mendelsohn G. (2013). Relationship goals of middle-aged, young-old, and old-old internet daters: An analysis of online personal ads. *Journal of Ageing Studies*, 27(2), 159-165.
- Ames, B. N., Shigenaga, M. K., & Hagen, T. M. (1993). Oxidants, antioxidants, and the degenerative diseases of aging. *Proceedings of the National Academy of Sciences of the United States of America*, 90(17), 7915–7922.
<https://doi.org/10.1073/pnas.90.17.7915>
- Amonkar, P., Mankar M., Thatkar P., Sawardekar, P., Goel, R.& Anjaneya, S.(2018), A comparative study of health status and quality of life of elderly people living in old age homes and within family setup in Raigad District, Maharashtra. *Indian Journal of Community Medicine*, 43(1), 10-13. DOI: 10.4103/ijcm.IJCM_301_16. Annual Report of Ministry of Social Justice and Empowerment, GOI, 2012-13.
- An, H. Y., Chen, W., Wang, C. W., Yang, H. F., Huang, W. T., & Fan, S. Y. (2020). The relationships between physical activity and life satisfaction and happiness among young, middle-aged, and older adults. *International journal of environmental research and public health*, 17(13), 4817. <https://doi.org/10.3390/ijerph17134817>
- Arent, S., Landers, D. & Etnier, J. (2000). The effects of exercise on mood in older adults: A Meta-analytic review. *Journal of Ageing and Physical Activity*, 8(4), 407-430.
DOI: [10.1123/japa.8.4.407](https://doi.org/10.1123/japa.8.4.407)

- Aroogh, M. (2020). Social participation of older adults; A concept analysis. *International Journal of Community Based Nursing, Midwifery*, 8(1), 55-72.
DOI:10.30476/IJCBNM.2019.82222.1055
- Arlappa, N., Balakrishna, N., Kokku, S.B, Harikumar, R, Kodavanti, M, Ravindranath, M.K., Ramakrishna, KS, Laxmaiah, A & Brahmam, G. (2016). Diet and nutritional status of the older adults in rural India. *Journal of Ageing Research And Healthcare*. 1. 36-48. DOI. 10.14302/issn.2474-7785.jarh-16-1157.
- Atanes, A.C. et al. (2015). Mindfulness, perceived stress and subjective wellbeing: A correlational study in primary healthcare professionals, *BMC Complementary and Alternative Medicine*, 15:303 <https://doi.org/10.1186/s12906-015-0823-0>.
- Bae S. H. (2014). Diets for constipation. *Pediatric Gastroenterology, Hepatology & Nutrition*, 17(4), 203–208. <https://doi.org/10.5223/pghn.2014.17.4.203>
- Baer, Ruth & Smith, Gregory & Allen, Kristin. (2004). Assessment of Mindfulness by Self-Report: The Kentucky Inventory of Mindfulness Skills. *Assessment*. 11(3). 191-206.
10.1177/1073191104268029.
- Baer, R.A., Smith, G.T., Hopkins, J, Krietemeyer, J., Toney, L. Using self-report assessment methods to explore facets of mindfulness. (2006). *Assessment*, 13(1):27- 45.
doi:10.1177/1073191105283504.
- Baer, R., Smith, G., Lykins, E., Button, D., Krietemeyer, J., Sauer, S., Walsh, E., Duggan, D., Mark J. & Williams G. (2008). Construct validity of the five facet mindfulness questionnaire in meditating and non-meditating samples. *Assessment*. DOI: 10.1177/1073191107313003.
- Baird, Brendan., Lucas, Richard & Donnellan, M. (2010). Life satisfaction across the lifespan: Findings from two nationally representative panel studies. *Social indicators research*. 99(2),183-203. DOI: 10.1007/s11205-010-9584-9.

- Ball, Richard & Chernova, Kateryna. (2005). Absolute Income, Relative Income, and Happiness. *Social Indicators Research*. 88. 497-529. 10.1007/s11205-007-9217-0.
- Balci, A., Koksall, O., Kose, A., Armagan, E., Ozdemir, F., et al. (2013). General characteristics of patients with electrolyte imbalance admitted to emergency department. *World Journal of Emergency Medicine*, 4(2): 113-116. doi: [10.5847/wjem.j.issn.1920-8642.2013.02.005](https://doi.org/10.5847/wjem.j.issn.1920-8642.2013.02.005)
- Barnes, S., Brown, K., Krusemark, E., Campbell, K.W. & Rogge, R. (2007). The role of mindfulness in romantic relationship satisfaction and responses to relationship stress. *Journal of marital and family therapy*. 33(4). pp.482-500. Doi.10.1111/j.1752-0606.2007.00033. x
- Baron, R. & Branscombe, N. (2016). Prosocial behaviour: Helping others. In *Social Psychology*, 13th ed. (pp.278-308). Pearson publication
- Baron, R. & Kenny, D. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*. 51. 1173-1182. 10.1037//0022-3514.51.6.1173.
- Barragan, C. (2015). *What impacts life satisfaction of aging adults following stressful life events: An examination of the buffering effect of personal resources*. Paper 1116. Wayne State University Dissertations. https://digitalcommons.wayne.edu/oa_dissertations/1116
- Batara, J. B., Franco, P. S., Quiachon, M. A., & Sembrero, D. R. (2016). Effects of religious priming concepts on pro-social behavior towards in-group and out-group. *Europe's journal of psychology*, 12(4), 635–644. <https://doi.org/10.5964/ejop.v12i4.1170>
- Bathla, M., Singh, M., & Relan, P. (2016). Prevalence of anxiety and depressive symptoms among patients with hypothyroidism. *Indian journal of endocrinology and metabolism*, 20(4), 468–474. <https://doi.org/10.4103/2230-8210.183476>

Belcher B., Zink M., Azad A., Campbell C., Chakravarti S. & Herting M. (2020). The roles of physical activity, exercise, and fitness in promoting resilience during adolescence: Effects on mental well-being and brain development, *Biological Psychiatry: Cognitive Neuroscience & Neuroplasticity* IN PRESS, © 2020 Published by Elsevier Inc. on behalf of Society of Biological Psychiatry.

<https://doi.org/10.1016/j.bpsc.2020.08.005>

Bechtel, T. (2007). The pursuit of happiness, *Survey Research Methods*, 1(2), 109-120

Belinda, C. (2005). The complexity of diabetes care, *Diabetes Spectrum*, 18(3): 130-131.

<https://doi.org/10.2337/diaspect.18.3.130>.

Bellizzi, K.M., (2004). Expressions of generativity and posttraumatic growth in adult cancer survivors. *Int J Aging Hum Dev*, 58(4):267-87. doi: 10.2190/DC07-CPVW-4UVE-5GK0. PMID: 15357329.

Berthon, B. S., & Wood, L. G. (2015). Nutrition and respiratory health--feature review. *Nutrients*, 7(3), 1618–1643. <https://doi.org/10.3390/nu7031618>

Bhan, N., Srivastava, S., Agrawal, S., Subramanyam, M., Millet, C., Selvaraj, S., Subramanain, S.V. (2012). Are socioeconomic disparities in tobacco consumption increasing in India? A repeated cross sectional multilevel analysis. *BMJ Open*, 2: e001348. doi:10.1136/bmjopen-2012-001348

Bhawuk, D. (2011), Spirituality and Indian Psychology, *International and Cultural Psychology*, 25. DOI 10.1007/978-1-4419-8110-3_2, © Springer Science+Business Media, LLC 2011

Bishop, S., Lau, M., Shapiro, S., Carlson, L., Anderson, N., Carmody, J., Segal, Z., Abbey,

S., Speca, M., Velting, D. & Devins, G. (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice*, 11(3), 230 - 241. DOI. 10.1093/clipsy.bph077.

Bittmann, F. (2021). When problems just bounce back: about the relation between resilience and academic success in German tertiary education. *SN Soc Sci I*, 65. <https://doi.org/10.1007/s43545-021-00060-6>

Bjalkebring, P., Vastfjall, D., Dickert, S. & Slovic, P. (2016). Greater emotional gain from giving in older adults: Age-related positivity bias in charitable giving. *Frontiers in Psychology*, 7:846 <https://doi.org/10.3389/fpsyg.2016.00846>

- Black, D., O'Reilly, G., Olmstead, BS, Breen, E. & Irwin, M. (2015). Mindfulness meditation and improvement in sleep quality and daytime impairment among older adults with sleep disturbances: A randomized clinical trial, *Journal of American Medical Association*, 175(4), 494-501. <https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2110998>
- Blane, D., Wiggins, R., Montgomery, S., Hildon, Z. & Netuveli, G. (2011). *Resilience at older ages: The importance of social relations & implications for policy*. ICLS Occasional Paper Series: Paper No.3, pp.1-9
- Bluma, L., (2018) The role of spirituality in alcohol abstinence self-efficacy amongst alcoholics- anonymous members. *Drugs and alcohol today*, 18(4), 227-239. <https://doi.org/10.1108/DAT-09-2017-0049>
- Bodhi, B., (2011). What does mindfulness really mean? A Canonical Perspective. *Contemporary Buddhism* 12(1), 19-39. DOI: [10.1080/14639947.2011.564813](https://doi.org/10.1080/14639947.2011.564813)
- Boehm, J. & Kubzansky, L. (2012). The heart's content: The association between positive psychological well-being and cardiovascular health. *Psychological Bulletin*, 138(4), 655–691. <https://doi.org/10.1037/a0027448>
- Bonanno, G., (2004). Loss, trauma, and human resilience: have we underestimated the human capacity to thrive after extremely aversive events? *The American psychologist*, 59. 20-8. DOI: [10.1037/0003-066X.59.1.20](https://doi.org/10.1037/0003-066X.59.1.20).
- Bonsang, E., Adam, S., & Perelman, S. (2009). Does retirement affect cognitive performance? *Journal of Health Economics*, 31(3). DOI: [10.1016/j.jhealeco.2012.03.005](https://doi.org/10.1016/j.jhealeco.2012.03.005)
- Boyle, P., Barnes, L., Buchman, A., & Bennett, D., (2009). Purpose in life is associated with mortality among community-dwelling older persons. *Psychosomatic medicine*, 71(5), 574–579. <https://doi.org/10.1097/PSY.0b013e3181a5a7c0>
- Bowling, A. & Dieppe, P. (2005). What is successful ageing and who should define it? *British Medical Journal*, 331(7531), 1548–1551.
- Bower, K.L., Lewis, D.C., Bermúdez, J.M, Singh., A.A., (2021). Narratives of generativity and resilience among LGBT older adults: Leaving positive legacies despite social stigma

- and collective trauma. *J Homosex.* 2021 Jan 28;68(2):230-251. doi: 10.1080/00918369.2019.1648082. Epub 2019 Aug 13. PMID: 31407964.
- Brasileiro, T., Prado, A., Assis, B., Nogueira, D., Lima, R., Chaves, E. (2017). Effects of prayer on the vital signs of patients with chronic kidney disease: Randomized controlled trial. *Journal of school of nursing*, 51: e03236. DOI: <http://dx.doi.org/10.1590/S1980-220X2016024603236>
- Brewer, J., Worhunsky, P., Gray, J., Tang, Y., Weber, J. & Kober, H. (2011). Meditation experience is associated with differences in default mode network activity and connectivity. *Proceedings of the National Academy of Sciences* 108(50):20254-9 DOI: [10.1073/pnas.1112029108](https://doi.org/10.1073/pnas.1112029108)
- Brewer, J. (2019). *Quitting smoking is hard. Mindfulness hacks the habit loop, offering a new approach.* STAT+. Retrieved from <https://www.statnews.com/2019/06/14/quitting-smoking-mindfulness-new-approach/>
- Brey, P. (2012). Wellbeing in Philosophy, Psychology, and Economics. In Brey, P., Briggie, A. & Spence, E. (Eds.), *The Good Life in a Technological Age* (pp. 15-34). Routledge.
- Brown, V. & Clarke, V. (2006). Using thematic analysis in Psychology. *Qualitative Research in Psychology*, 3 (2) 77-101". Published Online: <http://www.informaworld.com/smpp/content~db=all~content=a795127197~>
- Brown, K., Ryan, R. & Creswell, J. (2007). Mindfulness: Theoretical foundations and evidence for its salutary effects, *Psychological Inquiry*, 8(4), 211-237.
- Brown, D.B., Bravo, A.J., Roos, C.R. & Pearson, M.R. (2015). Five facets of mindfulness and psychological health: Evaluating a Psychological model of the mechanisms of mindfulness. *Mindfulness* 6, 1021–1032. <https://doi.org/10.1007/s12671-014-0349-4>

- Brown, K., Ryan, R. (2003). The benefits of being present: Mindfulness & its role in psychological well-being, *Journal of Personality & Social Psychology*, 84(4), 822-848. DOI.10.1037/0022-3514.84.4.822
- Brown, S., Nesse, R., Vinokur, V. & Smith, D. (2003). Providing social support may be more beneficial than receiving it: Results from a prospective study of mortality, *Psychological Science*, 14:320. DOI: 10.1111/1467-9280.14461.
- Brown, K. & Ryan, M. (2004). Perils and promise in defining and measuring mindfulness: observations from experience, *Clinical Psychology Science & Practice*, 11(3)
- Buchheld, N. & Grossman, Paul & Walach, H., (2001). Measuring mindfulness in insight meditation (Vipassana) and meditation-based psychotherapy: The development of the Freiburg Mindfulness Inventory (FMI). *Journal for Meditation and Meditation Research*, 1, 11-34.
- Bücker, S., Nuraydin, S., Simonsmeier, B., Schneider, M. & Luhmann, M. (2018). Subjective well-being and academic achievement: A meta-analysis, *Journal of Research in Personality*, 74, 2018, 83-94. ISSN 0092-6566, <https://doi.org/10.1016/j.jrp.2018.02.007>
- Bujacz, Aleksandra & Dunne, Sara & Fink, David & Gatej, Alexandra & Karlsson, Ebba & Ruberti, Veronica & Wronska, Marta. (2015). Why do we enjoy creative tasks? Results from a multigroup randomized controlled study. *Thinking Skills and Creativity*. 19. 10.1016/j.tsc.2015.11.002.
- Byrne, D. (2021). A worked example of Braun and Clarke's approach to reflexive thematic analysis. *Quality & Quantity* <https://doi.org/10.1007/s11135-021-01182-y> 1 3
- Camilleri, M. (2009). Serotonin in the gastrointestinal tract. *Current Opinion in Endocrinology, Diabetes, and Obesity*, 16(1), 53–59. doi:10.1097/med.0b013e32831e9c8e

- Cassen, R., Feinstein, L., & Graham, P. (2009). Educational Outcomes: Adversity and Resilience. *Social Policy & Society*. 8(1), 1-13. DOI: 10.1017/S1474746408004600
- Carlson, M.C., Seeman, T. & Fried, L.P. (2000). Importance of generativity for healthy ageing in older women, *Ageing(Milano)*,12(2),132-140. doi: 10.1007/BF03339899.
- Carstensen, L. (1995). Evidence for a Life-span theory of socio emotional selectivity. *Current Directions in Psychological Science*,4(5),151-156. <http://www.jstor.org/stable/20182356>
- Cleal, B. & Poulsen, K. (2015). The relationship between diabetes and retirement from work: A ten-year follow-up in national registers. *International Journal of Diabetes and Clinical Research*. Open access. 2:035
- Chambial, S., Dwivedi, S., Shukla, K. K., John, P. J., & Sharma, P. (2013). Vitamin C in disease prevention and cure: an overview. *Indian journal of clinical biochemistry: IJCB*, 28(4), 314–328. <https://doi.org/10.1007/s12291-013-0375-3>
- Chang, Y. M., El-Zaatari, M., & Kao, J. Y. (2014). Does stress induce bowel dysfunction? *Expert review of gastroenterology & hepatology*, 8(6), 583–585. <https://doi.org/10.1586/17474124.2014.911659>
- Chang, S. & Lee, H. (2019). Vitamin D and health - The missing vitamin in humans. *Pediatrics and Neonatology*,60,237-244. <https://doi.org/10.1016/j.pedneo.2019.04>. Retrieved
- Chattu, K., Sahu, P., Seedial N., Seecharan, G., Seepersad, A., Seunarine, M., Sieunarine, S., Seymour, K., Simboo, S., & Singh, A. (2020), *Education Sciences, MDPI*, 10, 224; doi:10.3390/educsci10090224
- Cheng, S., Chan, W., Chan, A. (2008). Older people's realisation of generativity in a changing society: The case of Hong Kong, *Ageing & Society*,28(5),609-627. <https://doi.org/10.1017/S0144686X07006903>

- Cheng, S. (2009). Generativity in later life: Perceived respect from younger generations as a determinant of goal disengagement and psychological well-being. *The Journals of Gerontology: Series B Psychological Science Social Science*, 64 B (1), 45-54. DOI 10.1093/geronb/gbn027
- Chen, I., Scott, N. & Benckendorff, P. (2013). An exploration of mindfulness theories in eastern and western philosophies. <https://researchgate.net/publication/260872006>
- Cho, J., Martin P., Margrett, J., MacDonald, M., Poon, L. (2011). Relationship between physical health & psychological wellbeing among oldest old adults. *Journal of Ageing Research*, Article ID 605041. <http://dx.doi.org/10.4061/2011/605041>.
- Cho, J., Martin, P., & Poon, L.W. Georgia Centenarian Study (2015). Successful aging and subjective well-being among oldest-old adults. *The Gerontologist*, 55(1), 132–143. <https://doi.org/10.1093/geront/gnu074>
- Ciorba, A., Bianchini, C., Pelucchi, S., & Pastore, A. (2012). The impact of hearing loss on the quality of life of elderly adults. *Clinical interventions in aging*, 7, 159–163. <https://doi.org/10.2147/CIA.S26059>
- Cohen, S. (2004), Social Relationships and Health, *American Psychologist*, 59(8):676-684. DOI: [10.1037/0003-066X.59.8.676](https://doi.org/10.1037/0003-066X.59.8.676)
- Cohen, A., Dias, A., Azariah, F., Krishna, R., Sequeira, M., Abraham, S., Cuijpers, P., Morse, J. Q., Reynolds, C. & Patel, V. (2018). Aging and well-being in Goa, India: a qualitative study. *Aging & mental health*, 22(2), 168–174. <https://doi.org/10.1080/13607863.2016.1236239>
- Cohn, Michael., Fredrickson, Barbara., Brown, Stephanie., Mikels, Joseph & Conway, Anne. (2009). Happiness unpacked: Positive emotions increase life satisfaction by building resilience. *Emotion*, 9(3), 361-8. DOI: 10.1037/a0015952.

- Conaway, B. (2012). Aging and digestive health. WebMD. Retrieved from <https://www.webmd.com/digestive-disorders/features/digestive-health-aging>
- Connor, K. & Davidson, J. (2003). Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression & Anxiety*, 18,76-82. DOI: [10.1002/da.10113](https://doi.org/10.1002/da.10113)
- Conaway, B. (2012). Aging and Digestive Health. WebMD.
- Cosco, T., Prina, M., Perales, J., Stephan, B. & Brayne, C. (2013). Operational definitions of successful aging: a systematic review. *International Psychogeriatrics*,26(3):1-9. DOI: [10.1017/S1041610213002287](https://doi.org/10.1017/S1041610213002287).
- Cotton, S., Zebracki, K., Rosenthal, S., Tsevat, J.& Drotar, D. (2006). Religion /spirituality and adolescent health outcomes: A review. *Journal of Adolescent Health*,38,472-480. DOI:[10.1016/j.jadohealth.2005.10.005](https://doi.org/10.1016/j.jadohealth.2005.10.005).
- Cowlshaw, S., Teshuva, K., Browning, C.& Kendig, H. (2013). Older adults' spirituality and life satisfaction: A longitudinal test of social support and sense of coherence as mediating mechanisms. *Ageing & Society*,33,1243-62.
doi:10.1017/S0144686X.12000633
- Crane, C., Barnhofer, T., Duggan, D., Hepburn S., Fennell, M., & Williams, M. (2008). Mindfulness –base cognitive therapy & self-discrepancy in recovered depressed patients with a history of depression and suicidality. *Cognitive Therapy and Research*,32(6),775-787. <https://link.springer.com/article/10.1007/s10608-008-9193-y>
- Cress, M., Buchner, D., Questad, K., Esselman, P., de Lateur, B.& Schwartz R. (1999). Exercise: Effects on physical functional performance in independent older adults. *Journal of Gerontology: MEDICAL SCIENCES*, S4A(5),M242-M248.
- Creswell, J. & Clarke, V., (2018).*Designing and conducting Mixed Methods Research* (3rd Ed.) SAGE publications.

- Cross, M., Hofschneider, L., Grimm, M., & Pressman, S. (2018). Subjective well-being and physical health. In E. Diener, S. Oishi, & L. Tay (Eds.), *Handbook of well-being*. Salt Lake City, UT:DEF Publishers. DOI: nobascholar.com
- Crowther, M. & Parker, M., Achenbaum, W., Larimore, W.& Koenig, H. (2002). Rowe &Kahn's model of successful ageing revisited, positive spirituality- the forgotten factor, *The Gerontologist*, 42(5). doi:10.1093/geront/42.5.613.
- Dalton, D., Cruickshanks, K., Klein, B., Klein, R., Wiley, T.& Nondahl, D. (2003). The impact of hearing loss on quality of life in older adults. *Gerontologist*, 43(5):661-668. DOI: [10.1093/geront/43.5.661](https://doi.org/10.1093/geront/43.5.661)
- Davis, D. & Hayes, J., (2011). What are the benefits of mindfulness? a practice review of psychotherapy- related research, *Journal of Psychotherapy*, 48(2), 198-208. doi:10.1037/a0022062
- de Medeiros, K. (2009). Suffering and generativity: Repairing threats to self in old age. *Journal of Aging Studies*, 23(2), 97–102
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2701702/>
- Delamothe, T. (2005). Happiness: Get happy—it's good for you. *BMJ : British Medical Journal*, 331(7531), 1489–1490.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1322236/>
- Deuster, P.& Silverman, M. (2013). Physical fitness: A pathway to health and resilience. *The Army Medical Department Journal*, PB 8-13-10/11/12
http://www.cs.amedd.army.mil/amedd_journal.asp
- DeWall, C. & Pond, Jr, Richard. (2011). Loneliness and Smoking: The Costs of the Desire to Reconnect. *Self and Identity*, 10(3). 375-385. 10.1080/15298868.2010.524404.
- Di Pietro, L. (2001). Physical activity in aging: Changes in patterns and their relationship to health and function. *Journal of Gerontology, Series A*, 56A (Special Issue II):13–22.

- Durayappah, A. (2010). The 3P Model: A general theory of subjective well-being, *Springer Science+Business Media B.* DOI 10.1007/s10902-010-9223-9
- Diener, E. (1984). Subjective wellbeing, *Psychological Bulletin*, 95(3), 542-575.
- Diener, Ed & Lucas, Richard & Oishi, Shigehiro. (2002). Subjective Well-Being: The Science of Happiness and Life Satisfaction. Oxford Handbook of Positive Psychology. 10.1093/oxfordhb/9780195187243.013.0017.
- Diener, E. & Lucas, R. & Oishi, S. (2018). Advances and open questions in the science of subjective well-being. *Collabra: Psychology*. 4. 15. 10.1525/collabra.115.
- Diener, E. (2000). Subjective well-being: The science of happiness & a proposal for a national index, *American Psychologist*, 55 (1), 31-43. DOI. 10.1037//0003-066X.55.1.34
- Diener, E. & Chan, M. (2011). Happy people live longer: subjective well-being contributes to health and longevity, *Applied Psychology Health and Well-Being*, 3(1), 1 – 43.
DOI. [10.1111/j.1758-0854.2010.01045.x](https://doi.org/10.1111/j.1758-0854.2010.01045.x)
- Diener, E. & Seligman, M. (2002). Very happy people. *Psychological science*, 13(1), pp. 81-84. <https://doi.org/10.1111/1477-9280.00415>
- Dolan, P., Layard, R., & Metcalfe, R. (2011). Measuring subjective well-being for public policy (Special Paper No. 23). London: Centre for Economic Performance, London School of Economics and Political Science.
- Drewnowski, A, Warren-Mears VA. (2001). Does aging change nutrition requirements? *J Nutr Health Aging*, 5(2):70-4. PMID: 11426285
- Dsouza, S.A., Rajashekar, B., Dsouza, H.S. & Kumar, K.B. (2014). Falls in Indian older adults: a barrier to active ageing. *Asian Journal of Gerontology & Geriatrics*, 9: 33–40
- Engelen, M., Schols, A., Baken, W., Wesseling, G. & Wouters, E. (1994). Nutritional depletion in relation to respiratory and peripheral skeletal muscle function in out-patients with

- COPD. *European Respiratory Journal*, 7, 1793–1797. DOI: 10.1183/09031936.94.07101793
- Epstein, R. (1999). Mindful practice. *Journal of American Medical Association*, 282(9), 833–839. doi:10.1001/jama.282.9.833
- Erlandson, K. M., Liu, J., Johnson, R., Dillon, S., Jankowski, C. M., Kroehl, M., Robertson, C. E., Frank, D. N., Tuncil, Y., Higgins, J., Hamaker, B., & Wilson, C. C. (2021). An exercise intervention alters stool microbiota and metabolites among older, sedentary adults. *Therapeutic advances in infectious disease*, 8, 20499361211027067. <https://doi.org/10.1177/20499361211027067>
- Erikson, E.H. (1963). *Childhood and Society*(2ed.). Norton, New York
- Evans, W. Campbell, D. (1997). Nutrition, exercise, and healthy aging. *Journal of the American Dietetic Association*, 97(6), 632–638. [https://doi.org/10.1016/S0002-8223\(97\)00160-0](https://doi.org/10.1016/S0002-8223(97)00160-0)
- Everly, G. Building a resilient organisational culture, *Harvard Business Review*, June 2011.
- Färber, F.& Rosendahl, J. (2018). The association between resilience and mental health in the somatically ill. *Deutsches Arzteblatt international*, 115(38), 621–627. <https://doi.org/10.3238/arztebl.2018.0621>
- Feder, A., Fred-Torres, S., Southwick, S.& Charney, D. (2019). The biology of human resilience: Opportunities for enhancing resilience across the life span, *Biological Psychiatry*, 86(6).DOI: [10.1016/j.biopsych.2019.07.012](https://doi.org/10.1016/j.biopsych.2019.07.012)
- Feldman, R., Development across the lifespan (7th Ed.) Pearson Publication, 2015, pp.516 – 518, 530–532
- Feller, S., Teucher, B., Kaaks, R., Boeing, H., & Vigl, M. (2013). Life satisfaction and risk of chronic diseases in the European prospective investigation into cancer and nutrition

- (EPIC)-Germany study. *PloS one*, 8(8), e73462.
<https://doi.org/10.1371/journal.pone.0073462>
- Fergus, S. & Zimmerman, M. (2005). Adolescent resilience: a framework for understanding healthy development in the face of risk. *Annual Review of Public Health* 26(1),399-419. <https://www.researchgate.net/publication/7974748>
- Fisher, J. (2011), The Four domains model: Connecting spirituality, health and well-being, *Religions*,2,17-28. doi:10.3390/rel2010017
- Fleming, J.& Ledogar, R. (2008). Resilience, an evolving concept: A review of literature relevant to Aboriginal research, *Pimatisiwin*, 6(2),7-23.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2956753/>
- Flennert, M., König, H.& Hajek, A. (2019). The association between voluntary work and health care use among older adults in Germany. *BMC Health Services Research*,19:39
<https://doi.org/10.1186/s12913-019-386>
- Flórez, K., Shih, R.& Martin, M. (2014). Nutritional fitness and resilience: A review of relevant constructs, measures, and links to well-being. Santa Monica, CA: RAND Corporation,
https://www.rand.org/pubs/research_reports/RR105.html on Aug 30,2020
- Fontes A. & Neri A. (2015). Resilience in aging: literature review. *Research in ageing*, *SciELO*,20(5). <http://dx.doi.org/10.1590/1413-81232015205.00502014>
- Forman, D., Berman, A., McCabe, C., Baim, D. & Wei, J. (1992). PTCA in the Elderly: ‘Young- Old’ versus the ‘Old-Old’. *Journal of the American Geriatrics Society*, 40(1), 19-22. <https://doi.org/10.1111/j.1532-5415.1992.tb01823.x>
- Forootan, M., Bagheri, N., & Darvishi, M. (2018). Chronic constipation: A review of literature. *Medicine*, 97(20), e10631. <https://doi.org/10.1097/MD.00000000000010631>
- Fountain-Zaragoza, S., & Prakash, R. S. (2017). Mindfulness training for healthy aging: impact on attention, well-being, and inflammation. *Frontiers in Aging Neuroscience*, 9, 11.
<http://doi.org/10.3389/fnagi.2017.00011>.
- Foy, David., Drescher, Kent., & Watson, Patricia. (2011). Religious and spiritual factors in resilience. In Southwick, S., Litz, B., Charney, D.& Friedman, M. (Eds.) *Resilience and mental health: Challenges Across the Lifespan*.(pp.90-102). Cambridge university Press. DOI: 10.1017/CBO9780511994791.008.

- Fox, K. (1999). The Influence of physical activity on mental well-being. *Public Health Nutrition*, 2(3a), 411- 418. DOI: 10.1017/S1368980099000567.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology. The broaden-and-build theory of positive emotions. *The American psychologist*, 56(3), 218–226. <https://doi.org/10.1037//0003-066x.56.3.218>
- Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition & emotion*, 19(3), 313–332. <https://doi.org/10.1080/02699930441000238>
- Garland, E.L., Howard, M.O. (2018). Mindfulness-based treatment of addiction: current state of the field and envisioning the next wave of research. *Addict Sci Clin Pract* **13**, 14. <https://doi.org/10.1186/s13722-018-0115-3>
- Geiger, P., Boggero, I., Brake, C., Caldera, C., Combs, H., Peters, J. & Baer, R.(2016). Mindfulness-based interventions for older adults: A review of the effects on physical and emotional well-being. *Mindfulness* (NY)7(2),296–307. <https://www.researchgate.net/publication/282027356>
- Ghiasvand, M., Heshmat, R., Golpira, R., Haghpanah, V., Soleimani, A., Shoushtarizadeh, P. & Seyed Mohammad Tavangar, S.. (2006). Shift working and risk of lipid disorders: A cross-sectional study. *Lipids Health Dis* **5**, 9. <https://doi.org/10.1186/1476-511X-5-9>
- Gibson, E., Vargas, K., Hogan, E., Holmes, A., Rogers, P., Wittwer, J., Kloek, J., Goralczyk, R. & Mohajeri, H. (2014). Effects of acute treatment with a tryptophan-rich protein hydrolysate on plasma amino acids, mood, and emotional functioning in older women. *Psychopharmacology*. 231. 10.1007/s00213-014-3609-z.
- Gielen, Joris., Bhatnagar, Sushma & Chaturvedi, Santosh. (2015). Spirituality as an ethical challenge in Indian palliative care: A systematic review. *Palliative & supportive care*,1(5), 1-22. DOI.10.1017/S147895151500125X.

- Goldstein, A. L., Faulkner, B., & Wekerle, C. (2013). The relationship between internal resilience, smoking, alcohol use, and depression symptoms in emerging adults transitioning out of child welfare. *Child Abuse & Neglect*, 37(1), 22-32. <http://dx.doi.org/10.1016/j.chiabu.2012.08.007>
- Goswami, S. (2014). Spiritual dimensions of Indian culture, *Global Journal of Human-Social Science: C, Sociology & Culture*, 14 (1). Online ISSN: 2249-460x.
- Gopinath, B., Kifley, A., Flood, V.M. Mitchell, P. (2018). Physical activity as a determinant of successful aging over ten years. *Sci Rep* 8, 10522. <https://doi.org/10.1038/s41598-018-28526-3>.
- Gouda J. & Shekhar C. (2016). Living arrangement of elderly in India: An exploration from BKPAI study, *International Journal of Humanities and Social Sciences*, 10(4).
- Grabovac, Andrea., Lau, Mark & Willett, Brandilyn. (2011). Mechanisms of mindfulness: a Buddhist psychological model. *Mindfulness*. 2. 154-166. DOI: [10.1007/s12671-011-0054-5](https://doi.org/10.1007/s12671-011-0054-5)
- Grant, Adam & Gino, Francesca. (2010). A little thanks goes a long way: Explaining why gratitude expressions motivate prosocial behavior. *Journal of Personality and Social Psychology*. 98. 946-55. 10.1037/a0017935.
- Grossman M. & Gruenewald, T. (2017). Caregiving and perceived generativity: a positive and protective aspect of providing care? *Clinical Gerontologist*, 40(5), 435-447
DOI: 10.1080/07317115.2017.1317686.
- Greenfield, E & Marks, N. (2004). Formal volunteering as a protective factor for older adults' psychological well-being, *The Journals of Gerontology: Series B*, 59(5), S258-264. <https://doi.org/10.1093/geronb/59.5.S258>

- Grosso, G., Bei, R., Mistretta, A., Marventano, S., Giorgio, C., Masuelli, L. Giganti, M., Modesti A., Galvano M. & Gazallo, D. (2013). Effects of vitamin c on health: A review of evidence, *Frontiers in Bioscience*, 18(3), 1017-29. DOI: [10.2741/4160](https://doi.org/10.2741/4160).
- Gruenewald, T., Liao, D. & Seeman, T. (2012). Contributing to others, contributing to oneself: perceptions of generativity & health in later life. *The Journals of Gerontology, Series B*, 67(6), 660-665. <https://doi.org/10.1093/geronb/gbs034>.
- Gruenewald, T., Karlamangla, A., Greendale, G., Singer, B. & Seeman T. (2009). Increased mortality risk in older adults with persistently low or declining feelings of usefulness to others. *Journal of Aging Health*, 21(2), 398–425. doi:10.1177/0898264308329023.
- Gu, J., Strauss, C., Crane, C., Barnhofer, T., Karl, A., Cavanagh, K., & Kuyken, W. (2016). Examining the factor structure of the 39-item and 15-item versions of the Five Facet Mindfulness Questionnaire before and after mindfulness-based cognitive therapy for people with recurrent depression. *Psychological Assessment*, 28(7), 791–802. <http://doi.org/10.1037/pas0000263>.
- Gunaratana, H. (2011). *Mindfulness in plain English*, Wisdom Publications
- Hannum, S. Black, H., Rubinstein, R., Medeiros, K. (2017). Chronic illness and generativity in late life: A case study, *The Gerontologist*, 57(2), 171–178. <https://doi.org/10.1093/geront/gnv105>.
- Hansen, T., Slagsvold, B. & Moum, T. (2008). Financial satisfaction in old age: a satisfaction paradox or a result of accumulated wealth? *Social Indicators Research* 89(2), 323-347. DOI: [10.1007/s11205-007-9234-z](https://doi.org/10.1007/s11205-007-9234-z).
- Harris, J., Schoneman, S. & Carrera, S. (2005). Preferred prayer styles and anxiety control. *Journal of Religion and Health*, 44(4), 403-412. DOI: [10.1007/s10943-005-7179-6](https://doi.org/10.1007/s10943-005-7179-6).

- Hassani, P., Izadi, R. & Alavi, M. (2017). A phenomenological study on resilience of the elderly suffering from chronic disease: Qualitative study. *Psychology Research & Behaviour Management*, 10, 59-67. <http://dx.doi.org/10.2147/PRBM.S.121336>.
- Havighurst, R. J. (2008). Successful aging. In Richard, W., Clark, T. & Wilma, D. (Eds.) *The process of ageing: social and psychological perspectives*, (pp. 299-330). Transactions Publishers.
- Hauskeller, M. (2014). The Marquis de Sade on happiness, nature, and liberty. In *Sex and the Posthuman Condition*. Palgrave Pivot. https://doi.org/10.1057/9781137393500_6,
- Hayes, A. & Feldman, G. (2004). Clarifying the construct of mindfulness in the context of emotion regulation and the process of change in therapy. *Clinical Psychology: Science and Practice*, 11(3), pp.255-262. doi:10.1093/clipsy/bph080
- Help Age India. (2016). *Senior Citizen's Guide Revised Edition*. Policy Research and Development Department. <https://www.helppageindia.org/aboutus/publications/senior-citizens-guide/>
- Heydari, G., Heidari, F., Yousefifard, M., & Hosseini, M. (2014). Smoking and diet in healthy adults: A cross-sectional study in Tehran, Iran, 2010. *Iranian journal of public health*, 43(4), 485–491.
- Hilgenkamp, T., Wijck, R. & Evenhuis, H. (2012). Feasibility and reliability of physical fitness tests in older adults with intellectual disability: A pilot study. *Journal of Intellectual & Developmental Disability*, 37(2): 158–162. DOI: 10.3109/13668250.2012.681773.
- Hildon, Z., Smith, G., Netuvali, G. & Blane D. (2008). Understanding adversity & resilience at older age. *Sociology of Health & Illness*, 30(5), 726-740. <http://dx.doi.org/10.1111/j.1467-9566.2008.01087.x>.

- Hiscock R., Dobbie, F.& Bauld, L. (2015) Smoking cessation and socioeconomic status: An update of existing evidence from a national evaluation of English stop smoking services. *Tobacco and Health Disparities (Special issue)* ID 274056 | <https://doi.org/10.1155/2015/274056>
- Hofer, J., Busch, H., Au A., Solcova, I., Wong, T. & Tavel, P. (2014). For the benefit of others: generativity & meaningfulness in life in the elderly in four cultures. *Psychology and Ageing*, 29(4),764-775. <http://dx.doi.org/10.1037/a0037762>.
- Hoop, T., Kempen, L., Linsse, R., & Eerdewijk, A. (2014). Women' s autonomy and subjective well-being in India how village norms shape the impact of self-help groups in Odisha, India. *Feminist Economics*,20(3). <http://doi.org/10.1080/13545701.2014.893388>
- Hopkins K., Shepherd C., Taylor C. & Zubrick S. (2015). Relationships between psychological resilience & physical health status of western Australian urban aboriginal youth. *PLoS ONE* 10(12): e0145382. <http://doi.org/10.1371/journal.pone.0145382>
- Horne J., Soh D., Cordato D., Campbell M., Schwartz R. (2019).Functional outcomes of an integrated Parkinson's Disease Wellbeing Program. *Australasian Journal of Ageing*.39(1):1–9. <https://doi.org/10.1111/ajag.12705>
- Hsu, H. & Chang, W. (2015). Social connections and happiness among the elder population of Taiwan. *Aging and Mental Health* 19(12):1-7.
DOI:[10.1080/13607863.2015.1004160](https://doi.org/10.1080/13607863.2015.1004160).
- Huang, C., Dong B., Lu Z., Yue J., Liu Q. (2010) Chronic diseases and risk for depression in old age: a meta-analysis of published literature. *Ageing Research Review*,9(2):131-141. doi:10.1016/j.arr.2009.05.005. Epub 2009 Jun 11. PMID: 19524072. ISSN 1743-7199
- Huang, Hou J, Sun L, Don Donghui, L, Zhang, H. (2017) The effects of objective and subjective socioeconomic status on subjective well-being among rural-to-urban

- migrants in China: the moderating role of subjective social mobility. *Frontiers in Psychology* (8) DOI=10.3389/fpsyg.2017.00819
- Hubner, S., Boron, J. B. & Koehler, K. (2021). The effects of exercise on appetite in older adults: a systematic review and meta-analysis. *Frontiers in nutrition*, 8, 734267. <https://doi.org/10.3389/fnut.2021.734267>
- Huppert, F.A. (2014). The state of wellbeing science: concepts, measures, interventions, and policies. In Felicia A. Huppert, Cary Cooper (Eds). *Interventions and policies to enhance wellbeing: Wellbeing: A complete reference guide*, VI, John Wiley & Sons Ltd. DOI.10.1002 /9781118539415.wbwell01
- Hurk, V., Wiggins, T., Giommi, F., Barendregt, H. P., Speckens, A. E. M., & Van Schie, H. T. (2011). Relationship between the practice of mindfulness meditation and personality—an exploratory analysis of the mediating role of mindfulness skills. *Mindfulness*, 2(3),194–200. <http://doi.org/10.1007/s12671-011-00607>
- Inbadas, H. (2017). The philosophical and cultural situatedness of spirituality at the end of life in India. *Indian journal of palliative care*, 23(3), 338–340. https://doi.org/10.4103/IJPC.IJPC_61_17. IResearchNet.com. <https://psychology.iresearchnet.com/health-psychology-research/self-regulation/>
- Izadabadi, Z., Balvardi, M., Imani-goghary, Z. (2020). Effectiveness of mindfulness and metacognition education on social welfare and life expectancy of nurses. *Iranian Journal of Psychiatric Nursing*, 8 (5): 14-24.URL: <http://ijpn.ir/article-1-1533-en.html>
- Janseen, B., Regenmortel, T. & Abma, T. (2011). Identifying sources of strength: resilience from the perspective of older people receiving long-term community care, *European Journal of Ageing*, 8(3),145-156. <http://dx.doi.org/10.1007/s.10433-011-0190-8>

- Jenkins, T., Nguyen, J., Polglaze, K., & Bertrand, P. (2016). Influence of tryptophan and serotonin on mood and cognition with a possible role of the gut-brain axis. *Nutrients*, 8(1), 56. <https://doi.org/10.3390/nu8010056>
- Jeste, D., Depp, C. & Vahia, I. (2010). Successful cognitive and emotional aging. *World psychiatry: Official journal of the World Psychiatric Association (WPA)*, 9(2), 78–84. <https://doi.org/10.1002/j.2051-5545.2010.tb00277>
- Jeste, D., Savla, G., Thompson, W., Vahia, I., Glorioso, D., Martin, A., & Depp, C. (2013). Older age is associated with more successful aging: Critical role of resilience and depression. *The American Journal of Psychiatry*, 170(2), 188–196. doi:10.1176/appi.ajp.2012.12030386
- Jha, A., Krompinger, J., & Baime, M. (2007). Mindfulness training modifies subsystems of attention, *Cognitive, Affective, & Behavioral Neuroscience*, 7(2), 109–119. doi:10.3758/cabn.7.2.109.
- Jha P., Chaloupka, F., Corrao, M. & Jacob, J. (2009). Reducing the burden of smoking world-wide: effectiveness of interventions and their coverage. *Drug and Alcohol Review*, 25(6). 597-609. <https://doi.org/10.1080/09595230600944511>.
- Jiang, N., Zhang, Y., Zhao, J., Shi, H. Y., Wang, T., Jin, W., Wang, J. W., & Yu, J. M. (2022). The mediator role of stigma in the association of mindfulness and social engagement among breast cancer survivors in China. *Supportive care in Cancer: Official journal of the Multinational Association of Supportive Care in Cancer*, 1–9. Advance online publication. <https://doi.org/10.1007/s00520-022-06882-1>
- Jijina, P. & Biswas, UN. (2022). Various pathways for cultivation of Equanimity: An exploratory study. *Psychological studies*, <https://doi.org/10.1007/s12646-021-00634-7>
- Judge, J., Kenny, A., & Kraemer, W. (2003). Exercise in older adults. *Connecticut medicine*, 67 (8), 461-4. PMID: 14587124

- Kabat-Zinn, Jon. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science And Practice*, 10 (2), 144-156.
Doi: 10.1093/clipsy/bpg016|2003
- Kabat- Zinn, Jon. (2001). Mindfulness meditation for everyday life. Piatkus Books – London.
Retrieved from <https://realestateconsultingservice.com/wp-content/uploads/2018/03/97291641-Mindfulness-Meditation-for-Everyday-Life-Kabat-Zinn-Jon.pdf>.
- Kahana, E., Bhatta, T., Lovegreen, L. D., Kahana, B., & Midlarsky, E. (2013). Altruism, helping, and volunteering: pathways to well-being in late life. *Journal of aging and health*, 25(1), 159–187. <https://doi.org/10.1177/0898264312469665>
- Kanning, M., Schlicht, W. (2008). A bio-psycho-social model of successful aging as shown through the variable “physical activity”. *European Review of Aging and Physical Activity*, 5, 79–87. <https://doi.org/10.1007/s11556-008-0035-4>
- Kattenstroth, J., Kalisch, T., Holt, S., Tegenthoff, M. & Dinse, H. (2013) Six months of dance intervention enhances postural, sensorimotor, and cognitive performance in elderly without affecting cardio-respiratory functions. *Frontiers in Aging Neuroscience* <https://doi.org/10.3389/fnagi.2013.00005>
- Keng, S.L., Smoski, M. J., & Robins, C. J. (2011). Effects of mindfulness on psychological health: A review of empirical studies. *Clinical Psychology Review*, 31(6), 1041–1056. <http://doi.org/10.1016/j.cpr.2011.04.006>
- Kernisan, L. (2018). How to Evaluate, Prevent & Manage Constipation in Aging. Reviewed from <https://betterhealthwhileaging.net/how-to-prevent-and-treat-constipation-aging/>
- Kessler E.& Staudinger U. (2009). Affective experience in adulthood and old age: The role of affective arousal and perceived affect regulation, *Psychology & Ageing*, 24(2), 349-362
DOI. [10.1037/a0015352](https://doi.org/10.1037/a0015352).

- Keyes, C. & Ryff, C. (1998). Generativity in adult lives: Social structural contours and quality of life consequences. Mc Adams & E. de St Aubin (Eds.). *In Generativity and adult development: Psychosocial perspectives on caring for contributing to the next generation*. Washington DC, American Psychological Association
- Khan, M., Shirazi, M. & Ahmad (2011). Spirituality and life satisfaction among adolescents in India, *Journal of Subcontinent Researches*, 3(7),71-84.
- Khawar, A. & Muazzam, A. (2018). Gender differences in positive emotion. *Journal of Arts and Social Sciences*, V(I),125-137.
- Khazae-Pool, M., Sadeghi, R., Majlessi, F. & Foroushani, A. (2015). Effects of physical exercise programme on happiness among older people, *Journal of Psychiatric and Mental Health Nursing*, 22(1),47–57. doi:10.1111/jpm.12168.
- Khole, C.& Soletti, A. (2018). Nutritional Status of Elderly in the Old Age Homes: A Study in Pune City. *Current Research in Nutrition and Food Science*, 6(1). doi: <http://dx.doi.org/10.12944/CRNFSJ.6.1.27>
- Kim, Y., Lee, E. (2019), The association between elderly people’s sedentary behaviors and their health-related quality of life: focusing on comparing the young-old and the old-old. *Health Quality of Life Outcomes*,17, 131. <https://doi.org/10.1186/s12955-019-1191-0>.
- Koenig H. (2012). Religion, spirituality, and health: The research and clinical implications, *International Scholarly Research Network*, ISRN Psychiatry, Article ID 278730, doi:10.5402/2012/278730
- Kobasa, S. C. (1979). Stressful life events, personality, and health: An inquiry into hardiness. *Journal of Personality and Social Psychology*, 37(1), 1–11. <https://doi.org/10.1037/0022-3514.37.1.1>

- Kotre, J. (1996). A theory of generativity. In *Outliving the self: How we live on in future generations*. W.W. Norton & Company, New York. pp.1-19. Retrieved from https://www.google.co.in/books/edition/Outliving_the_Self/hUQ0ZgWfiIMC?hl=en&gbpv=1&printsec=frontcover on November 27,2021
- Krause, N. (2002). Church-based social support and health in old age: Exploring variations by race. *The Journals of Gerontology: Series B*,57(6), S332–S347.
<https://doi.org/10.1093/geronb/57.6.S332>
- Krause, N., & Ingersoll-Dayton, B. (2001). Religion and the process of forgiveness in late life. *Review of Religious Research*, 42(3), 252-276. doi:10.2307/3512569
- Kreplin, U., Farias, M. & Brazil, I.A. The limited prosocial effects of meditation: A systematic review and meta-analysis. *Sci Rep* 8, 2403 (2018).
<https://doi.org/10.1038/s41598-018-20299-z>
- Krishnaswamy, B. & Gnanasambandam, U. Falls in older people: *National / Regional review India*. Retrieved from <https://www.who.int/ageing/projects/SEARO.pdf>
- Kruse, A., Schmitt, E. (2012). Generativity as a route to active ageing- Review article. *Current Gerontology & Geriatrics Research*,2012, Article ID647650
<http://doi.org/10.1155/2012/647650>
- Kuyken W., Weare, K., Ukoumunne, O. & Vicary, R. (2013). Effectiveness of mindfulness in school programme: non-randomised controlled feasibility study, *The British Journal of Psychiatry*,203 (2),126-31. doi:10.1192/bjp.bp.113.126649
- Laird, K.T., Krause, B., Funes, C. & Lavretsky, H. (2019). Psychobiological factors of resilience and depression in late life. *Translational Psychiatry* 9,Article no.88
<https://doi.org/10.1038/s41398-019-0424-7>
- Lamond, A. J., Depp, C., Allison, M., Langer, R., Reichstadt, J., Moore, D. J. & Jeste, D. V. (2008). Measurement and predictors of resilience among community-dwelling older

- women. *Journal of Psychiatric Research*, 43(2), 148–154.
<http://doi.org/10.1016/j.jpsychires.2008.03.007>
- Landes, S., Adelt, M., Vaillant, G. & Waldinger, R. (2014). Childhood adversity, midlife generativity & later life well-being. *Journal of Gerontology, Series b*, 69(6), 943-952
<http://doi.org/10.1093/geronb/gbu055>
- Lang, F. R., & Heckhausen, J. (2001). Perceived control over development and subjective well-being: Differential benefits across adulthood. *Journal of Personality and Social Psychology*, 81(3), 509–523. <https://doi.org/10.1037/0022-3514.81.3.509>
- Langer, E. & Moldoveanu, M. (2000). The construct of mindfulness. *Journal of Social Issues*, 56(1), 1–9. DOI: 10.1111/0022-4537.00148
- Langhammer, B., Bergland, A., & Rydwik, E. (2018). The importance of physical activity exercise among older people. *BioMed Research International*, 7856823.
<https://doi.org/10.1155/2018/7856823>
- Laurin, D., & Verreault, R., Lindsay, J., MacPherson, K., & Rockwood, K. (2001). Physical activity and risk of cognitive impairment and dementia in elderly persons. *Archives of Neurology* 58(3), 498-504. DOI: [10.1001/archneur.58.3.498](https://doi.org/10.1001/archneur.58.3.498).
- Lautenschlager, N., Almeida, O., Flicker, L., & Janca, A. (2004). Can physical activity improve the mental health of older adults? *Annals of General Hospital Psychiatry*, 3(1), 12.
 DOI:[10.1186/1475-2832-3-12](https://doi.org/10.1186/1475-2832-3-12)
- Lautenschlager, N. T., & Almeida, O. P. (2006). Physical activity and cognition in old age. *Current opinion in psychiatry*, 19(2), 190–193.
<https://doi.org/10.1097/01.yco.0000214347.38787.37>
- Ledesma, J. (2014). Conceptual frameworks and research models on resilience in leadership *SAGE Open*, 1-8. <https://doi.org/10.1177/2158244014545464>

- Lee, D. B., & Neblett, E. W. (2019). Religious development in African American adolescents: Growth patterns that offer protection. *Child development*, 90(1), 245–259. <https://doi.org/10.1111/cdev.12896>
- Levasseur, M, Roy M, Michallet, B, St-Hilaire F, Maltais, D, Généreux, M. (2017). Associations between resilience, community belonging, and social participation among community-dwelling older adults: Results from the eastern townships population health survey. *Archives of Physical Medicine and Rehabilitation*, 98(12):2422-2432. doi:10.1016/j.apmr.2017.03.025.
- Li, Y. & Ferraro K. (2005). Volunteering and depression in later life: social benefit or selection processes? *Journal of Health and Social Behavior*, 46, 68–84.
DOI: 10.1177/002214650504600106.
- Li, C., Jiang, S., Li, N. & Zhang, Q. (2017) Influence of social participation on life satisfaction and depression among Chinese elderly: Social support as a mediator, *Journal of Community Psychology*, 46(2). DOI: [10.1002/jcop.21944](https://doi.org/10.1002/jcop.21944)
- Li, W. Howard, M., Garland, E. Mc Govern, P., Lazr, M. (2017) Mindfulness treatment for substance misuse: A systematic review and meta-analysis. *Journal of Substance Abuse Treatment*, 75, 62-96
- Lindsay, E., Young, S., Brown, K. & Cresswell, J. (2019) Mindfulness training reduces loneliness and increases social contact in a randomized controlled trial. *Psychological and cognitive sciences*, 116(9). <https://doi.org/10.1073/pnas.1813588116>
- Linssen, Rik & van Kempen, Luuk & Kraaykamp, Gerbert. (2011). Subjective Well-being in Rural India: The Curse of Conspicuous Consumption. *Social indicators research*. 101(1). pp. 57-72. DOI: 10.1007/s11205-010-9635-2.

- Llobet, M., Avila, N., Farras, J. & Canut, M. (2011). Quality of life, happiness, and satisfaction with life of individuals 75 years old or older cared for by a home health care program, *sciELO, Revista Latino-Americana de Enfermagem*,19(3), 467-475.
- Lloyd, C., Smith, J.& Weinger, K. (2005). Stress and Diabetes: A Review of the Links. *Diabetes Spectrum*,18(2): 121-127. <https://doi.org/10.2337/diaspect.18.2.121>
<https://doi.org/10.1590/S0104-11692011000300004>
- Loh, K. P., Kleckner, I. R., Lin, P. J., Mohile, S. G., Canin, B. E., Flannery, M. A., Fung, C., Dunne, R. F., Bautista, J., Culakova, E., Kleckner, A. S., Peppone, L. J., Janelins, M., McHugh, C., Conlin, A., Cho, J. K., Kasbari, S., Esparaz, B. T., Kuebler, J. P., & Mustian, K. M. (2019). Effects of a home-based exercise program on anxiety and mood disturbances in older adults with cancer receiving chemotherapy. *Journal of the American Geriatrics Society*, 67(5), 1005–1011. <https://doi.org/10.1111/jgs.15951>
- Lopez, S., Pedrotti J. & Snyder C. (2002). *In Positive Psychology: The Scientific and Practical Explorations of Human Strengths*, Sage Publication (4th Ed.),117-121
- Lu, L. (1999). Personal and environmental causes of happiness: A longitudinal analysis. *The Journal of Social Psychology*,139(1), 79-90. DOI:[10.1080/00224549909598363](https://doi.org/10.1080/00224549909598363)
- Luoh, M.C, Herzog, AR. (2002) Individual consequences of volunteer and paid work in old age: health and mortality. *Journal of Health and Social Behaviour*. 43(4):490-509. PMID: 12664678.
- Luthar, S., Cicchetti & Becker (2000). The construct of resilience: implications for interventions & social policies. *Development & Psychopathology*,12(4), 857-885.
- Luthar, S. S., Cicchetti, D., & Becker, B. (2000). The construct of resilience: a critical evaluation and guidelines for future work, *Child Development*,71 (3), 543–562.
- Lykkesfeldt, J., Michels, A. J., & Frei, B. (2014). Vitamin C. *Advances in nutrition*,5(1), 16–18. doi:[10.3945/an.113.005157](https://doi.org/10.3945/an.113.005157)

- Lyubomirsky & Ross (1999). Changes in attractiveness of elected, rejected, and precluded alternatives: A comparison of happy and unhappy individuals. *Journal of Personality and Social Psychology*, 76(6), 988-1007. DOI:10.1037//0022-3514.76.6.988.
- Lyubomirsky, S., King, L. & Diener, E. (2005). The benefits of frequent positive affect: does happiness lead to success? *Psychological Bulletin*, 131(6), 803–855. DOI: 10.1037/0033-2909.131.6.803
- M. Seligman & E. Rozyman. (July, 2003). Authentic happiness. <https://www.authentichappiness.sas.upenn.edu/newsletters/authentichappiness/happiness>
- MacLean, R.R., Cowan, A. & Vernarelli, J.A. (2018) More to gain: Dietary energy density is related to smoking status in US adults. *BMC Public Health* **18**, 365. <https://doi.org/10.1186/s12889-018-5248-5>
- MacLeod, S., Musich, S., Hawkins, K., Alsgaard, K. & Wicker E. (2016). The impact of resilience among older adults. *Geriatric Nursing*, 37(4), 266-272. <http://dx.doi.org/10.1016/j.gerinurse.2016.02.014>
- Maddi, S. (2013). Hardiness: Turning stressful circumstances into resilient growth. <http://www.springer.com/978-94-007-5221-4>
- Malinowski, P, Moore, A., Mead, B. & Gruber, T. (2017). Mindful aging: The effects of regular brief mindfulness practice on electrophysiological markers of cognitive and affective processing in older adults. *Mindfulness*, Springer link, 8: 78. <https://doi.org/10.1007/s12671-015-0482-8>
- Mallya, S. & Fiocco, A. (2015). Effects of mindfulness training on cognition and well-being in healthy older adults. *Mindfulness*, Springer Science+Business Media New York. DOI:10.1007/s12671-015-0468-6.

- Mandal, S., Arya, Y.& Pande, R. (2011). Mindfulness, emotion regulation and subjective well-being: An overview of pathways to positive mental health, *Indian Journal of Social Science Researches*,8, (1-2),159-167.
- Mandal, A. (2019). Constipation in the Elderly. *News Medical Life Sciences*. Reviewed from <https://www.news-medical.net/health/Constipation-in-the-Elderly.aspx>
- Mane, A. (2016). Ageing in India: Some social challenges to elderly care. *Journal of Gerontology and Geriatric Research*. 5:e136 doi:10.4172/2167-7182.1000e136
- Maneerat, S., Isaramalai, S. & Boonyasopu, U. (2011). A conceptual structure of resilience among Thai elderly. *International Journal of Behavioural Science*,6(1),25-40. DOI:[10.14456/IJBS.2011.3](https://doi.org/10.14456/IJBS.2011.3)
- Manning, L. K. (2013). Navigating hardships in old age: Exploring the relationship between spirituality and resilience in later life. *Qualitative health research*,23(4), 568–575. <https://doi.org/10.1177/1049732312471730>
- Manning, L., Ferris, M., Rosario, C., Prues, M. & Bouchard, L. (2019). Spiritual resilience: Understanding the protection and promotion of well-being in the later life, *Journal of Religion, Spirituality & Aging*, 31(2),168-186. DOI: [10.1080/15528030.2018.1532859](https://doi.org/10.1080/15528030.2018.1532859)
- Martinson, Marty & Berridge, Clara. (2014). Successful Aging and Its Discontents: A Systematic Review of the Social Gerontology Literature. *The Gerontologist*, 55(1).DOI: 10.1093/geront/gnu037.
- Masten, A. (2001). Ordinary Magic: Resilience Process in Development. *American Psychologist*, 56(3),227-238. DOI.10.1037//0003-066X56.3,227
- Mauvais-Jarvis, Franck. (2017). Gender differences in glucose homeostasis and diabetes. *Physiology & Behavior*. 187. [10.1016/j.physbeh.2017.08.016](https://doi.org/10.1016/j.physbeh.2017.08.016).

- Mc Adams D., Ed. De St. Aubin. (1992). A theory of generativity and its assessment through self-report, behavioural acts, and narrative themes in autobiography. *Journal of Personality & Social Psychology*, 62(6), 1003-1015.
- Mc Auley, E., Blissmer, B., Marquez DX, Jerome, GJ, Kramer, AF & Katula, J. (2000). Social relations, physical activity, and well-being in older adults, *Journal of Preventive Medicine*, 31(5), 608-617
- Mc Fadden, S. & Basting, A. (2010). Healthy ageing persons and their brains: Promoting resilience through creative engagement. *Clinics in Geriatric Medicine*, 26(1), 149–161
<https://doi.org/10.1016/j.cger.2009.11.004>
- McLaughlin, A.A., Doane, L.S., Costiuc, A.L., Feeny, N.C. (2009) Stress and Resilience. In: Loue, S., Sajatovic, M. (eds). *Determinants of Minority Mental Health and Wellness*. Springer, New York, NY. https://doi.org/10.1007/978-0-387-75659-2_17
- Meek, K. P., Bergeron, C. D., Towne, S. D., Ahn, S., Ory, M. G., & Smith, M. L. (2018). Restricted social engagement among adults living with chronic conditions. *International journal of environmental research and public health*, 15(1), 158. <https://doi.org/10.3390/ijerph15010158>
- Melancon, M., Lorrain, D. & Dionne, I. (2014). Changes in markers of brain serotonin activity in response to chronic exercise in senior men. *Applied Physiology, Nutrition and Metabolism*, 39(11), 1250-6. doi:10.1139/apnm-2014-0092
- Meltzer, C., Smith, G., DeKosky, S., Pollock, B., Mathis, C., Moore, R., Kupfer, D. & Reynolds, C. (1998). Serotonin in aging, late-life depression, and Alzheimer's disease: The emerging role of functional imaging. *Neuropsychopharmacology*, 18, 407–430. DOI: [https://doi.org/10.1016/S0893-133X\(97\)00194-2](https://doi.org/10.1016/S0893-133X(97)00194-2)

- Menon, P., Doddoli, S., Singh, S. & Bhogal, R. (2014). Personality correlates of mindfulness: A study in an Indian setting, *Yoga-Miimansa*, 46(1), 29-36. DOI: 10.4103/0044-0507.13784
- Midlarsky, E., Kahana, E. & Belser, A. (2014). Pro social behavior in late life. In Oxford Handbook of Pro social Behavior, Oxford University Press. DOI:10.1093/oxfordhb/9780195399813.013.030
- Miller, James William (2005). Wellness: The history and development of a concept. *Spektrum Freizeit* (27):94. Retrieved from https://duepublico2.unidue.de/servlets/MCRFileNodeServlet/duepublico_derivate_00035061/11_miller_1_05.pdf
- Minami, U., Nishi, M., Fukaya, T., Hasebe, M., Nonaka, K., Koike, T., Suzuki, H., Murayama, Y., Uchida, H. & Fuilwara, K. (2015). Effects of the change in working status on the health of older people in Japan. *PLos One*. <https://doi.org/10.1371/journal.pone.0144069>
- Ministry of Social Justice and Empowerment, GOI (2012-13). *Annual Report*. <https://socialjustice.gov.in/writereaddata/UploadFile/2012-13eng.pdf>
- Ministry of Statistics and Programme Implementation (MOSPI), Government of India (2016). Elderly in India- Profile and Programmes. https://mospi.gov.in/documents/213904/0/nsc_AR_2016-17.pdf/b4eb2249-bd7d-fd86-67c7-ada219cb64db?t=1595170355439
- Mishra, S, Joseph, RA, Gupta, P.C., Pezzack, B, Ram, F., Sinha, D.N., Dikshit, R., Patra, J. & Jha P. (2016). Trends in bidi and cigarette smoking in India from 1998 to 2015, by age, gender, and education. *BMJ Global Health*, 1:e000005. doi:10.1136/bmjgh-2015-000005

- Moberg, D.O., (2005) Research in spirituality, religion, and aging. *Journal of Gerontology and Social Work*.45(1-2):11-40. doi:10.1300/J083v45n01_02. PMID: 16172060.
- Moberly, Nicholas & Watkins, Edward. (2008). Ruminative self-focus and negative affect: An experience sampling study. *Journal of Abnormal Psychology*, 117(2),314-23.DOI: 10.1037/0021-843X.117.2.314.
- Mohammed, A. (2019). Workplace happiness and positivity: Measurement, causes and consequences. *International Journal for Research in Engineering Application & Management*, 5(2),42-48. DOI: 10.35291/2454-9150.2019.0007
- Monteiro, L., Musten, R. & Compson, J. (2014). Traditional land contemporary mindfulness: Finding the middle path in the tangle of concerns. # Springer Science+Business Media, NY. DOI 10.1007/s12671-014-0301-7
- Montpetit, M., Bergeman, C., Deboeck, P., Tiberio, Stacey, S., Boker., & Steven, M. (2010). Resilience-as-process: Negative affect, stress, and coupled dynamical systems, *Psychology and Aging*,25(3),631-640. DOI:10.1037/a0019268
- Moradi, S, Fekrazad, H, Mousavi, M. T, Arshi, M. The study of relationship between social participation and quality of life of old people who are member of senior association of Tehran city in 2011. (2013). *Salmand: Iranian Journal of Ageing*,7 (4) :41-46
URL: <http://salmandj.uswr.ac.ir/article-1-655-en.html>
- Morone, N.E., Lynch, C.S, Greco, C.M, Tindle, H.A, Weiner, D.K. (2008). "I felt like a new person." The effects of mindfulness meditation on older adults with chronic pain: qualitative narrative analysis of diary entries. *Journal of Pain*,9(9):841-8. doi: 10.1016/j.jpain.2008.04.003. Epub 2008 Jun 12. PMID: 18550444; PMCID: PMC2569828.
- Morrow-Howell, Hong, S. & Tang, F. (2009). Who benefits from volunteering? variations in perceived benefits. *The Gerontologist*,49(1), 91-102. doi:10.1093/geront/gnp007

- Munch, L., Tvistholm, N., Trosborg, I., & Konradsen, H. (2016). Living with constipation--older people's experiences and strategies with constipation before and during hospitalization. *International journal of qualitative studies on health and well-being*, 11, 30732. <https://doi.org/10.3402/qhw.v11.30732>
- Muñoz-Rodríguez, José & González, Sara & Navarro, Ana. (2019). Generativity and life satisfaction of active older people: Advances (keys) in educational perspective. *Australian Journal of Adult Learning*. 59(1), 94-114.
- Musick, M., Traphagan, J., Koenig, H. & Larson, D. (2000). Spirituality in physical health and aging. *Journal of Adult Development*, 7(2) 73- 86.
- Nabi, H., Kivimaki, M., De Vogli, R., Marmot, M. G., Singh-Manoux, A., & Whitehall, II.,\ Prospective Cohort Study (2008). Positive and negative affect and risk of coronary heart disease, *BMJ Clinical Research* 337(7660): a118. DOI:[10.1136/bmj.a118](https://doi.org/10.1136/bmj.a118)
- Nadkarni, A, Murthy P, Crome, I.B, Rao, R. (2013) Alcohol use and alcohol-use disorders among older adults in India: a literature review. *Aging Mental Health*, 17(8):979-91. doi:0.1080/13607863.2013.793653. Epub 2013 May 10. PMID: 23659339.
- Naik P., Harris V. & Forthun L. (2013). Mindfulness: An Introduction, *Series of the Department of Family, Youth and Community Sciences, UF/IFAS Extension*
- Nair, R., & Maseeh, A. (2012). Vitamin D: The "sunshine" vitamin. *Journal of pharmacology & pharmacotherapeutics*, 3(2), 118–126. <https://doi.org/10.4103/0976-500X.95506>.
- Nargis, N, Yong, H-H, Driezen, P, Mbulo, L, Zhao, L, Fong, GT, et al. (2019) Socioeconomic patterns of smoking cessation behavior in low and middle-income countries: emerging evidence from the global adult tobacco surveys and international tobacco control surveys. *PLoS ONE* 14(9): e0220223. <https://doi.org/10.1371/journal.pone.0220223>

- Narushima, M. (2005). Payback time: Community volunteering among older adults as a transformative mechanism. *Ageing & Society*, 25 (4), 567-584
<https://doi.org/10.1017/S0144686X05003661>
- National Health Portal (2018). Retrieved from
<https://www.nhp.gov.in/healthyliving/physical-activity>
- National Policy for Senior Citizens March 2011. Retrieved from:
<https://socialjustice.nic.in/writereaddata/UploadFile/dnpsc.pdf>
- Navti, L.K., Atanga, M.B. & Niba, L.L. (2017). Associations of out of school physical activity, sedentary lifestyle and socioeconomic status with weight status and adiposity of Cameroon children. *BMC Obesity*, 4, 35. <https://doi.org/10.1186/s40608-017-0171-3>
- Ndayambaje, E., Pierewan, A., Nizeyumukiza, E., Nkundimana, B. & Ayriza, Y. (2020) Marital status and subjective well-being: does education level take into account? *Cakrawala Pendidikan*, 39(1), 120-132. doi:10.21831/cp.v39i1.29620
- Nehra, D., Sharma, N., Kumar, P. & Nehra, S. (2013). D. Hooda & N R Sharma (Eds.) In *Mindfulness based stress reduction: An overview. Mental Health Risk and Resources*, Global Vision Publishing House. pp.197-231
- Nemeth, C., Wears, R., Woods, D., Hollnagel, E., & Cook, R., (2008). Minding the gaps: Creating resilience in health care. In Henriksen, K., Battles, J.B., Keyes, M.A. & Grady, M.L., (Eds.), *Advances in Patient Safety: New Directions and Alternative Approaches* (Vol. 3: Performance and Tools). Rockville (MD). Agency for Healthcare Research and Quality (US). <https://www.ncbi.nlm.nih.gov/books/NBK43670/>
- Nilsson, H., Bülow, P. H., & Kazemi, A. (2015). Mindful sustainable aging: Advancing a comprehensive approach to the challenges and opportunities of old age. *Europe's journal of psychology*, 11(3), 494–508. <https://doi.org/10.5964/ejop.v11i3.949>

- Noice, H., Noice, T., & Staines, G. (2004). A short-term intervention to enhance cognitive and affective functioning in older adults. *Journal of aging and health*. 16. 562-85. 10.1177/0898264304265819.
- Noronha, K. (2015). Impact of religion and spirituality on older adulthood. *Journal of Religion Spirituality & Aging*, 27(1), 16-33. DOI.10.1080/15528030.2014.963907.
- Obasanjo, I., & Mann, W. (2019). Retirement and management of diabetes in medically underserved patients with type 2 diabetes: Preliminary findings and literature review. *Global Clinical and Translational Research*, 78-83. 10.36316/gcatr.01.0012.
- Okely, J.A., & Gale, C.R. (2016). Well-being and chronic disease incidence: the English longitudinal study of ageing. *Psychosomatic medicine*, 78(3), 335–344. <https://doi.org/10.1097/PSY.0000000000000279>
- O'Keefe, E., Talley, N., Zinsmeister, A. & Jacobsen, S. (1995). Bowel disorders impair functional status and quality of life in the elderly: a population-based study. *The Journals of Gerontology: Series A*, Volume 50A(4):M184–M189, <https://doi.org/10.1093/gerona/50A.4.M184>
- Okun, M., & Michel, J.(2006). Sense of community and being a volunteer among the young-old. *Journal of Applied Gerontology*,25(2),173-181. Doi.10.1177/0733464806286710.
- Oliver, M., Baldwin, D., & Datta, S. (2018). Health to wellness: A review of wellness models and transitioning back to health. *The international journal health, wellness & society*, 9(1), 41-56. DOI: 10.18848/2156-8960/CGP/v09i01/41-56.
- Ortner, C., Kilner, S. & Zelazo, P. (2007). Mindfulness meditation and reduced emotional interference on a cognitive task, Published online: Springer Science + Business Media
- Ostir G., Markides, K., Peek, M. & Goodwin, J. (2001). The association between emotional well-being and the incidence of stroke in older adults. *Psychosomatic Medicine*,63(2):210-215. doi:10.1097/00006842-200103000-00003. PMID: 11292267.

- Ozaki, Y., Komiyama, M., Ueshima, K., Iso, H., Sakata, S., Morino, A., Takahara, M., Naguchi, S., Kuwabara, Y., Takahashi, Y. & Hasegawa, K. (2019). Determining the effects of exercise after smoking cessation therapy completion on continuous abstinence from smoking: Japanese study protocol. *Trials* 20, 734. <https://doi.org/10.1186/s13063-019-3820-7>.
- Pandya S.(2016).Ageing spirituality : Pitamaha Sadans in India. *Cogent Social Sciences*,2(1). <https://doi.org/10.1080/23311886.2016.1219212>
- Park, D.C., Reuter-Lorenz, P. (2009). The adaptive brain: aging and neurocognitive scaffolding. *Annual Review of Psychology*, 60:173-96. Doi.10.1146/annurev.psych.59.103006.093656.
- Pate, R., Oria, M., Pillsbury, L. (Eds.) (2012) Health-Related Fitness Measures for Youth: Flexibility. In *Fitness measures and health outcomes in youth*. National Academies Press (US),187-206. DOI: [10.17226/13483](https://doi.org/10.17226/13483)
- Patil, S., Suryanarayana S., Rajaram, D. & Murthy N. (2015). Circumstances and consequences of falls in community-living elderly in North Bangalore Karnataka. *Journal of Krishna Institute of Medical Sciences University*,4(4)
- Patil B., Shetty N., Subramanyam A., Shah H., Kamath R. & Pinto C. (2014), Study of perceived and received social support in elderly depressed patients, *Journal of Geriatric Mental Health*, 1(1),28-31.
- Patterson, M. & Perlstein, S. (2011) Good for the heart, good for the soul: the creative arts and brain health in later life. *Journal of American Society on Ageing*,35(2),27-36
- Pietrzak, R. & Southwick, S. (2011). Psychological resilience in OEF-OIF Veterans: application of a novel classification approach and examination of demographic and psychosocial correlates. *Journal of Affective Disorders*,133(3),560-8. doi:10.1016/j.jad.2011.04.028.

- Penedo, F. & Dahn, J. (2005). Exercise and well-being: A review of mental & physical health benefits associated with physical activity. *Current Opinion in Psychiatry*, 18(2), 189-193
- Penninx, B., Guralnik, J., Pahor, M., Ferrucci, L., Cerhan, J., Wallace, R. & Havlik, R. (1998). Chronically depressed mood and cancer risk in older persons, *Journal of the National Cancer Institute*, 90(24):1888-93. doi:10.1093/jnci/90.24.1888. PMID: 9862626
- Peterfalvi, A., Nemeth, N., Herczeg, R., Tenyi, T., Miseta, A., Czeh, B. & Simon, M. (2019). Examining the influence of early life stress on serum lipid profiles and cognitive functioning in depressed patients. *Frontiers in Psychology*, <https://doi.org/10.3389/fpsyg.2019.01798>
- Pidgeon, A. & Keye, M. (2014). Relationship between resilience, mindfulness, and psychological well-being in university students. *International Journal of Liberal Arts and Social Science*, 2(5), 27-32.
- Phillips, S., Auais, M., Belanger, E., Alvarado, B. & Zunzunegui, M. (2016) Life-course social and economic circumstances, gender, and resilience in older adults: The longitudinal International Mobility in Aging Study (IMIAS)(2), 708-717. <https://doi.org/10.1016/j.ssmph.2016.09.007>.
- Pinquart, M. & Sorensen, S. (2000). Influences of socioeconomic status, social network, and competence on subjective well-being in later life: A Meta-analysis. *Psychology and Aging*, 15(2). 187-224. DOI: 10.1037//0882- 7974.15.2.187
- Pruchno, R., Wilson-Genderson, M. & Cartwright, F. (2010). A two-factor model of successful aging. *The journals of gerontology. Series B, Psychological sciences, and social sciences*. 65. 671-9. 10.1093/geronb/gbq051

- Rajan, S. & Kumar, S. (2003). Living arrangements among Indian elderly: New evidence from national family health survey. *Economic and Political Weekly*, 38(1), 75-80.
DOI:[10.2307/4413048](https://doi.org/10.2307/4413048)
- Ramachandran, V., Menon, M. S., & Ramamurthy, B. (1981). Family structure and mental illness in old age. *Indian journal of psychiatry*, 23(1), 21–26.
- Ramasubramaniam, S. (2016). Mindfulness, stress coping & everyday resilience among emerging youth in a university setting: A mixed approach. *International Journal of Adolescence & Youth*, 22(3). <https://doi.org/10.1080/02673843.2016.1175361>
- Raymo, J. (2015). Living alone in Japan: Relationships with happiness and health. *Demographic Research*, 32, 1267-1298. doi:[10.4054/DemRes.2015.32.46](https://doi.org/10.4054/DemRes.2015.32.46)
- [Reddy, K., Rao, A. & Reddy, T. \(2002\).](#) Socioeconomic status and the prevalence of coronary heart disease risk factors. *Asia Pacific Journal of Clinical Nutrition*, 11(2): 98–103.
- Reid, D. (2011). Mindfulness and flow in occupational engagement: Presence in doing. *Canadian Journal of Occupational Therapy*, 78(1), 50–56.
<https://doi.org/10.2182/cjot.2011.78.1.7>
- Rejeski, W. & Mihalko, S. (2001) Physical Activity and Quality of Life in Older Adults, *The Journals of Gerontology: Series A*, 56(2), 23-35.
https://doi.org/10.1093/gerona/56.suppl_2.23
- Reyes, M.F., Satorres, E., & Meléndez J.C. (2020). Resilience and socioeconomic status as predictors of life satisfaction and psychological well-being in Colombian older adults. *Journal of Applied Gerontology*, 39(3):269-276.
doi:10.1177/0733464819867554.
- Richard, L., Gauvin, L., Gosselin C, Laforest S. (. 2009) Staying connected: Neighbourhood correlates of social participation among older adults living in an

- urban environment in Montréal, Quebec. *Health Promotion International*, 24(1):46-57. doi:10.1093/heapro/dan039.
- Riche, Y. & W. Mackay (2007). Marker clock: A communicating augmented clock for elderly. C. Baranauskas et al. (Eds.), In the Proc. of INTERACT, (pp.408-411). Rio de Janeiro, Brazil, Springer (LNCS Series).
- Richardson, G. (2002). The Meta theory of resilience and resiliency. *Journal of Clinical Psychology*, 58(3):307-21. DOI:10.1002/jclp.10020.
- Risonar, M.G., Rayco-Solon, P, Ribaya-Mercado, J.D, Solon, J.A, Cabalda AB, Tengco LW, Solon FS. (2009). Physical activity, energy requirements, and adequacy of dietary intakes of older persons in a rural Filipino community. *Nutr J.* 4(8):19. doi: 10.1186/1475-2891-8-19. PMID: 19409110; PMCID: PMC2689250.
- Roberts, S.B., & Rosenberg, I. (2006). Nutrition and aging: changes in the regulation of energy metabolism with aging. *Physiological Reviews*, 86(2):651-67. doi: 10.1152/physrev.00019.2005.
- Rodríguez-Gómez, I., Mañas, A., Losa-Reyna J., Alegre, I., Rodríguez-Mañas, L., García-García F.& Ara I.(2021). Relationship between physical performance and frailty syndrome in older adults: the mediating role of physical activity, sedentary time, and body composition. *International Journal of Environmental Research and Public Health*, 18, 203. <https://doi.org/10.3390/ijerph18010203>
- Roh S., Kim H., Shim, U., Kim, B., Kim, S., Chung, H., Lee, H, Sung, Y., Kim, H. (2014). Association between blood lipid levels and personality traits in young Korean women. *PLoS One*.59.9(9):e108406.doi: 10.1371/journal.pone.0108406, PMID: 25268499; PMCID: PMC4182467.
- Roman, M., Rossiter, H. & Casaburi, R. (2016). Exercise, ageing and the lung. *European Respiratory Journal*, 48: 1471-1486. DOI: 10.1183/13993003.00347-2016

- Rothrauff, T. & Cooney, T. (2008). The role of generativity in psychological well-being: Does it differ for childless adults & parents? *Journal of Adult Development*.
<http://doi.10.1007/s10804-008-9046-7>
- Rowe, J. W., & Kahn, R. L. (1987). Human aging: Usual and successful. *Science*, 237(4811), 143–149. <https://doi.org/10.1126/science.3299702>
- Rowe J., Kahn R. (1997). Successful ageing. *The Gerontologist*, 37(4), 430-440.
- Rubinstein, R., Girling, L., de Medeiros, K., Brazda, M., & Hannum, S. (2015). Extending the framework of generativity theory through research: A qualitative study. *The Gerontologist*, 55(4), 548–559. <http://doi.org/10.1093/geront/gnu009>
- Ryan, R. & Deci, E. (2000). Self-Determination Theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78.
DOI: 10.1037/110003-066X.55.1.68
- Ryan, R. & Deci, E. (2001). On happiness and human potentials: A review of research on hedonic and eudemonic well-being. *Annual review of psychology*, 52(1), 141-166.
DOI: [10.1146/annurev.psych.52.1.141](https://doi.org/10.1146/annurev.psych.52.1.141).
- Ryan, R., Huta, V. & Deci, E. (2008). Living well: A self-determination theory perspective on eudemonia. *Journal of Happiness Studies*, 9(1), 139-170. DOI:10.1037//s10902-006-9023-4.
- Sabel, B., Wang, J., Cárdenas-Morales, L., Faiq, M., & Heim, C. (2018). Mental stress as consequence and cause of vision loss: the dawn of psychosomatic ophthalmology for preventive and personalized medicine. *The EPMA journal*, 9(2), 133–160.
<https://doi.org/10.1007/s13167-018-0136-8>
- Sagara, J. & Ito, Y. (2017). The structure of generativity and the gender differences in middle age. *The Japanese Journal of Personality*, DOI:[10.2132/personality.26.1.9](https://doi.org/10.2132/personality.26.1.9)

- Saleem, R. & Khan, S. (2015). Impact of spirituality on well-being among old age people. *The International Journal of Indian Psychology*, 2(3). DOI:10.25215/0203.039
- Samanta, T., Chen, F. & Vaneeman, R. (2014). Living arrangements and health of older adults in India. *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences*, doi:10.1093/geronb/gbu164
- Sandhyarani, M. & Rao, U. (2014). Elderly in the institutional care –A case study. *International Journal of Current Research*, 6(9), 8525-8527.
- Sandoiu, A. (2018). Persistent stress may lead to vision loss. *Medical News Today*. Retrieved from <https://www.medicalnewstoday.com/articles/322222>
- S. Kanwal. (2016, October 16). *Prevalence of alcoholism in India by gender and type*. *Statista*. <https://www.statista.com/statistics/946806/india-alcoholism-prevalence-by-gender-and-type/#:~:text=In%202016%2C%20around%209.1%20percent,in%20the%20country%20that%20year.>
- Sarkar, M. & Fletcher, D. (2014). Psychological resilience in sport performers: A review of stressors and protective factors. *Journal of Sports Sciences*, 32(15), 1419-1434. DOI:10.1080/02640414.2014.901551
- Saxena, M. & Mehrotra, S. (2010). Emotional disclosure in day-to-day living and subjective well-being. *Psychological Studies*, 55(3):208–218. DOI 10.1007/s12646-010-0034-1
- Sathyanarayanan, G., Vengadavaradan, A., & Bharadwaj, B. (2019). Role of Yoga and Mindfulness in Severe Mental Illnesses: A Narrative Review. *International journal of yoga*, 12(1), 3–28. https://doi.org/10.4103/ijoy.IJOY_65_17
- Saxena, J., Singh, P. N., Srivastava, U., & Siddiqui, A.Q. (2000). A study of thyroid hormones (T3, T4 & TSH) in patients of depression. *Indian journal of psychiatry*, 42(3), 243–246

- Scaccia, A., Serotonin: what you need to know, *Health line Newsletter*, May 18, 2017(Medically Reviewed)
- Schuch, F.B., Vancampfort, D., Richards, J., Rosenbaum, S., Ward, P.B., Stubbs, B. (2016). Exercise as a treatment for depression: A meta-analysis adjusting for publication bias. *Journal of Psychiatric Research*, 77:42-51. doi: 10.1016/j.jpsychires.2016.02.023.
- Schramm, Tanya Marie, "The Relationship Between Physical Activity and Flexibility" (1998). 3041. <https://digitalcommons.unomaha.edu/studentwork/3041>
- Schwingel, A., Niti, M., Tang, C.& Pin Ng, T. (2009). Continued work employment and volunteerism and mental well-being of older adults: Singapore longitudinal ageing studies, *Age and Ageing* ,38(5), 531–537, <https://doi.org/10.1093/ageing/afp089>
- Seligman, M. (2011). Excerpt from [Flourish: A visionary new understanding of happiness and well-being](#). Authentic Happiness website, Developed by Positive Psychology Centre, University of Pennsylvania
- Seligman, M. & Csikszentmihalyi, M. (2000). Positive psychology: An Introduction. *The American psychologist*. 55. 5-14. 10.1037/0003-066X.55.1.5.
- Sell, H. (1984). The Subjective Well-Being Inventory (SUBI). *International Journal of Mental Health*, 23(3), 89-102. <https://www.jstor.org/stable/41344695J>
- Sengupta, A. (2016). Gender Inequality in Wellbeing in India. *Economic & Political Weekly*, 51(13).
- Senser, A. (2010). Factors affecting life satisfaction in old age. *Turkish Journal of Geriatrics*, 14(2), 179-186.
- Serrat R., Villar F., Giuliani M. & Zacaes, J. (2016). Older people's participation in political organisations: The role of generativity and its impact on well-being. *Journal of Educational Gerontology*, 43(3). <http://dx.doi.org/10.1080/03601277.2016.1269541>

- Sergio R., De Nicolás-Jiménez, J., Martínez-álvarez, M., Sergio C., Santano-mogena, E. & Calderón-garcía, J. (2019) Effects of smoking and physical activity on the pulmonary function of young university nursing students in Cáceres (Spain), *Journal of Nursing Research*,27(5).doi: 10.1097/jnr.0000000000000322
- Shah, J. (2003). Automatic for the people: How representations of significant others implicitly affect goal pursuit. *Journal of Personality and Social Psychology*,84(4), 661–681. DOI: 10.1037/0022-3514.84.4.661
- Shanas, E. (1979). The family as a social support system in old age. *The Gerontologist*,19 (2). doi:10.1093/geront/19.2.169
- Shankar, A., Rafnsson, S. & Steptoe, A. (2015). Longitudinal associations between social connections and subjective wellbeing in the English longitudinal study of ageing. *Psychology and Health*,30(6),1-29. DOI: 10.1080/08870446.2014.979823
- Shapiro, D. (1992). Adverse effects of meditation: A preliminary investigation of long-term meditators, *International Journal of Psychosomatics*,39,1(4),62-67.
- Shapiro S., Carlson L., Astin, J. & Freedman B. (2006). Mechanisms of mindfulness- Review article. *Journal of Clinical Psychology*,62(3),373–386. DOI: 10.1002/jclp.20237
- Sharma, G., & Goodwin, J. (2006). Effect of aging on respiratory system, physiology, and immunology. *Clinical interventions in aging*, 1(3), 253–260. <https://doi.org/10.2147/ciia.2006.1.3.253>
- Sharpiro, S., Astin J., Bishop, S., Cardova, M. (2005). Mindfulness Based Stress Reductions for health care professionals: Results from a randomized trial. *International Journal of Stress Management*,12 (2),164-176. Doi.10.1037/1072-5245.12.2.164
- Shariff, A. & Norenzayan, A. (2007). God is watching you: Priming God concepts increases pro social behavior in an anonymous economic game. *Psychological Science*,18(9),803-9. DOI: [10.1111/j.1467-9280.2007.01983.x](https://doi.org/10.1111/j.1467-9280.2007.01983.x).

- Sherrington, C, Michaleff, Z.A., Fairhall, N, Paul, S.S., Tiedemann, A., Whitney, J., Cumming R.G., Herbert, R.D., Close, J.C.T. & Lord, S.R. (2017). Exercise to prevent falls in older adults: an updated systematic review and meta-analysis. *British Journal of Sports Medicine* 51(24):1750-1758. doi:10.1136/bjsports-2016-096547.
- Sheu, K. & Zeng, Y. (2010). The association between resilience & survival among Chinese elderly, *Demographic Research*, 23(5), 105-116. <http://dx.doi.org/10.4054/DemRes.2010.23.5>
- Shi, X., Wang, B., He, T., Wu, L. & Zhang, J. (2020). Secure attachments predict prosocial behaviors: A moderated mediation study. *Psych J.* Oct;9(5):597-608. doi: 10.1002/pchj.348. Epub 2020 Feb 12. PMID: 32052595.
- Siegel, D. J. (2007). Mindfulness training and neural integration: differentiation of distinct streams of awareness and the cultivation of well-being. *Social cognitive and affective neuroscience*, 2(4), 259–263. <https://doi.org/10.1093/scan/nsm034>
- Singh, S., Deshmukh, P., Ungratwar, A., Subramanyam, A. & Kamath, R. (2017). Does resilience affect illness perception and well-being in the Elderly? *Journal of Geriatric Mental Health*, 1(2) DOI.10.4103/2348-9995.152429
- Singh, N., Clements, K. & Singh, M. (2001). The efficacy of exercise as a long-term antidepressant in elderly subjects a randomized, controlled trial. *The journals of gerontology. Series A, Biological sciences and medical sciences*, 56, M497-504. DOI.10.1093/gerona/56.8.M497.
- Simha, S., Noble, S., & Chaturvedi, S. K. (2013). Spiritual concerns in Hindu cancer patients undergoing palliative care: a qualitative study. *Indian journal of palliative care*, 19(2), 99–105. <https://doi.org/10.4103/0973-1075.116716>
- Skerrett, P. & Willett, W. (2010). Essentials of healthy eating: a guide. *Journal of midwifery & women's health*, 55(6), 492–501. <https://doi.org/10.1016/j.jmwh.2010.06.019>.

- Skovlund, S. & Peyrot, M. (2005). The Diabetes Attitudes, Wishes, and Needs (DAWN) Program: A New Approach to Improving Outcomes of Diabetes Care. *Diabetes Spectrum*, 18(3): 136-142. <https://doi.org/10.2337/diaspect.18.3.136>
- Smith (2006). Personality as risk & resilience in physical health. *Association for Psychological Science*, 15(5). DOI: [10.1111/j.1467-8721.2006.00441.x](https://doi.org/10.1111/j.1467-8721.2006.00441.x)
- Smith, L., Webber, R. & De Frain, J. (2013). Spiritual well-being and its relationship to resilience in young people: A mixed methods case study. *SAGE Open*. DOI: [10.1177/2158244013485582](https://doi.org/10.1177/2158244013485582)
- Sollgruber, A., Bornemann-Cimenti, H., Szilagyi, I.S., & Sandner-Kiesling, A. (2018). Spirituality in pain medicine: A randomized experiment of pain perception, heart rate and religious spiritual well-being by using a single session meditation methodology. *PloS one*, 13(9), e0203336. <https://doi.org/10.1371/journal.pone.0203336>
- Sonawat, R. (2001). Understanding families in India: A reflection of societal changes, *Psicologia: Teoria e Pesquisa*, Mai- Ago, 17(2), 177-186. DOI: [10.1590/S0102-37722001000200010](https://doi.org/10.1590/S0102-37722001000200010)
- Southwick, S., Bonanno, G., Masten, A., Panter-Brick, C. & Yehuda, R. (2014). Resilience definitions, theory, and challenges: Interdisciplinary perspectives, *European Journal of Psycho traumatology*, 5:doi: [10.3402/ejpt.v5.25338](https://doi.org/10.3402/ejpt.v5.25338)
- Srivastava, S., Thalil, M., Rashmi, R. & Paul, R. (2021). Association of family structure with gain and loss of household headship among older adults in India: Analysis of panel data. Published online. <https://doi.org/10.1371/journal.pone.0252722>
- Steptoe, A., Deaton, A. & Store, A. (2015). Subjective well-being, health & ageing. *Lancet* 2015, 385(9968), 640-648. doi: [10.1016/s0140-6736\(13](https://doi.org/10.1016/s0140-6736(13)
- Steverink, N., Westerhof, G., Bode, C. & Dittmann-Kohli, F. (2001). The personal experience of aging, individual resources, and subjective well-being. *The journals of*

gerontology. Series B, Psychological sciences, and social sciences. 56. P364-73.

10.1093/geronb/56.6.P364.

Stewart, R., Richards, M., Brayne, C., & Mann, A. (2001). Vascular risk and cognitive impairment in an older, British, African-Caribbean population. *Journal of the American Geriatrics Society*, 49(3), 263–269. <https://doi.org/10.1046/j.1532-5415.2001.4930263.x>

Strawbridge, W. & Deleger, S. & Roberts, R. & Kaplan, G. (2002). Physical activity reduces the risk of subsequent depression for older adults. *American journal of epidemiology*, 156(4). 328-34. doi:10.1093/aje/kwf047

Suar, D., Jha, A.K., Das, S.S. & Alat, P. Tommasi, M (Reviewing editor) (2019) The structure and predictors of subjective well-being among Millennials in India. *Cogent Psychology*, 6(1). DOI: [10.1080/23311908.2019.1584083](https://doi.org/10.1080/23311908.2019.1584083)

Suh, E., Diener, E. & Fujita, F. (1996). Events and subjective wellbeing: only recent events matter. *Journal of Personality and Social Psychology*, 70(5), 1091-1102. DOI:10.1037//0022-3514.70.5.1091.

Surwit R., Schneider, M. & Feinglos, M. (1992) Stress and diabetes mellitus. *Diabetes Care*, 15(10):1413-22. doi:10.2337/diacare.15.10.1413. PMID: 1425110

Svalastog, A.L., Donev, D., Jähren Kristoffersen, N., & Gajović, S. (2017). Concepts and definitions of health and health-related values in the knowledge landscapes of the digital society. *Croatian medical journal*, 58(6), 431–435. <https://doi.org/10.3325/cmj.2017.58.431>

Tada, A. (2018). Psychological effects of exercise on community-dwelling older adults. *Clinical interventions in aging*, 13, 271–276. <https://doi.org/10.2147/CIA.S152939>.

- Tagay, O., Karatas, Z., Bayar, O. & Savi-Cakar, F. (2016). Resilience and life satisfaction as the predictors of general self-efficacy. *Global Journal of Counseling and Guidance in Schools: Current Perspectives*, 6(1), 11-17. DOI: 10.18844/gjgc.v6i1.580
- Takahashi, K., Sase, E., Kato, A., Igari, T., Kikuchi, K. & Jimba, M. (2015). Psychological resilience and active social participation among older adults with incontinence: a qualitative study. *Ageing and Mental Health*, 20(11), 1165-1173.
<https://doi.org/10.1080/13607863.2015.1065792>
- Tan, J.J.X., Kraus, M.W., Carpenter, N.C., & Adler, N.E. (2020). The association between objective and subjective socioeconomic status and subjective well-being: A meta-analytic review. *Psychological Bulletin*, 146(11), 970–1020. <https://doi.org/10.1037/bul0000258>
- Taqi, A., Ahmed, I., Waris, Q. & Qadri, Z. (2007). Depression in the elderly: Does family system play a role? A cross-sectional study. *BMC psychiatry*. 7. 57.
DOI:10.1186/1471-244X-7-57.
- Tay, L., Li, M., Myers, D. & Diener, Ed. (2014). Religiosity and subjective well-Being: An International perspective. In *Religion and spirituality across cultures* pp.163-175.
DOI:10.1007/978-94-017-8950-9_9.
- Terril & Gullifer, (2010). Growing older: A qualitative inquiry into the textured narratives of older, rural women. *Journal of health psychology*, 15(5), 707-715.
Doi.10.1177/1359105310368180
- Tesar, M. & Peters, M. (2020) Heralding ideas of well-being: A Philosophical perspective. *Educational Philosophy and Theory*, 52(9), 923-927.
DOI: [10.1080/00131857.2019.1696731](https://doi.org/10.1080/00131857.2019.1696731)
- Thomas, N., Adler, E. & Leese, G.P. (2004) Barriers to physical activity in patients with diabetes *Postgrad Med Journal*, 80, 287–291. doi:10.1136/pgmj.2003.010553

- Thomsen, D., Mehlsen, M., Viidik, A., Sommerlund, B., & Zachariae, R. (2005) Age and gender differences in negative affect-Is there a role for emotion regulation? *Personality and individual differences*,38(8),1935-46.
<https://doi.org/10.1016/j.paid.2004.12.001>
- Tomas, J., Sanchoa, P.J., Melendez, J. & Mayordomob, T. (2012). Resilience and coping as predictors of general well-being in the elderly: A structural equation modeling approach, *Ageing & Mental Health*,16(3),317-326.
- Tomioka, K, Kurumatani, N. & Hosoi, H. (2016). Relationship of having hobbies and a purpose in life with mortality, Activities of Daily Living, and Instrumental Activities of Daily Living among community-dwelling elderly adults. *Journal of Epistemology*,26(7):361-70. doi:10.2188/jea.JE20150153.
- Tramunt, B., Smati, S., Grandgeorge, N., Lenfant, F., Amal, J.F., Montagner, A. & Gourdy, P. (2020). Sex differences in metabolic regulation and diabetes susceptibility. *Diabetologia*, 63(3). 453-461. [https://doi.org/10.1007/s00125-019-05040-3 /](https://doi.org/10.1007/s00125-019-05040-3/)
- Triandis, H. (2000) Cultural syndromes and subjective wellbeing. In Ed Diener & Eunkook M. Suh, (Eds.), *Culture and wellbeing* (pp.13-36). The MIT Press.
Doi:10.1.1.208.4519&rep=rep1&type=pdf
- Udhayakumar, P. & Ilango, P. (2012). Spirituality, stress, and wellbeing among the elderly practicing spirituality. *Samaja Karyada Hejjegalu*,2(10),37-42.
- United Nations, Department of Economic and Social Affairs, Population Division (2015). *World Population Ageing 2015* (ST/ESA/SER.A/390).
DOI: <https://doi.org/10.18356/88fa44e7-en>
- United Nations, Department of Economic and Social Affairs, Population Division (2017). The International Migration Report. Highlights.

- (ST/ESA/SER.A/404). https://www.un.org/en/development/desa/population/migration/publications/migrationreport/docs/MigrationReport2017_Highlights.pdf
- United Nations, Department of Economic and Social Affairs, Population Division (2019). *World Population Ageing 2019: Highlights* (ST/ESA/SER.A/430). <https://www.un.org/en/development/desa/population/publications/pdf/ageing/WorldPopulationAgeing2019-Highlights.pdf>
- United Nations Development Program, India (2015), Sustainable Development Goals. <https://www.in.undp.org>
- United Nations *World Population Prospects*, 2012 Revision
- US Census Bureau Inter database & UN Department of Economic & Social Affairs, Population Division 2015
- Vahia, I., Depp, C., Palmer, B., Fellows, I., Golshan, S., Thompson, W., Allison M. & Jeste, D. (2011). Correlates of spirituality in older women. *Aging & Mental Health*, 15 (1), 97–102. <http://doi.org/10.1080/13607863.2010.501069>
- Veenhoven, R. (2006). How do we assess how happy we are? Tenets, implications, and tenability of three theories, *paper presented at conference on 'New Directions in the Study of Happiness: United States and International Perspectives'*, University of Notre Dame, USA, October 22-24
- Venkatraman, M. (1995). A cross-cultural study of the subjective well-being of married elderly persons in the United States and India. *Journal of Gerontology: SOCIAL SCIENCES* 1995. 50B(1), S 35-S44.
- Villani, D., Sorgente, A., Iannello, P. & Antonietti, A. (2019). The role of spirituality and religiosity in subjective well-being of individuals with different religious status. *Frontiers in Psychology*. <https://doi.org/10.3389/fpsyg.2019.01525>

- VonDras, D., Schmitt, D. & Marx, D. (2007). Associations between aspects of spiritual well-being, alcohol use, and related social cognitions in female college students. *Journal of Religion and Health*, 46(4), 500-515
- Wachholtz, A. & Pargament, K. (2005). Is spirituality a critical ingredient of meditation? Comparing the effects of spiritual meditation, secular meditation, and relaxation on spiritual, psychological, cardiac, and pain outcomes. *Journal of Behavioural Medicine*, 28(4), 369-84. doi:10.1007/s10865-005-9008-5.
- Wan Y., Zhao, Y. & Song, H. (2021). Effects of physical exercise on prosocial behavior of junior high school students. *Children Basel*, 8(12), doi:[10.3390/children8121199](https://doi.org/10.3390/children8121199)
- Wang, J., & Geng, L. (2019). Effects of socioeconomic status on physical and psychological health: lifestyle as a mediator. *International journal of environmental research and public health*, 16(2), 281. <https://doi.org/10.3390/ijerph16020281>
- Wang, Y., Yang, C., Zhang, Y., & Hu, X. (2021). Socioeconomic status and prosocial behavior: the mediating roles of community identity and perceived control. *International journal of environmental research and public health*, 18(19), 10308. <https://doi.org/10.3390/ijerph181910308>
- Warburton, D., Nicol, C. & Bredin, S. (2006), Health benefits of physical activity: The evidence. *Canadian Medical Association Journal*, 174(6), 801–809. doi:[10.1503/cmaj.051351](https://doi.org/10.1503/cmaj.051351)
- Waterman, A.S., Schwartz, S.J., Zamboanga, B.L., Ravert, R.D., Williams, M.K., Agocha, V. B., Kim, S.Y., & Donnellan, M.B. (2010). The Questionnaire for Eudemonic Well-Being: Psychometric properties, demographic comparisons, and evidence of validity. *The journal of positive psychology*, 5(1), 41–61. <https://doi.org/10.1080/17439760903435208>

- Wenner, J. R., & Randall, B. A. (2016). Predictors of pro social behavior: Differences in middle aged and older adults. *Personality and individual differences*, 101, 322–326.
<https://doi.org/10.1016/j.paid.2016.05.367>
- Westlake, G., Coall, D., & Grueter, C. (2019). Educational attainment is associated with unconditional helping behaviour. *Evolutionary Human Sciences*, 1, E15.
doi:10.1017/ehs.2019.16
- Wethington, E. (2000). Expecting Stress: Americans and the “Midlife Crisis”. *Motivation and Emotion*, 24 (2), DOI: 10.1023/A:1005611230993
- Wickramaratne, C., Phuoc, J. & Albattat, A. (2020). A review of wellness dimension models: for the advancement of the society. *European Journal of Social Science Studies*, 5(1), 185-198. DOI: 10.5281/zenodo.38414
- Wickrama, K. K., O'Neal, C. W., Kwag, K. H., & Lee, T. K. (2013). Is working later in life good or bad for health? An investigation of multiple health outcomes. *The journals of gerontology. Series B, Psychological sciences, and social sciences*, 68(5), 807–815.
<https://doi.org/10.1093/geronb/gbt069>
- Willigen, M. (2000). Differential benefits of volunteering across the life course. *The Journals of Gerontology: Series B*, 55(5), S308–S318S308.
<https://doi.org/10.1093/geronb/55.5.S308>
- Witter, R.A., Okun, M.A., Stock, W.A. & Haring, M.J. Education, and subjective well-being: A meta-analysis. *Educational evaluation and policy analysis*. 1984;6(2):165-173.
doi:10.3102/01623737006002165
- World Health Organization. (2015). World report on ageing and health. World Health Organization. <https://apps.who.int/iris/handle/10665/186463>
- World Health Organisation Report May 2016, http://www.who.int/mental_health/en/

World Health Organization Report, (1999). *Men Ageing And Health Achieving health across the lifespan.*

https://apps.who.int/iris/bitstream/handle/10665/66941/WHO_NMH_NPH_01.2.pdf

World Health Organization. (2020). UN Decade of Healthy Ageing 2021-2030. <https://www.who.int/>

World Health Organization Report on Physical activity across the age groups (2020).

<https://www.who.int/news-room/fact-sheets/data>

Worthington, R. & Gogne, A. (2011). Cultural aspects of primary healthcare in India: A case-based analysis. *Asia Pacific family medicine*. 10. 8. 10.1186/1447-056X-10-8.

Wright, T., Cropanzano, R. (2004). The role of psychological well-being in job performance: a fresh look at an age- old quest. *Organizational Dynamics*, 33(4), 338-351.

DOI: [10.1016/j.orgdyn.2004.09.002](https://doi.org/10.1016/j.orgdyn.2004.09.002)

Wright, A. W., Yendork, J. S., & Kliwer, W. (2018). Patterns of spiritual connectedness during adolescence: Links to coping and adjustment in low-income urban youth. *Journal of youth and adolescence*, 47(12), 2608–2624. <https://doi.org/10.1007/s10964-018-0886-6>

Yeo, J. & Lee, Y. (2019). Understanding the association between perceived financial well-being and life satisfaction among older adults: does social capital play a role? *Journal of Family and Economic Issues*, 40(6). DOI: [10.1007/s10834-019-09634-2](https://doi.org/10.1007/s10834-019-09634-2)

Young, S. (2007). How to increase serotonin in the human brain without drugs. *Journal of Psychiatry & Neuroscience*, 32(6), 394-399.

Zhang, J., Zhang, J., Cheng, Q., Huang, F. Li, S., Wang, A., Su, P. (2017). The resilience status of empty-nest elderly in a community: a latent class analysis. *Archives of Gerontology & Geriatrics*, 68, 161-167. <http://dx.doi.org/10.1016/archger.2016.10.011>

- Zhang, R. & Naughton, D. (2010). Vitamin D in health and disease: Current perspectives, *Nutrition Journal*,9:65. <http://www.nutritionj.com/content/9/1/65>.
- Zhao, Hongfei Du, Qianfeng Li, Qinglu Wu, Peilian Chi (2021) Growth mindset of socioeconomic status boosts subjective well-being: A longitudinal study. *Personality and Individual Differences*,168,110301. <https://doi.org/10.1016/j.paid.2020.110301>.
- Zoeller, R. (2013). Physical activity and fitness in cardiovascular disease, In J. Rippe (Ed.), *Lifestyle Medicine*, (2nd Ed.), pp.49-65. CRC Press