

GERIATRICS

By

Dr Naresh T Chauhan

Introduction

- Life –death
- Mythology, movie describing immortality
- ‘Yayati’ ! Asuras !!
- 7 chirnajivinas
- Life is between breathing in breathing out
- Seven yrs cycle of cells of the body

Ageing is a Natural process

“Old age is incurable disease”

-*Seneca* (4 BC – 65 AD)

“You do not heal old age. You protect it; you promote it; you extend it”

-*Sir James sterling Ross* (1877-1961)

Normal, inevitable biological phenomenon...

Giacomo Leopardi

June 29, 1798-June 14, 1837



- Old age means illness, weakness, loss and pain. But also, perhaps more importantly , too much reasoning, too much self-awareness and thus, the impossibility to believe or to hope. Hence the loss of energy and vitality, which for Leopardi is worse than death itself. It's better to have a **short life full of passion** than a **long life full of coldness.**

- *Gerus*- Old age
- *Iatrea*-Treatment
- Geriatrics
- Geriatric medicine

What is Geriatrics?

- The study of physical and psychological changes which are incident to old age is called ***gerontology***.
- It is the art and science of preventing disease in the geriatric population and promoting their health and efficiency
- The care of the aged is called ***clinical gerontology*** or ***Geriatrics***

- *Geriatrics* is the branch of general medicine concerned with clinical, preventive, medical and social aspects of illness in the elderly
- *Experimental Gerontology, Geriatric gynecology*
- The old age is defined as the age of retirement. In our country it is fixed at 60 years and above.

- *Hippocrates* noted conditions common in later life
- *Aristotle* offered theory of ageing based on loss of heat
- The word geriatrics was invented by *Ignatz L. Nascher*, a vienna born immigrant to the united states
- Geriatric medicine was a product of the British NHS
- *Nascher* was the father of geriatrics and *Majory Warren* was its Mother
- The 1st Geriatric service was started in U.K in 1947.
- Geriatric department at GH, Chennai was established in 1978.
- Post Graduate course in Geriatric medicine has been started in 1996 at Madras medical college.
- *Prof. V.S. Natarajan* was the first Geriatric professor in India

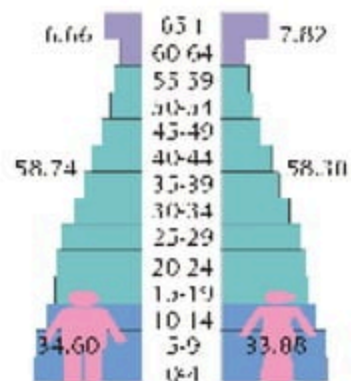
Geriatric population (world)

- 1980- 5.3%
- 2000- 7.7%
- 2025- 13.3% (1.2 billion)
- 71% - Developing World

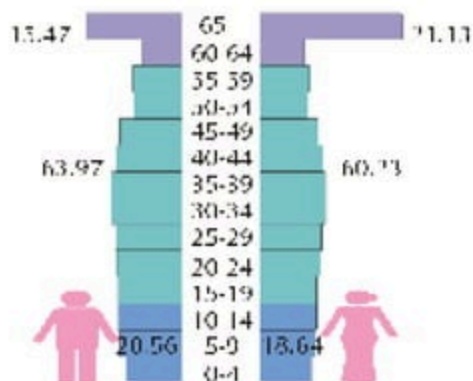
India

- 70 million (2003, SRS, India-7.2% of Tot Pop)
- 177 million population -2025
- 40% below poverty line
- 73% illiterate

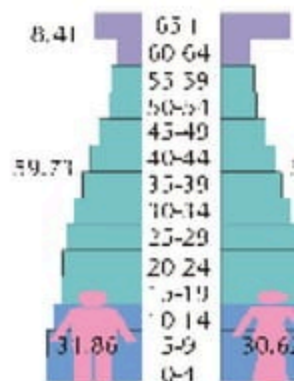
Age pyramid



Less developed countries



More developed countries



world

Theory of aging

why do we age?

- Genetically determined life span encoded in specific genes...
- Somatic mutation of genes
- **Loss of imp genetic material during DNA repair and impaired DNA repair**
- Deprivation and deficiency of imp nutrients and oxygen
- Wear and tear of imp organs by continuous functioning
- Cross-linkage of imp Cellular components
- Growth Hormone deficiency
- Accumulation of stress over life-time with its resultant effect.....

Determinants of health problems

- Social Aspects
- Pshycho-Emotional aspects
- Financial issue
- Issue related to Health care system

RISK OF GERIATRICS

- PRONE FOR INFECTIONS
- PRONE FOR INJURIES
- NEED SPECIAL ASSISTANCE
- PRONE FOR PSYCHOLOGICAL PROBLEMS
- PRONE FOR DEGENERATIVE DISORDERS
- INCREASED RISK FOR DISEASE
- INCREASED RISK OF DISABILITY
- INCREASED RISK OF DEATH

Problems due to the ageing process

- The “*Biological age*”, “*Chronological Age*”
- *Senescence* is an expression used for the deterioration in the vitality that accompanies ageing
- Senile cataract, glaucoma, nerve deafness, osteoporosis, emphysema, failure of special senses changes in mental look

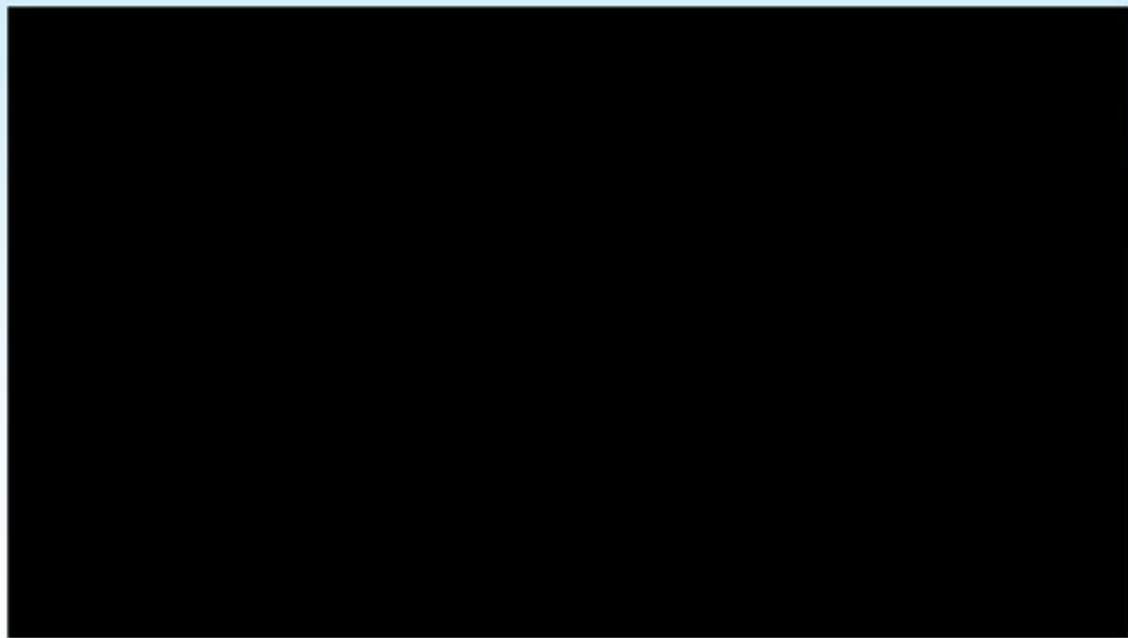
Problems associated with long-term illness

- Degenerative diseases of heart and blood vessels
- Cancer
- Accidents
- Diabetes
- Disease of locomotors system
- Respiratory and genitourinary system

Psychological problems

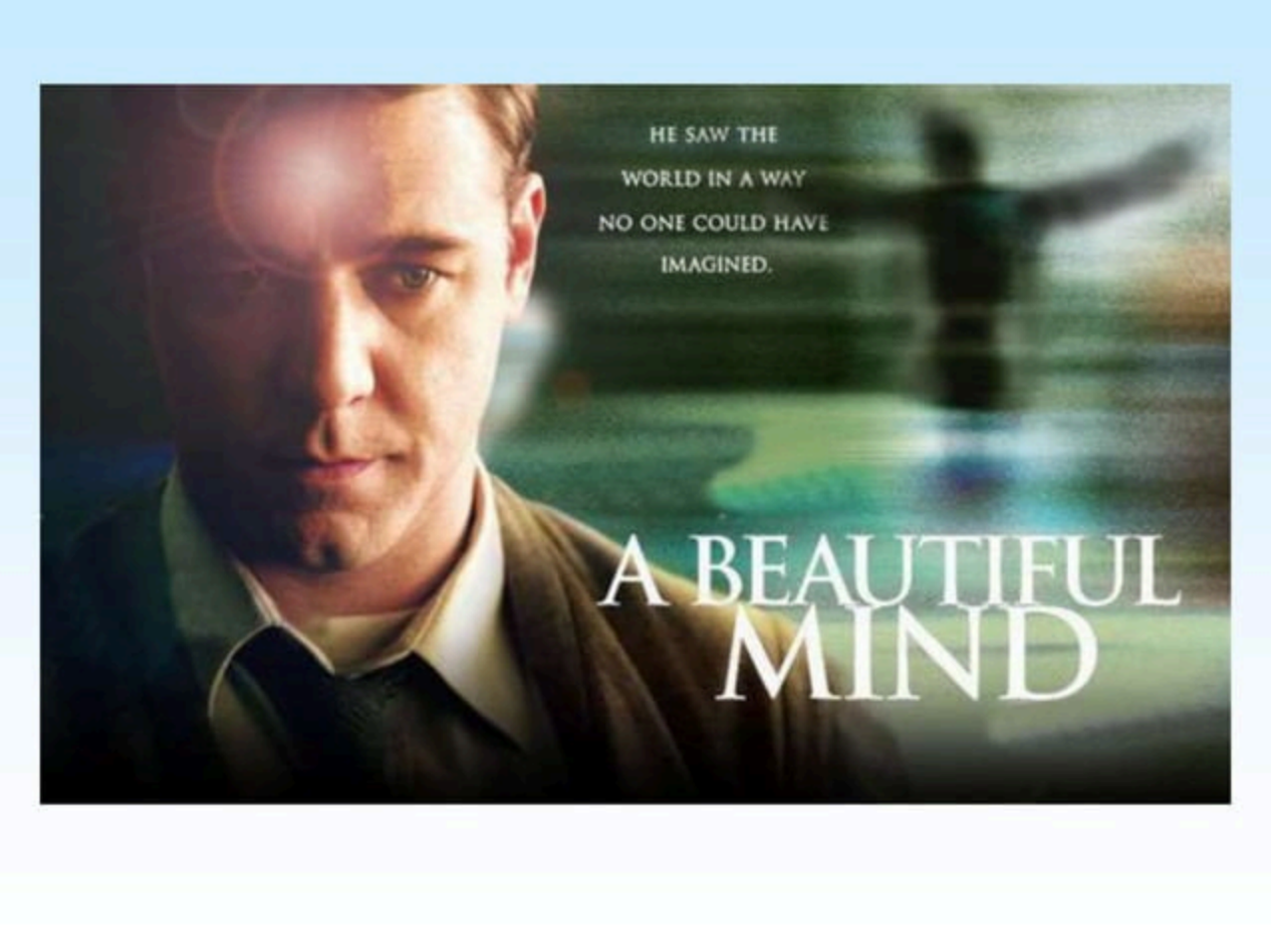
- Mental changes
- Sexual adjustment
- Emotional disorder- social maladjustment

Dementia



Lifestyle and healthy ageing

- Diet and nutrition
- Exercise
- Weight
- Smoking
- Alcohol
- Social activities



HE SAW THE
WORLD IN A WAY
NO ONE COULD HAVE
IMAGINED.

A BEAUTIFUL MIND

Original Investigation

Meditation Programs for Psychological Stress and Well-being A Systematic Review and Meta-analysis

Madhav Goyal, MD, MPH; Sonal Singh, MD, MPH; Erica M. S. Sibinga, MD, MHS; Neda F. Gould, PhD;
Anastasia Rowland-Seymour, MD; Ritu Sharma, BSc; Zackary Berger, MD, PhD; Dana Sleicher, MS, MPH;
David D. Maron, MHS; Hasan M. Shihab, MBChB, MPH; Padmini D. Ranasinghe, MD, MPH; Shauna Linn, BA;
Shonali Saha, MD; Eric B. Bass, MD, MPH; Jennifer A. Haythornthwaite, PhD

IMPORTANCE Many people meditate to reduce psychological stress and stress-related health problems. To counsel people appropriately, clinicians need to know what the evidence says about the health benefits of meditation.

OBJECTIVE To determine the efficacy of meditation programs in improving stress-related outcomes (anxiety, depression, stress/distress, positive mood, mental health–related quality of life, attention, substance use, eating habits, sleep, pain, and weight) in diverse adult clinical populations.

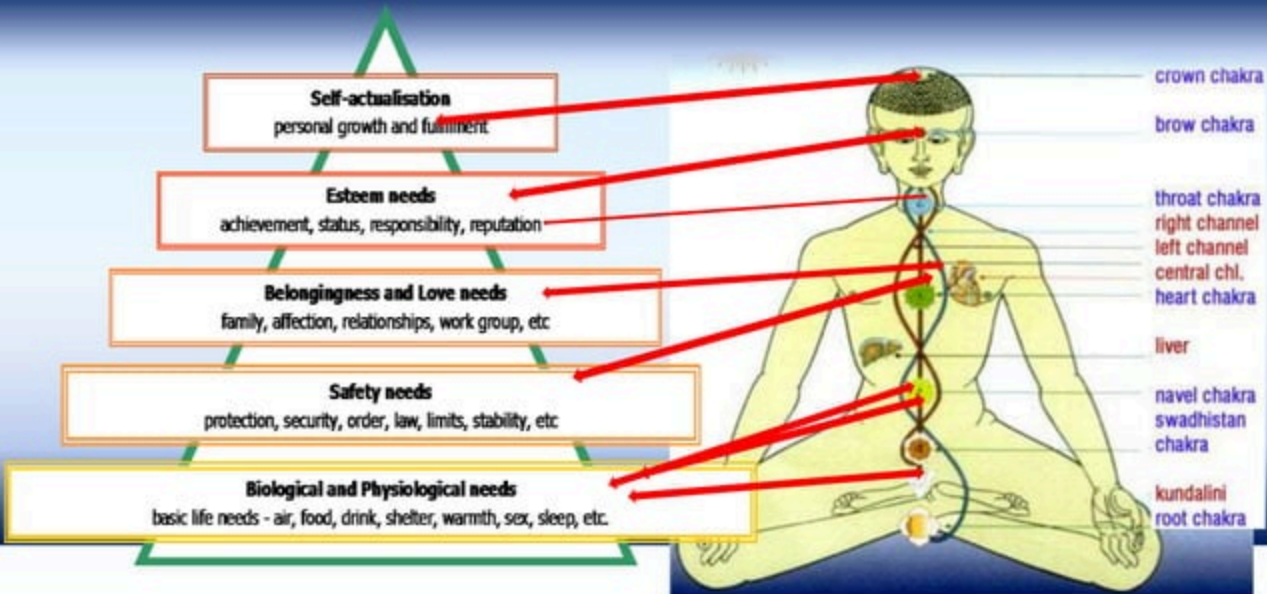
EVIDENCE REVIEW We identified randomized clinical trials with active controls for placebo effects through November 2012 from MEDLINE, PsycINFO, EMBASE, PsycArticles, Scopus,

-  [Invited Commentary](#)
page 368
-  [Author Audio Interview at jamainternalmedicine.com](#)
-  [Supplemental content at jamainternalmedicine.com](#)
-  [CME Quiz at jamanetworkcme.com](#)

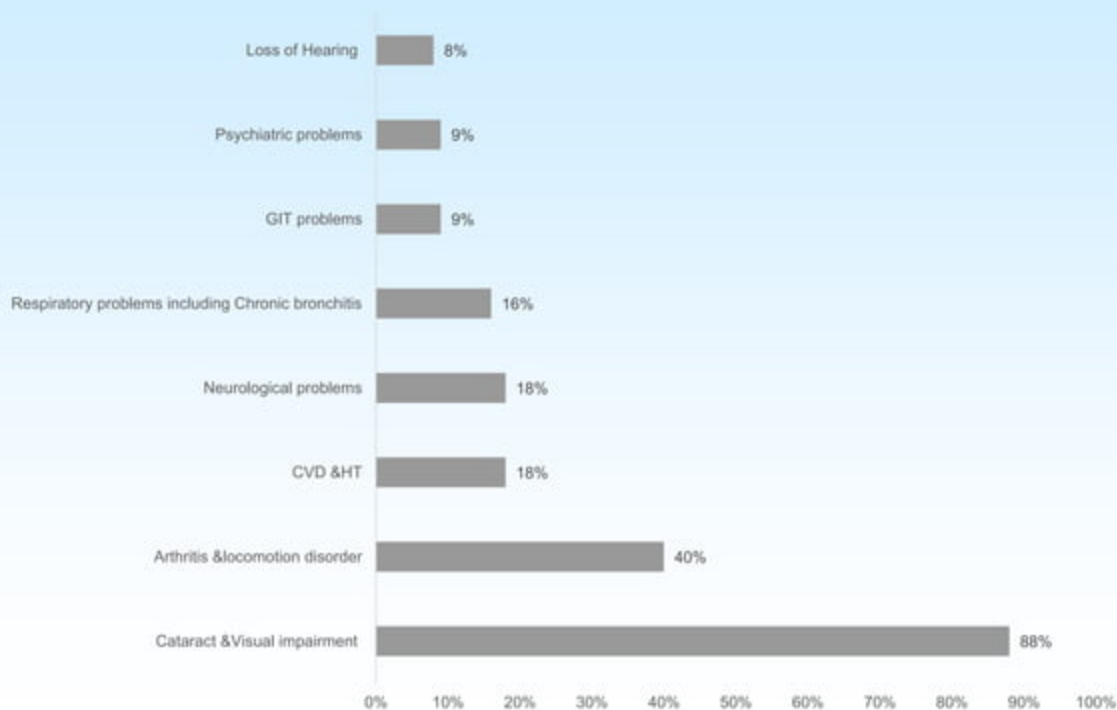
FINDINGS After reviewing 18 753 citations, we included 47 trials with 3515 participants. Mindfulness meditation programs had moderate evidence of improved anxiety (effect size, 0.38 [95% CI, 0.12-0.64] at 8 weeks and 0.22 [0.02-0.43] at 3-6 months), depression (0.30 [0.00-0.59] at 8 weeks and 0.23 [0.05-0.42] at 3-6 months), and pain (0.33 [0.03- 0.62]) and low evidence of improved stress/distress and mental health-related quality of life. We found low evidence of no effect or insufficient evidence of any effect of meditation programs on positive mood, attention, substance use, eating habits, sleep, and weight. We found no evidence that meditation programs were better than any active treatment (ie, drugs, exercise, and other behavioral therapies).

CONCLUSIONS AND RELEVANCE Clinicians should be aware that meditation programs can result in small to moderate reductions of multiple negative dimensions of psychological stress. Thus, clinicians should be prepared to talk with their patients about the role that a meditation program could have in addressing psychological stress. Stronger study designs are needed to determine the effects of meditation programs in improving the positive dimensions of mental health and stress-related behavior.

Maslow's model



Present scenario in INDIA



AIM OF GERIATRIC MEDICINE

- Maintenance of health in old age by high levels of engagement and avoidance of disease
- Early detection and appropriate treatment of disease
- Maintenance of maximum independence consistent with irreversible disease and disability
- Sympathetic care and support during terminal illness

GERIATRIC TEAM

- Geriatricians
- Nurses
- Physiotherapist
- Social worker
- And Health worker

- Investigation is an essential tool in the diagnosis of elderly patients.
- Under or over investigations to be avoided.
- Know the age related variables while interpreting the results.
- Non-invasive tests are preferred than invasive.
- The objective of the investigations is to improve the quality of life.
- One must try to get the diagnosis right, as wrong diagnosis is harbinger of wrong treatment
- Polypharmacy should be avoided whenever possible
- Regular review of medication is a must
- Poor drug compliance could be due to poor advice
- Proper nutrition is vital for healthy living
- A well balanced nutritious diet is ideal for older age
- It is not the quantity but the quality

Indicators of health status of aged

- Age proportional mortality rate
- Age specific death rate persons over 55 years
- Age specific prevalence rates for cvd, cancers and accidents.
- % elders taking three or more drugs/day
- Cumulative percentage of elders undergone cataract surgery
- Proportion of elders admitted to the hospital in the past one year

PREVENTION

- Primordial prevention
- Pre geriatric care
- Primary prevention
- Health education
- Exercise
- Immunization
- Secondary prevention
- Annual medical check-up
- Early detection (Universal approach, Selective approach)
- Treatment
- Tertiary prevention
- Counseling and Rehabilitation (provision of prosthesis)
- Welfare activities (Sanjay Niradhar Yojana, Vridhashrama)
- Chiropody services
- Improving quality of life
- Cultural programme
- Old age club
- Meals-on wheel service
- Home help
- Old age home

Israeli anecdote

- David & Uri
- Happy, Harry and Easy

Health status of the aged in India

- *GOI- National policy on older person 1999*
- *National social assistance programme-old age pension*
- *OASIS-an old age social and income security*
- *Bhavishya arogya Mediclaim, Rural Group life insurance scheme, Income tax concession*
- *HelpAge India*

Nurse reveals the top 5 regrets people make on their deathbed

1. I wish I'd had the courage to live a life true to myself, not the life others expected of me
2. I wish I didn't work so hard
3. I wish I'd had the courage to express my feelings
4. I wish I had stayed in touch with my friends
5. I wish that I had let myself be happier

Harvest moon:

Around the pond I wander
and the night is gone.



Don't just have career or academic goals. Set goals to give you a balanced, successful life. I use the word balanced before successful. Balanced means ensuring your health, relationships, mental peace are all in good order. There is no point of getting a promotion on the day of your breakup. There is no fun in driving a car if your back hurts. Shopping is not enjoyable if your mind is full of tensions.

Life is one of those races in nursery school where you have to run with a marble in a spoon kept in your mouth. If the marble falls, there is no point coming first. Same is with life where health and relationships are the marble. Your striving is only worth it if there is harmony in your life. Else, you may achieve the success, but this spark, this feeling of being excited and alive, will start to die.

One thing about nurturing the spark - don't take life seriously. Life is not meant to be taken seriously, as we are really temporary here. We are like a pre-paid card with limited validity. If we are lucky, we may last another 50 years. And 50 years is just 2,500 weekends. Do we really need to get so worked up?

It's ok, bunk a few classes, scoring low in couple of papers, goof up a few interviews, take leave from work, Enjoy with your friends, fall in love, little fights with your loved Ones . We are people, not programmed devices.

Don't be serious, be sincere

- Chetan Bhagat at Symbiosis