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Master's Thesis

THE ROLE OF THE NURSE IN MANAGEMENT OF MENTAL DISEASES IN PATIENTS OF DIFFERENT AGE GROUPS

Master of Science in Nursing

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TABLE OF CONTENTS

INTRODUCTION

The background of the study. Mental health [1, 10, 11, 21, 36] is defined as a state of wellbeing, where the individual unfolds their potential, is capable of coping with ordinary stresses of everyday life, can work productively and fruitfully and make their contribution to community [1, 36].

The age-specific aspects of mental health are significant [3, 27, 30, 39]. However, current trends are also suggesting that some mental disorders previously characteristic only for middle-aged or even young patients [22, 23, 28, 35] (in particular such as schizophrenia, bipolar disorder, epilepsy and symptomatic and organic psychoses) are currently found in gerontological patients as well [5, 30].

The WHO urges nations to strengthen support to their mental health services [17, 37, 38], since mental, neurological and behavioral disorders are found in all countries and cause hideous human suffering. People with these disorders are often subject to social ostracism [10], poor quality of life and increased mortality [9, 25]. These disorders are a cause of immense economical and social problems.

On a global scale, hundreds of millions of people suffer from mental, behavioral and neurological disorders, and substance abuse-related disorders [9, 12, 22, 25]. As reported by the WHO [17, 37, 38], approximately 154 million people worldwide have depression and 25 million people have schizophrenia; 91 million people have alcohol abuse-related disorders, and 15 million people have drug abuse-related disorders. A recently published WHO report shows that 50 million people have epilepsy and 24 million people have Alzheimer's disease and other types of dementia.

In addition to the above figures, many other disorders affect the nervous system or cause neurological sequelae [4, 5, 9, 30]. The 2005 data [9, 25] based on the WHO research show that worldwide 326 million people had migraine headaches, 61 million people had cerebrovascular disease and 18 million people

had neuroinfections or neurological sequelae of infections. The numbers of people with neurological sequelae of malnutrition and neuropathies (352 million) and with neurological sequelae of trauma (170 million) also significantly aggravate the above burden. Approximately 877 000 people commit completed suicide every year. Every fourth patient visiting a healthcare facility has at least one mental, neurological or behavioral disorder. However, most of these disorders are neither diagnosed nor treated.

Mental illness affects chronic conditions, such as cancer, cardiovascular disease, diabetes and HIV/AIDS. If left untreated, it may result in unhealthy behaviors, non-adherence to prescribed medical regimens, reduced immune function and poor prognosis [4, 5, 9, 25].

Cost-effective treatments are available for the majority of such disorders [20, 28, 30, 32, 34]; when properly used, they may allow the majority of such patients to become functional members of the society.

The hindrances to effective management of mental disease include lack of understanding of the seriousness of the mental disease and underestimating the benefits associated with health services. The policies of insurance companies, the healthcare and labor policies [11, 15], as well as the general public discriminate between physical and mental problems [33].

Most middle- and low-income countries spend less than 1% of their healthcare budget on mental health. Subsequently, the policies and legislation in mental health and local institutions for care [5] and treatment of people with mental disease [30] are not given the priority they deserve.

As recommended by the WHO, the development of various approaches aimed at improvement of mental healthcare should be informed by the present developments that contribute to better understanding of problems in people with mental disease [12, 14, 33], their treatment and care, as well as by the health system reforms and by the state policies in other dimensions [11, 15, 17, 37, 38].

In all countries, mental disorders account for a significant share of the disease burden [9, 12, 22, 25]. Despite the availability of efficacious treatments

and care modalities, a large portion of people who need them do not have access to them. The goal of making psychiatric care fully and readily available can be achieved by introducing changes to legislation and policies, through creation of new services, through adequate financing and through professional training of nurses and physicians. Such a statement found in Global Health Report is reflecting a serious need to meet the mental healthcare needs of population in different countries. By means of this document and Global Mental Health Action Plans, the WHO strives to move the issues of mental health from the periphery of political decisions and healthcare actions to more prominent positions in the healthcare offered to the population in all countries [17, 37, 38].

Given the above, the importance of nursing care in the treatment of mental illness in patients of different age groups cannot be overemphasized. We must also highlight the great significance of nursing skills and knowledge in organization of treatment and care for patients with mental disorders depending on their age and their specific mental alterations.

The aim of the study: to investigate the specific aspects of work and nursing roles in management of mental disease in patients of different age groups.

Study objectives.

1. To evaluate the mental health of the population and the influence of the World Health Organization on solving the problems in this area.
2. To study the specific aspects of mental health alterations in adolescents and young adults.
3. To investigate into the special characteristics of mental disorders in middle-aged and elderly patients.
4. To define the nursing roles in helping with organization of care and management of mental disease in patients of different age groups.

The object of research. Patients of different age groups with various mental alterations and diseases.

The subject of research. Mental alterations in adolescents, young adults and middle-aged patients, as well as in elderly patients.

The methods of study: general clinical and special methods of examination in Psychiatry, medical history and history of disease, mental disease risk assessment, physical examination, general health assessment, collection of information on mental status and main complaints, laboratory and functional diagnosis; data analysis; and methods of statistical analysis.

The scientific and practical value of the study. Assessment of the specifics of nursing work and nursing roles in management of mental disease in patients of various age groups allowed the practical application of the data obtained. In part, the author has studied the specific aspects of mental health in the population and the influence of the World Health Organization on solving the problems in this area and reviewed the specific aspects of mental health problems in adolescents and young adults. The knowledge of these aspects helps nursing staff give a timely attention to mental health status in patients of these age groups and provide them with the care they need or refer them to a qualified specialist. This is especially important in cases of high-risk behaviors and suicidal depression. The author has reviewed the specific aspects of mental disorders in middle-aged patients and in elderly patients, identified the risk factors of Alzheimer's disease and vascular dementia, and studied the specific aspects of therapeutic interventions in management of vascular dementia and other mental disease in middle-aged and elderly patients. This work has also defined the nursing roles in helping with organization of care and management of mental disease in patients of different age groups.

CHAPTER 1
THE MENTAL HEALTH OF GENERAL POPULATION AND THE INFLUENCE OF THE WORLD HEALTH ORGANIZATION ON SOLVING THE PROBLEMS IN THIS AREA
(REVIEW OF LITERATURE)

The World Health Organization has declared that mental disorders affected approximately 12% of the world's population: approximately 450 million people worldwide suffer from mental disease [17, 37, 38]. It can be expected that in the future mental disease will account for 15% of life-year losses due to disability (as estimated using the DALY index). Young people were found to bear the maximum burden of mental disorders [3, 27, 39], i. e. as the most productive demographic. In the coming decades, the developing countries are likely to face a disproportionately dramatic increase in the burden of mental disorders. In all parts of the world, people with mental disease encounter stigmatization and discrimination [10].

As defined by the WHO experts, mental health is “a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community”. [1, 9, 36].

This is primarily realized due to a stable adequate mental functioning, as well as due to the main mental cognitive processes, i. e. memory, attention and intellection.

The indicators of mental health include the following:

- emotions
- intellection
- memory
- temperament
- character

The factors, which are detrimental to human mental health, include the following [7, 8, 14, 18, 29]:

- Environmental hazards.
- Physical illness.
- Genetically programmed behavioral patterns.
- Various dependencies and addictions
- Adverse social habits, such as alcohol and smoking and substance abuse.

In one form or another, all of these factors may influence people causing severe disease.

Mental health is characterized by the following indicators:

1. Ability to build relationships with others. These relationships should normally be positive and trusting for the most part. The same category includes the capacity to love, i. e. to accept the person as they are.

2. The wish and the capacity to work. This includes not only one's professional activity but also creativity and any contribution to society. The ability to create things that bear value for the person themselves, for their family and for the society.

3. The capacity to "play". Play is quite a broad concept when referring to an adult individual. The "play" may include the following: a free use of metaphors, allegories and humor, playing with symbols; dance, singing, sports, some other types of creativity, where the individual is not a detached onlooker, but an active player.

4. Autonomy. A healthy individual tends not to do what they don't want. He/she makes independent choices and is personally responsible for them.

5. The understanding of ethical norms. Understanding the meaning of and the necessity to follow ethical regulations. However, the individual may be flexible in this respect, i. e. they may take the liberty to change their mode of behavior under certain circumstances (within reasonable limits).

6. Emotional resilience. It is expressed as a capacity to withstand emotional tension, i. e. to feel emotions without allowing them to take control. In other words, it is being in touch with one's reason at all times.

7. Flexibility when using defense mechanisms. Every now and again, every individual faces adverse life circumstances. Being a bearer of such a delicate construct as the psyche, the individual may use various means to protect it. A healthy person selects effective methods and chooses the best suitable method for a particular situation.

8. Awareness, also known as mentalization. A mentally healthy individual is able to see a difference between their true feelings and the attitudes imposed by others and to appreciate their own responses to words and actions of other people.

9. Capacity to self-reflect. It is the capacity to address themselves at the proper time, to review the causes of certain events in their live and to decide on further course of action.

10. Adequate self-esteem. A realistic self-esteem, self-perception according to actual character traits and special aspects; positive attitude to oneself, and understanding of one's strengths and weaknesses.

The nurse should know and understand principal recommendations to safeguard his/her mental health. According to these recommendations, the individual will need:

- Proper nutrition [28].
- Physical activity.
- Accepting their feelings.
- Being able to manage their emotions.
- To know their weaknesses.
- To develop their talents and areas of interest.
- Learn to make pleasant surprises to significant others.
- Learn to smile.
- Learn to overcome dependencies.

- Develop and maintain coping skills and ability to handle stress.
- Change one's way thinking to a more positive and productive one.

And what is more, to safeguard one's mental health, the person should protect themselves from negative information whenever possible [14, 31, 34], i. e. avoid watching hard-hitting TV broadcasts, avoid social interactions with negatively minded people, etc.; look for positive sides to the circumstances and avoid being indiscriminately critical. Other important strategies include not giving in to discouragement despite the circumstances and refraining from comparing oneself to others (the only productive comparison being vs. yesterday's oneself) and nurturing an overall positive perception of life in all of its manifestations.

It should be kept in mind that positive thinking is not based so much on the events of the surrounding world but rather on responses to these events; and responses is something a person can control and modify.

Mentally healthy people strive to balance and develop different dimensions of one's "self": physical, mental, emotional and spiritual. They perceive the expediency of their existence, control their lives, feel and acknowledge support of other people and help other people themselves [9].

Psychiatric care is being provided at different levels of organization of medical care for population of all countries. Primary medical care is the first level of medical care within a consolidated health system. Psychiatric care should be given the opportunity do develop within the framework of family medicine, which will allow psychiatric care to overcome problems in many countries, including such issues as absence of quality psychiatric care and abuse of psychiatric patients. The strategy of family health, which includes psychiatric care services, is potentially creating new spaces to produce knowledge and social, political and legal interventions concerning the patients with mental disease.

The network of psychosocial care is offering a model, which articulates several points of attention for users, such as primary health care, specialized

psychosocial care, temporary medical care, emergency care, in-patient care and psychosocial deinstitutionalization and rehabilitation. The family health strategy (FHS) within the framework of primary health care offers a combination of special and general knowledge, as well as recruitment of institutional and public resources to address the issues of mental health.

The nurses are given due position in this sphere of activity, since they are playing an active professional role and are distinguishable as the best trained and best accessible professionals, who support and direct the patient and their family through the process of treatment and rehabilitation.

Whereas primary health care involves a general plan of care for the patients with mental disorders, the nurses working directly in this service should be ready to provide care to patients with mental disorders, who belong to different age groups. They should help relieve the suffering and the symptoms, organize potential hospitalization of the patients to guarantee effective care and health improvement without hurting the dignity of people with mental problems.

The family medicine nurses should be able to look beyond physical health and to recognize mental health as integral to any context and any actions taken. As a result, they need to improve the practice of working with mental patients of pediatric [16, 28, 35], adolescent [13], middle-age and geriatric [5, 6, 30] age groups and their families, while assessing the actual needs of the patient's significant others through their involvement in planning of actions [11, 15]. They should provide comprehensive care for the patient and for their family, which may occur amid changing approaches to practice and additional training of nursing staff.

Another important issue includes a potential gap between the recommendations in the realm of mental health and the current status in practical family medicine. A frequent practice is to refer the patients to a psychosocial support center.

Professional nurses and physicians are sometimes apprehensive concerning patients with mental disorders when conducting their office-based

assessments and when providing care [2, 24]. These practices and concepts affect and delay the necessary progress in psychiatric reform and jeopardize quality care in this patient population.

Today we observe signs of fragmentation of psychiatric care, when low levels of investment in professional training affect the readiness of nurses in certain issues of care in patients with mental disorders [5]. This often leads to infringing on patients' rights.

However, this may reflect several interrelated factors, such as lack of understanding with specialized mental health services [10, 33, 36] (functioning as reserve options for quick management as required); lack of mental health training with nurses of family medicine practices; and unreliable conditions of care for these patients within the framework of primary medical care (inadequate infrastructure, insufficient supplies and equipment and lack of clearly defined mental health network, etc).

The functional proposal of psychosocial care centers to patients with mental disorders is that of a replacement service and not of an addition to psychiatric hospital. As defined by the Ministry of Health, psychosocial care centers are the "institutions, which provide services to patients with mental disorders, stimulate social and family integration, and support the initiatives of medical and psychological care".

The mental health focus of primary health care and psychosocial care centers includes helping people in a state of psychological stress or with already established (diagnosed) mental disorders, as well as development of preventive and early actions to identify patients and families at risk [24, 33].

Therefore, this work is directed at collection of the knowledge that contributes to the practice of mental health in primary medical care. It is believed that the knowledge of professional nursing practices concerning mental health in primary health care and formulation of mental health and psychosocial care concepts will allow actions and practices to become more viable in the

perspective of primary health care to improve mental health and prevention of mental disease.

Given the importance of this issue, the 66th session of the World Health Assembly has adopted the Mental health action plan 2013–2020 [17, 37, 38]. Further to the decision of the 72th Session of the World Health Assembly (WHA 72/76), the Action Plan has been extended until 2030, which ensures its consistence with the UN 2030 Agenda for Sustainable Development.

The WHO action plan includes the following 2030 mental health objectives:

- to strengthen effective leadership and governance for mental health;
- to provide comprehensive, integrated and responsive mental health and social care services in community-based settings;
- to implement strategies for promotion and prevention in mental health;
- to strengthen information systems, evidence and research for mental health.

Each of these goals is accompanied by specific tasks, which provide the basis for measurable collective actions and for achieving global goals by member states [11, 15].

Reviewing the issues of population mental health is one of the top targets of the WHO [17, 37, 38], the national governments, and the employees of clinics and primary healthcare institutions where the nurses and physicians are directly executing these tasks and act as primary responders to problems in patients with mental disorders.

The measures for strengthening mental health and prevention of mental disease are designed to enhance a person's ability to control their emotions, to expand the scope of alternatives to high-risk behaviors, to develop resilience for successful coping with difficult situations or adverse factors, and to contribute to a benign social environment and a system of social relationships [18, 19, 21, 28, 33].

These programs must be implemented at many levels using a wide variety of platforms [15], e. g., through electronic media [14, 31, 34], in healthcare and social institutions, at educational institutions or among the local population, as well as various strategies to reach every age group [4, 6, 13, 16], especially among the most vulnerable demographics. Currently, special attention should be paid to patients with COVID-19 [6, 26] and their mental health.

It is extremely important to respond to the needs of patients with established mental health alterations. The main principles of working with such patients include timely referrals to specialized institutions, priority use of non-pharmacological methods and ensuring the respect for the rights of adults and children in accordance with the United Nations Convention on the Rights of the Child (UNCRC) and other human rights documents. The WHO Mental Health Gap Action Programme (mhGAP) contains evidence-based guidelines for lay persons allowing a more effective detection of serious mental health disorders and providing assistance and care in low-resource environments.

The WHO is developing strategies, programs and tools to assist governments in providing adults and adolescents with the required medical care, including psychiatric and psychological care [11, 15, 17, 37, 38]. The principal WHO resources in this regard include the following: Global Accelerated Action for the Health of Adolescents (AA-HA): country implementation guidelines; The Global Strategy for Women's, Children's and Adolescents' Health (2016-2030); the WHO's Comprehensive Mental Health Action Plan 2013-2020; and the WHO Mental Health Gap Action Programme (mhGAP). For actions in emergency situations, the WHO has developed the instruments regarding the following: needs assessment; psychological first aid; clinical management of mental disorders; restoration of mental health systems [17, 37, 38].

CHAPTER 2
THE OBJECT OF RESEARCH AND METHODS OF STUDY

The object of our research included patients with mental disorders and mental disease of different age groups (adolescents and young adults: 225 patients; middle-aged and elderly patients: 208 patients).

In this research study, the following methods have been used: general clinical and special methods of examination in Psychiatry, medical history and history of disease, mental disease risk assessment, physical examination, general health assessment, collection of information on mental status and main complaints, laboratory and functional diagnosis; data analysis; and methods of statistical analysis.

The method of mental status assessment in a psychiatric patient and writing the health professional's understanding about the patient involves a conversation/an interview with the patient. During the conversation, the health professional will clarify the state of consciousness, assess behaviors, and detect perception disorders, cognitive disorders, memory disorders, attention disorders, emotional disorders and the patient's critical perception (insight) of their disease.

Conversation with the patient. In the clinical psychopathology method, the principal diagnostic techniques for detection of morbid manifestations include the interview and the observation in their indissoluble unity. In certain situations, an interview or a conversation may not be possible due to the patient's condition. In such cases, the physician will need to limit their assessment mostly to observation.

It is recommended to start the conversation with the patient with general ice-breaking questions about how they are today, etc. These questions will help establish trust with the patient and will give the health professional an opportunity to grasp a direction in which the assessment will have to proceed. In course of further targeted conversation, the health professional will have to

establish the maximum level of mental disruption in the patient. Within this scope, the interviewer will subsequently clarify the details and the specifics of psychopathological manifestations. These specific data will later have significance for differential diagnosis.

During the conversation with the patient, the health professional will need to be polite and ready to display empathy, and avoid irony and sarcasm no matter how apparently absurd the patient's statements are. In order to verify delusions in the patient, the health professional may need to attempt dissuasion. However, this should be done in a gentle manner, in no case entering into an argument with the patient. During the conversation with the patient, open-ended questions should be used (giving the patient an opportunity to provide a comprehensive and detailed answer). Close-ended questions may often prompt or predetermine the patient's answer; the use of psychopathology terms (e.g. delusion, depression, hallucination, etc.) should be avoided. If the patient is using psychiatric terminology when describing their condition, the health professional(s) should clarify what exactly the patient means by the term(s) and ask them to describe their experiences in lay language. The patient's understanding of professional terminology may often be distorted and/or incorrect. During the conversation, the patient's statements should be recorded verbatim, since this provides a more accurate characterization of their condition. Subsequently, the health professional may quote the patient's direct speech when describing his/her mental status.

The mental status report is written after completion of conversation with the patient.

The conventional way to begin the writing of the mental status report is to describe the patient's state of consciousness, expressed as orientation to space, time and self. It is expedient to continue description of mental status with the areas of mental activity mainly informed by observation, i. e. from external appearance (such as behavior and emotional manifestations). After that, the

description should proceed to the cognitive sphere; this information is mainly obtained through interview and conversation.

Any sequence can be used to describe these spheres of mental activity. However, one universal principle should be adhered to: do not proceed to describing another sphere before description of the ongoing one is complete. When such an approach is followed, there will be no omissions owing to a sequential and structured description. With that, no specific referral to specific spheres of mental activity is required in the text of mental status; the description should be seamless and continuous.

Using the patient's own verbatim words, the mental status report may lay out the history of their disease (i. e. subjective history). However, without the knowledge of objective history (i. e. the history obtained from conversations with the patient's significant others and from objective medical data), suggestions concerning the nosology of the patient's mental disorder should be careful, reserved and based on reliable information only.

After description of the patient's mental status, the next step is to document the health professional's understanding about the patient. In this part, all observations by the nurse(s) and the physician(s) should be thoroughly corroborated and documented using professional psychopathological terminology.

The report on understanding about the patient should be completed with formulation of a diagnosis. The diagnosis should stem from the previous reasoning and reflexions. As a rule, the diagnosis contains two parts: the syndrome diagnosis and the nosological diagnosis.

The syndrome diagnosis (also referred to as nursing diagnosis) describes the leading current problem (syndrome). Two or more syndromes may be documented; multiple syndromes usually include 1 syndrome of productive disorder and 1 syndrome of negative disorder (subject to availability).

A nosological diagnosis (physician's diagnosis or medical diagnosis) includes a name of nosological entity, form, variant, type of disease progression/course and stage of the disease.

If sufficient information is lacking for a nosological diagnosis (i. e. in a primary inspection of a patient unable to provide any history data due to severe mental deterioration), the report may include a syndrome-based diagnosis only. In Psychiatry, a nosological diagnosis without the corroborating syndrome(s) is considered non-informative and clearly deficient.

Differential diagnosis includes other mental disease with similar clinical manifestations. After a thorough analysis, differential diagnosis, will rule out the conditions with clinical manifestations similar to the actual disease in the patient.

CHAPTER 3
MENTAL HEALTH ISSUES IN ADOLESCENTS AND YOUNG ADULTS AND THE ROLE OF THE NURSE IN ORGANIZING CARE FOR AND TREATMENT OF PSYCHIATRIC PATIENTS OF THESE AGE GROUPS

In this series of the research study, the analysis has used the data on the mental health of adolescent and young adult patients (225 subjects).

Mental diseases (also referred to as mental disorders) may occur in people of various age groups, from infants to elderly people. Contrary to popular belief, they do not always have external manifestations, such as aggressive behaviors or other deviations commonly referred to by lay people as “lunacy” or “madness”. The specific aspect of these illnesses is that some of them have a sporadic character, i. e. appear from time to time and are incurable. Also, understanding of many mental illnesses is still scarce, and noone can truly explain their causes.

The following facts constitute the peculiarities of mental health alterations in young patients:

- Mental health alterations account for 16% of global burden of disease and injuries among people aged 10-19 years.
- Half of all mental health alterations manifest before the age of 14. However, in most cases, mental problems go undetected and remain untreated.
- Depression is one of the leading causes of morbidity and disability among adolescents worldwide.
- Suicide is the third most important cause of death in the age group of 15–19 years.

Disregarding mental health alterations during adolescence is fraught with consequences continuing into adulthood and negatively affecting both physical and mental health and limiting opportunities for full-fledged adult life.

Adolescence (10–19 years of age) is a unique period when one’s personality is being shaped. The wide spectrum of physical, emotional and social

changes, including the impact of poverty, abuse or violence, may increase the susceptibility of adolescents to mental health problems. Improving the psychological well-being of adolescents and protecting them from heavy shocks and risk factors, which may affect their potential for successful development, are very important to ensure their well-being in adolescence, as well as their physical and mental health in their adult life.

The social and emotional habits with mental well-being significance include the following: developing a healthy sleep pattern; regular physical activity; developing coping skills, problem-solving skills and interpersonal communication skills; and developing the capacity for emotional self-control. Enabling environment in the family, in the school and in the society overall is also very important. Approximately 10–20% adolescents worldwide have mental health alterations, which are not properly diagnosed and do not receive adequate treatment.

The mental health status of an adolescent is determined by a number of factors. Increasing number and/or severity of risk factors that affect the adolescent aggravates potential mental health implications. The factors that increase the level of stress in adolescence include craving for greater independence, seeking peer approval and acceptance, a quest for sexual identity and the increasing use and availability of information technology assets. The influence of mass media and gender norms may aggravate inconsistencies between the reality wherein the adolescent person lives and his/her aspirations and ideas of the future. Other important determinants of adolescent mental health include their quality of life within the family and relationships with their peers. Recognized mental health risks include violence (including hard parental discipline and peer bullying) and socio-economic problems. Children and adolescents are especially sensitive to sexual abuse, which definitely entails deterioration of mental health.

Some adolescents are more prone to mental health alterations due to their living conditions, stigmatization, discrimination or social ostracism, or due to

lack of access to quality care and services. This is especially true of adolescents living under conditions of humanitarian crises and instability; adolescents with chronic disease, patients with autism spectrum disorders, mental handicaps or with neurological disorders; pregnant teenagers; adolescents who have become parents or entered into an early and/or forced marriage; orphans and adolescents belonging to ethnic or sexual minorities or other discriminated population groups.

Adolescents with mental health alterations are in turn particularly vulnerable to such phenomena as social ostracism, discrimination and stigmatization (which limits their readiness to seek help), learning difficulties, high-risk behaviors, physical illness and human rights violations.

Not infrequently, emotional disorders develop in adolescence. Apart from depression or anxiety, adolescents with emotional disturbances may also experience increased irritability, dissatisfaction or anger. The associated symptoms may resemble several emotional disorders at a time and may be characterized by rapid and unexpected mood swings and emotional outbursts. Younger adolescents may additionally have emotionally driven physical symptoms, such as abdominal pain, headache or nausea.

Among the leading global causes of adolescent morbidity and disability, depression ranks fourth in adolescents aged 15-19 years and fifteenth in adolescents aged 10-14 years (according to the study and observation in patients with this condition, which included 23 patients). Anxiety disorders rank ninth in significance among the causes of mental health alterations in adolescents aged 15-19 years and sixth in adolescents aged 10-14 years (according to the study and observation in patients with this condition, which included 29 patients). Emotional disorders may have a strong influence, for example, on school attendance and academic performance. Isolation and feelings of loneliness may be aggravated by social exclusion. In the most severe of the cases, depression may lead to suicide.

Behavioral problems in childhood rank second in significance among the causes of disease burden in adolescents aged 10-14 years and eleventh in adolescents aged 15–19 years. The behavioral problems of childhood include attention deficit/hyperactivity disorder (characterized by problems with focus, hyperactivity and actions without regard to consequences, which are not age-appropriate) (according to the study and observation in patients with this condition, which included 17 patients) and behavioral disorders (with symptoms of destructive or defiant behavior) (according to the study and observation in patients with this condition, which included 14 patients). Childhood behavioral disorders may have a negative learning impact on adolescents and may be a cause of delinquent behaviors.

Eating disorders typically occur in adolescents and juvenile subjects. Eating disorders are much more frequent in girls than in boys. Such disorders as anorexia nervosa, bulimia nervosa and binge eating disorder are characterized by harmful eating behaviors such as caloric restriction or unrestrained devouring of food. Eating disorders are detrimental to health and are often accompanied by depression, anxiety disorders and/or abuse of psychoactive substances.

Psychotic disorders is a group of disorders characterized by psychotic symptoms; the onset is most frequently in late adolescence or in juvenile age (according to the study and observation in patients with this condition, which included 12 patients). Psychotic symptoms may include hallucinations or delusional disorders. Psychotic episodes may seriously compromise the adolescent’s ability to be involved in everyday life and to get education. In many cases, they lead to stigmatization or human rights violations.

Suicide and self-injury (according to the study and observation in patients with this condition, which included 6 patients). As estimated, self-inflicted injuries have become causes of death in 62,000 adolescents in 2016. Suicide ranks third among the leading causes of death in older adolescents (15–19 years of age). Approximately 90% adolescents in the world are living in low- to medium-income countries; and more than 90% of all adolescent suicides occur

in these countries. Risk factors of suicide are diverse and include alcohol abuse, child abuse by the parents, stigmatization when seeking help, hindrances to obtaining help and accessibility of means of committing suicide. High-risk behaviors. Many behaviors associated with health risks, such as use of psychoactive substances or high-risk sexual behavior originate in adolescence (according to the study and observation in patients with this condition, which included 14 patients). High-risk behaviors may constitute both ineffective attempts at coping with mental health problems and a negative factor (with dire consequences for physical and mental wellbeing of the adolescent).

In 2016, the prevalence of sporadic heavy drinking among adolescents 15-19 years of age was 13.6% globally, with the risks being higher in male subjects (according to the study and observation in patients with this condition, which included 8 patients).

The use of tobacco and cannabis is also of particular concern (according to the study and observation in patients with this condition, which included 25 patients). Cannabis is the most prevalent street drug; according to 2018 data, 4.7% of young people aged 15-16 years have used it at least once. Many adult smokers have tried their first cigarette when they were younger than 18 years of age.

Violence is another frequent type of high-risk behavior. It may increase the likelihood of low educational level, injury, delinquency or death (according to the study and observation in patients with this condition, which included 6 patients).

Table 3.1. Special characteristics of mental health in adolescents and young adults

Special characteristics of mental health	**Number of patients**
Emotional disorders:	
Depression	23
Anxiety disorders	29
Behavioral disorders:	
Attention deficit/hyperactivity disorder	17
Behavioral disorders (with symptoms of destructive or defiant behavior)	14
Eating disorders:	
Anorexia nervosa	29
Bulimia nervosa	24
Binge eating disorder	18
Psychotic disorders	12
Suicide and self-inflicted injuries	6
High-risk behaviors:	
High-risk sexual behavior	14
Sporadic heavy drinking	8
Use of tobacco and cannabis	25
Violence (interpersonal violence)	6

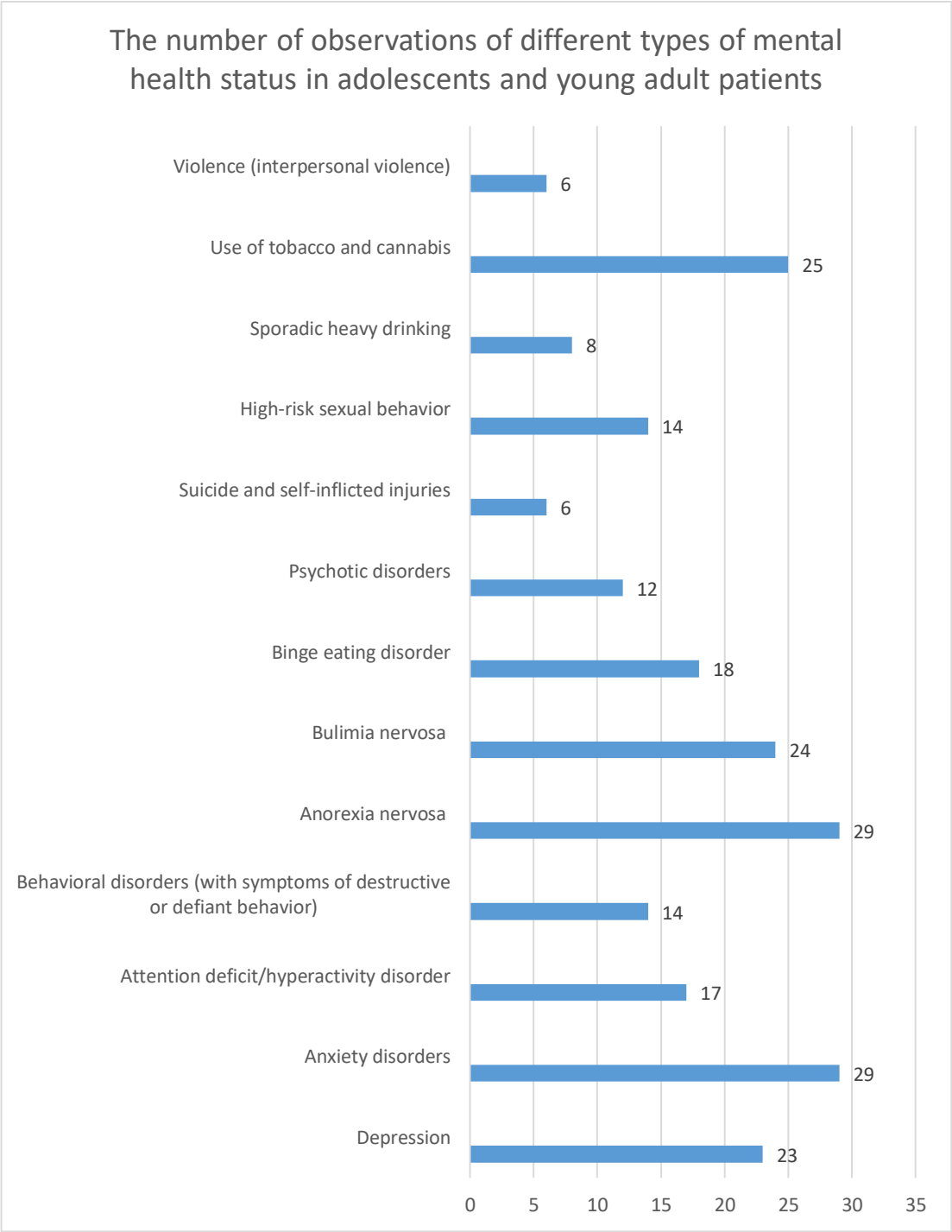

Figure 3.1. The number of observations of different types of mental health status in adolescents and young adult patients.

Eating disorders are mental health problems when the individual's attitude towards food, physical activity and body image (i. e. the idea of their appearance and of the way others perceive them) or other ideas about themselves have negative health implications. The symptoms of eating disorders include, among

others, dangerously low or, conversely, excessive food consumption, vomiting or compulsive physical activity.

The most frequent types of eating disorders include anorexia nervosa (usually referred to as merely “anorexia”), bulimia and compulsive overeating/binge eating disorder. An eating disorder may also combine all of the above symptoms. An eating disorder usually includes a combination of the above manifestations. For instance, a “classic” anorexia, i. e. the one that perfectly fits the diagnostic criteria, is relatively rare.

Common features of all eating disorders include self-loathing, anxiety and depressive experiences, self-isolation, as well as compulsive eating behaviors, e. g., avoiding or, conversely, preferring certain foods. In many cases, there is a type of self-punishment (for example, the patient feels compelled to do an exhaustive jog after having a meal).

Abnormal weight loss, excessive exercise or habitually induced vomiting may cause serious chronic injury to the body. People with eating disorders often have concomitant depression or other mental disorders.

Eating disorders are not directly related to age or gender; however, young females constitute the majority of these patients. Eating disorders are not a new phenomenon; they have become widely spread since 1960s, when leanness was praised as a fashionable ideal of beauty.

A patient with an eating disorder, as well as their family, routinely need help of a physician, psychiatrist/psychologist and a dietician. In case of anorexia, an important initial intervention is to bring the patient's body weight to a safe (not necessarily outright normal) level and to balance their nutrition. In binge eating disorder/compulsive overeating, it is important to rectify the imbalance between excessive consumption of food and weight deficits.

Among an array of therapeutic interventions, dietary counseling and psychotherapy are of special significance. Psychotherapy helps the patient understand what causes their situation and their disease. Individual

psychotherapy or group psychotherapy may be used; in certain cases, this may include hospitalization as required.

Anorexia. Patients with anorexia consider themselves “fat” and desperately want to lose weight despite normal actual body weight. They cannot and wish not to stop their weight loss; height-adjusted body weight (BMI) may eventually reduce to dangerous levels. They attain and/or maintain low body weight through malnutrition, excessive physical activity or a combination of both. Diagnostic criteria of anorexia include, among others, a strong fear of gaining weight, reduction of body weight to below 85% of normal, persistent refusal to increase body weight and amenorrhea (in females).

Patients with anorexia often have compulsive patterns of nutrition routine and physical activity. For example, they may eat only certain foods and ardently avoid others and may be excessively engaged in physical activity. Sometimes, depression precedes the development of anorexia. Concomitant depressive disorders may also develop simultaneously with anorexia.

It has been noted that diligent, ambitious and intelligent young females are at greater risk for anorexia. Patients with anorexia may have difficulties expressing negative emotions, such as disappointment or anger. These patients often set the bar high in many areas of their lives and are too demanding on themselves.

Nevertheless, it should be kept in mind that not all patients with anorexia fit within this framework; anorexia may affect children, adults, females and males. In patients with anorexia, leanness is an important criterion of self-esteem. Therefore, any weight gain (no matter how beneficial and important) triggers a strong sense of dissatisfaction and an inferiority complex.

The development of the disease may be affected by the stereotypes predominant in the patient’s milieu and imposed by the media.

In modern Western culture, leanness is often associated with success and happiness. Women with body weights below normal are often perceived as a

beauty ideal. Young people may find dieting as an alternative solution for their problems. Initially, dieting may provide them with a sense of control.

Nevertheless, abnormal or compulsive dieting is quite dangerous for both physical and mental health. Later in life, weight loss may lead to divorce, need to change school or work, or trigger other people's critical reactions to the patient's appearance.

In many cases, anorexia is much more frequent in relatives of people who have/had anorexia.

Anorexia is a very serious disease. It is potentially fatal due to excessive weight loss and dehydration. This is why it is extremely important to seek professional attention as soon as possible. The factors that inform treatment choices include current body weight of the patient, general physical health and motivation to regain normalcy.

The treatment is usually outpatient, but severe cases often require hospitalization. For example, dangerously low pulse rate or blood pressure as a result of losing weight, metabolic disorders, ECG changes or serious mental health problems are grounds for hospitalization. The objective of treatment is to rectify malnutrition and eating behaviors, and also to eliminate psychiatric symptoms. In other words, the therapy needs to target both nutrition and mental condition.

Treatment usually involves active collaboration of the patient, their family/significant others, physician and other professionals, as well as the school, whenever possible. Jointly with the patient, the health professional will develop plans and commitments concerning diet and exercise, and monitor the patient's body weight. As treatment progresses, the focus is gradually shifted from controlling body weight to discussing the thoughts and feelings of the patient.

Patients with anorexia may need additional individual psychotherapy or family psychotherapy. If depression is concomitant to anorexia, drug therapy may also be helpful. Various therapeutic activities, e. g. art therapy, may assist

convalescence. Although anorexia is a very severe and serious disease, most of the patients fully recover.

Bulimia nervosa. Symptoms of bulimia nervosa include repeated bouts of binge eating followed by induced vomiting. Bulimia is also characterized by elevated fear of “getting fat” and by obsession with body weight control. Binge episodes usually happen in secret and cause strong feelings of guilt and shame in patients with bulimia.

During the binge eating episodes, the patient with bulimia feels lack of capacity to stop eating or control the amount of food eaten. These patients try to prevent weight gain by inducing vomiting, by taking laxatives or diuretics, by fasting or by increasing physical activity. The vomiting in bulimic patients is not necessarily directly related to overeating. Many patients experience vomiting with meals of normal or even minuscule serving sizes.

Many people with bulimia have normal body weight and have never had any previous eating disorders. Sometimes bulimia develops in people who previously had anorexia. On average, the age of onset in bulimia is higher than that in anorexia; desperate attempts to lose weight are a frequent cause. In a bulimic patient, body weight is often a measure of self-esteem; any increase in body weight or even a thought about such increase causes feelings of inadequacy and anxiety. Such patients typically have low self-esteem.

It has been confirmed that the factors predisposing to bulimia are basically the same as in case with anorexia. The development of bulimia is frequently influenced by cultural environment and the family, as well as by previous emotional experiences, such as school bullying or social exclusion.

Many therapeutic modalities have been developed to manage bulimia. The treatment program usually involves dietetic counseling, educating the patient and their family about the disease, psychotherapy and measures to improve physical health. Antidepressants are sometimes used. Physical health control is attempted by using a food diary and a symptom diary. Patients may learn to overcome

destructive cognitive and behavioral patterns, for instance, the interconnection between body weight and self-esteem.

Patients with bulimia often do not seek professional attention until after several years from the onset (the first symptoms) of the disease. This may be explained in part by the wave-like behavior of the disease. At times, a bulimic person may feel no urges to binge eating or to vomiting or is able to suppress them despite the craving. Sometimes the urges to binge eating and the associated vomiting cannot be controlled, and these symptoms substantially reduce the patient's quality of life.

Binge Eating Disorder (BED) or compulsive overeating is an abnormal eating behavior that leads to obesity. A typical problem in this disorder is consumption of large amounts of food without the so-called compensation behaviors, such as vomiting or laxative use. People with binge eating disorder may experience large excursions of body weight; the disorder is also a source of strong anxiety. People with binge eating disorder may try to control their body weight by skipping meals. However skipping a breakfast or lunch may provoke and evening bout of gluttony. Regular and healthy eating is important for people with binge eating disorder. These patients must avoid stern dieting to reduce body weight, since this may deteriorate and increase binge eating.

The review of the aforementioned specific aspects of mental problems in adolescents and young adult patients helps nursing personnel to acknowledge the status of mental health in patients of this age group in a timely fashion and provide them with the required help or refer them to a qualified professional. This is especially important in high-risk behaviors and in depression with attempts at suicide.

CHAPTER 4

MENTAL DISORDERS IN MIDDLE-AGE AND ELDERLY PATIENTS AND THE ROLE OF THE NURSE IN MANAGEMENT OF PATIENTS OF THESE AGE GROUPS

In this series of the research study, the analysis has used the data on the mental health of middle-aged and elderly people (208 subjects).

Mental disorders in middle-aged and elderly people include the diseases, which develop in middle age, and in presenile (involutional) and senile age, respectively.

According to the WHO classification, elderly people are 60 to 74 years of age and senile people are 75 to 90 years of age. The increasing average life expectancy has led to changes in the age structure of the population. There are proportionally more elderly and senile patients and, respectively, more elderly people with various somatic disorders and manifest mental alterations.

Table 4.1. Types of mental health statuses in middle-aged patients and in elderly patients and the number of test patients with these alterations

Special characteristics of mental health in patients of middle-age and elderly age groups	Number of patients
Schizophrenia	17
Bipolar disorder	24
Epilepsy	19
Symptomatic and organic psychoses	25
Parkinson's disease	12
Alzheimer's disease	15
Senile dementia	22
Functional (reversible) mental disorders of advanced age:	
Involutional paranoid	11

Involutional melancholia	18
Mental disorders of vascular origin	
Exogenous and organic mental disorders	15
Vascular dementia	18
Endoform mental disorders	12

The following mental disorders are more typical for middle-aged patients, but may occasionally develop in young patients:

- Schizophrenia (this study assessed 17 patients with this mental disorder)
- Bipolar disorder (this study assessed 24 patients with this mental disorder)
- Epilepsy (this study assessed 19 patients with this mental disorder)
- Symptomatic and organic psychoses (this study assessed 25 patients with this mental disorder)

Nevertheless, these disorders have been recently observed in elderly patients.

However, this research work has paid more attention to the specific aspects of such mental disorders, which are more typical for advanced age patients.

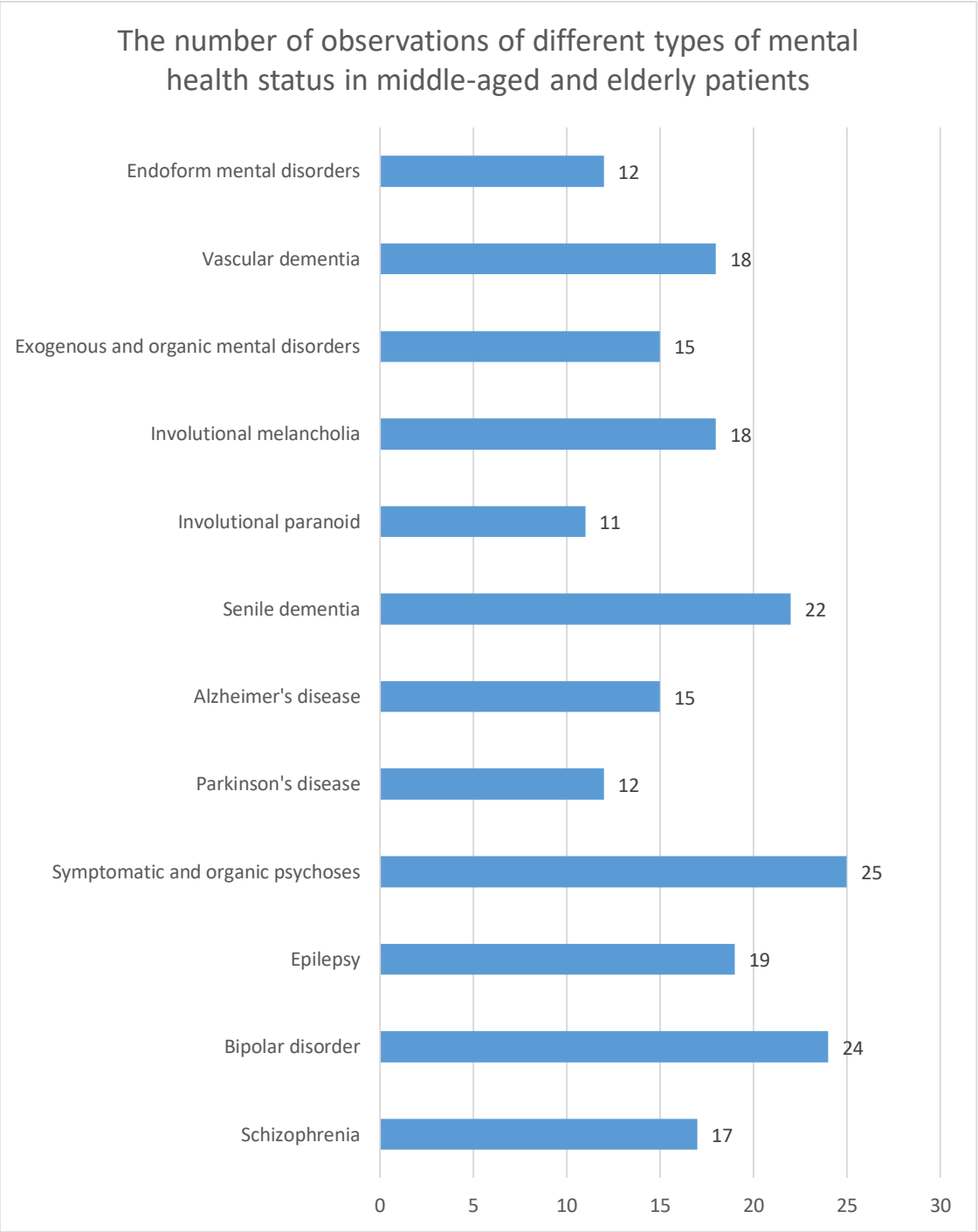

Figure 4.1. The number of observations of different types of mental health status in middle-aged and elderly patients.

The mental disorders of advanced age are conventionally divided into diseases of “organic” origin (which develop based on a specific destructive process and lead to dementia), and “functional” (reversible) disorders, which tend not to cause profound dementia.

Parkinson's disease is a degenerative atrophic cerebral disease. The onset is in the advanced age and is frequently accompanied by mental alterations (this study assessed 12 patients with this mental disorder). The most effective current treatment for motor disorders in Parkinson's disease is levodopa. However, this drug has certain adverse effects (approximately 50% of patients on levodopa may develop such mental problems as confusion, psychomotor agitation with anxiety, somnolence and enhanced depression). Levodopa should be administered upon careful evaluation of the patient’s mental status. The therapy is started with small doses, which gradually increase. When psychotic disorders develop, in addition to gradual dose reductions of anti-Parkinson drugs (with possible discontinuation) and detoxification therapy, small doses of antipsychotic drugs may be used.

Alzheimer's disease is a predominantly presenile atrophic cerebral disease, which leads to dementia and is accompanied by disorders of higher nervous function (this study assessed 15 patients with this mental disorder). This disease has an unfavorable prognosis. There are currently no effective treatment methods with proven therapeutic benefits. At late stages, the patients usually require institutionalization either at mental hospital or at psychiatric residential treatment facilities.

Senile dementia is a typical mental disorder of senile age with progressive disintegration of mental activity. In most cases, the condition ends in total dementia (i. e. destruction of all intellectual functions). This study assessed 22 patients with this mental disorder. Some psychiatrists view senile dementia as a terminal stage of normal brain ageing and consider it inevitable in very advanced age. Normal ageing process also includes decreased levels of mental activity, resemblant of initial symptoms of senile dementia. Proper care and symptomatic therapy are decisive for further fate of such patients. At early stages of the disease, it is recommended to allow the patients to remain in their homes (as long as their condition permits). Relocating such patients to a non-familiar environment (including that of a healthcare or a residential facility) may

deteriorate the course of their disease. The patients may be hospitalized and/or institutionalized only in the presence of specific indications (helplessness, lack of/insufficient care, risk for self-injury or injury to others).

There is no conclusive evidence to support the efficacy of nootropic drugs in senile dementia. In that connection, such therapy may only be recommended at initial stages of the disease as well as when senile dementia is combined with cerebrovascular atherosclerosis. Small doses of psychotropic drugs are only indicated in high levels of agitation, persistent insomnia or in psychotic disorders.

Senile mental problems include a number of mental disorders developing in people older than 65 years.

The causes of senile disorders currently include the following:

- vascular disease (arteriosclerotic dementia, multi-infarction dementia, subcortical vascular dementia, etc.);
- neuronal loss and degenerative cortical changes (dementia in Alzheimer's disease, dementia in Pick's disease).

Despite the wide spectrum of mental disease in elderly people, the most frequent syndromes fall into the following clinical categories:

- impairments of cognitive function (involving memory, intelligence and learning capacity) and awareness of surroundings (impaired consciousness and attention);
- impaired perception (hallucinations), impaired thought content (delusion);
- mood and emotional impairments (depression, emotional agitation, anxiety), personality changes and behavioral changes.

Mental diseases of the advanced age are also divided into two groups: involutional/functional (reversible, not leading to dementia), and organic psychoses, which occur against the backdrop of a destructive process in the brain (these disorders are accompanied by development of gross intellectual deficits).

Involutional psychoses include involutional paranoid and involutional melancholia. The factors that predispose to development of these psychoses include a peculiar mental constitution (with traits of rigidity, anxiety and suspiciousness), various psychological trauma and preexisting somatic disease. In female subjects, psychoses usually develop in post-menopause.

Functional (reversible) mental disorders of advanced age:

Involutional paranoid is a psychosis with an onset during the age of involution. It is characterized by development of small range delusions or delusions of trivial relationships (this study assessed 11 patients with this mental disorder).

The clinical presentation of the psychosis is represented by persistent delusions against the backdrop of anxiety and depression. The content of the delusion is related to actual specific events in the patient's life. As a rule, there is a delusional interpretation of real relationships with neighbors, relatives and significant others. For example, the patient may believe these people seek to seize his/her property. The patient may suspect/have confidence that "persecutors" have secretly forged keys to and penetrate into his/her room or apartment to spoil or steal their belongings, to add poison to their food, etc. The claims of the patient may sound quite veracious, especially given that the delusions are usually interwoven with long-standing conflicts and real-world relationships with the "persecutors". The plausibility of delusions may find sympathy with third-party individuals, who may attempt to "help" the patients (for example, assist them with filing a complaint with a police authority). Outwardly, the behavior of such patients is relatively well-structured. Delusional concepts are usually confined to narrow everyday relationships, hence the name of "small range delusion" or "delusion of trivial relationships". Delusion of infidelity is another disorder, which is more frequent in males. The patient may be jealous of their spouse's contacts with neighbors, co-workers, etc. The most trivial facts are interpreted in a delusional way. Delusion of infidelity is often

accompanied by actively following the “cheater”; aggressive behaviors are not uncommon.

Delusional experiences may be accompanied by hallucinatory experiences. These are mostly limited to auditory hallucinations: noises behind the wall, footfalls, judgmental and threatening conversations. Sensory disorders akin to cenesthopathy are possible. Diverse unpleasant sensations in the body are interpreted by the patients as proofs of “being poisoned” or being otherwise influenced by the “persecutors”. Such experiences occur in the setting of intact and unaltered consciousness. However, the patient’s behavior and activity are shaped and directed by his/her delusions.

With timely initiation of treatment, the prognosis is favorable.

It is important to differentiate involutional paranoid from other delusional disorders and from late-onset schizophrenia. The diagnosis of involutional paranoid is informed by the absence of any organic disease or diagnostic criteria of schizophrenia, schizotypal disorder or schizoaffective disorder. The age of onset is > 50 years of age; typical manifestations include delusions of “small range” or delusions of “trivial relationships”.

The treatment of involutional paranoid includes antipsychotic drugs.

Involutional melancholia occurs more often in women aged 50-65 years. The leading psychopathological manifestation of this disease is protracted anxious depression or anxious delusional depression with the onset during the involution period (this study assessed 18 patients with this mental disorder).

The onset is often preceded by a stressful situation or by changes in life stereotypes.

The clinical presentation is dominated by depressed mood with anxiety, fear and perplexity. Being in a state of restlessness, fussiness and anxious melancholic agitation, the patient cannot sit still. Attempts at suicide are likely. Depression may also manifest in the setting of extreme motor retardation, a type of stupefaction (referred to as “melancholic stupor”). In this state, patients maintain a mournful facial expression and a mournful posture. However, unlike

catatonic stupor, mutism is absent. When the health professional inspects the patient, isolated one-word answers is all one can get from them.

Auditory illusions occur against the backdrop of depression with anxiety. Condemnation, reproaches and accusations are “heard” by the patient in unrelated conversations by other people. With time, additional symptoms will include delusions of self-accusation, condemnation, ruin, impoverishment or hypochondriacal delusions.

As the disease progresses, individual delusions proliferate to form a delusional syndrome, often persecutory or nihilistic in nature. Thus, hypochondriacal and nihilistic ideations constitute Cotard delusion, when patients describe dramatic changes in their bodies (such as absence of internal organs, tumors of gigantic proportions) and imminent disease and death of other people.

Involutional melancholia is distinct for its protracted course; the duration is from several months to several years. Complete recovery is a possibility, especially with timely initiated and properly conducted treatment.

The features that make involutional depression distinct from depressive disorders of other origin (including those with organic etiology) include a late onset (in patients older than 50 years), no history of organic brain disease, a protracted course, an anxious anticipation of impending disaster, hypochondria, and absence of personality changes and absence of impaired consciousness states.

Optimal treatments for involutional depression include balanced-effect antidepressants with strong thymoleptic potential and concomitant anxiolytic properties. When selecting drug therapies for depressive disorders, side effects should be taken into account at all times. Preference should be given to drugs with low orthostatic effect (doxepin, nortriptyline) and minimal anticholinergic effect (desipramine, trazodone, MAO inhibitors).

Organic dementing psychoses Late-age dementia. The term “dementia” stands for acquired intellectual impairment. Dementia is characterized by

progression. In other words, the intellectual impairment is becoming stronger and deeper with time, while the intellectual impairment of oligophrenia is stable. In terms of clinical manifestations, the following types of dementia are distinguishable:

- total dementia: a simultaneous reduction in all cognitive functions, professional and household skills, destruction of personality and loss of insight (examples include dementia in progressive paralysis and degenerative brain disease);
- lacunar dementia is characterized by pronounced memory impairments, while other cognitive functions may remain relatively intact; the patient has insight and the nuclear personality is preserved (examples include cerebral vascular disease and cerebral syphilis).

The causes of dementia include traumatic brain injuries, infections, tumors, chronic alcohol and substance abuse, conditions associated with chronic hypoxia of central nervous system tissue, etc. The etiology in some types of dementia is unknown.

In advanced age, the main causes of dementia include vascular disorders and degenerative processes in central nervous system tissue. Therefore, classification of dementia includes the following categories:

- vascular dementias (cerebral atherosclerosis, hypertension, diabetes mellitus, etc.);

- degenerative (atrophic) dementias (Alzheimer’s disease, Pick's disease);

- mixed-type dementias.

Specialist literature uses the terms “presenile” and “senile” to delineate dementia by the time of development and to describe the specific features of dementia in various underlying disease.

Dementia in Alzheimer's disease. Alzheimer's disease is a degenerative disease of central nervous system characterized by a progressive reduction in

cognitive functions, impaired structure of the personality and behavioral changes.

The pioneering studies of senile dementia, also known as Alzheimer's disease, were conducted by Alois Alzheimer (1866-1915), Professor of Neurology and Psychiatry in Frankfurt am Main, Germany. In 1906, Alois Alzheimer published the first report of an atypical form of senile dementia, later called Alzheimer's disease. He made a significant contribution to the study of nervous system pathology, describing the fundamental differences between vascular dementia and neurodegenerative dementia.

Among people with dementia, the primary type degenerative Alzheimer's dementia is found in 50% to 60% of cases. The trend towards increasing life expectancy (especially in the developed countries) doubles the incidence of Alzheimer's disease among the elderly for every 5 years of life (4% in people 75 years of age, 8% in people 80 years of age and 16% in people 85 years of age, etc.).

The etiology of the disease is not known. Having relatives with Alzheimer's disease increases the risk 4–5 times. Molecular and genetic studies in patients with Alzheimer's disease have found this disease to include several genetically heterogeneous forms. The amyloid precursor gene located on chromosome 21, the presenilin-1 gene (PSN-1) located on chromosome 14 and presenilin-2 gene (PSN-2) located on chromosome 1 are responsible for a rare presenile form of the disease. Deposits of ß-amyloid in the interstitial space of central nervous system tissue disrupt the movement of the intercellular fluid and exert mechanical pressure on adjacent neurons and their processes. In addition, ß-amyloid deposits are neurotoxic and cause degeneration and death of nerve cells. Amyloid plaques and neurofibrillary tangles in brain tissue block certain receptors, thereby affecting memory function and signal propagation during processing of information. Other studies have demonstrated impaired cerebral metabolism of acetylcholine and a few other neurotransmitters and neuromodulators in Alzheimer's disease.

Risk factors for Alzheimer's disease include the following: age, family history of Alzheimer's disease or other late-age dementia, ApoE4 (+) genotype, history of head injury, history of thyroid disease, late maternal age at birth, and low education level.

Diagnostic value is recognized for such neuromorphological phenomena as senile plaques and neurofibrillary tangles in neurons. The morphological diagnosis of Alzheimer's disease is based on quantitative assessments of senile plaques and neurofibrillary tangles.

The onset of the disease includes a gradual development of cognitive deficits (primarily memory loss), frequent repetitive forgetfulness, some difficulties with reproducing events and difficulties with temporal and spatial orientation. The patient is making increasingly more frequent mistakes in their professional activity; the area of interest is narrowing, but activities of daily living remain intact. As a rule, the patients are initially successful in concealing these disorders. Quite often, initial signs of Alzheimer's disease are detected in a retrograde fashion or with psychological testing. Cognitive impairments are later accompanied by irritability, fatigue, sleep disorders, increased sensitivity to alcohol and headache. The premorbid traits of character are accentuated. The symptoms of the disease are sometimes mistaken by the surrounding people for signs of normal aging, especially since people with high baseline levels of intelligence and education may successfully compensate for the progressive cognitive deficits.

At the initial stage of Alzheimer's disease, approximately 50% of the patients have productive (mainly affective) or delusional disorders. Affective disorders are represented by sub-depressive experiences combined with anxiety or hypochondriacal experiences. Delusional disorders manifest as sporadic delusions of harm, reference delusions, ideas of being robbed, etc.

The possible duration of the initial stage is 15 to 20 years. The older is the patient by the time of onset, the shorter the initial stage.

At the stage of mild dementia, impaired memory of current events becomes distinct and gross errors in orientation to time and space begin to appear. Mental alertness and focus are impaired; the patient is unable to cope with the exclusion/generalization and comparison operations. Some patients had isolated disorders of a particular cortical function (most often speech), while other patients showed signs of combined cortical dysfunctions (for example, speech and optical-spatial activity or praxis). At this stage of the disease, 75% of the patients have personality changes represented by hyperexcitability, proneness to conflict, resentfulness and egocentricity; less frequent representations include leveling of personal characteristics. The patients are becoming increasingly passive. Patients lose professional skills and cannot cope with a previously well-known job; they may need help even in a familiar everyday environment.

The stage of moderate dementia primarily involves significant memory impairments; these impairments involve both the capacity to acquire new knowledge and the ability to reproduce previous knowledge and experience. Serious difficulties emerge in the area of analytical-synthetic activity, as well as in speech, praxis, gnosis and optical-spatial activity. The level of reasoning is lowered. The patients are losing their orientation to time and space. At this stage, they are only capable of simple household chores. Their interests are extremely limited and constant help eventually becomes necessary even with such basic self-care activities as dressing and personal hygiene.

At this stage of the disease, neurological symptoms begin to appear. These symptoms include increased muscle tone, stiffness without rigidity, isolated epileptoid seizures, Parkinson’s-like disorders or dissociated neurological syndromes (amimia without general akinesis, isolated gait disorders) and various hyperkineses (mostly chorea-like and myoclonic).

At the stage of severe dementia, severe memory deterioration is evident.

Patients retain but fragmentary recollections; orientation to their person is limited by sketchy ideas of their identity. Intellectual operations are beyond

possible and speech is deteriorated; perseverations and complete aphasia are possible. The patient needs continuous assistance with self-care due to impaired control of pelvic organ function. There is a total disintegration of intelligence and of the entire mental activity of the patient.

The average duration of the disease is 8–10 years. However, both protracted (more than 20 years) and a catastrophically rapid (from 2 to 4 years) courses of the disease are possible. Death occurs from associated infections, from debilitation/cachexia, trophic and endocrine disorders.

The diagnosis of Alzheimer's disease is based on the following sine qua non signs:

- presence of dementia syndrome;

- a gradual subtle start and steady progression of cognitive deficits;

- the signs of cognitive impairment must be manifest outside the episodes of confusion/stupefaction;

- impairment of memory and other cognitive functions cause a reduction in social or professional adaptation of the patient compared to baseline;

- impairments of cognitive functions are not caused by any other psychiatric condition (e. g. by major depressive disorder, schizophrenia, oligophrenia, e.t.c.).

Adherence to the above criteria significantly improve the quality of diagnosis of Alzheimer's disease. However, reliable confirmation of the diagnosis is possible only with postmortem autopsy of the brain.

Diagnosis of Alzheimer’s disease requires a comprehensive patient assessment, including clinico-psychopathological, somatoneurological and neuropsychological methods, psychometry, neuro introscopy and genetic testing.

Thorough collection of history is of primary importance, especially objective history, i. e. obtaining information from the patient’s family and significant others. It is important to collect information concerning cognitive changes (increasing forgetfulness, difficulties in understanding questions, text and tasks; difficulties with planning and organization of activities, errors in

performing usual work, and impairments of praxis). The cognitive function status of the patient is assessed using various psychometric scales. The most widely currently used tests and scales include Mini-Mental State Examination (MMSE), clock drawing test (CDT) and seven-minute comprehensive ability battery. When evaluating test results, the health professional should take patient's age and educational level into consideration. The aforementioned instruments, as well as other similar scales, allow estimating the severity of dementia. When used as a part of long-term patient follow-up, they may determine the rate of progression of the disease.

Imaging methods are important in differential diagnosis of dementias, especially between Alzheimer's disease and vascular dementia, frontotemporal dementia and dementia with Lewy bodies.

Functional radioisotope imaging techniques include single-photon emission computed tomography (SPECT) and positron emission tomography (PET).

When examining the brain, SPECT is used to assess regional cerebral blood flow. Alzheimer's disease usually presents with reduced perfusion in the parietotemporal region of the brain.

Treatment and prevention. The main directions of pathogenetic therapy for Alzheimer's disease are currently represented by the following treatments:

1) compensatory (replacement) therapy aimed at replenishing neurotransmitter deficiency (cholinergic deficiency) in various neuronal systems;

2) neuroprotective therapy contributing to enhanced viability (i. e. "survival") of neurons and neuronal plasticity;

3) vasoactive therapy;

4) anti-inflammatory therapy.

The representatives of compensatory therapeutic modalities include acetylcholinesterase inhibitors (AChE inhibitors), such as Exelon (rivastigmine), a pseudo-reversible AChE inhibitor of the carbamate type, and Aricept

(donepezil), a reversible AChE inhibitor (a piperidine derivative). In patients taking any of the above drugs, cognitive improvements are evident already after 1 month of treatment.

Preventive measures in Alzheimer's disease are of a general nature. More significant is the problem of early and correct diagnosis of this disease, since timely onset of therapy may slow down the process of cognitive decline and improve the patient's quality of life.

Dementia in Pick's disease Clinical characterization of this disease was first done by A. Pick in 1892, who described the condition as dementia with aphasia resulting from progressive local atrophy of the brain.

Pick's disease is 50 times less frequent than Alzheimer’s disease. The mean age of patients at the onset is approximately 55 to 56 years, which is comparable to Alzheimer's disease.

The diagnosis of the disease is informed by the sine qua non general criteria of dementia and the following signs: slow onset with progressively increasing cognitive deficits and predominance of frontal symptoms, defined by the presence of at least two of the following:

– affective flattening;

– desensitization of social behavior;

– disinhibition;

– apathy or anxiety;

– aphasia;

– relatively intact memory at the initial stages.

Unlike Alzheimer’s disease, personality changes clearly predominate in the early stages of Pick's disease, while the so-called "instrumental" functions of the intelligence (i. e. memorization, reproductive memory, attention, orientation, etc.) are impaired to a significantly lesser degree. The personality changes at early stages of the disease depend on the location of the atrophic process.

Mental disorders in vascular diseases of the brain. Mental disorders in vascular disease include the conditions that develop secondary to cerebral

circulatory disorders (including cerebrovascular accidents) of various etiology and pathogenesis.

The causes of vascular brain disease include atherosclerosis, hypertension, intracranial aneurysms, vasculitis and amyloidosis of cerebral vessels. These may cause both acute (strokes, transient ischemic attacks) and chronic cerebral circulatory disorders. The severity and the presentation of abnormalities may be very diverse.

Mental disorders in damage to cerebral vessels may develop at any age. However, they are much more frequent in the second half of life and reach their maximum incidence in the old age.

Mental disorders of vascular origin are divided into three groups:

- exogenous organic mental disorders, both transient and persistent (this study assessed 15 patients with this mental disorder);

- vascular dementia (this study assessed 18 patients with this mental disorder);

- endoform mental disorders (this study assessed 12 patients with this mental disorder).

Transient psychotic disorders. These disorders are represented by a number of different clinical variants.

Obnubilation is the first abnormal sign seen during acute cerebrovascular accidents (such as strokes and transient ischemic attacks, and hypertensive emergencies). The depth and the duration of obnubilation correlate with the severity of the cerebrovascular accident.

Persistent mental disorders. Asthenic conditions either accompany initial stages of vascular disorders or emerge after cerebrovascular accidents. The asthenic syndrome is characterized by mental and physical fatigue of varying degrees of severity, associated with headache, dizziness, tinnitus, sleep disorders, emotional lability, signs of volitional weakness and various neurotic reactions (hypochondriacal, phobic, etc.). Cognitive function impairments primarily affect the process of attention and causes the associated phenomenon

of mnestic weakness (the patient finds it difficult to quickly recall the necessary information).

Psycho-organic disorders in vascular cerebral disease. A variant of psycho-organic disorder is represented by changes in cognitive functions. The symptoms include deceleration of psychomotor reactions, torpidity and rigidity of thinking, mild short-term memory disorders and attention disorders.

The next variant of psycho-organic disorder is represented by personality changes. The circle of patient's interests becomes narrow; the patients are complacent and at the same time easily irritable, emotionally labile and at times apathetic. The patient may disregard social behavioral norms, which was not previously the case, and demonstrate changes of sexual behavior. In the cognitive sphere, the abnormalities are represented by heightened suspiciousness and excessive preoccupation with one idea (idée fixe). The patient is becoming increasingly egocentric, callous and egotistic. According to ICD-10, this variant of psycho-organic disorder is classified under F07.0 "Organic personality disorder".

Vascular dementia (vascular intellectual impairment) is a progressive deterioration of cognitive functions caused by vascular brain disease of various severity, which leads to difficulties with social adaptation.

In terms of incidence, vascular dementia is second to Alzheimer's disease. Its frequency among people 65 years of age and older is 4.5%. In males, vascular dementia is about 1.5 times more frequent than in females.

The primary causes of vascular dementia include hypertension and vascular atherosclerosis. Less frequent causes may include such diseases as rheumatism, syphilis and other inflammatory vascular diseases.

The fundamental pathogenetic drivers of vascular dementia include hypoxia and cerebral ischemia. Risk factors.

Risk factors of vascular dementia are divided into three groups. Primary risk factors include the factors predisposing to vascular wall damage, such as:

- smoking;

- hypertension;
- hypotension (in subjects over 75 years of age);
- hypercholesterolemia;
- hyperhomocysteinemia;
- type 2 diabetes;
- rheumatism, syphilis and other infections;
- increased blood clotting.

Secondary risk factors include the conditions affecting cerebral vessels, such as atherosclerosis, hyalinosis, amyloidosis, inflammation with thrombosis and thromboembolism.

Tertiary risk factors include destructive brain damage caused by ischemia: microscopic infarctions, macroscopic infarctions, lacunar infarctions, expansion of perivascular spaces and ischemic damage to the white matter of the brain.

In cases of vascular dementia (especially subcortical dementia), the cholinergic and glutamate neurotransmitter systems are affected, which has a negative impact on cognitive functions.

The obligatory symptoms of vascular dementia are represented by symptoms of cognitive decline, asthenic syndrome and emotional-volitional disorders.

Unlike Alzheimer's disease, vascular dementia rarely produces a profound and total disintegration of the psyche. In its course, vascular dementia may be combined with other psychopathological and neurological disorders (confusion, disorders of higher cortical functions, focal neurological symptoms, epileptic seizures, e.t.c.). In contrast to Alzheimer's disease, the above disturbances may occur in the early stages of the disease. In vascular dementia, the symptoms of impairment of higher cortical functions (such as aphasia, apraxia and agnosia) are less frequently combined with reductions in cognitive functions.

The therapeutic objectives in management of vascular dementia include optimization of circulation in the brain and enhancing the trophism of neurons, which contributes to the improvement of cognitive functions. In order to

improve cognitive functions, mental health professionals may prescribe the drugs that effect the neurotransmitter systems: cholinomimetics (e. g. rivastigmine, galantamine, donepezil) and normalizers of glutamatergic system functioning (memantine). The latter is especially valuable in people with contraindications to AChE inhibitors.

To manage confusion, small doses of haloperidol, chlorprothixene or risperidone may be used. The management of depressive disorders involves antidepressants; delusional and hallucinatory disorders in vascular dementia suggest the inclusion of antipsychotics in the treatment regimen.

Development of dementia after the stroke is by itself an unfavorable prognostic factor. The mortality rate in people who have had a stroke with subsequent dementia is 3 times higher than in stroke survivors with no intellectual impairment.

Given the dire consequences of mental disorders in the elderly, the nurse should perform timely and correct assessments of patients' mental status. The patients and their relatives should be educated about properly organized care and nutrition, and about the use of drugs and psychotherapeutic methods, which may improve the mental status of patients with psychiatric disorders.

CONCLUSIONS

1. The author has investigated the specific aspects of mental health of the population and the influence of the World Health Organization on solving the problems in this area.
2. The author has studied the specific aspects of mental health alterations in adolescents and young adults. These observations will help nursing personnel to acknowledge the status of mental health in patients of this age group in a timely fashion and provide them with the required help or refer them to a qualified professional. This is especially important in high-risk behaviors and in depression with attempts at suicide.
3. The author has also investigated the special characteristics of mental disorders in middle-aged and elderly people, identified risk factors of Alzheimer's disease and vascular dementia, and investigated the specific aspects of therapeutic interventions in management of vascular dementia and other psychiatric disease in middle-aged and elderly patients.
4. The author has defined the nursing roles in helping with organization of care and management of mental disease in patients of different age groups.

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