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Social aspects of polymorbidity in old age

In 1949 Stieglitz was the first to point at the presence of social and economic problems of old generation and the first to use the concept of social gerontology.

Social gerontology deals with the problems of old people as age-differentiated group of population and the issues to be solved usually concern old people in whole, i.e. old people altogether. However, a broad scale of social issues related to an old man as an individual and to his health status, remains unanswered. Health status of seniors is marked mainly by the concurrent presence of numerous chronic diseases.

70 % of people over 70 years of age are reported to suffer from cardiovascular diseases, 50 % of people older than 70 suffer from chronic inflammatory processes or residual diseases and 30 % of people older than 60 years have gastrointestinal disorders.

Mental health is a significant characteristic feature of general health status of an individual. The incidence of psychic changes in overall population is expected to be 15 %, in GP's practice the so called masked psychiatric morbidity ranges from 5 % to 70 %. At least 20 % of subjects over 65 years suffer from manifested psychic disorder.

According to the study by Litomerický, on the group of subjects aged 80 and over 80, 35 % of older women and 23 % of older men cannot not leave their homes unassisted, because they suffer from locomotor disorders, 52 % have impaired vision, of them 12 % have major visual problems, 45 % have hearing problems. About 42 % of people of this group have a difficult access to health care delivery and in seeking medical help they need other people's assistance.

Regardless of age every chronic disease affecting a particular person, has its social consequences and causes. This social feature of chronic diseases is evident especially in an old polymorbid person. The cumulation of chronic diseases in one person may cause a chain of growing social problems affecting the way of life and quality of life. (1).

Maladjustment syndrome in old age and geriatric social syndromes are typical examples illustrating social aspects associated with the onset, course and consequences of diseases in old age. Social aspects of polymorbidity have their impact on an old patient and the society.

A polymorbid senior requiring care due to low self-sufficiency is often a victim of violence: abuse, neglect or maltreatment.

What is the social profile of a polymorbid senior like ? Polymorbid senior is usually retired, i.e. he is poor and has a lower social status. Moreover, he is ill, cannot take any extra work to earn some more money, and due to his poverty and restricted means, his decision making on his own life is also reduced. He needs an increased assistance in all everyday activities. Despite his poverty, his living costs are elevating and he pays more for his health: drugs, caregiving and services. The concurrent social phenomena of polymorbidity involve isolation, loss of communication, loss of feeling of usefulness and imminent death (2).

The polymorbidity risks consist in the onset of acute diseases, in organ failure, in the incidence of complications and prolonged hospitalization due to polypragmasy and increased mortality. Polymorbidity participates in the changed clinical picture of individual diseases. Polymorbidity increases the risk of self-sufficiency and dependence on others. Dependence on other people's help may lead to social deficiency (3).

What are the polymorbidity consequences in current health care system like ?

1. more frequent visits at a doctor's, more consultations with specialists – repeated payments
2. more frequent hospitalizations – fee-for-service

3. higher drug consumption – lump-sum in pharmacy
4. co-payment for drugs and health supplies
5. co-payment for health supplies, e.g. reading glasses
6. high financial burden in preserving oral health – dental prostheses
7. barriers in hospital indications – low number of contractual hospitalizations (by health insurance companies)
8. home treatment deteriorates the prognosis in case of complications due to delayed diagnosis and therapy.

Costs on health may prominently increase as related to polymorbidity. If we fancy a common combination of cardiac patients with concomitant locomotor disease and glaukoma, their copayment in pharmacotherapy will amount to 1214.- Sk for cardiac drugs (4), 107.- Sk for antiglaucoma drugs and approximately 2000.- Sk for nonsteroid antiphlogistics, altogether totalling up to 1 521.- Sk, which represents about 25.6 % of a pensioner's monthly income. If the patient had also concurrent macular degeneration, additional 420 – 500. Sk would be paid for vitamin preparations.

It must be explicitly said that polymorbidity is the cause of current debates on the ability of our society to pay for the treatment of senior patients. A polymorbid old patient is becoming too expensive for health care managers. There are trends to restrict the range of health care delivery, to attenuate causal therapy in favour of symptomatic one, resulting thus in limited diagnostic process. In this way the society artificially creates the conditions for decreasing the level of health care delivery for seniors.

An undisputable problem is the growing number of seniors with chronic and incurable diseases that do not directly lead to death but they do require longterm rehabilitation and institutional care.

If the system of diagnose-related payment will be introduced, a polymorbid patient will become a financial problem. This problem can be partly solved by a coefficient by which the payment for basic diagnosis is multiplied.

The most significant issue of the current Slovak geriatrics resulting from social aspects of polymorbidity is not the ability of physicians to establish the diagnosis and treat an old patient, but the willingness of the society to fulfil their moral and ethical commitments towards older generation.

We should be able to answer the following questions:

- Are we willing to provide adequate social care for seniors?
- Are we able to do away with the discrimination of old people in health care delivery?
- Are we able to consider the share of a senior patient in the treatment as related to his income?
- Are we willing to remove the threat of passive euthanasia of seniors from the system of health care financing?
- Can we still sustain the humane essence of the doctor's profession?

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Multidisciplinarity in acute geriatrics

M. Dúbrava

Summary

The diversity of diseases in geriatrics has found its natural reflection in a frequent usage of multi- and poly- type prefixes in geriatric terminology and in routine everyday practice. The traditionally conceived poly(multi)morbidity and polypharmacy is supplemented by multidisciplinarity. This term is used in relation with longterm care for seniors, while its forms in acute diseases has not been given proper attention, yet. The definition of multidisciplinarity in acute geriatrics (MAG) could ensue from the actual needs of a respective patient with acute disease and may be applied to the approaches covering more than one discipline. MAG should be provided immediately as soon as the patient and the multidisciplinary team are available. At the beginning of the disease a specialist for a particular acute disease should be made responsible for complex decision making about the patient. In later stage the competence should be transferred to a geriatrician who shoud also become a responsible coordinator. MAG in various settings (hospital-outpatient department - patient's residence) differ by its complexity, profundity and intensity of delivered care and by a differentiated logistic provision of this care. MAG has to seek a maximal individual scope of delivered care in the diagnostic and therapeutic areas. In providing MAG we have to attempt for the maximum of flexible cooperation of all the specialists involved, and if necessary, formal routine of multidisciplinary cooperation may be reduced. The provision of MAG is currently limited by the following factors: economically-based view of its primary costs, knowledge and good will of health care organizers, communication and qualification of the health care professionals engaged, lack of evidence based arguments, less effective control of adhering to the standards of health care delivery to seniors. MAG can be a reliable milestone in the management of contradictions resulting form irreversible eurodemography, it can be a challenge to improved health care and concurrent cost reduction because it may significantly enhance the quality and reduce the costs to provide health care. I believe MAG will be accepted similarly as were the other medical methods that seemed utterly inconceivable at the time of their origin.

Key words: *geriatrics - multidisciplinarity - acute medicine - health care organization*

Development of routine activities in seniors in social insitutions

I. Bartošovič, L. Hegyi, Š. Krajčík

Summary

The authors compared self-sufficiency and development of dependencies in a group of 407 residents of old people's homes who lived in these facilities during the years 2000 – 2004. The Barthel test of routine daily activities was used for the examination. In all 10 activities of the test the values showed statistically significant deterioration in the year 2000 as opposed to the year 2004. In the course of 4 years the spectrum of activities requiring the assistance of other people's help has changed. The highest deterioration of activities was recorded in personal hygiene (more than 12 times); in eating and drinking (almost 7 times) and in bathing of residents (3.8 times). In the year 2000 a higher incidence of dependence was statistically significant in women, in four years' time no differences between men and women were recorded. An increased incidence of dependence on other people's help in subjects aged 75 and over 75 as against the age group under 74 years maintained a statistical significance even after four years of institutional stay. While in the year 2000 a complete self-sufficiency was observed in 55.8 % of residents, in four years' time self-sufficiency decreased to 35.1 % in the same residents. During the 4 year followed up period the dependence of moderate and severe degree incerased by more than 3-fold.

Key words: *old people's home – Barthel test – routine daily activities – ADL – self-sufficiency – dependence – institutional care*

Quality of life of seniors from the aspect of nursing

N. Beharková

Summary

One of the priorities of the 21st century is the enhancement of quality of life in all age categories. The decrease of reproduction of population and the increase of the number of seniors are the indicators of contemporary demographic development in Europe and our country which is reflected in numerous areas of our society.Good old age can be reached by providing good health status, well-preserved self-sufficiency and independence of seniors, positive family background, well functioning health and social system. In its document Health 21, the WHO (1999) defined quality of life as "subjective feeling of an individual or a group that their needs are satisfied and that they are not deprived of the opportunities to achieve personal well-being and fulfilment of their needs." Six basic domains of the quality of life – physical health, mental function, level of independence, social relations, environment, spirituality - were defined by the WHO in the document WHOQOL-100. A significant role of sustaining and enhancing the quality of life in old age is being played by nursing that affects biological, psychic, social, spiritual, cultural and esthetic needs of a senior.

Key words: *quality of life – old person – healthy ageing – nursing*

Education of seniors in the issue of healthy ageing

I. Rovný, L. Fižová, J. Skalová

Summary

The issue of healthy ageing is being dealt with in the priorities and projects incorporated in the National Programme of Health Promotion whose latest amendment was approved by the Government of the Slovak Republic in its resolution in November 1999.

In accordance with the priority of Healthy Ageing of the WHO Health 21 – health for all in the 21st century and with the priority of the National Programme of Health Promotion "to provide family health" the Public Health Institute of the SR prepared the programme **Successful Ageing.** The program is designed for the citizens who will soon reach the age of retirement.

The health policy targeted at seniors intends to create adequate preconditions for seniors so that they might live to good old age sustaining good physical and mental health. The essential prerequisite of successful outcome is to change thinking and behavioral patterns and attitudes of health care workers towards seniors as well as the way of thinking and life style of the seniors themselves. The earlier the preparation starts the better the results are.

The greatest problem of "young" pensioners is their mental unpreparedeness for the life of a pensioner. Due to extensive education many people know what kind of life style they should have, what to eat, drink, huch much to sleep, how much time spend on exercise but they simply do not know how to spend their free time they are encountered with when retired.

Old person is able to acquire new knowledge. As opposed to younger generation the difference consists in slower rate of learning, more frequent repetition, exploitation of life experiences in acquiring new knowledge, capability of applying theoretical knowledge and practical situations and solutions due to empiricism. In the education of older subjects the following methodological recommendations should be adhered to:

◆ Acquiring new knowledge should be accomplished gradually and slowly. The participants must be given the possibilility of either choosing or influencing the rate of their education. ◆ The quantity of information offered during one session should be smaller than in younger participants. ◆ The information should be lucid and well-arranged, supplemented by illustrations or exhibits. Written materials are recommended to be given to participants. ◆ Any erroneous and deficient information acquired from various previous sessions must be corrected tactfully to prevent incorrect habit formation. ◆ Activation of the participants by various stimuli and questions and involving them in the interpretation of new information. This way will help them in acquiring new knowledge.

Key words: *senior - education in high age – methodology of learning – geriatrics – preparation for ageing – programme Successful Ageing*

Latest methods in (transthoracal) gerontoechocardiography

M. Dúbrava, J. Jánošiová

Summary

In modern medicine non-invasive, well tolerated, reliable, available, financially effective examination methods with high potential of clinical efficiency are preferred. Echocardiography is also included in these methods. The submitted paper offers our view of the role of transthoracal gerontoechocardiography, with main focus on direct diagnostic and/or therapeutic benefit of echocardiographic examination for a particular patient. We also point at gerontoechocardiography interference with typical geriatric phenomena, such as polymorbidity and oligosymptomatic/atypic course of diseases. The significance of echocardiography is illustrated in selected diseases (ischemic heart disease, heart failure, valvular defects, pulmonary hypertension, pericardial fluid repletion, atrial fibrillation, endocarditis, arterial hypertension, amyloidosis, acute cerebrovascular stroke). We believe that useful application of echocardiography to the benefit of senior can be applied in numerous potential indication situations on one hand, while the examination results must be rationally placed in the complete information system about the patient, on the other hand.

Key words: *geriatrics – echocardiography – diagnostics*

Palliative medicine – asthenia and anorexia

T. Hanisková, Š. Krajčík

Summary

Asthenia and anorexia is one of the commonest symptoms in terminally ill patients. In contrast with pain, dyspnoea or other symptoms there is only little infomation on its pathophysiology and treatment. The patient often think the loss of appetite and weight is a signal of the treatment failure. Both the family and the patients frequently believe that if they eat more their strength and weight will return to normal. Unfortunately, even with the latest parenteral and enteral nutrition application, this is not always possible. These symptoms are typical of progression of the disease and they are irreversible. Thus, it is not easy to find a response to the question as to whether and how the artificial intake of nutrition and fluids may facilitate to positive infuencing the outcome of the treatment and how it will help the patient.

Key words: *palliative medicine – asthenia – anorexia*

The problem of sarcopenia in old age

D. Hrnčiariková, Z. Zadák

Summary

Old age is associated with gradual worsening of neuromuscular functions resulting in mobility disorders and a drop in self-sufficiency. A significant role in reducing self-sufficiency is played by biological age-induced loss of skeletal muscle – involution sarcopenia (2). It is characterized by decreased muscle strength due to degeneration, atrophy and involution of muscle fibers, reduced synthesis of muscle proteins and mitochondrial dysfunction.

Starting at the age of 40 years 5% of muscle mass is lost over a decade and after the age of 65 years, the loss is even greater (6). The prevalence of sarcopenia at the age over 80 exceeds 60% (3).

Sarcopenia is closely connected with age but it may be accelerated by many other factors, such as inactivity, malnutrition and chronic diseases.

Age-induced loss of muscle mass is a slow but irreversibly prograding process with adverse effects for further quality of life of seniors. The impairment of muscle strength significantly contributes to reduced physical activity, the risk of falls and multiple fractures due to osteoporosis is increased, the respiratory muscle efficiency decreases, basal metabolism and glucose tolerance diminishes and thermoregulation deteriorates (7). The loss of self-sufficiency and dependence on other people's assistance is the result of these changes. Sarcopenia is an important cause of "fragility" of seniors, it significantly participates in morbidity and mortality in old age, increases the number of treatment complications, prolongs hospital stay thus leading to the elevation of health care costs (11).

Key words: *sarcopenia – old age – muscle changes – malnutrition*