HEALTH IN NURSING CONTEXT

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Abstract: Nowadays, in accordance with the dominant consensus of the authors of the nursing science, the meta-paradigmatic definition of the scope of the study has been developed mainly through four basic terms including a person, environment, nursing care, and health. Health is defined as a state of well-being of a person as a receiver of nursing care in the time of treatment. The condition can occur in a person in the range from its highest level to the presence of a terminal illness. Nursing as a theoretical-practical discipline regards the theoretical-research goals as well as the practical-clinical goals, i.e. to maintain health and quality of life, or eliminate the patient′s disease in nursing process. Specification of these aspects belongs to the competences of the conceptual models and related nursing theories. In the cognitive structure of nursing we find its language and activity aspects. They are the horizontal and vertical aspects of the science reflecting in the professional terminology. The standardized language of nursing includes all the aspects of health and solves them through the classification systems such as NANDA, NIC, NOC, and POP.

Key words: health, nursing, metaparadigm, conceptual model, classification systems

Health is one of the basic concepts for nursing. It includes numerous components such as physical, mental, spiritual, social, intellectual and environmental. In the present, there is not a unity in the definition of the concept of health (Farkašová et al, 2005). We know how to achieve a level of health but still we are not able to measure health (Kozier et al, 1995). As Bártlová (2005) presents, some authors even say that it is not possible to define health. The World Health Organisation (WHO) defined health in 1947 as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity" (Kozier et al, 1995; Farkašová et al, 2005). The concept of health is understood variously; it depends on the society in which people live, on education, the value system of people, and what they understand under the concept of health and what health means for them. As there are problems with defining health, so-called operational definitions of health that are oriented on those characteristics of health, or diseases that are relevant for the aims of the specific study are created for research purposes. Health consists of the objective and subjective components. The deeper it is studied, the more striking its complex and value character is. The value element of health has been dominant mainly in the recent years; but historically, it is not a completely new aspect (Kozier et al, 1995; Farkašová et al, 2005).

Health in metaparadigm of nursing

Kubicová, Musilová (2005) present the opinions of some authors on the metaparadigm in nursing:

1. Donaldson and Crowley state that "nursing studies the wholeness or health of humans, recognizing that humans are in continuous interaction with their environments".
2. Meleis states that "a nurse interacts (interaction) with a human being in a health/ illness situation (nursing client), who is in an integral part of his socio-cultural context and who is in some sort of transition or is anticipating a transition. The nurse-patient interactions are organised around some purpose (nursing process), and the nurse uses some actions (nursing therapeutics) to enhance, bring about or facilitate health".
3. Kim states four scopes of nursing:
   a) The scope of a person focuses on his development, problems and experiences with health care.
   b) The scope of a person and a nurse focuses on meeting a patient and the interaction between them in the process of provision of nursing care.
   c) The scope of practice emphasises cognitive, behavioural and social aspects of the professional actions of nurses.
   d) The scope of environment focuses on time, space and qualitative changes in the person´s environment.

The basis of the metaparadigm of nursing was created by Florence Nightingale in her pioneering works (1858–1874) where she identified and described the most of her basic concepts. Its systematic elaboration was not done sooner than after 1950s. Nowadays, in accordance with the dominant consensus of the authors of nursing science, the paradigmatic definition of the scope of the study has been developed mainly with the use of four basic concepts – (1) person, **(2) health**, (3) environment, (4) nursing care; they are followed by four non-relational (analytical, definition) and relational (synthetic) statements which define them constitutively or describe their mutual relations (Palečár, 2003; Palečár, 2010; Kubicová, Musilová, 2005; Kozier et al, 1995; Krišková, Willardová, Culp, 2003; Pavlíková, 2006). Kozier et al (1995) state there is no unity in the definition of health. Florence Nightingale (1969), the founder of professional nursing described health as a state of being well and using one´s powers to the fullest extent. Almost every nurse theorist defines health in their works. Kozier et al (1995) quote some nursing theorists, e.g. Dorothy E. Johnson (1980) who describes "health as an elusive, dynamic state influenced by biologic, psychological, and social factors. Health is reflected by the organisation, interaction, interdependence, and integration of the subsystems of the behavioural system. Humans attempt to achieve a balance in this system; this balance leads to functional behaviour. A lack of balance in the structural or functional requirements of the subsystems leads to poor health". According to Dorothea E. Orem (1985), "health is a state that is characterised by soundness or wholeness of developed human structures and of bodily and mental functioning. Well-being is used in the sense of individuals´ perceived condition of existence. Well-being is a state characterised by experiences

of contentment, pleasure, and certain kinds of happiness; by spiritual experiences; by movement toward fulfilment of one´s self-ideal; and by continuing personalisation. Well-being is associated with health, with success in personal endeavours, and with sufficiency of resources". Callista Roy (1984) describes health as "a state and a process of being and becoming an integrated and whole person".

Pender (1996) defines the health promotion model. It is based on the social theory which emphasises the importance of the thinking process leading to behavioural changes in favour of health (Farkašová, 2005; Krišková et al., 2003; Skokňová, 2004, Nemcová, Hlinková et al. 2010). Nola Pender has created a model which is based on information from medicine, psychology, pedagogy and sociology. A major assumption is that the individual is naturally disposed to be healthy. The individual´s definition of health is for them of more importance than a general statement about health. The model focuses on persons who present themselves uniquely in accordance with their cognitive-perceptual and modifying factors which in their mutual relation affect health-promoting behaviours. The model consists of:

1. Cognitive-perceptual factors defined as primary motivating mechanisms of behaviours:
   a) Importance of health for the individual – health is a priority for the individuals who make the most of it, and thus their behaviours lead to protection of their own health.
   b) Perceived control of health – the individuals motivated by their own desire for health focus their behaviours on increased control of health.
   c) Positive influence on own health – the individuals capable to positively influence their own health demonstrate this ability in their behaviours.
   d) Individual´s definition of health – the individuals´ behavioural changes related to their health are affected by their own definitions of health on the scale from absence of a disease to high level of well-being.
   e) Self-perception of health – the individuals who feel ill usually start to use health-promoting behaviours.
   f) Advantages of health-promoting behaviours – advantages motivate the individuals to start or continue in such behaviours.
   g) Barriers to health-promoting behaviours – barriers occur when the individuals are convinced that activities or behaviours are difficult or impossible, which can have negative effects on initiation of or involvement in health-promoting changes.
2. The modifying factors for behaviours oriented on health promotion are the individual´s age, race, education, income, body weight and family patterns. Cognitive-perceptual factors affect health-promoting behaviours directly while modifying factors affect them indirectly. When using the model, it is inevitable to identify cognitive-perceptual factors in the individuals which are modified by the situational, personal and interpersonal characteristics. The factors are together involved in health-promoting behaviours and they motivate to actions presented in behaviours. The influence is related to the activity, the activity plan processing, the requirement raising and the preferences oriented on health promotion.

The model assumes the following behavioural conceptions integrating the presented factors:

1) Previous behaviours affect health-promoting behaviour directly and indirectly. It focuses on perception of one´s ability to direct positively one´s behaviour affected also by previous experiences.

2) The effect related to activities assumes positive and negative feelings connected with some behaviour that directly affect behaviour and indirectly affect individual´s abilities to positively influence one´s healthy behaviour.

3) Participation in action plan includes a stimulus towards the planned strategy to participate in health-promotion behaviour.

4) Motives for behaviour and preferences contain the improved concept of "benefits and barriers"; it is a planned behaviour that is present prior to initiation of activities.

While using the model in the community, the nurse assesses the presented factors, their mutual interaction and influence on individual behavioural conceptions. Based on the assessment and analysis of the condition, the nurse plans activities for changes in individual´s behaviour oriented on health promotion. The model can be used for adult population and children older than 10 years of age. Pender identified health promotion as the goal for the 21st century as disease prevention was the task for the 20th century (Skokňová, 2002).

Koňošová (2005) presents the model of functional health patterns by Marjory Gordon. Gordon served as the first president of the North American Nursing Diagnosis Association (NANDA) until 2004 and has been a fellow of American Academy of Nurses. The area of her contribution is in the research of nursing diagnoses and nursing care planning. The Gordon´s functional health patterns is a method based on the idea that all people have some behavioural patterns in common, and the patterns are related to their health, quality of life, development of their abilities and achievement of human potential. Description and assessment of health patterns enables the nurse to recognise functional and dysfunctional behaviours, or to determine nursing diagnoses. The method is based on the person—environment interactions. Individual´s health condition shows bio-psycho-social interaction. In contact with the client, the nurse identifies functional or dysfunctional health patterns.

Basic concepts of the model:

Health, functional, dysfunctional health pattern, holistic needs, basic human reactions, interactions with environment. The pattern is defined as a stage of behaviour in specific time. A dysfunctional pattern may later induce a disease. In the model of the functional health patterns, the first part of nursing process (data collection – assessment) is based on eleven functional health patterns. Those represent the scope of the basic nursing data.

Nursing history includes:

1) Subjective data obtained by interviewing a client.
2) Objective data obtained by observation and examination.

Gordon defines every pattern, and nursing history is based on this definition. Questions, examinations and observations are used for screening. If the information

suggests the presence of a problem or dysfunction, further questions, examinations and observations are inevitable.

Gordon´s functional health patterns include (Koňošová, 2005; Mastiliaková, 2002; Krišková et al, 2003):

1) **Health perception and health management**. The pattern focuses on the person's perceived level of health and well-being, and on practices for maintaining health. It contains the information on health perception, how the health perception corresponds with common activities and future plans, general level of health care, following mental and physical preventive measures, nursing and medical instructions, and other care.

2) **Nutritional metabolic pattern**. The pattern focuses on food and fluid consumption related to metabolic needs. It includes individual´s eating habits, eating schedule, types and quality of food, food preferences, and the use of dietary and vitamin supplements. It includes the information on damaged skin, healing ability, and quality of skin, hair, nails, mucous membranes, and teeth, body temperature, body weight and height.

3) **Elimination**. The pattern describes excretory function of bowels, urinary bladder and skin. It includes the information on individual´s perception of regularity of elimination, the use of laxatives inducing elimination, other changes and difficulties in time and way of elimination, and quality and quantity of elimination. It may also include the information on removing excretions (family, community).

4) **Activity and exercise**. The pattern describes activities, exercises and free-time activities. It includes the information on everyday activities, adequacy of energetic output, hygiene maintenance, food preparation, shopping, alimentation, housework and home maintenance. It presents the information on types, quality and quantity of exercises including doing sports, and on spending free time, i.e. relaxation activities, and if the person performs them alone or with other people.

5) **Sleep and rest pattern**. The pattern describes sleep, rest and relaxation and gives the information about them through 24 hours. The data identify quality and length of sleep, rest and energy sufficiency. It provides the information on means of sleep promotion (medicaments, habits, etc.).

6) **Cognitive-perceptual pattern**. The pattern contains the information on adequacy of sensory perceptions (sight, hearing, smell, taste, touch) and how the specific senses are compensated or replaced in case of difficulties. It gives the information on pain perception and how to relieve it, and on cognitive abilities (speech, memory, ability to make decisions).

7) **Self-perception and self-concept pattern.** The pattern describes how the person perceives oneself and what one´s self-concepts are. It includes the approach to oneself, perception of one´s mental, emotional or physical abilities, self-image, identity, body posture, eye contact, voice, and speech patterns.

8) **Role and relationship pattern**. The information describes the patterns of relationships and the client´s roles. It includes perception of main roles in everyday life situations; satisfaction or dissatisfaction with family, work or social relationships and responsibilities related to them.

9) **Reproduction and sexuality pattern**. The information describes the pattern of reproduction and sexuality, satisfaction, changes in sexuality or sexual relationships and in reproduction. It includes the information on reproductive ability of females (fertility, menopause, postmenopause) and problems in this area.

10) **Coping and stress tolerance pattern**. The information presents the pattern of general coping and effectiveness of stress tolerance, reserves or capacity of ability to face the changes and keep the integrity, and the ways of coping with stress, family, and other similar systems, and experiencing the ability to control and manage the situations.

11) **Value and belief pattern**. The information presents the pattern of values, goals or beliefs including spiritual ones which manage selection and decision making. It presents the information on situations that are seen as important by the person, as well as on the conflicts in values, religious beliefs, or expectations related to health.

Gordon´s functional health patterns are a very practical model. It can be used in hospitals and also in community care. An individual, a family or a community can be a client. The model produces the conceptual frameworks for systematic nursing assessment of patient´s health condition in any care setting – outpatient, secondary or tertiary. It creates the space for systematic communication within the multidisciplinary teams, and common nursing language with the use of nursing terminology.

Gordon´s nursing model offers the advantages from various perspectives:
a) The Gordon´s approach is in compliance with orientation of modern nursing;
b) it focuses on health, health promotion, and thus it presents mainly the functional health patterns;
c) it may be used in community, family-oriented nursing care;
d) it is suitable for hospital care for the sick; depending on wards, nursing history can be worked out in details and can be focused on dysfunctional health patterns;
e) it respects and meets holistic approach to health;
f) eleven patterns include the information on physical, mental and spiritual aspects of health, as well as on the relationships of the client, the ability to adapt oneself;
g) by the model, Gordon contributes to the development of nursing theory and implementation of the theoretical knowledge in practice;
h) it has been useful in nursing diagnosis in the taxonomy of nursing diagnoses (Koňošová, 2005).

Health perception is highly individual; therefore its definitions and descriptions vary a lot. An individual´s definition of health does not have to fit the definition of healthcare professionals. Various factors affect individual definitions of health:
1. Developmental stage: health is often related to the stage of development of the person; the ability to react to changes in health is directly related to the age.
2. Social-cultural influences: every culture has its own views on health, which are often transferred to children.
3. Previous experiences: knowledge that is based on the previous experiences helps people define the definitions of health.

4. Self-expectations: some people expect that if they are healthy all their lives, they will function effectively physically and also psychosocially. Others expect the changes of functions, and adapt their definitions of health to those changes.

5. Self-perception: how the individual perceives oneself in general; those perceptions are related to such aspects as self-esteem, self-image, needs, roles and abilities (Kozier et al, 1995; Caldwell et al, 2002).

The nurses should be aware of their own personal definitions of health and should appreciate that other people have their own definitions as well. The nurses must know and have their own understanding of the concept of health, and regardless of it, they must be interested in client´s perception of health (Farkašová et al, 2005). The views of health express the present belief of the individual in the scope of health, which may or may not be based on reality. Health trends suggest that the nurses play the primary role in helping people change their way of life and environment to prevent accidents, illnesses and occupational hazards (Matney, 2007).

Models of Health

Models of health (Kozier et al, 1995; Koňošová, 2005) are:

a) Clinical model sees people as physiological systems with related functions. Health is identified by the absence of signs and symptoms of disease. The narrowest interpretation of health occurs in this model. To laypersons, it is the state of not being "sick". Many medical practitioners use the clinical model. The focus of many medical practitioners is the relief from signs and symptoms of disease, and elimination of pain. The absence of the signs and symptoms in a person means the individual´s health is considered to be restored. For efficient and economic management of health problems of population, it is necessary to go behind the framework of biomedical knowledge and to enrich it by knowledge of the study of health as a social phenomenon.

b) Ecologic model (Koňošová, 2005; Kozier et al, 1995) is based on the relation of people to the environment. It presents that health is conditioned by natural and social environments, and it would be a mistake to separate oneself from specific people throughout the lifespan including their personality, work, family relations, emotions, feelings, opinions, and social roles. The model focuses on the whole personality of the individual as a member of the family and community, belonging to a specific culture and performing related civic and social roles. In this situation it includes the perception of positive health, health damage and also subjective relation to individual determinants of health. People as members of society try to understand the action towards health in the context of everyday life. It is inevitable to emphasise that ecologic health model is not an antipole to the biomedical approach but it is its significant enhancement. Ecologic model includes three interactive elements: 1. Host: person(s) who may or may not be at risk of acquiring a disease; 2. Agent: any environmental factor that, by its presence or absence, can lead to illness or disease; and 3. Environment: may or may not predispose the person to the development of disease. Each of the elements dynamically interacts with the others, and health is an ever-changing state.

c) Role performance model (Kozier et al, 1995; Farkašová et al, 2001) defines health in terms of the individual´s ability to fulfil societal roles, that is, to perform work. According to this model, people who can fulfil their roles are healthy even if they appear clinically ill. Emphasis is paid to the individual´s capacity rather than on the individual´s obligation to complete the tasks and responsibilities. In this model it is assumed that sickness is the inability to perform one´s work. A problem with this model is that a person´s most important role is the work role. People usually fulfil several roles, e.g. mother, daughter, friend, and certain individuals may consider nonwork roles paramount in their lives.

d) Adaptive model (Kozier et al, 1995; Farkašová et al, 2001) describes health as a creative process. In this model of health, disease is a failure in adaptation, or maladaptation. Individuals adapt to the changing environment constantly and actively. The focus of this model is stability, although there is also an element of growth and change. Individuals must have sufficient knowledge, income and sources to be able to perform their health-related choice. The highest level of health can be achieved by flexible adaptation to the environment.

e) Eudemonistic model incorporates the most comprehensive view of health. Health is seen as a condition of actualisation or realisation of a person´s potential. Actualisation is the apex of the fully developed personality. The highest aspiration of people is fulfilment and complete development, i.e. actualisation. It involves development of personal potential as well as person´s acquired abilities. According to this, disease is seen as a state that inhibits self-realisation and use of person´s own abilities. In a case of absence or disorder, disease is also a reparative process of nature. The model is based on the idealistic philosophy of eudaimonism which emphasises person´s effort to achieve flourishing and considers it a source of morality (Kozier et al, 1995; Farkašová et al, 2005; Farkašová et al, 2001).

Kozier et al (1995) and Farkašová et al (2001; 2005) describe the following concepts to assess the state of health:

1. **Wellness** as a state of optimal health is characterised by self-responsibility, balance and development of physical, mental and spiritual health. This choice is influenced by the individual´s culture and environment as well as by the self-conception. There are six dimensions of wellness: physical (the ability to achieve regular physical activity, obtain knowledge, and use healthcare system appropriately); emotional (the ability to recognise and accept feelings, and maintain appropriate relationships); social (development of family harmony); intellectual (creativity for development of the individual´s mental activities and knowledge); work (preparation for work); and spiritual (seeking meaning and purpose of human life). In the environment, wellness is related to the premise that people should live in peace and protect their environment. Social wellness is of a great importance too, as the situation in a bigger social group influences the situation of smaller groups. Even the ill persons can experience wellness if they enjoy their life and have a reason to live for.

2. **Well-being** is a subjective perception of balance, harmony and vitality. It occurs in levels; on the highest level the person recognises positive contribution and experiences satisfaction while on the lowest level the person feels unhealthy.

3. **Illness** may or may not be related to disease. It is a highly personal state in which the person feels unhealthy.
4. **Uneasiness** can occur independently of disease but it can also be associated with it.
5. **Disease** is a medical term. It is described as an alteration of the physical and mental functions resulting in a reduction of capacities or a shortening of the normal life span. The situations or other phenomena which increase the individual´s vulnerability to disease are called risk factors. They are structured in five related areas: genetic complement, age, physiologic factors, lifestyle, and environment (Kozier et al, 1995).

Nowadays, nursing emphasises holistic approach to health as a whole, not as the analysis and separation of individual areas of health (Farkašová et al, 2005).

Nursing focuses not only on the sick but also on healthy individuals therefore it is important to strengthen the roles of nursing and develop the theories in the area of healthy lifestyle and work, health promotion and protection, education of individuals, families, groups and communities towards health. The focus is on the person as a whole bio-psycho-social being who is in the specific environment and the specific state of health. The objectives of nursing are preservation, maintenance of optimal state of health and improvement of quality of life, providing nursing care focused on achieving independence and self-care, alleviation of suffering as well as providing information focused on changes in lifestyle.

The "concept of nursing" (2006) presents main tasks of nursing:
1. to preserve and maintain the optimal state of health of the individual, family and community in various life situations,
2. to encourage the individual, family and community to active participation in care for their own health,
3. to perform disease prevention and reduce negative effects of diseases on the state of health of population,
4. to provide active and individualised nursing care by the method of nursing process,
5. to provide nursing rehabilitation,
6. to monitor and meet the needs of the individual, family and community related to the change of health status and impaired health,
7. to provide counselling in care for the individuals of each age group,
8. to recognise the nursing problems that can be the subject of research,
9. to work in the research in nursing and health education,
10. to implement nursing knowledge obtained by the research which is in accordance with the ethical principles and the patients´ rights in nursing,
11. to manage and provide nursing care with emphasis on maximal quality and effectiveness,
12. to educate and train nurses for the nursing profession.

Nowadays, health promotion as the process of active approach to one´s health, and thus also the process of life enhancement, is the significant trend of modern health care and the whole society (Farkašová, 2005).

Issues of health in standardised nursing terminology

The nurses can use worldwide well-known nursing classification systems to solve the needs, problems, or deficits in the patients in the scope of health. The standard terminology and development of the nursing classification systems are the condition for international nursing to work in the same way in the phases of nursing process. **Thus, nursing as a science provides its contents, defines the scope of nursing practice, what nurses do for the benefit of health of the individual, family and community.** The development and use of the standard terminology is one of the essential signs of the nursing profession in the 21st century. The best known basic classification system is the NANDA-International (the North American Nursing Diagnosis Association International). This system has been followed by further classification systems: NIC (the Nursing Interventions Classification), NOC (the Nursing Outcomes Classification), the NNN Alliance (NANDA, NIC, and NOC), ICNP (the International Classification of Nursing Practice), the Omaha System, POP® (Praxis Orientierte Pflegediagnostik), and others. These terminology projects clearly define the profession, and its scope, they support the usage of the information technologies, they are the condition for the quality of care, research, and education, and encourage common communication between the nurses and other healthcare professionals. The nursing terminology is an open, alive and developing issue. The systematic development of the classification systems started in the 1970s. The development and promotion of their introduction into practice in the present has been done on the international level under coordination of ACENDIO (the Association for Common European Nursing Diagnosis, Interventions and Outcomes), WENR (the Workgroup of European Nurse Researchers) and ICN (the International Council of Nurses) (Mastiliaková, 2002; Marečková, 2006; Krišková et al, 2006). In 2001, the first NNN Alliance conference was held; it was supported by a grant from the National Library of Medicine, the USA; the common taxonomic structure of NANDA, NIC and NOC was created there. In 2009 in Austria, the team of authors, Stefan et al, submitted the POP classification. Kukurová, Vlček et al (2009) present that systematisation of nursing terminology happens through information communication standards, e.g. the Health Level 7 reference information model, the reference terminology model for nursing – ISO 18104 F Health Informatics, the MDS (the Minimum Data Set), SNOMED (the Systematised Nomenclature of Medicine), CINAHL (the Cumulative Index to Nursing and Allied Health Literature), etc..

NANDA Classification System

Marečková (2006) presents the social and historical situations important for development of nursing. In the period after the World War 2 in the United States of America, the optimal conditions were created for historical changes in understanding of the profession of nursing. The theoretical elements were improved, the know-how of the field was developed and cultivated by the scientific approach, and thus the road to the development of nursing science was open. In 1973, the American nurses could provide the initiatives and specific suggestions for formulation of nursing diagnoses to the Diagnostic Review Committee. The development of the events resulted in the First

National Conference on Nursing Diagnoses Classification in 1973. The first official definition of nursing diagnosis, and the first taxonomy with 31 diagnoses organised in alphabetical order (non-hierarchic structure of taxonomy) were accepted (Kozier et al, 1995). The Clearinghouse for Nursing Diagnoses, the database of the information sources, was established at Saint Louis University; it served as a depository for nursing diagnosis materials. It published a newsletter, maintained a speakers bureau, coordinated plans for national conferences and distributed bibliographies on each diagnostic category and concept developed. In 1978, the proposal of hierarchic framework according to the **"Nine Patterns of Unitary Man"** was accepted. In 1982, the Taxonomy I was established using this proposal. In 1982 Callista Roy, Margaret Newman, Martha Rogers, Dorothea Orem and Imogene King presented the new organisation of the framework of taxonomy (frame, structure or system) of nursing diagnosis called the Patterns of Unitary Man (Humans) to the NANDA and the Taxonomy Committee. Later it was re-named the Patterns of Unitary Human Beings, and then replaced by the Human Response Patterns. In 1986, the nursing diagnoses of Taxonomy I were organised according to the **"Nine Patterns of Basic Human Responses"**. In 1986, the important event was inclusion of nursing diagnosis concepts in the Minimum Data Set (MDS) of medical statistics in the USA (Marečková, 2006). The Diagnostic Review Committee was established in1986; Lynda Carpenito chaired the committee, and the formal guidelines for review and inclusion of nursing diagnoses in Taxonomy I were established. In the same year, the NANDA´s nursing language and classification was forwarded to the World Health Organization, for possible inclusion in the International Classification of Diseases (ICD). In 1987, the NANDA Taxonomy I was published, with help of Phyllis Kritek, and was known as the "Orange Book" by the professionals. The publication of the official journal of the NANDA – Nursing Diagnoses – started in 1990; in 1997 the journal title changed to the *International Journal of Nursing Terminologies and Classifications. In 1988, the Taxonomy I was revised and corrected, and the new nursing diagnostic elements were accepted and approved. The nursing diagnoses accepted by the NANDA were included in the Taxonomy I in 1994, and the diagnoses approved in 1998 were added. In 1998, the proposal of the Taxonomy II was submitted; it focused on the complexity of the framework classification organised in accordance with the* **"11 functional health patterns"***, grammatical and lexical formulation of nursing diagnoses (Marečková, 2006; Holmanová, 2008). The Taxonomy II was formally presented to the participants of the 14th NANDA Conference in Orlando in 2000. The new structure was in accordance with the present terminology which is based on the relational and specifically oriented database.* **The basis consists of the multiaxial framework of health of the individual, family and community.** *It is suitable for development of clinical terminology and has a more effective structure for inclusion in a computer database. It includes six bases for formulating nursing diagnoses (1 – diagnostic term, 2 – intensity, 3 – care unit, 4 – developmental stage, 5 – latency, potentiality, 6 – characteristics). The organisational principle of the hierarchic structure of the Taxonomy II nursing diagnoses is related to the Gordon´s health patterns (Marečková, 2006; Holmanová, 2008). In 2002, the NANDA becomes the NANDA International after twenty years of existence. The conferences in 2002 and 2004 created the conditions for presentation, wide discussion and revision of the project to provide the feedback, formulation of the research questions*

and practical activities including the presentations for the users. The current structure of the NANDA International Taxonomy II nursing diagnoses has three levels: 13 domains, 47 classes, and 206 nursing diagnoses, e.g. Domain 1 – Health Promotion, Class 2 – Health Management, Nursing diagnosis 00099 Ineffective Health Maintenance; Domain 4 – Activity/Rest, Class 4 – Cardiovascular/Pulmonary Responses, Nursing diagnosis 00092 Activity Intolerance; Domain 12 – Comfort, Class 1 – Physical Comfort, Nursing diagnosis 00132 Acute Pain (Herdman et al, 2009). The international applicability of nursing diagnoses depends on inclusion of the linguistic as well as cultural differences in the common unified language of nursing diagnosis (Wake, Fehring, Fadden, 1991). The studies on nursing diagnoses are inevitable for maintenance and improvement of plausibility of the terminology and also for maintenance and enhancement of the evidence-based NANDA International Taxonomy.

Validation and research of diagnostic elements

The verb *to validate* is usually used in the meanings such as to confirm relevance, to verify, or to prove (Svoboda, 1999; Petráčková, Kraus et al, 2001; Kudlička, 2003; Creason, 2004). The definition of validity: "...a research tool is valid if it measures what it claims to measure" (Maršálová, 1990; Gavora, 1999; Svoboda, 1999; Kudlička, 2003); this can be considered to be the most frequent definition of validity which is, first of all, related to the evaluation and measurement techniques (scales, questionnaires, tests) used in the nursing research. However, validity is one of the most significant terms used in the methodology of the research of the diagnosis categories in nursing (Holmanová, Žiaková, Čáp, 2006). The relevance of the data obtained and used in the nursing practice and research can be understood as a criterion of their applicability related to formulation of nursing diagnoses, selection of the effective nursing interventions, and evaluation of their outcomes. Validation of nursing diagnosis means the confirmation that the diagnosis reflects the patient´s problem accurately, and that the conclusion was based on the collected relevant data (Holamnová, Žiaková, Čáp, 2006). The research focused on the diagnostic elements has been developed significantly since 1980. The most significant sources of the clinical validation studies were presented in the first twelve NANDA conference proceedings published between 1974 and 1988 in regular two-year intervals. According to Whitley (1999), Clark, Craft-Rosenberg (2000), and Creason (2004), the presented findings are considered to be the milestones which fundamentally influenced and directed the process of validation of the nursing diagnoses. The nursing professionals along with the informatics, statisticians and other specialists have been continually involved in the development and research of the NANDA diagnostic concepts. The presented results are the up-to-date versions of the NANDA classification taxonomies, and are presented by the professional periodicals, and at the NANDA or ACENDIO conferences (Nico, 2002). The research and testing in practice enhance the credibility of the terminology, and they are a long-term matter. Testing of the national versions of the NANDA terminology has been carried out in several countries of the world as a result of the wide international cooperation. The sources for the detailed and continual study can be also found in the publications such as the Journal of Advanced Nursing or the Online Journal of Issues in Nursing, and in other professional magazines of clinical nursing.

Reliability and validity of diagnostic elements

Reliability presents the degree of consistency of the measured attribute with the reality (Kudlička, 2003). Every nursing diagnosis must be examined in term of reliability and validity. These dimensions specify its dependability and applicability. To some extent, reliability and validity is the test of the conceptual clarity of the diagnostic concept. The problems in achieving the acceptable degree are solved by further development of the concept. It is not possible to obtain the absolute validity and reliability for every research. The obtained levels of validity and reliability are expressed (Gordon, 1987). According to Gordon (1987), credibility of the element is determined by its validity, and reliability is determined by its replicability. During the diagnostic process, the assumption is that the element must have the defining characteristic which comes towards the same judgement, the interdiagnosis. Using the diagnosis to describe the same condition in various clients is called intra-diagnosis. It labels them by the terms such as an intra-evaluator and inter-evaluator of reliability. Reliability is important in prevention of diagnostic errors. Validity describes the degree to which the group of defining characteristics describes reality which can be observed in the patient–environment interaction. Internal validity of the element describes the extent to which the observations formulated as characteristics of the element are the authentic presentations of what exists in the clinical practice. External validity of the diagnostic element describes the degree to which the characteristics may be legitimately used for diagnosis of the status in various groups of clients. These degrees create construct validity (Gordon, 1987). It is important to assess reliability of the abilities of the clinical data collectors to carry out an interview and examination, and their sensibility to the signals. Other principles for testing validity are also applicable. According to Gordon (1987), there are various methodologies that were used by Lackey (1986), Lo and Kim (1986), and Vincent (1986). Validity provides the degree of confidence that should be put on the accuracy of an element to describe reality. Of course, the concept reality is relative for a percipient. The characteristics may be found (1) present as a model in the patient–environment interaction that are measured, and (2) related to the conceptual definition of a diagnosis. As Fehring (1986) suggests, the study of consistent validity of an element from the randomised selection of the nurse population may be inevitable. On the other hand, if the researcher believes in the conceptual and legal dimensions, survival in the "labour market" of clinical practice will provide indication of the consensus of the nurses on the nursing diagnosis (Gordon, 1987). Data validation with a patient helps the nurse avoid coming to wrong conclusions. A patient (family member, mother) must be an active partner in data validation (Gordon, 1994). The data to support a nursing diagnosis must consist of a cluster of documented stimuli to represent the status. The nurse can prevent or minimize the potential adverse errors in data interpretation by accurate validation of the patient´s observations and complaints (Carpenito-Moyet, 2004).

Development of NANDA taxonomy validation methods

The NANDA Taxonomy has been developed for 30 years. The initiators of the development of the methodologies for research of validation of nursing diagnoses were Gordon and Sweeney (Whitley, 1999; Creason, 2004). In their works, Gordon and Sweeney

(1979) develop three models of identification and validation of nursing diagnoses: the retrospective identification model, the nurse validation model, and the clinical validation model. The basis for the retrospective identification model was accumulation of nurse experiences with nursing diagnoses and their defining characteristics identified in the clinical environment. The retrospective identification model was influenced by the conclusions of the First National Conference on Classification of Nursing Diagnoses. In the same year, the two-year multicentric American study was initiated and coordinated by the Clearinghouse for Nursing Diagnoses in St. Louis (1973-1975) (Gebbie, 1976). The study focused on obtaining the feedback from the clinical nurses; the objective was to identify and name the common problems solved by the nurses in practice. The data were obtained from 588 patients in 28 facilities. The findings of the study showed that the nurses formulated 2338 nursing diagnoses in 588 patients. Eighty percent of the diagnoses (their labels) formulated by the nurses in the study were consistent with the diagnoses approved at the First National Conference on Classification of Nursing Diagnoses (Whitley, 1999; Creason, 2004; Holmanová, Žiaková, Čáp, 2006). The nurse validation model focused on finding the agreement of the experts in the defining characteristics of the specific diagnoses. It is a retrospective model focusing on the data obtained by the nurses – experts on the diagnosis characteristics of the diagnoses in the NANDA classification system. Quantification of the individual diagnostic attributes in the modification of this model by Fehring (1984) significantly influenced its wider implementation in the research (Whitley, 1999; Creason, 2004; Holmanová, Žiaková, Čáp, 2006). The clinical validation model is a retrospective method focusing on comparison of the manifestation attributes of a diagnosis obtained directly from the patient with the defining characteristics presented in the NANDA classification system. In practical implementation of validation, fruitfulness and achievement of results are significantly influenced by construction of a record sheet, used documentation as well as guidelines for the process of diagnosis and data management. The model was modified by Fehring. Fehring´s modification of the last two models prepared by Gordon and Sweeney significantly contributed to enhancement of the interest in the clinical validation studies. At the Seventh Conference on Classification of Nursing Diagnoses, 24 validation studies were presented, including 14 studies focused on clinical validation (Whitley, 1999; Creason, 2004; Holmanová, Žiaková, Čáp, 2006). Fehring (1986) modifies the nurse validation model and the clinical validation model, and creates two significant models known as the Diagnostic Content Validity Model and the Clinical Diagnostic Validity Model (Holmanová, Žiaková, Čáp, 2006). The Diagnostic Content Validity Model (DCV) includes three interlocking phases (Whitley, 1999; Creason, 2004). In the first phase, 25-50 experts assess the degree of representativeness and specificity (significance) of an attribute related to the diagnosis (the NANDA classification system) on the Likert-type scale from 1 to 5. The goal of the second phase is to achieve the consensus between the experts who assessed the specific characteristic attribute. As the number of the experts is relatively high, the Delphi method is used to achieve consensus. In the third phase, the weighted score of each attribute is calculated. The characteristic attributes are the attributes with the weighted score above 0.80. These characteristic attributes (characteristics) are described as the major defining characteristics. The attributes with the weighted score bellow 0.50 are rejected. Sparks, Lien-Gieschen

(1994), and Ogasawara (1999) modify the third phase of the model by using the minor defining characteristics which are specified by the scores between 0.75 and 0.60. The additional characteristics and the distracting characteristics are added to the NANDA list of the characteristics assessed by the experts. The wide use of the presented model allows analysis of the individual studies focused on the specific nursing diagnoses. Even the social-cultural differences in the defining characteristics emerged through the multiethnic studies by Ogasawara (1999). The second model presented by Fehring is the Clinical Diagnostic Validity Model (CDV) which includes rearrangement of the diagnostic signs to the Gordon and Sweeney´s model. Two experts assess the incidence of the characteristics from the previous model with those that were manifested in the patient (Holmanová Žiaková, Čáp, 2006). In the DCV and CDV models, the expert is used for validation. Whitley (1999) suggests the following criteria for including the professional in the expert group: 1) Master´s education focused on the MA theses in the area of nursing diagnoses; 2) Publishing activities on research on the specific diagnostic attribute, or the related area; 3) Publications on the diagnosis in the professional periodicals; 4) Doctoral thesis focused on the specific nursing diagnosis; 5) Current clinical practice minimally for one year in the field relevant for the specific diagnostic attribute; and 6) Certification in the field relevant for the specific diagnostic attribute.

In the Slovak nursing, Holmanová Žiaková, Čáp (2006), and Zeleníková, Žiaková (2010) present the new approaches suggested by Hoskins (1988), Whitley (1999), and Creason (2004). They describe three phases of the process of validation of nursing diagnoses:

1. Concept analysis – making a list of diagnostic attributes. Gordon (1982; 1987), Fehring (1994) and above mentioned authors consider this phase to be the essential for validation of nursing diagnoses. Based on the analysis of various validation studies, Gordon (Whitley, 1999; Creason, 2004) identifies heterogeneousness of the conceptual definitions of diagnoses and criticises the absence of methodological conceptualisation. She mentions the differences in terminology and warns of the fact that identification and validation of diagnoses should initially focus on examination of their explicit definitions, their testing with accurate presentation of validity and reliability. Whitley (1999) and Creason (2004) suggest that the efforts should focus on realisation of repeated, comparative studies with relevant statistical analyses. Kramer, Chinn (1999), McKenzie (2005), and Florin (2005) define the conceptual analysis as the process of formation of the meaning of the diagnosis. Avant, Walker (1995), McKenzie (2005), and Florin (2005) consider it a strategy how to examine the defining characteristics and other characteristics of a specific diagnosis. The significance of using the conceptual analysis is in identification of various uses of a word which labels the relevant diagnosis and thus its meanings. For example, through the conceptual analysis of the nursing diagnosis we search the answers for the questions: What is ineffective maintenance of health? What does it represent? What does it characterise? What does it cause and what are its consequences? What does it consist of? How is it used? What is its significance? When does it occur? What is it connected with? What does it relate to? What are its synonyms, opposites, and metaphors? What are its manifestations? What is its quality? By

answering these questions we can differentiate the defining characteristics of the given diagnosis from inessential, irrelevant, secondary or related characteristics; that allows the specification of the meaning of the diagnoses which are vague, ambiguous. Conceptualisation leads to formation of a constructive definition (explication of diagnosis) and then it, through the defining characteristics, leads to operationalisation of a given diagnosis. Operationalisation of the diagnosis implies its measurability, which can lead to the development of the measurement tools (Holmanová, Žiaková, Čáp, 2006; Zeleníková, Žiaková, 2010).

2. Expert validation – Fehring (1994), and Whitley (1999) emphasise that the subject of expert validation should not be only the evaluation of representativeness, particularity (significance) of the attribute related to the diagnosis, but the evaluation of the operational definitions of the attribute related to the diagnosis through the diagnostic content validation (DCV) method.

3. Clinical validation – focuses on validation of the fact if, based on the independent expertise by the experts, the specific diagnosis is present in a group of patients in which its incidence is expected. The course of the individual phases is related to the creation of a measurement tool, and testing its validity and reliability (Holamnová, Žiaková, Čáp, 2006; Zeleníková, Žiaková, 2010). Clinton (1986) suggests the development of constructive, predictive and discrimination validity of the diagnostic items. Predictive validity refers to the extent to which the group of the defining characteristics (derived from the descriptive studies and conceptual analyses) relates to other theoretical features. The discrimination validity test is the extent to which the group of characteristics can find the differences between the groups of clients. The technique of the known group provides the extent to find the differences between the group of clients with the expected specific condition and the group in which this condition is not expected (Gordon, 1987).

Fehring (1986) provides the model for development of the content validity index (CVI) of the diagnostic items. He also suggests that each diagnostic item should have the standardised ranges of validity, including diagnostic content validity (DCV), clinical diagnostic validity (CDV), and etiological correlation rating (ECR). DCV is the index of validity content using the expert assessments of the characteristics for the conceptual definition. The expert observations of the characteristics in the clinical situations are the basis for CDV index of the item. The main characteristics (diagnostic criteria) of the item can be formulated from the DCV and CDV indexes. The correlations describing the strengths of associations between the problems and their etiological factors are presented by ECR. Validity of the items must be defined before the correlations between the items; therefore it is important to know DCV and CDV before paying attention to the relation between the problem and the etiological factor (Gordon, 1987).

Nursing Interventions Classification – NIC

Bulechek, Butcher and McCloskey-Dochterman´s (2008) NIC is the project of the University of Iowa and is supported by the Center for Nursing Classification and Clinical Effectiveness at the College of Nursing at the University of Iowa. According to the authors, NIC is the comprehensive standardised classification of interventions (with the series of

activities) that the nurses perform. It is useful for clinical documentation, communication of care, integration of data systems and sets, effective research, productivity measurement, reimbursement, and curricular design. The Classification includes the interventions that the nurses do on behalf of the patients, both independent and collaborative interventions, both direct and indirect care. The authors define the intervention as "any treatment, based upon clinical judgement and knowledge, which a nurse performs to enhance patient/client outcomes". NIC can be used in any setting (from ICU, to home care, to hospice care, to primary care) and in any specialty (from acute care, to out-patient care, to long-term care). The Classification describes the domain of nursing; however, some interventions can be performed by other providers. Most of the interventions are for the use of the individuals, but many of them can be used for families or communities. Each intervention is described by a label name, a definition, and a set of activities. In the fifth edition from 2008, there are 542 interventions and more than 12,000 activities. The portions of the standardised interventions are the labels and definitions; the definitions cannot be changed when they are used. Care provided with the use of NIC can be individualised through the activities. From the lists of 10 to 30 activities, the provider selects the activities for the individual or family, and then can use new activities if desired. The interventions are grouped into 30 classes and 7 domains for ease of use. The 7 domains include: Physiological: Basic; Physiological: Complex; Behavioural; Safety; Family; Health System; and Community. The 30 classes include:

A – Activity and Exercise Management	P – Cognitive Therapy
B – Elimination Management	Q – Communication Enhancement
C – Immobility Management	R – Coping Assistance
D – Nutrition Support	S – Patient Education
E – Physical Comfort Promotion	T – Psychological Comfort Promotion
F – Self-care Facilitation	U – Crisis Management
G – Electrolyte and Acid-Base Management	V – Risk Management
H – Drug Management	W – Childbearing Care
I – Neurologic Management	Z – Childrearing Care
J – Perioperative Care	X – Lifespan Care
K – Respiratory Management	Y – Health System Mediation
L – Skin/Wound Management	a) Health System Management
M – Thermoregulation	b) Information Management c) Community Health Promotion
N – Tissue Perfusion Management	d) Community Risk Management
O – Behaviour Therapy	

Some of the interventions are used in more than one class, but each has a unique number. The NIC taxonomy was coded for several reasons: 1) computer use; 2) data manipulation; 3) articulation with other coded systems; 4) for use in reimbursement. The codes for the 7 domains are 1 to 7; the codes for the 30 classes are A to Z, a, b, c, d. The activities are coded after the decimal using two digits; an example of a complete code is 4U-6140.01; e.g. Domain: 5 – Family, Class: W – Childbearing Care, Intervention: Breastfeeding Assistance 1054 (Bulechek, Butcher, McCloskey-Dochterman, 2008).

NIC validation and development

1 Construction of the Classification (1987–1992) and identification of the concepts and methods:

   A deductive approach was ruled out after systematic review of existing intervention classification schemes. An inductive approach was chosen – beginning with the activities that the nurses in practice were using to plan and document care. A major conceptual issue was the question of what sorts of nursing behaviours should be used in intervention taxonomy. The following types of behaviour were identified: 1) Assessment behaviours to make a nursing diagnosis; 2) Assessment behaviour to gather information for a physician to make a medical diagnosis; 3) Nurse-initiated treatment behaviours in response to nursing diagnoses; 4) Physician-initiated treatment behaviours in response to medical diagnoses; 5) Behaviours to evaluate the effects of nursing and medical treatments (including assessment behaviours done for purposes of evaluation, not diagnosis); and 6) Administrative and indirect care behaviours that support interventions (Bulechek, Butcher, McCloskey-Dochterman, 2008).

2 Generation of an initial list of interventions:

   Forty-five sources from a variety of specialty areas were reviewed. The main idea was to be comprehensive in the selection of sources and to make an initial list of interventions. The review of care planning books included those published in the 5 years prior (1983–1988). The analysis included categorisation of the selected nursing activities (Bulechek, Butcher, McCloskey-Dochterman, 2008).

   Refinement of the intervention list and activities:

   Two refinement methods were used: expert survey and focus group. For the expert surveys, a Delphi questionnaire process was used. The method was developed by the RAND Corporation as a tool for short-range forecast (it consists of two or more rounds of questionnaires as a means to achieve consensus within the group; personal work of a committee is not necessary). It requires cooperation of a group of experts who answer a series of questionnaires. It uses feedback; the answers from every round of questionnaires are analysed, summarised and returned to the experts in a new questionnaire. Then the experts are encouraged to revise their answers in light of the replies of other members of their panel. The process: answer – analysis – feedback – answer is usually repeated three times until the general consensus is achieved. Based on this approach, the dictionary was developed from the label/activity lists generated from the exercises. Clinical nursing and research literature were reviewed by the team of investigators who refined the activities. The investigator also wrote a definition of the intervention. Fehring´s methodology (1986), developed for validation of the NANDA taxonomy nursing diagnoses, was used. Fehring´s methodology for content validation of nursing diagnoses was adapted for use with interventions and yielded Intervention Content Validity (ICV) scores with critical and supporting activities. **Fehring´s method included the following steps:**

   1. Nurse experts rated the activities for each intervention on a Likert-like scale of 1 (activity is not at all characteristic of intervention) to 5 (activity is very characteristic), and suggested missing activities and definitions.

2. The Delphi technique was used to enhance consensus among experts; the second round presented a refinement of the first list of activities and interventions based on responses from the first round.
3. Weighted ratios were calculated for every activity; the weights established by Fehring were used: 5 = 1, 4 = 0.75, 3 = 0.50, 2 = 0.25, and 1 = 0.
4. Activities with ratios equal to or greater than 0.80 were labelled critical activities; activities with ratios less than 0.50 were discarded.
5. The total ICV score was obtained for each intervention by summing the individual activity ratings and averaging the results (Bulechek, Butcher, McCloskey-Dochterman, 2008).

The second method – **focus group work** was used. For each review, 5 to 20 people provided the input. The results included 198 interventions validated by focus group. The result of this phase included 336 interventions.

3   Construction of the Taxonomy (1990–1995)

Arrangement of the intervention list in an initial taxonomic structure; validation of the intervention labels, defining activities, and taxonomy: the use of survey to specialty organisation, the use of survey to individual nurses, the use of indirect care interventions, and taxonomy validation.

Clinical testing and refinement (1993–1997)

In 1997, the scale to measure the extent of implementation was developed: to measure the strength of concepts that were part of a differentiated group practice model; the Iowa Steps for Implementation of NIC in educational settings. The scale is consistent with the Roger´s model of the innovation-decision process, which consists of five stages: knowledge, persuasion, decision, implementation, and confirmation (Bulechek, Butcher, McCloskey-Dochterman, 2008).

Nursing Outcomes Classification – NOC

Numerous situations led to creation of this classification system, including the need to organise knowledge of nursing, the need of standardised communication within nursing paradigm (the example from medicine is the International Classification of Diseases), and the need to present the nursing activities to healthcare professionals and the public. The society uses the resources for health care therefore it is necessary to show how nursing action by nurses **affects health of people**. The organisational-formal classification consists of: a label, a numeral code – main and item (for linkage with other items), a definition, a set of indicators, a measurement scale with a set of indicators, and supporting references. The functional classification for 2008 consists of: 385 outcomes, 7 domains, 31 classes (organised from A to X, b, c) and subclasses (organised in sets), e.g. Domain: Physiologic Health (II), Class: Digestion & Nutrition (K), Scale: Not adequate to Totally adequate (f), **Breastfeeding Establishmnet:** Infant – 1000; Maternal – 1001; Breastfeeding Maintenance – 1002 (Moorhead, Johnson, Maas, Swanson, 2008). Each set consists of the individual outcomes (outcome concepts, conclusions) that are a subject and a means of measurement, evaluation. The whole is in accordance with the content of a specific definition, has a stabile structured internal system, and is completed by a measurement scale. All sets form one big integrated

system. **The system is organised in accordance with the philosophy of health** by M. Gordon**,** and it emphasises the nursing approach focused on health and the responses of an organism in continuity of health.

I Functional Health A – Energy Maintenance B – Growth and Development C – Mobility D – Self-Care	**V Perceived Health** U – Health and Life Quality V – Symptom Status e – Satisfaction with Care

II Physiologic Health
E – Cardiopulmonary
F – Elimination
G – Fluid and Electrolytes
H – Immune Response
I – Metabolic Regulation
J – Neurocognitive
K – Digestion and Nutrition
  a – Therapeutic Response
L – Tissue Integrity
Y – Sensory Function
	VI Family Health
	W – Family Caregiver Performance
	X – Family Well-Being
	Z – Family Member Health Status
	  d – Parenting

III Psychosocial Health
M – Psychological Well-Being
N – Psychosocial Adaptation
O – Self-Control
P – Social Interaction
	VII Community Health
	  b – Community Well-Being
	  c – Community Health Protection

IV Health Knowledge and Behaviour Q – Health Behaviour R – Health Beliefs S – Health Knowledge T – Risk Control and Safety	

The NOC Taxonomy:

In 1991, Moorhead, Johnson, Maas, Swanson (2008) founded the research for the NOC classification. The NOC development is connected with the research and generation of the NIC project at the University of Iowa – the College of Nursing. They used the adaptation of the Fehring´s technique to determine the content, patient´s satisfaction with the outcomes of nursing interventions in two samples: (1) the inpatients and the nurses in acute hospital medical/surgical settings, and (2) the outpatients and the nurses in out-patient care. The objective of the research team for the NOC classification was to design, label, apply and classify the nursing sensitive patient outcomes. The classification structure focuses on the outcomes and indicators at the level of abstraction, and the outcomes and indicators according to the rules that define the common attributes within the groups. The most critical task was to identify and standardize the patient outcomes and indicators sensitive to nursing which are clinically useful and sensitive to interventions. The work was inevitable for estimation of the effects and effectiveness of nursing in achieving the expected outcomes in the patients, for enhanced development of nursing knowledge, and increased awareness of the clients and the managers of contribution of nursing for health care. Selection of the data sources for the initial list of outcomes was carried out by the purposeful and systematic testing

of the nursing textbooks, the planning and control methods, the measurement tools, the practice standards, the nursing information systems, and the books on nursing diagnoses and care planning which included the specific nursing outcomes criteria. The team chose the sources which described nursing practice in hospitals, nursing homes, communities, and out-patient settings with various clinical emphasise and various age groups of patients. However, no list of nursing-sensitive outcomes can be complete; and as the profession develops, it will always be necessary to add new outcomes and indicators. The methodology developed by the team provided the means for identification of the most common nursing-sensitive patient outcomes which are the most commonly taught, and used in practice and research. The conceptual analysis of each of the outcomes was carried out in accordance with the procedure adapted from Rogers, Waltz, Strickland, and Lenz. The objective of the analysis was to evaluate complexity of the outcome concepts in the categories, and to develop the labels for missing concepts. Based on the recommendations of the clinicians, the five-point Likert scale was added to each outcome for testing in practice. The Classification includes 17 measurement scales. Each scale is constructed so that the fifth, or end, point reflects the most desirable patient condition relative to the outcome. Outcome measurement should be reliable and effectiveness of nursing interventions should be verified. The times at which outcomes should be evaluated are not specified, but the minimum requirement is obtaining a rating when the outcome is selected and when care is completed. This may be sufficient in acute care settings if the patient has a short stay; some acute care settings have chosen to evaluate patient status once a day or once a shift. Since measurement times are not standardised, reporting the patient care day or time when measures were obtained is important for making comparisons between patient populations and across units (Moorhead, Johnson, Maas, Swanson, 2008). A concern frequently voiced by users is subjectivity of the scales. The provided indicators assist the nurse in determining the patient´s status and rating on the outcome scale, but they do not eliminate the need for a nursing judgement. Because the scale anchors are not specifically defined for each indicator and outcome, the nurse must make a nursing judgement about the patient status for the indicators and for the outcomes. Although the accuracy of this judgement is important when quantifying outcomes, it requires the same judgement used when evaluating whether the patient has met a goal, has improved in relation to a goal, or has not met a goal (Moorhead, Johnson, Maas, Swanson, 2008).

Practice-Oriented Nursing Diagnosis (POP® - Praxis Orientierte Pflegediagnostik)

Stefan, Allmer, Eberl et al (2009), the authors of the Classification, present that the goal of nursing is restoration and maintenance of everyday autonomy. The purposeful orientation to resources is inevitable to achieve this goal. Existing classifications of nursing diagnoses do not provide adequate basis for resources-oriented work, preventive conclusions and **health promotion in nursing**. The goals of the Classification include: 1) Systematic description of relations between deficits and resources; 2) Integration of resources in nursing-diagnosis description; 3) Development of diagnoses which are applicable in everyday life; 4) Open-Access – the principle for nursing diagnoses, i.e.

no costs for a licence; 5) Development of a general diagnostic conclusion oriented on resources in nursing diagnosis; 6) Adaptation of the formats of nursing diagnoses; 7) Development of the specific nursing diagnoses; 8) Evaluation (continuously).

The diagnostic conclusion is oriented on resources. The resources are the strengths, abilities and options which people use in health maintenance and/or coping with diseases. The intact resources are the basis for coping with life situations and for developing relationships mainly in psychiatric nursing. Health is based on the intact and functional, physical-functional, mental and social resources. The limited/absent conditions are the cause (= etiology) of limitations in coping with everyday life. The resources which may be limited/absent without preventive nursing interventions are the risk factors.

Practice-oriented nursing diagnosis (POP)

The POP Classification of nursing diagnoses is based on the resource-oriented conclusions. It consists of 9 areas (domains), 19 classes and 150 diagnoses. The domains are structured according to the Orem´s modified system.

The POP formats of nursing diagnoses always contain "R" for resources (Ressourcen).

Risk nursing diagnoses: P/RF/R – the format: (P) nursing diagnosis – (RF) risk factor – (R) resources.

Actual nursing diagnoses: P/Ä/S/R – the format: (P) nursing diagnosis – (Ä) etiology – (S) symptom/sign – (R) resources.

Health promotion diagnoses: P/R – the format: (P) nursing diagnosis – (R) resources.

P – Pflegediagnosentitel, RF – Risikofaktor, R – Ressourcen, Ä – Ätiologie, S – Symptom.

The POP Classification with the licence rights can be used cost-free by the persons and organisations that provide nursing care or teach nursing. The nursing history record oriented on nursing diagnoses according to the POP Classification assists the care provider (Pflegende Person) in assessment and diagnosis. It facilitates identification of possible labels of diagnoses as the potential labels of diagnoses are organised along with the data obtained according to the POP domains. The existing classifications of nursing diagnoses do not describe any resources. Development of the concept of "nursing diagnosis" through the POP Classification will enable the care providers to obtain new view of people who need nursing care. Prevention, health promotion and enhanced role of people who need nursing care will be more integrable in nursing practice (Stefan, Allmer, Eberl et al, 2009).

Nursing is characterised as the science and the art which influence the system of knowledge transferred to practice. As a science, it attempts to understand the life process of humans, their health promotion and promotion of their adaptation abilities. As an art, nursing is based on understanding and expressing the facts of life.

ZDRAVIE V KONTEXTE OŠETROVATEĽSTVA

Abstrakt: Dnes sa podľa prevládajúceho konsenzu tvorcov ošetrovateľskej vedy uskutočňuje metaparadigmatické vymedzenie predmetu jej skúmania predovšetkým pomocou štyroch základných pojmov, okrem osoby, prostredia a ošetrovateľskej starostlivosti tam patrí aj zdravie. Zdravie je definované ako stav pohody (well-being) osoby ako príjemcu ošetrovateľskej starostlivosti v čase ošetrovania. Daný stav sa môže u príjemcu pohybovať v rozmedzí od jeho najvyššieho stupňa až po prítomnosť terminálneho ochorenia. Ošetrovateľstvo ako teoreticko-praktická disciplína zohľadňuje okrem teoreticko-výskumných cieľov aj prakticko-klinické ciele a to v ošetrovateľskom procese zachovať zdravie a kvalitu života, resp. eliminovať chorobu pacienta. Konkretizácia týchto aspektov spadá do kompetencie konceptuálnych modelov a na ne nadväzujúcich ošetrovateľských teórií. V kognitívnej štruktúre ošetrovateľstva nachádzame jej jazykovú a činnostnú stránku. Ide o horizontálnu a vertikálnu stránku vedy, ktorá sa premieta do odbornej terminológie. Štandardizovaný jazyk ošetrovateľstva zahŕňa aspekty zdravia a rieši ich prostredníctvom klasifikačných systémov napr. NANDA, NIC, NOC, POP.

Kľúčové slová: zdravie, ošetrovateľstvo, metaparadigma, konceptuálny model, klasifikačné systémy