Defining community care

The term community care can be understood in wider sense as the organization of health, social and other services under the local conditions of individual geographical regions. According to the laws of majority of the countries, its organization and management come under the authority of state administration. In the context of health care provision the term community care began to be used more extensively in connection with the development of primary care which represents the first contact of the patient with the system of health care provision (e.g., primary care physicians and nurses).

The community care discussed in connection with provision of health services is based on the definition of a community as a group of persons living in a certain limited area and representing an autonomous unit. Its members are characterized by certain common features. In a number of European countries the community care represents a wide range of field and residential nursing and social services. Nevertheless, it overlaps the classical understanding of these services. It concerns not only provision of health and social care itself but it covers also psychological, counselling, spiritual, etc., care. Unlike primary care it is more oriented towards groups of people and whole communities and is based on their specific needs (for example seniors, vulnerable young people, socially deprived families, unemployed people, single mothers, etc.). This comprehensive, holistically conceived care is focused especially on the basic unit of a community, the family.

Community care is provided not only by health care professionals, but also by social workers and workers of other professions. Nursing care represents an important part of community care.
Community nursing is a synthesis of nursing practice and public health used for promotion and preservation of the health of population. Health promotion, health preservation, health education, management, care coordination and continuity are used in a holistic approach to delivery of health care to individuals, families, groups and communities. In 1974 the World Health Organization (WHO) defined three indispensable components/elements of community nursing care that describe the uniqueness/originality of this discipline:

1. Sense of responsibility – for the delivery of health care needed by the community.
2. Care of vulnerable groups in the community is a top priority.
3. The client (an individual, a family, a group, a community) must be a partner in both planning and evaluation of health care.

The term community nurse is a liberal translation of a term which comprises a lot of various roles: public health nurse, school nurse, home visitor, occupational nurse, district nurse.

At present, there is a high number of community nursing services available in some West European countries, while, on the other hand, there are countries where there are minimum of services provided in the community or where these services are only being developed.

Midwives in community care work outside of institutions in private area. Their care will be focused on women, newborns and their families and groups of people in their own social environment. The task of community midwife is to provide specific care of reproductive health of a woman during all periods of her life. Her activity consists especially in care of pregnant women and women post partum and then in counselling in the field of reproduction health and family planning.

**The Goal of Specialization Education of Midwives in Community Care**

The goal of educational programme for getting specialised qualification in community care is to prepare midwives for providing specialised care in childbirth assistance within the scope of knowledge and skills, which cover providing of primary, integrated and preventive care for women and groups determinated especially by common social-cultural environment, territory, age, health state or hazard factors in their own social environment.
Structure of education program for midwives

- The role of a midwife specialist in community care
  - Basic module

  - Breastfeeding counselling
    - Professional module

  - Specific activities of a midwife in prevention of occupational hazards
    - Professional module

  - Ultrasound examination in the work of a midwife
    - Professional module

  - Specific activities of a midwife in care of the family
    - Professional module
1 THE BASIC MODULE: THE ROLE OF A MIDWIFE SPECIALIST IN COMMUNITY CARE

Characteristic of the module: 60% theory, 40% practice
Entrance conditions: successful finishing of qualification education, which entitles to obtain a professional competence of a midwife, minimum working experience 1 year

The way of finishing (evaluation):
- Final oral examination or test
- Accomplishment of study duties ordered by tutor
- Evaluation of practical experience by trainer

Recommended number of hours:
- Theory - 200 hours
- Practice - 120 hours

1.1 Educational goal of the basic module

Goal is to provide a midwife knowledge of notions, to ensure the orientation in primary knowledge and literature resources of science and clinical subjects influencing the role of a midwife specialist, to equip midwife in community care with theoretical and practical knowledge in discipline integrating nursing theories and scientific achievements of other branches, needed for providing health care in community within primary, secondary and tertiary prevention, as well as in care during illness, rehabilitation and further care. Midwife in community is able to provide nursing care for individuals, families and community in health and/or illness and can contribute in health promotion, recovery or quiet and dignified dying.

1.2 Short annotation specifying the goal of the basic module

The basic module is the spine of the whole specialization education program. It involves the topics common for many specialities of medical workers included in specialization education for gaining specialized qualification, particularly from the field of pedagogy and andragogy, philosophy and ethics, management of nursing care, nursing research and last but not least crisis management. From the mentioned disciplines the topics are selected. They are current, they reflect trends of contemporary society, enable to understand the differences of specialised care in various specialisations, by which they help to get requested qualification of specialised medical worker and develop his or her knowledge, attitudes and understanding of the role of medical worker with specialised qualification. The module is focused on gaining of knowledge in public health, social medicine, family medicine, preventive occupational medicine, epidemiology, environmental and nutritional hygiene, prevention and health promotion in individual aspects of the life of a woman and her family. In this module, specific issues considering community care of healthy and ill woman, pregnant woman, newborn, child and family are determined.
These issues provide wide range of activity of midwives working in a community and develop midwife’s professional and personal profile.

1.3 Knowledge of the basic module

- to know philosophical, psychological and sociological theses (multicultural differences) in connection and sequence with delimitation of problems related to providing specialised health care,
- to know management of human resources in health system, continual quality increasing of nursing care, professional ethics, basics of law theories and economical aspects of nursing care,
- to know selected problems of pedagogy, andragogy and nursing,
- to know human rights of patients of all age groups
- to be able to define community and to specify typology of the community and role of a woman in it
- to know areas of midwife’s activities in providing care
- to know methods of effective communication with client in a community
- to know ways and possibilities of health and social diagnosis and solving of problems in area of provided care of client
- to know factors influencing health of women, pregnant women and children in a community
- to identify and evaluate community risk
- to know possibilities of cooperation with supporting groups, beneficent and non-governmental organizations and maternity centers focused on help for women

1.4 Skills of the basic module

- to communicate with clients and dependants according to principles of effective communication,
- to respect age and multicultural differences in work with clients and their dependants,
- to put forward and elaborate plans of education of client; possibly family,
- to put forward and elaborate standards of quality providing care,
- to distinguish and consider unethical and illegal behavior of colleagues and evaluate its results,
- to proceed according to modern and scientifically verified methods, participate in research investigations and projects,
- to identify community its structure and attitudes towards woman,
- to identify and evaluate community risk, to diagnose factors influencing women’s health not just limited to reproductive health,
- to communicate with clients in the communities in accordance with principles multicultural nursing,
to be able to assess and diagnose areas actual and possible problems in the communities, respecting women's health,
- to indicate, plan, implement and evaluate nursing care for women in the communities,
- to provide counseling in health and social care,
- to cooperate with adequate and effective community resources to promote women's health and community health,
- to understand functional link between health and social care and to ensure smooth shift of client from one facility to another one,
- to document and evaluate effectiveness and quality of midwife's activities in providing of care for women.

1.5 Partial educational goals of the basic module

1.5.1 To understand and assert ethic and philosophical solutions in specialised nursing care

Topics:
Ethic and Philosophical Solutions Relating to Specialised Nursing Care

- Selected philosophical and ethic questions relating to specialised care of adults and children, sources of modern thinking, critical reflexion of modern era.
- Principles of ethic decision-making, ethic dilemmas, ethics codes, human rights, protection of personage and its implementation in health care.
- Ethics aspects of nursing care, personal and professional virtues, strategy of clarifying virtues.
- Identification of patients' virtues, value conflicts.
- Transcultural society, ethnography, ethnocentrism, rasism, multicultural nursing.
- Discussion about work results in workgroups.

Quality of Life in Relation to Providing a Specialised Nursing Care

- Quality of life of acutely threatened patients.
- Quality of life of patients with chronic disease and handicapped patients, holistic approach in nursing care.
- Spirituality and religiosity, religion and illness.
- Thanatology, pastoral care, accompanying the dying, giving support to survivors, mourning.
- Work in workgroups: training of nondirective forms of behavior, training of interview with dying and his/her immediate family.
- Discussion about results of work in workgroups.
Interpersonal Skills with Respect to Patient and Social Environment

- Professional behavior, strategy for improving communication among members of medical team.
- Stress control and conflict situations at workplace.
- Violence at workplace in view of ethic principles, mobbing.

- Sociology of environment with regard to risk factors endangering health.
- Differential psychological approach to patients with regard to age and psychological specialities and communication with them.
- Discussion about the results of work in workgroups.

1.5.2 To understand the necessity of own professional grow and development To claim didactic principles at teaching of nursing and patients’ education

Topics: Andragogy and Didactics in Lifelong Learning Program

- Problems and importance of lifelong learning.
- Principles of assuming knowledge and skills, motivation to learning.
- Methodology of education care and basic disciplines.
- Possibilities of personal growth and development, selfreflection, portfolio.
- Didactic principles, methods and forms of education, principles of education of adults.
- Work in workgroups: principles of creation of leaflets.
- Discussion about results of work in workgroups.

Possibilities of Practical Usage of Andragogy and Didactics in Nursing Practice

- Education of patients and other persons, creation of leaflets, principles of modern presentation.
- Consulting, co-operation with patient, his close jeho family, community, team work.
- Work in work groups: creation of leaflets and education plans.
- Discussion about the results of work in work groups.

1.5.3 To exercise manager functions with aim to increase the quality of specialised nursing care. To know the management of human rights in public health, based on professional ethics and knowledge of law principles
Topics:
Management in Public Health, Professional Ethics of Management and Knowledge of Law Principles

- Management of human sources and development of human potential, manager competence in the intrapersonal, interpersonal and methodical field, structure of manager activities.
- Planning and management of human sources according to objective quantification of specialised nursing care.
- Manager ethics, ethical requirements on managers.
- Problems of law and legal delimation of specialised nursing care.
- Work in workgroups: motivation of nursing staff, management of problem nurses.
- Discussion about the results of work in workgroups.

Continual Incerasing of Quality in Provided Nursing Care

- Quality of nursing care and its influencing, proceedings, measurement and evaluation; programs of controlled care, ISO certification, accreditation.
- Instruments for increasing and quality measurement of nursing care.
- Standards of quality of nursing care.
- Work in workgroups: creation of standard of quality of nursing care.
- Discussion about the results of work in workgroups.

1.5.4 To know the selected problems of principles of mistake prevention in nursing care

Topics:
The Selected Problems of Mistake Prevention in Nursing

- Principles of mistake prevention in nursing, classification of mistakes and errors.
- The most frequent mistakes in health institutions, specific mistakes in nursing care. Documentation of extra events.
- Mistake prevention and its strategy, the importance of certification and accreditation in mistake prevention. Involvement of patient and his/her family into the program of safe care.
- Work in workgroups: analysis of possibility of beginning and consequences of failure at nurse`s job.
- Discussion about the results of work in workgroups.
1.5.5 To know the basics of crisis management and be concerned in transformation of health institution under the standard conditions into the activities under the nonstandard conditions

Topics:
Introduction to Problems of Crisis Management in Public Health

- Extra events and catastrophes (types, definitions and medicine of catastrophes, affection spectrum).
- Crisis readiness (definition, legislation background, bodies of crisis management and their tasks, organisation in public health, fundamental terms, plan of crisis readiness).
- Mass occurrence of disabled (Fundamental terms, health rescue network, health salvage and rescue service, traumatologic plan of hospital – basic tasks, organization of work during mass reception, sorting of patients).

- Evacuation of hospitals (principles of evacuation, evacuation plan).
- Security of population (definitions, concepts, principles, means of individual protection, population awareness).
- Personal radiation protection.
- Work in workgroups: solving of case studies of crisis management.
- Discussion about the results of work in workgroups.

1.5.6 To know methods and principles of research work, apply nursing practice based on research (evidence based practice)

Topics:
Research in Nursing

- Characteristic of clinical research in nursing, selection and way of searching of appropriate topics and problems for research and survey in specialised care.
- Quantitative and qualitative research, evaluation of own experience.
- Application of new pieces of knowledge to own practical experience – experience based on the results of research
- Search of vocational training in research databases.
- Ethic questions of research.
- Work in workgroups: creation of background research on given topic.
- Discussion about the work results in workgroups.
1.5.7 Ability to define and characterize community and its specific features, to understand principles of community care

Topics:
Community care in midwifery

- Typology of the communities and their characteristics
- Roles of community care (nursing) in preserving and promoting of health of woman, pregnant woman, newborn and family in preventive care
- Community care for woman, mother and child, areas of care

Possibilities of cooperation in community care

- Supporting groups, beneficent organizations, and non-governmental organizations oriented towards help for woman, maternity centers (centre for single and teenage mothers, centre of help for abused women,…), Home care nursing agencies
- Solving of case studies or case reports

1.5.8 To identify and evaluate risk factors influencing health of woman in the community

Risk factors influencing health

- Definition and classification of risk factors influencing health of the woman, pregnant woman, mother and newborn
- Identification of risk factors within community (nutrition, hygiene, addiction, environmental factors)
- Life-style risk factors in a community - their evaluation

Risk factors in a newborn

- Risk behavior of mother (life-style, addiction, inability of child care)
- Environment at a risk (infectious environment, household hygiene, social security, environmental factors)

1.5.9 Ability to identify and evaluate approach to sexual life and to understand preventive precautions against sexually transmitted diseases in a community

Sexual education and forming of approach to sexual life

- Education towards sexual health and family planning
- Sexual behavior, principles of sexual hygiene
Sexually transmitted diseases in a community

- Definition and characteristics of sexually transmitted diseases, clinical signs, possibilities of therapy
- Prevention of sexually transmitted diseases – barrier contraception

1.5.10 To be able to provide care during pregnancy in conditions of a community

Promotion of physiological pregnancy in community conditions

- Assessment of a course of the pregnancy
- Basic examination of a pregnant woman in community conditions
- Possible life-style modifications in a pregnant woman in community conditions

Legal and social counseling during pregnancy and after delivery

- Possible social assistance in pregnancy and after delivery
- Legal counseling to protect mother, child and family
- Assessment of possible forms of assistance
- Solving of case studies, analysis of sociological assessments of a family

1.5.11 To be able to provide newborn care in community conditions

Newborn care

- Hygienic newborn care in community conditions
- Nutrition of a newborn
- Pediatric care – vaccination and visits of baby clinics
- Preventive measures to promote healthy development and growth of newborn and children

1.5.12 To be able to provide care for a woman in postpartum period

Care for a woman in postpartum period in community conditions

- Assessment of postpartum period in community conditions – bleeding, healing of injuries, exclusion of puerperal infection, psychological problems, life-style
- Breastfeeding assessment
- Assessment of an overall health status of a woman in postpartum period
- Gynecological care after delivery
1.5.13 To be able to provide care for woman with gynecological disease

Care for woman with gynecological disease

- Assessment of sexual health of woman and identification of problems in sexual life
- Assessment and identification of clinical signs of gynecological diseases
- Prevention of gynecological diseases (inflammatory, oncological)
- Climacteric problems of elderly women in community
- Contraception and family planning in adolescents in a community
- Specific issues of pediatric gynecology in a community – injuries of genitals, sexual abuse, inbreeding

Care for woman after gynecological surgery

- Assessment of a postoperative course and overall condition of client (healing of the wound, assessment of risk of infection…)
- Gynecological care

1.5.14 Ability to implement care in a community

Implementation of special practice in selected communities

- Special practice in gypsy community
- Special practice in cooperation with social worker in a group of socially handicapped (homeless, mothers in homes for lonely mothers and single mothers, underage mothers, etc.)
- Special practice in integration camp (refugee)
- Special practice in community of addicted people
- Special practice in nursing home care agency
1.6 Recommended literature (study materials)

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BOWERS, PJ., MAGUIRE, ML. et al.: Everybody out! Tropical storm Alison. Nursing Management, 2004, 35, No. 4, pp. 50-54
DAVOLI, E. (ed): A practical tool for the preparation of a hospital crisis preparedness plan, with special focus on pandemic influenza. WHO Regional Office for Europe 2006


HEALTH 21: *The health for all policy framework for the WHO European Region*. Copenhagen, WHO Regional Office for Europe, 1999 (European Health for All Series, No. 6).


KÜBLER-ROSS, E.: „Five Stages of Grief“ from Wikipedia, the free encyclopedia

KÜBLER-ROSS, E.: To live until we say goodbay. New York, Prentice HAll Press 1978


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2 THE PROFESSIONAL MODULE I: BREASTFEEDING COUNSELLING

Characteristic of the module: facultative
Entrance conditions: successful finishing of the basic module
The way of finishing (evaluation):
  - Knowledge test
  - Accomplishment of study duties ordered by tutor
  - Evaluation of practical experience by trainer

Recommended number of hours:
  - Theory - 40 hours
  - Practice - 40 hours

2.1 Educational goal of the professional module

To provide the midwife with knowledge and skills concerning breastfeeding and with the ability to orientate in the literary resources concerning natural nutrition and breastfeeding.

2.2 Short annotation specifying the goal of the professional module

The module includes topics facilitating gaining of knowledge and skills necessary for efficient training of breastfeeding in pre-delivery and post-delivery care of the mother and the baby. It provides knowledge necessary for solution of the problems with breastfeeding.

2.3 Knowledge of the professional module

  - To gain knowledge of the composition and production of breast milk;
  - Knowledge of the positioning and technique of breastfeeding;
  - Preparation of the breasts for breastfeeding and daily care of the breasts;
  - To solve the problems with breastfeeding both on the part of the mother and the baby.

2.4 Skills of the professional module

  - To learn to prepare the breasts for breastfeeding;
  - To train the right positioning for breastfeeding and the technique of breastfeeding;
  - Expressing and storage of breast milk;
  - To train daily care of the breasts.
2.5 Partial educational goals

2.5.1 To describe the influence of breast milk on the health of the mother and the baby.

Topics:
- Anatomy of the mammary gland
- Physiology of lactation
- Composition of breast milk
- Physiology of the digestive system

2.5.2 To know and develop resources supporting efficient breastfeeding.

Topics:
- Importance of breastfeeding, factors influencing breastfeeding, psychology of breastfeeding
- Education of nurses using NANDA, NIC, NOC classification systems
- Education of mothers
- Technique of breastfeeding
- Problems and barriers of breastfeeding, both on the part of the mother and the baby
- Breastfeeding in special situations
- Breastfeeding and medicines, addictive and heterogeneous substances
- Nutrition of a breastfeeding mother
- Activities aimed at promotion of breastfeeding

2.6 Activities (according to valid legislation)

Practice in prenatal consultation centres, courses of preparation for labour, breastfeeding consultation centres.
2.7 Recommended literature (study materials)


3 THE PROFESSIONAL MODULE II: SPECIFIC ACTIVITIES OF A MIDWIFE IN CARE OF THE FAMILY

Characteristic of the module: facultative
Entrance conditions: successful finishing of the basic module
The way of finishing (evaluation):
- Knowledge test
- Accomplishment of study duties ordered by tutor
- Evaluation of practical experience by trainer

Recommended number of hours:
- Theory - 40 hours
- Practice - 40 hours

3.1 Educational goal of the module

The module aims at providing students with theoretical and practical knowledge of the identity of the family, family-related health issues and provision of midwife care to family and its members in health and illness situation

3.2 Short annotation specifying the goal of professional module

The family is a crucial institution that profoundly influences, among other things, people’s attitudes, preferences and behaviors, towards health. Nowadays, the very institution of the family is undergoing significant changes related both to its structure and functions. The module starts with a short section that provides students with a variety of interpretation of the concept of family from the point of view of social sciences and humanities. The main family-related health risk factors are then presented and classified as: biological, psychological, environmental and lifestyle related. Next, there are described and explained specific duties which midwife will undertake when caring for family and its members in health and illness situations. Particular attention is paid to give the precise and clear practical indications on how to care for the family within everyday work of community midwife care.

3.3 Knowledge of professional module

- to know how family is defined and to understand the undergoing process of rapid changes of its structure and functions
- to know factors which influence health status of the family and its particular members
- to know methods of how to diagnose and solve family-related health problems
- to know methods of effective communication with family and of health education
- to know where to search for and how to collaborate with different support groups
- to know how to document and evaluate midwife care

### 3.4 Skills of professional module

- to recognize the structure of the family which the midwife is caring for
- to diagnose family-related health risk factors
- to communicate effectively with the family and its particular members
- to enhance midwives’ skills in caring for healthy/ill member of the family
- to choose the appropriate methods, means and goals in the care for family and its particular members
- to evaluate the outcomes of the midwives’ activities undertaken in the care for families

### 3.5 Partial educational goals

#### 3.5.1 To understand the family’s structure and functions in the time of changes

**Topic: Definitions of the family from the point of view of the different social sciences and humanities (philosophy, psychology, sociology, pedagogy)**

- Cross-cultural understandings of the family
- Family as a social group
- Family as a social institution

**Topic: Essential characteristic of the different types of families**

- Nuclear vs. extended family
- Traditional family and its subtypes: strict understanding of traditional family / board understanding of traditional family
- alternate family structures: single-parent family (single female/male parent); cohabiting family;
- gay and lesbian families
- kin network (unmarried persons live in close geographic proximity and operate within a reciprocal system of exchange of goods and services)
- family-oriented single adults
**Topic: Essential functions of a family**

- Institutional function of the family
- Personal functions of the family

**Topic: Stages of the family life-cycle**

- beginning family
- childbearing family
- family with preschool children
- family with school-age children
- family with teenagers and young adults
- post-parental family
- aging family

**Topic: The evolution of the modern family**

- Changes in the functions of the family
- Changes in the structure of the family

**Topic: Family as a system**

- Autonomy and identity
- Healthy family communication patterns
- Mutuality and relational balance
- Intrapsychic and interpersonal boundary formation in family life
- Family rules and family secrets

**3.5.2 To recognize and understand family-related health risk factors**

**Topic: Biological and developmental factors**

- Childbearing: challenges relate to care for new babies
- Birth defect (due to inborn genetic disease and other reasons)
- Abortion/miscarriages/preterm labor
- Genetic disease/predisposition to certain diseases
- Infertility
- Mental retardation
- Elderly people
Topic: Psychological and sexual factors

- family/domestic violence (physical, emotional, sexual, neglect): spouse abuse; child abuse (including sexual abuse) and neglect; children exposed to partner violence; elder abuse
- conflict between family members
- sexual life and models of sexual upbringing within family
- postpartum psychiatric disturbances (depression, “maternity blues”)
- lack of economic safety (unemployment, poverty)

Topic: Environmental factors

- environmental pollution
- social pressure

Topic: Life-style factors

- Health education (including sexual education)
- Alterations in nutrition
- Chemical dependency (drugs/alcohol/nicotine)
- Hygiene (including dental care)
- Home environment (safety of)

3.5.3 To know how to care for woman and her family

Topic: Midwife’s role and challenges in the care of women in every life-stage

- Pediatric and adolescent gynecological problems
- Sexual initiation
- Contraception, family planning and sexual education
- Pregnancy and child delivery
- Puerperium
- Gynecological cancers (screening, symptoms and treatment, prophylaxis programs)
- Climacteric period (health, sexual and social problems, hormonal replacement therapy)
- Elderly care (urine incontinence, social and health problems)
3.5.4 To know how to care for pregnant woman and for pregnancy

**Topic: Specific midwife interventions within care for woman and for pregnancy**

- Preconception counselling
- Midwife care of pregnant women
- High-risk pregnancy
- Childbirth psychoprophylaxis
- Delivery school services
- Obstetric risk assessment
- Preparation for the childbirth
- Family delivery
- Cesarean section – medical and psychological consideration

3.5.5 To know how to care for mother and newborn

**Topic: Mother and newborn care**

- Puerperium (physiology, pathology)
- Specific aspects of maternal care
- Lactation (proper nutrition of the mother, role of the father)
- Sexual and health education for a new mother
- Fertility return and contraception
- Psychological problems of maternity
- Father role in the maternity
- Stress coping strategies, education and healthy life-style behavior’s promotion
- Providing information about/organizing parental support groups
- Newborn care
- Children’s health screening (vision, hearing, vaccination)
- Selected aspects of infant’s care
3.6 Recommended literature (study materials)


Luxemburg Declaration on Workplace Health Promotion in the European Union, 1997


4 THE PROFESSIONAL MODULE III: SPECIFIC ACTIVITIES OF A MIDWIFE IN PREVENTION OF OCCUPATIONAL HAZARDS

Characteristic of the module: facultative

Entrance conditions: successful finishing of the basic module

The way of finishing (evaluation):
- Knowledge test
- Accomplishment of study duties ordered by tutor
- Evaluation of practical experience by trainer

Recommended number of hours:
- Theory - 40 hours
- Practice - 40 hours

4.1. The educational goal of the professional module

To provide students with essential knowledge and practical skills which are needed for the delivery of care to women, especially to the professionally active women. In particular, to inform students about the potential risk factors which may increase likelihood of health problems related to reproductive health and to the development of a fetus/child.

4.2. Short annotation specifying the goal of the module

Midwives in order to provide the useful and effective care should possess knowledge about their patients’ conditions of work and be able to identify health risks related to occupational environment. Midwives ought to be prepared to diagnose symptoms of diseases caused by factors related to place of work. Moreover, they should learn how to cooperate with the proper social services which duty is to serve and protect employees form the harmful effects of the unsafe conditions at work and poor work conditions.
standard of hygiene at the place of the work. Eventually, students should be taught how to avoid occupational hazards which are related to their own work.

4.3. Knowledge of the professional module

- to know organizational and legal system of the health protection of the workers, the role of different national and international organizations, which activity is dedicated to increase the safety for employees
- to know the main biological, physical, chemical, ergonomic, and psychological factors related to the process of work which influence health and life of employees, especially related to the reproductive health,
- to know the maximum admissible levels of concentration of potentially harmful substances in the occupational environment,
- to know preventive measures which can be implemented to protect women from harmful factors related to their work;
- to understand biological specificity woman’s organism and its role in the process of work processes,
- to know about specific social and psychological needs of women which should be fulfilled at their places of work
- to know about the health risks related to the work of midwife and about the methods of protection.

4.4. Skills of the professional module

- to identify, evaluate and document risk factors in the occupational environment
- to be able to diagnose symptoms of diseases caused by the factors related to the place of work
- to cooperate with family doctors (general practitioner) and specialists in occupational medicine
- to cooperate with appropriate social services responsible for safety and hygiene at work
- to prepare how to provide health education among women and, in particular, to gain experience how prophylactic actions at the place of work should be implemented
- to be able to use effectively different measures to protect her own health

4.5. Partial educational goals

To know the main risk factors influencing the health status of occupationally active women. To reach an adequate knowledge about the epidemiology of professional diseases, accidents at work and their results, prophylactic actions, care and rehabilitation, cooperation with appropriate social services and other institutions which are responsible for population’s health.
4.5.1. Topic: Dangerous and harmful factors related to the process of work
A/ Organizational and legal system: protection working people health,
B/ Classification of the main risk factors

- the classification of different physical factors
- the classification of different chemical factors according to the way they
  - influence on the women organism;
  - are absorbed by woman’s body;
- the classification of different biological factors (living organism and substances
  which are the products of their metabolism)
  - microorganisms (bacteria, viruses, fungi, protozoa) and their
    substances (toxins, allergic substances)
  - macroorganisms (plants, animals)
- the classification of different psychophysical factors
  - physical burden
  - mental burden:

C/ The epidemiology of the professional diseases and traumas

4.5.2. Topic:
Anatomical and physiological specificities of woman’s organism and their
importance to the organization of working processes

- skeletal system,
- building, weight and muscles’ power in women
- physical exertion possibilities of women,
- the endocrine system’s reaction to the exertion,
- menstrual cycle and its influence on women abilities to work,
- pregnant women’s work
- list of the jobs considered to be forbidden for women,
- disturbances in reproductive functions because reasons related to the
  occupational environment.

4.5.3. Topic:
Evaluation of professional risk and methods used to reduction of potential
harmful effects of it

- law
- methods of risk evaluation,
- rules how to prepare the professional risk assessment,
- quantitative and qualitative methods of the evaluation of the professional risks,
- methods of decreasing the professional risk,
- the role of the midwife in assessing the occupational risks for women
4.5.4. Topic:  
**Protection form the results of being exposed to harmful factors**  
- individual protective measures and their efficiency,  
- interrelationship between the level of concentration of harmful substations and the efficacy of the immune system,  
- educational programs for employers,  
- educational programs for women and their families.

4.5.5. Topic: **Professional risk of a midwife**  
- midwife profession and the risk factors related to it (ambulatory conditions, home conditions of a patient), biological, physical, psychological and social factors,  
- protective measures.

5. **THE PROFESSIONAL MODULE IV: ULTRASOUND EXAMINATION IN THE WORK OF A MIDWIFE**

**Characteristic of the module:** facultative  
**Entrance conditions:** Fulfilling the conditions of the basic module  
**The way of finishing (evaluation):**  
- Knowledge test  
- Accomplishment of study duties ordered by tutor  
- Evaluation of practical experience by trainer  

**Recommended number of hours:**  
- Theory - 40 hours  
- Practice - 40 hours

5.1 **Educational goal of the professional module**  
To prepare a specialist of the 1\textsuperscript{st} level for an independent work in the area of ultrasound examination of the fetus.

5.2 **Short annotation specifying the goal of professional module**  
The midwife will master the work with the ultrasound instrument and will be familiar with the basic procedures of ultrasound examination. She will learn how to confirm intrauterine pregnancy and to determine gestational age, to assess the size of the fetus, to identify the position of the fetus, to estimate the...
volume of amniotic fluid, to differentiate between a normal and abnormal ultrasound finding.

5.3 Knowledge of the professional module
The midwife can demonstrate
- knowledge of the history of utilization of ultrasound in medicine and in obstetrics and gynaecology;
- knowledge of the basic ultrasound physics;
- knowledge of the basics of technical principles of ultrasound examination;
- knowledge of the structure of the ultrasonograph;
- knowledge of the problems of safety of ultrasound examination;
- knowledge of the timing of ultrasound examination.

5.4 Skills of the professional module
The nurse can demonstrate the ability
- to confirm intrauterine pregnancy;
- to confirm viability of the fetus;
- to assess number of fetuses;
- to measure the fetus for determination of its gestational age and its growth assessment;
- to identify the position of the fetus;
- to estimate the volume of amniotic fluid;
- to identify placental location;
- to identify abnormalities and to consult them with a physician.

5.5 Partial educational goals
5.5.1 The nurse can demonstrate the necessary knowledge from biophysics and biomedicine, understanding of the history of ultrasound, as well as the knowledge of the problems of ultrasound radiation safety.

Topics:
- The beginnings of ultrasound imaging in medicine, its penetration into the areas of obstetrics and gynaecology
- Production of ultrasound
- Echoes
- Attenuation
- Measurement of distances
- Axial resolution
- Lateral resolution
- Scanning planes
- Descriptive terminology
- Regulations concerning safety of ultrasonographic equipment
5.5.2 The nurse can demonstrate the knowledge of the principles of ultrasonography and Doppler sonography.

**Topics:**
- Ultrasonography
  - Image formation
  - The main functional parts of an ultrasonographic instrument: probe, electronic unit, monitor, control panel
  - Modes of imaging and their use
  - Probe types
  - Form of an image
- Doppler sonography
  - Division of the Doppler system
  - Forms of displaying information about the speed of the blood flow

5.5.3 The nurse can demonstrate ability to perform ultrasound examination in the first, second and third trimester of pregnancy.

**Topics:**
- Confirmation of intrauterine pregnancy
- Determination of the number of fetuses
- Fetal viability
- Measurements of the fetus for determination of the gestational age and the growth assessment
- Fetal position
- Amniotic fluid – volume, physiology, pathology
- Placenta – location, physiology, pathology
- Ectopic pregnancy
- Non-viable pregnancy
- Trophoblast diseases
- Nuchal thickening
- Abnormalities of the fetus and related findings

5.5.4 The nurse can demonstrate ability to perform basic gynecological examination using ultrasound

**Topics:**
- Uterus – size, location
- Diagnosis of uterine myomas
- Cavity of the uterus
- Height and character of endometrium
- Visualization of an IUD
- Diagnosis of uterine polyps
- Ovaries – size, diagnosis of a cyst
5.5.5 Activities (according to valid legislation)

The midwife with a specialized qualification performs ultrasound examination of the fetus without professional supervision and on the basis of an order of the physician specialized in gynaecology and obstetrics.

5.6 Recommended literature

BRICKER, L., NEILSON, J., P.: Routine ultrasound in late pregnancy (after 24 weeks’ gestation).
Cochrane Database Syst Rev 2000;CD001451.