Geriatrics Health

Theories of aging processe

literature

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Introduction:-

Theories explain what is observed or experienced and why and how it is important. A growing trend over the last 10years has been interdisciplinary collaboration to merge profession-specific concepts into a unified theory to explain the aging phenomena. It includes Biological theories and Social theories.

Biological theories of aging

- As many as 300 or more aging theories have been presented in the literature over the past several decades. The major biological theories that attempt to explain the individual differences in aging it fit in to one of two categories:

A) Genetic theory

B) Non genetic theory

A) Genetic theories النظريات الوراثية

a) Programmed aging الشيخوخة المبرمجة

- It is presumes that aging is predetermined or programmed. Four genetic aging theories are programmed aging, somatic mutation طفرة جسدية , free radical الجذور الحرة , and neuro-endocrine theories والنظريات العصبية والغدد الصماء .
- The premise مسلم به of the programmed aging theories is that the human body has an inherited internal "genetic clock" that determines the beginning of the aging process. This genetic clock may manifest as a predetermined محدّد مسبقاً or limited number of cell divisions, called the Haylick limit (also known as replicative senescence or cellular senescence الشيخوخة المتماثلة أو الشيخوخة الخلوية). The Haylick limit **does not affect all cells in the body** as germ cells (sperm or egg), and cells in some tumors (cancer) seem to divide infinitely بشكل لانهائي.

- The theory of older aging and explains why many older adults have one or multiple conditions related to decreased or impaired client factors (sensory, neuro-musculoskeletal, cardiovascular, respiratory, digestive, metabolic, and reproductive) and why it is rare نادر to find any of these impairments in a young adult. **The perception قبل that cellular senescence is not programmed aging** of the whole person explains why such conditions are not universal among older adults.

b) Somatic mutation theory:- نظرية الطفرة الجسدية

- It is presumesيَفترضُ that aging events occur randomly and accumulate with time. **A non-genetic theory is the wear and tear** التآكل والتَلف theory,(also called simple deterioration theories or **fundamental limitation theories**)/ **One or multiple theories** may explain the aging process and characteristics as a wide range of factors that may affect aging such as genetics, random events, environment, lifestyle, and/or habits.
- According to the somatic mutation theory, stochastic (random) chromosomal changes occur as a result of **miscoding, translation errors, chemical reactions, irradiation, and replication of errors;** these mutations result in changes in the Ribo-Nucleicb Acid (RNA) Deoxyribo Nucleic Acid (DNA) code sequences.
- The **accumulation of mutations** can alter the genetic sequence of a cell in such a way that the safe guard to control the proliferation of cellular growth is deactivated, resulting in unrestrained cell division, sometimes ***leading to tumori-genesis and/or cancer.***

c) Neuro-endocrine theory

- The neuro-endocrine theory suggests that the central nervous system is the aging pacemaker منظّم القلب of the body. Modification of **metabolism** or **reproductive function** affects the life span, and the hypothalamus تحت المهاد جزء كبير بالدماغ is predicted to be one possible starting point for neuro-endocrine-related changes because it influences the regulation of the metabolic and reproductive systems..

B)Non-genetic theory (Wear and tear theory)

- The **wear and tear theory proposes**يَقترحُ that cumulative damage within the body leads to the death of cells, tissues, organs, and, finally, the organism. Wear and tear is natural from living things to inanimateغير متحرك objects, and organisms are able to repair wear and tear. Therefore, it can be concluded that internal and external factors play roles in aging and, like other **biological** aging theories, wear and tear within the body accumulate through the years.

II. Social theories of aging

- ***Longer life spans*** **and an increased** ***number of elders*** **in the society have resulted in greater attention to the aging process. Quality of life and successful aging are becoming important areas of study.**

Disengagement theory نظرية التحرر/ عدم الارتباط بالاخرين باعمال/ انعزال

- Disengagement occurs when people withdraw from roles or activities and reduce their activity levels or involvement. Social withdrawal was a consequence of individual disengagement, coupled with society's push for the withdrawal of the elderly manifested in such things as retirement plans and pensionsرواتب التقاعدية.

Activity Theory

- The activity theory was proposed as an alternative view of the disengagement theory to explain the psychosocial process of aging. Havighurst, Neugarten, and Tobin articulated an activity theory of aging, which held that unless constrained by poor health or disability, elders have the same psychological and social needs as people of middle age.
- The activity theory has received a great deal of criticism in that it excludes elders' physical well-being, lifestyle, and personality attributes. It also doesn't account for the value or the personal meaning that the elder may find in activities. Instead, it most often quantifies the number of roles and the amount of involvement in these roles.

Continuity theory نظرية إستمراريةِ

- The premise مسلم به of the continuity theory is that elders **adapt to changes by using strategies to maintain continuity in their lives,** both internal and external. Internal continuity refers to the strategy of forming personal links between **new experiences** and **memories of previous ones**. External continuity refers to interacting with familiar people and living in familiar environments. Many elders continue to be independent as long as they are in familiar surroundings. Some families have noted that once they moved their elder family member from a familiar area, the elder was ***confused and disoriented***.

Life span/life course theory / فترة حياة
نظرية فصلِ حياةِ

The life span, or life course, perspectiveالمنظور is a recent approach to human development by theorists تطوير الانسان من جانبينinterested in the social and behavioral processes of aging. This theory was influenced by the age stratification modelنموذج تطبّقِ, which emphasizes the significant **variations in elders**, **depending on the characteristics of their birth cohortl**مجموعه خصائص الولادة والنمط الاجتماعي والسلوكي.

Erikson's theory of human development نظرية اركوسن للتطوير/التنمية البشريه الانساني

- Erik Erikson's theory of human development over the life span is one of the most **influential**مؤثر descriptions of psychological change. Erikson's framework addresses عنوانه الاطار the **developmental tasks at each stage of the life cycle.** The stage most commonly identified with aging is that of integrity versus despair. In this stage, the elder comes to terms with deterioration of the body but at the same time may reflect on the acquisition of wisdomإستملاكِ الحكمةِ **associated with life experiences**.
- Ego integrity involves the elders' ability to see life as *meaningful and to accept both positive* and negative personality traits الميزات without feeling threatened. Integrity provides a basis for elders approaching the end of life with a feeling of having done their best under the circumstances ظروف.

Exchange Theory نظرية تبادلِ

- ***Exchange theory, as originally developed by Humans, assumes that people attempt to <u>maximize their rewards</u> and <u>minimize their costs</u> in <u>interactions with others.</u>*** يَفترضُ يحاول التفاعلاتِ مَع الآخرين.

Thank you