

CONSISTENCY AGAINST STATISTICS - THE POSSIBLE ANSWER

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Abstract: Chronic non-communicable diseases are the largest factor in life expectancy and mortality. Despite the measures, morbidity and mortality remain high. **The purpose** of the study is to present the discrepancy between people's beliefs about the need for physical activity and Eurostat's health statistics in Bulgaria, and to identify a possible cause.

Factors such as physical activity, mental health status and overall mortality in Bulgaria are worse than in the EU Member States. This finding contradicts people's attitudes and beliefs from their own research. It has been found that there is a conflict between the intention to behave and the orientation of the active lifestyle behavior, which is low in motivation.

The economic factors that impair the quality of life exert an influence on the psyche with the result: lack of value, sense of happiness, satisfaction with life. Motivation suffers because of poor quality of life.

The main conclusion is that there is a conflict between lifestyle and health indicators, which is the very motivation of people. It is "compromised" by a downward trend, by the controllable factors of the social environment and the uncontrollable economic factors of society.

The possible answer to people's beliefs about active lifestyles against poor statistics is to influence economic factors in the link "economic factors - quality of life - motivation", between which there is a right proportional relationship.

Keywords: health indicators, mortality, lifestyle, quality of life, motivation

1. INTRODUCTION

Chronic non-communicable diseases are the largest factor in life expectancy and mortality. Despite preventative measures, through promotion and prevention, the incidence and mortality of chronic non-communicable diseases in Bulgaria remain high. The purpose of the study is to present the discrepancy between people's beliefs about the need for physical activity and Eurostat's health statistics in Bulgaria, and to identify a possible cause. To answer the question "Where is people's conviction and motivation meeting resistance and why is it"?

2. STATISTICS OF THE EUROPEAN UNION AND BULGARIA

A comparative analysis of the statistics for Bulgaria and the European Union was carried out in relation to physical activity among the elderly and the level of mental health. Available data from Eurobarometer and EUROSTAT surveys outline the following overall picture for Bulgaria, relative to the European Union:

- **Low proportion of physically active and athletic elderly people:**

Older people in Bulgaria participate very poorly in various forms of physical activity, exercise and sports. According to the National Statistical Institute, 1.9%, compared to an average of 10.7% for EU Member States (Figure 1).

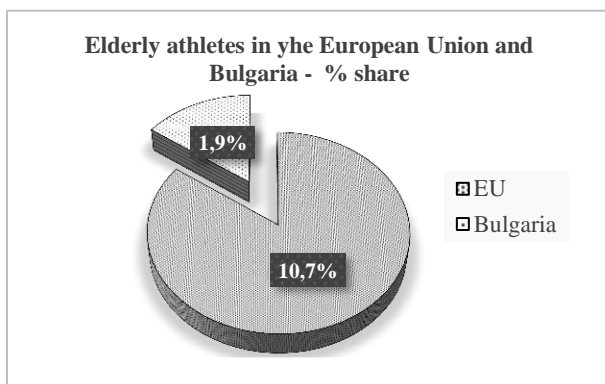


Figure 1 Comparison of sporting elderly people between Bulgaria and the European Union. (Source: Eurobarometer: Special Eurobarometer 334 and Special Eurobarometer 412, Sport and Physical Activity)

- **Poor health status and poor mental health performance compared to other EU Member States:**

A large number of indicators for the health status of the elderly population in Bulgaria also outline an alarming picture - Bulgarians in good mental health over the age of 55 years are 52.6%, while their share in the European

Union is 63.9%; preventive examinations and studies among Bulgarians, including the elderly, are much less frequent than in other EU Member States - data from the National Statistical Institute [2] (Figure 2).

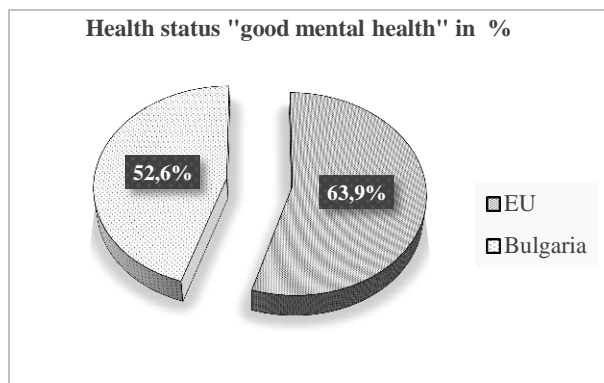


Figure 2 Comparison of the level of mental health in older people between Bulgaria and the European Union (Source: Health determinats, 2009, Special Eurobarometer 329)

Following the changes in the health care system in 2000, much of the institutionalized outpatient services were transferred to the private sector, which had a positive effect on patient care in general, especially for those with so-called common mental disorders - mild depression, anxiety disorders, post-traumatic stress, sleep disorders, etc. Despite these changes, the mental health of Bulgarians is not improving. The reasons for this are the complex nature of the factors that determine it, many of which are outside the psychiatric care system - the living environment, the level of stress in everyday life, working conditions, family relationships, quality of life, social well-being. Bulgaria lags very seriously behind European countries in terms of public health spending, and in particular mental health. The number of psychiatrists increased from 518 to 525, but nevertheless Bulgaria remains the smallest number of psychiatrists per 100,000 people in the European Union.

In 2017, the number of suicides in Bulgaria - attempted and committed suicide, is within the range of 36.4 per 100,000 for the attempted and 9.3 per 100,000 for the committed suicide. Compared to 2016, the number of suicide attempts decreased in 2017. The mean age is 43.2 years for both sexes (an increase of 0.2 years).

- High mortality rate among Bulgarians and increasing tendency.

According to Eurostat data, over the last eight years, the death rate in Bulgaria has been around 15 per 1,000 people, exceeding 15 per thousand in the last five years and a trend of continuous increase (Figure 3).

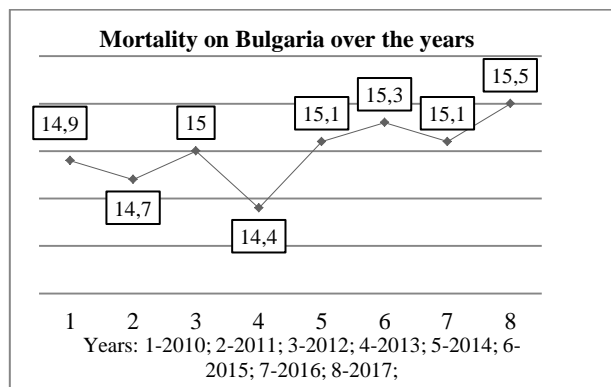


Figure 3 Mortality in Bulgaria for a Seven Year Period. Source: Eurostat database, August 2018

The structure of mortality by major causes in 2017, repeats the trend that has dominated Bulgaria and European countries in recent decades. Diseases of the circulatory organs are leading, followed by neoplasms, diseases of the respiratory system, diseases of the digestive system and external causes of morbidity and mortality [4]. A number of factors uncharacteristic of the European Union determine the specifics of older people's lifestyle in Bulgaria. Overall, Bulgaria's public health indicators show poorer data on the share of physical activity, mental health status and overall mortality compared to other EU Member States. This finding contradicts the attitudes and beliefs of potential patients from the results of a study in Bulgaria.

3. CONVENIENCE OF POTENTIAL PATIENTS - DATA ON BULGARIA

Patients' readiness to control their lifestyle was examined. A sociological research method is applied: direct individual anonymous survey and graphical analysis. A total of 105 health - insured persons, employees of Petrol AD in Bulgaria were surveyed. Data were processed through Microsoft Office Excel 2007.

When asked "Are you determined to change your lifestyle to prevent chronic diseases?", A total of 79% of health insurers are determined to change their lifestyle, compared to nearly 1% (0.5%), who do not have this attitude and 20% who do not know the problem (Figure 4).

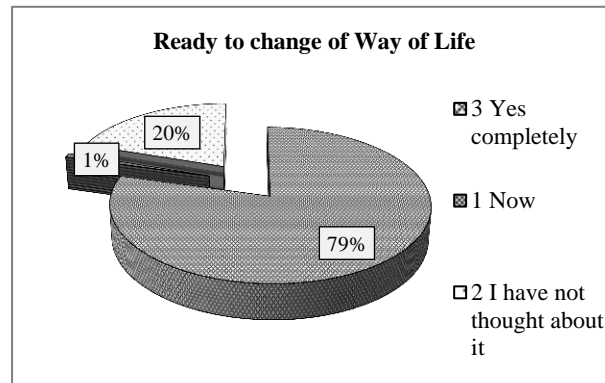


Figure 4 Lifestyle change attitudes

The results of the surveyed respondents indicate a high degree of readiness for change in lifestyle, reducing the risk of socially significant diseases.

4. DISCUSSION

Comparing Eurostat statistics on older sportspeople and the state of health in Bulgaria with the results of our own sociological survey on beliefs about lifestyle change, a discrepancy was found between the positive attitude to lifestyle and poor health indicators for Bulgaria.

It can be assumed that there is an influential factor of conflict between the intention of the behavior and the orientation of the behavior for a specific result, which is the very motivation of the people (Figure 5).

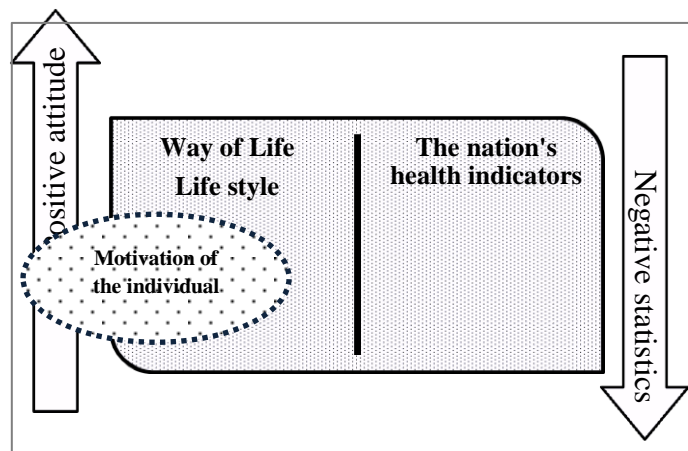


Figure 5 Impact factor of conflict between people's lifestyle and health indicators

Considering these two opposing aspects, "the positive attitude to a healthy lifestyle" and the negative statistics on health indicators in the country ", given the figures in Nos. 1, 2, 3, 4, and 5), it follows that there are factors that compromise actual statistics. The exact reason can be derived from the content of the concepts: lifestyles, lifestyles and quality of life that intertwine.

Where do people's beliefs meet resistance - in their motivation? Why is that?

Possibly, the positive intentions of the interviewed persons for an active lifestyle meet resistance in their realization. There is no purpose and no realization

Way of life³⁰ is a socio - economic phenomenon. It is a product of the socio-economic structure of society, the traditions and norms that govern behavior and relationships between people. Includes: diet and culture, physical fitness, work and rest, organization of recreation and recreation. It depends on the material - living conditions, religion, work and social activity and social contacts of the person.

Lifestyle is "the way people live" (WHO, 1986) [1]. Includes: smoking, alcohol and drug use, hypodynamia, poor nutrition, and more.

In lifestyles, behavior is learned through social interaction with the environment - parents, friends, school, mass media, while in lifestyles, behavior is influenced by the economic factors of the environment, in relation to work and lifestyle, which dominate over the individual.

In both cases, achieving behavioral change requires managing the motivation for health behavior. The classic approach of social medicine for behavioral change is the promotion of health through its methods - health culture and health education. Another method is social marketing. [6]

I believe that the level of motivation is influenced by the quality of life of the individual and society and these relationships are in proportion. The concept of quality of life includes the elements of lifestyle and lifestyle. It mainly refers to the **well-being of an individual in society, with its three building blocks: physical well-being, psychological aspects and social well-being.**

- Physical well-being includes: health status, physical comfort, diet, physical activity morbidity, ability to perform activities that meet personal needs independently.
- Psychological aspect - related to the state of mental health, stress positive and negative emotions, self-esteem.
- Social well-being - is a family-friendly relationship professional realization leisure, social environment, education and culture, environment.

Consequently, belief is formed by lifestyle factors - health education and culture, the media. It is realized under the influence of economic and mental factors in a negative aspect.

5. THE POSSIBLE ANSWER: THE LINKING MOTIVATION - QUALITY OF LIFE - ECONOMIC FACTORS

In the case of the survey respondents, the lifestyle prevails over the lifestyle.

This means that the influence of the factors of the social environment (mass media, friends, social contacts... and others that are easily controllable) is stronger than the economic factors.

The possible answer to people's beliefs about active lifestyles against poor statistics is to influence economic factors in the link "*economic factors - quality of life - motivation*".

Thus, the environment and the lifestyle "pull" the consciousness towards lower levels of needs (from Abraham Maslow's pyramid of needs) to the basic level, to security and to belonging. The levels of confidence and self-cultivation remain 'free', making it impossible to realize positive intentions in the case of an active lifestyle.

Given the statistics, it is necessary to conclude that people are informed, but there is no motivation to realize the specific goal - to pursue an active lifestyle due to low motivation.

The reason for the low motivation should be found in the influence of the economic factors that impair the quality of life that affect the behavior. They exert influence on the psyche - change of values (lack of value), feeling of happiness, satisfaction with life and high value for oneself, ie. motivation suffers from poor quality of life (Figure 6).

³⁰ The term way of life is used as a synonym for lifestyle.

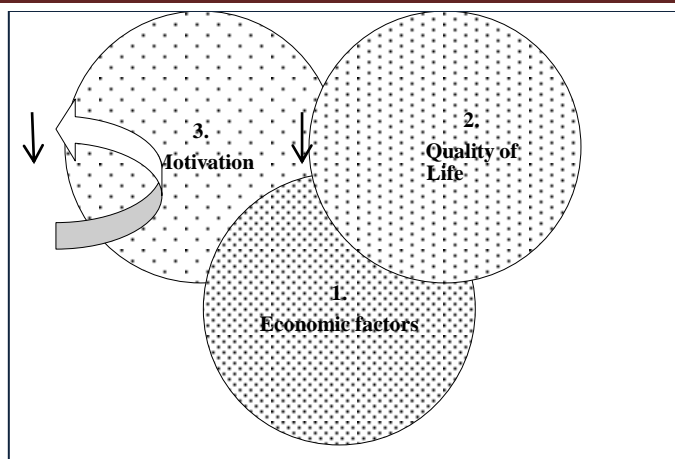


Figure 6 Impact of economic factors in the link "economic factors - quality of life - motivation".

THE FOLLOWING

1. There is a conflict between lifestyle / lifestyle and health indicators - an influential factor that is the very motivation of people.
2. People's motivation is "compromised" by a downward trend, by the controllable factors of the social environment and the uncontrollable economic factors of the country.
3. There is a right proportionate relationship between economic factors, quality of life and people's motivation.

6. CONCLUSION

Despite the awareness of the respondents about the existence of health risk factors between the intention to conduct and the orientation of the behavior for a specific result, there is a conflict - the motivation of the people.

The possible answer to people's beliefs about an active lifestyle against poor statistics is to influence economic factors in the link "economic factors - quality of life - motivation", between which there is a right proportional relationship.

LITERATURE

- Воденичаров, Ц., & Попова, С. (2009). „Социална медицина“, ISBN 978-954-92284-4-1, Печатница „ЕкоПринт“, София
- Грънчарова Г., Велкова Анж., & Александрова – Янкулова С. (2012). „Социална медицина“, ISBN 978-954-92763-4-3, Издателство Български кардиологичен институт
- Котляр Ф., & Андреасен Ал. (2005). „Стратегически маркетинг за нестопанските организации“, ISBN 954-9964-68-X, Издателство „Класика и Стил“ ООД, София
- Минева, Д. (2016). „Социалният маркетинг – инструмент за промоция и профилактика на здравето“, Варненски медицински форум, МУ Варна т.5, приложение 4, п 405-409
- Салчев, П. (2006). „Социална медицина и Здравен мениджмънт“, ISBN 978-954-91955-1, Изд. „Дилижантис“ ЕООД, София
- Dexter, A. H. (n.d.). “Total Quality Management (TQM) Tutorial help”,
<http://www.home.att.net/~iso9kl/tgm/tgm/html>
- Donabedian, Av. (2005). “Evaluating the Quality of medical Care”, The Milbank Quarterly, Vol. 83, №4, (pp.691 – 729)
- Mineva, D. (2019). New Approaches to Assess the Quality of Medical Care, ISBN 978-613-9-41351-5, International Book Market Service Ltd., member of OmniScriptum Publishing Group, Riga, Latvia, EU,
www.morebooks.de
- Програма СИНДИ, интервенционална програма за интегрирана профилактика на хроничните неинфекциозни заболявания
- Национален статистически институт, национален център по обществено здраве и анализи към министерство на здравеопазването, „Здравеопазване 2018“, София, 2019, стр. 22, 167, 170, 171, 172,
<http://www.asq.org/learn-about-quality/history-of-quality/overview/guilds.html>
<http://www.asq.org/learn-about-quality/history-of-quality/overview/industrial-revolut>
<http://www.asq.org/learn-about-quality/history-of-quality/overview/20th-century.html>

<http://www.asq.org/learn-about-quality/history-of-quality/overview/wwii.html>
<http://www.asq.org/learn-about-quality/history-of-quality/overview/total-quality.html>
<http://www.asq.org/learn-about-quality/history-of-quality/overview/beyond-total-quality.html>
<http://www.peoriomagazines.com/ibi/2009/jul/history-modern-quality>
<http://www.tuj.asenevtsi.com/TQM2009/TQM06.htm>
<http://www.unmc.edu/community/ruralmeded/flexner.htm>