Holistic Approach to Human Health and Disease:
Life Circumstances and Inner Processing

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ABSTRACT

Human body is dynamic, energetic system under the influences of food intake, environment, interpersonal relationships, inheritance, culture and human activities. The environmental and psychosocioeconomic factors affect the individual’s health altering the performance of biological systems effecting disease risk and disease progression. The concerns in modern society are more and more devoted to stress and its influences on health. Life span is extended but the quality of life, well-being and productivity usually do not follow that extension. Body is a flow of energy and dynamic communications with inside and outside environment. The way to improve health is to address its social determinants. Only in synergy the questions about disease and health could be better understood. It is not enough to diagnose illness, important is to diagnose circumstances and environmental influences that consequently lead to disease. Emotional disruptions make base for physical disruptions. Social gradient and stress involving personal life and work is a significant factor in physical and mental illness. The best indicator of the successful social policy result is the sense of well-being of the inhabitants. Holistic approach to a patient and discussions about the influences in patient’s life can lead to a better health outcome. Anthropology studies people’s habits, means and conditions of life and can be the bridge between the medicine and the life circumstances that put people’s health at risk providing important insights into health and disease and assist in public health policies, preventive measures and health improvement of the populations.

Key words: health, disease, life circumstances, social determinant, holistic approach, anthropology

Introduction

There is no strict line between health and disease. A disease starts to develop long before clinical indications can be recognised and diagnosed. Medicine is dealing with disease not with health treating consequences without working with causes. The World Health Organization defines health as not merely the absence of disease and infirmity but complete physical, mental and social well-being. In most of the societies disease is perceived as disruptive event that in one way or another threatens the flow of daily life.

Can people stay healthy? Can we prevent disease instead of cure? Health is not just a body without physical signs of disease but well-being of a person. Can people be healthy in an unhealthy environment? The insight into population’s health is an insight into society. Social sciences have an important role in the health of the populations. It is not enough to diagnose illness, important is to diagnose circumstances and environmental influences that consequently lead to disease.

All people want to feel well. All living beings share the strongest impus to survive, to be alive, to feel alive and to feel well. There are more and more research studies that connect the state of mind and health. The positive emotions have positive effects on health. People sense that and in a long term it is a question of life and death. Every human being is unique and wants to feel that way. The modern medicine makes progress in science and curing but to prevent disease rather than cure biomedicine should appreciate the social sciences input. The missing part could be the anthropology that studies people’s habits, way of life, how and where they live, the way they think, the way the act and react. Only in synergy the questions about disease and health could be better understood.

Disease is a reaction of an organism to cope with unbalancing changes in its internal environment caused by unfavourable exchanges with the external environment and/or failure in the structural and functional design of the organism. The health threats are in the life circum-
stances and influences. The well-being starts when the negative influences from the external and internal environ-
ment are recognised and attenuated. The holistic ap-
proach to a person is required.

With all the medical knowledge, advancement and
technology people are not proportionally less sick. Physi-
cians cure symptoms without going into causes so disease
appears again or becomes chronic. Life span is ex-
tended but the quality of life, well-being and productivity
usually do not follow that extention.

The medical expenses of the oncological patients are
enormous, plus the expenses of the sick leaves and ru-
ined lives. If only part of that cost could be redistributed
to the preventions and life improvements. Oncological
patients get expensive, universal therapies, but usually
they don’t get psychosocial help which is crucial. Help-
lessness, depression, anxiety and inability to modulate
expression of anger have been implicated as predictors of
poor prognosis for cancer patients. The emotional states
may affect cell-mediated immunity involved in host resis-
tance to neoplasia. Hormonal variations may also affect
tumor growth\(^4\). Anthropology can be the bridge between
the medicine and the life circumstances that put people at risk and can give important insights into disease and
case, studying the circumstances in patient’s life and illuminating the main problem. A disease is a social issue as much as it is bio-
medical. In the attempt to attenuate diseases it is neces-
sary to study and attenuate the factors that evaluate
risk. Andrija Stampar defined decades ago that healing
has more economic than humanitarian character.

The environmental and psychosocioeconomic factors
affect the individual’s health altering the performance of
biological systems, thereby affecting disease risk and dis-
ease progression\(^7\). Everyday circumstances and stress
waste the body. Life is energy, fulfillment, vitality and en-
thusiasm and if is decreased every day that is going to
bring about in body symptoms, diseases and death.

**Person-environment Adjustment**

Human body is a dynamic, energetic system under
the influences of food intake, environment, interpersonal
relationships, inheritance, culture and human activities.
Body is a flow of energy and dynamic communications with
inside and outside environment\(^8\). A person lives in the
environment from which takes and in which releases.
People are under numerous influences every day and
central nervous system and senses sort and process
the information. A wrong impulse from the external or
internal environment causes disease and disease cannot
be cured just in the perspective of malfunctioning organ.
Healthy functioning requires adjustment of the internal
physiological milieu exhibiting fluctuating levels of activity
as response and adaptation to the environmental de-
mands. The cumulative burden of person-environment
interactions thorough the life with aging has more cumu-
lative dysregulations. Allostatic load reflects information
regarding levels of physiological activity across the hypo-
thalamic-pituitary-adrenal axis, sympathetic nervous sys-
tem, cardiovascular system and metabolic processes.

**Emotional Discomfort and Physical Disruptions**

Attitudes and emotions affect physical health and
well-being. Emotions are organizers of meaning and are
consequences of stimuli and urge certain set of actions.
At the heart of many emotional reactions is a mechanism
of appraisal of the potential for harm, loss or benefit
from the event\(^10\). Ernest Johnson suggests a potentially
deadly role of anger, hostility, and aggression in several
health problems including heart disease, cancer, ulcers,
and hypertension. He also explores the relationships be-
tween these emotions and psychological problems such
as depression, chronic stress, smoking, drinking, and
child/spouse abuse\(^11\). Thoughts, emotions and brain com-
municate with immunological, nervous and endocrine
system. Emotional disruptions make base for physical
disruptions. Depression is not just self-destructive behav-
or but depression of the immune responses\(^12\). Thoughts,
feelings and beliefs can alter body physiology. Pessimism,
depression, fear, loneliness, anxiety, disappointment, dis-
pleasure, dissatisfaction, disconnection are not just feel-
ings but signal for changing the life circumstances before
emotional discomfort turns into a physical illness\(^12\). For
centuries folk theories have promoted the idea that posi-
tive emotions are good for health and that they contribu-
to psychological and physical well-being so interven-
tions that promote positive emotions are beneficial for
Effects of Stress and Life Events on Health

Stress is a state of threatened homeostasis. The organism employed a set of behavioral and physical responses to re-establish balanced physiological conditions. A deficient and inadequate or excessive and prolonged stress response is associated with a state compatible with survival but at the expense of the organism. It is not just one dramatic stressful event that is crucial but rather many events of daily life that elevate activities of physiological systems. Allostatic load refers to an imbalance in the system that promotes adaptation and includes frequent activations, failure to shut off and inadequate response. Adaptation involves the activation of neural, neuroendocrine and immune mechanisms. The imbalance can be result of too much repeated stress or an adaptive system that is out of balance and fails to shut off properly. If system is overstimulated or does not perform normally or has failure in shut off mechanism that can cause damage and promote pathology. Systems get exhausted by repeated stress. When one system is not responding adequately the activities of other systems are elevated. Stress is common experience in daily life and is blamed for causing or exacerbating heart disease, cancer, asthma. In modern culture the term stress is used to describe the way the body copes with psychosocial, environmental and physical challenges. The body responds to the external and internal environment by producing hormonal and neurotransmitter mediators that set in motion physiological responses of cells and tissues coordinating the physiological responses to the current circumstances. Coping with stress and its influence depends on the life experiences, genetic load, individual habits, diet, exercise, substance use, developmental experiences, behavioral and physiological reactivity. Hormones associated with stress protect the body in the short term but in the long term allostatic load causes changes in body that lead to disease. Various aspects of life circumstances and their impact on health involve living environment, work, relationships, community, health damaging behaviors, diet, exercise. Social ordering in human society reflects both income and education within the scale of socioeconomic status and correlates with health gradient. Health gradient is complex and reflects the cumulative burden of coping with limited resources and negative life events that burden physiological systems. To better connect and understand the behavioral and biological interactions it is necessary to move from the groups to the individual20,21. The theoretical integration of stress, emotions, immunological dysfunction, and physical and mental disease are interpreted due to the advancement in immunology, clarifications of the psychophysiology of stress, progresses in discovery of the emotional factors in relation to physical disease, and the findings of immunological disturbances in conjunction with mental illness22.

The psychological responses to stress stimuli vary with the type of stressors, chronicity and perceived control. The immune system is regulated at genetic, cellular, hormonal and neuronal level and stress and behavioral factors can modulate cell-mediated and humoral immunity23. Self-maintenance and self-repair functions are shut down or delayed when body is in the middle of stress response24. The life event that appears in a person’s life and the way that is perceived is a reflection of the life style and culture. The variability in the perceptions and the individual perception of the significance of certain life events is affected by the uniqueness and environmental experiences25. The life event evokes an attempt at adaptation which is accompanied by the psychophysiological reactions. The alterations in a body’s functions may lead to dysfunction, tissue damage and discomfort. Psychophysiological changes may increase the body’s vulnerability to a variety of environmental agents. The magnification of the life changes or adaptive requirements correlates with the magnification in disease vulnerability and reduction in disease resistance26. The cumulative burden of repetitive or chronic environmental stress challenges contributes to the development of variety of illnesses including hypertension, atherosclerosis, insulin-resistance, as well as certain disorders of immune function27.
The biological, psychological, socioeconomical and behavioral factors contribute to the personal health outcome. The social determinants of health include: childhood; level of education; social exclusion; social support; discrimination; addictions; availability of healthy food; stress; quality and accessibility of health services; daily living conditions: healthy environment, fair employment and decent work, incomes, housing status and abilities for self-expression. The population gradient in social factors or personal living and working conditions is risk factor for disease vulnerability and further risks are health behaviors and genes/biology.

The biological markers associated with higher risk for the development of cardiovascular disease are cholesterol level and blood pressure but from the public health perspective it is more useful to observe the behaviors as cause of disease. Health is a measure of how well the society is doing and every sector is health sector. The social gradient in health is caused by unequal distribution of power, income, goods, services, access to health care, education, conditions at work and leisure, homes, communities, towns, chances of leading flourishing life and health damaging experiences is result of poor social policies, unfair economic arrangements and bad politics. The psychological experiences of social inequality leave a deep impact on corporal regime. The life circumstances and chances differ depending on where people are born and raised. The conditions of daily life and living standards cause health inequity. The lower position in the socioeconomic hierarchy means more chronic stress caused by the impossibility to control life circumstances and participating fully in the society. Subjective feelings of personal place in the society, family and profession is important for well-being. A decent job provides financial security, status, personal development, social relations and self-esteem. Stress at work, as a combination of high psychological demands and low control or an imbalance between effort and reward, is associated with mental and physical health. The life and work circumstances determine the way person is functioning. Work gets a new insight when it is linked to the fact that work is helping people to improve their lives. Working place can make life difficult with bad influence on health while fulfilling and meaningful work has positive impact. The interpersonal relationships, the working space and atmosphere, sense of a certain level of control and acknowledgement, sense of affiliation to the company are important. The employers recognise that satisfied worker is productive, creative, less sick, less on sick leave, friendly, positive, prompt to team work and company promotion. Leadership, employees’ possibilities to participate in decision making, effective implementation of the changes, goal clarity and coping abilities are positively associated with organizational and individual well-being. Since work is a central part of one’s life and is associated with economic, social and personal satisfaction, job insecurity can be a critical life event that can evoke stress reactions for individuals as a consequence of the anxiety and insufficient work satisfaction. Education and income generate divergence in health across all adult ages. The living area is important for its infrastructure and material conditions but also for the societal surrounding, the placement in the society, the feature of the neighborhood, the ambience of trust and intimacy and the involvement in civil activities. The interventions aimed at reducing disease and saving lives are going to be efficient only when social determinants of health are attended. Still most of the health research fundings remain predominantly biomedically focused.

Childhood Misfortune as Health Risk Factor in Adult Age

Avoiding disease is a crucial element in successful aging. Genetics, good health behaviors and supportive social relations play an important role in remaining disease free. The researches on successful aging have only begun to consider early-life conditions and the connection of childhood misfortune with being disease free in adulthood. The effect of childhood misfortune on being disease free during adulthood is not trivial. The higher level of childhood misfortune is associated with lower probability of disease avoidance and the pattern is observed across a large set of chronic conditions. Efforts to alleviate adverse childhood experience may have long-term benefits for successful aging. Early misfortune can heighten the risk for future health problems directly through stress or other physiological mechanisms or indirectly through the adverse environment or initiation of poor health behaviors. Number of literature connect low socioeconomic status, abuse, family disruption and health problems during childhood with addictions, later risk for chronic disease, poor self-rated health, biological inflammation and mortality. In many cases the childhood conditions do not pose an immediate risk of mortality but compromise quality of life. Stress and mental distress are connected with bad health behaviors. Programs designed to modify health behaviors during pregnancy depend on the characteristics of the woman and her environment which may make behavioral changes difficult to conduct so the aim of fostering better health behaviors to improve pregnancy outcome has to extend beyond the current pregnancy. The number of categories of adverse childhood exposures showed a relationship with adult disease including ischemic heart disease, cancer, chronic lung disease, skeletal fractures and liver disease. Early exposure to infection during the critical period is thought to predispose individuals to chronic disease due to reallocation of energy from development to immune and inflammatory responses. Early environment may model immune and inflammatory responses. The adverse events in childhood can vary in severity and occur in a child’s family or social environment causing harm or distress disrupting the child’s physical or psychological health and are associated with negative physical and psychological health outcome of individuals as they age.

To change health risk behaviors it is necessary to understand what motivates such behaviors, to establish roots of the behavior and to implement effective prevention. Early trauma could be associated with life-long health problems. Behavioral factors become more prominent as causes of death. Time between causes and their
effects is important in changing behavior but the distance between time and effect makes good decisions difficult\textsuperscript{43}. 

**Self-evaluation of Health and Quality of Life**

The self-perception of health is an important indicator of individual emotions and thoughts and is a good predictor for the later on health difficulties. Quality of life and well-being is mostly studied by psychiatrists and social scientists while the medical society is dealing with quality of life in the context of living with disabilities or disease. The goal of medical care is the restoration and preservation of function while quality of life is not discussed in physician-patient interviews. Self-reported health status questionnaires are often used in routine for measuring the functional outcomes\textsuperscript{44}. Quality of life is an individual objective and subjective sense of well-being under the environmental and cultural influences and is connected with health outcomes. Well-being involves living in a state that is in some sense good and is measured through the individual perception\textsuperscript{45}. Quality of life in a narrow sense is an individual life, how good a certain person lives, while in a wider sense refers to the environment and culture that influence individual life. Objective indicators of life quality are possessions, health status and financial security. Subjective evaluation refers to subjective experience such as satisfaction, fulfillment and self-value. Society indicators like unemployment rate or newborn mortality are usually introduced independently of personal evaluation. Subjective social indicators respond on individual experiences and assessment of societal conditions that are demonstrated in personal life, work, employment, satisfaction and perception of social justice in the society. The best indicator of the social policies result is the sense of well-being of individuals. Positive experience and emotions are connected with well-being as a measure of an individual or group conditions for their social, economic, psychological, spiritual and medical state\textsuperscript{46}.

**Psychosocial Variables in Medical Interviews**

Psychosocial stress impacts physical as well as mental health. These areas are generally neglected in medical interviews. The contact time with patients in primary health care settings is often too short and physicians are not trained to discuss the patients’ life circumstances. The establishment of productive physician-patient relationship as well as treatment success requires ability to identify relevant psychosocial factors. Physicians are trained to ask disease-specific questions to narrow diagnose and frequently fail to elicit relevant psychosocial data or they limit social history to marital status, occupation, cigarette, alcohol and drug use. Clinical and epidemiological data support the necessity of inquiring about selected psychosocial variables in new patient primary care evaluation. Skilled interviewers elicit most of the relevant psychosocial data during the patient’s centered interviews. Stress involving family, friends, personal life and work has been shown to be a significant factor in physical and mental illness and health outcomes. Stress effects the immune system lowering physiological resistance to disease so it is crucial to identify emotional distress that could be a predictor for disease. Addressing the relationship between patient’s thoughts, behaviors and symptoms can reduce discomfort and cost of the medical care\textsuperscript{47–49}. Holistic approach to a patient and deep discussions about influences in patient’s life can lead to better health outcomes. Health care should include quality of life and economic well-being as measures that prevent disease in the first place and not just conditions addressed by medical model of disease. Health care delivery is embedded into population health and population health is embedded into health care delivery. Responsibility of clinicians and health care delivery organizations is to help maintain the health of the community and the responsibility of the community is to help maintain the health of the individuals. The way to improve health is to address its social determinants\textsuperscript{50–52}.

**Conclusion**

The biological, psychological, socioeconomical and behavorial factors contribute to the personal health outcomes. It is not enough to diagnose illness, important is to diagnose circumstances and environmental influences that consequently lead to disease. The wrong impulse from the external or internal environment cause disease and disease cannot be cured just in the perspective of malfunctioning organ. Stress and emotional disruptions make base for physical disruptions. Behavioral factors become more prominent as causes of disease. The control level that a person has over the life and the capability to participate in the society is a powerful determinant of health and quality of life. Time between causes and their effects is important in changing the behavior but distance between time and effect makes good decisions difficult. Holistic approach to a patient and deep discussions about the influences in patient’s life together with public health policies and preventive measures can lead to better health outcomes. The interventions aimed at reducing disease and saving lives are going to be efficient when social determinants of health are attended. The way to improve health of the population is to address psychosocial factors and social sciences input.
Holistički pristup čovjekovom zdravlju i bolesti: životne okolnosti i unutarnje procesiranje

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SAŽETAK

Ljudsko tijelo je dinamičan energetski sistem pod utjecajem prehrane, okoliša, međusobnih odnosa, naužda, kulture i ljudskih aktivnosti. Otkriveni i psihosocijalnoekonomskih čimbenika utječu na zdravlje mijenjanja dolazak bioloških sistema i tako utjecaj na rizik od oboljevanja i razvoja bolesti. Poznate neke rješenja, ali čimbenik života i produktivnosti ne slijede to produljenje. Tijelo je odgovornost i dinamična komunikacija s vanjskim i unutarnjim okolišem. Samo sinergijom pitanja zdravlja i bolesti može se bolje razumijeti.

Nije dostatno dijagnosticirati bolest, treba se prepoznati utjecaje koje vode kod oboljevanja i razvoja bolesti. Poznate neke rješenja, ali čimbenik života i produktivnosti ne slijede to produljenje. Tijelo je odgovornost i dinamična komunikacija s vanjskim i unutarnjim okolišem. Samo sinergijom pitanja zdravlja i bolesti može se bolje razumijeti.