UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

SYLLABUS DEL CORSO

Metodologia di Analisi Socio-Sanitaria

2627-1-K0101D002

Aims

The primary goal of the course is to provide the basic tools of medical statistics, epidemiology, and public health. The course aims also to provide students with the tools needed to understand the meanings, purposes and organizational models of care at a local level to identify the role of the nurse and midwife in the context of public health, community and family.

Specifically:
Knowledge and Understanding
The student will know the fundamental concepts of medical statistics, epidemiology, and hygiene. Additionally, the student will understand the principles of prevention and health promotion within the community. The student will know the meanings, purposes, and organizational models of nursing and midwifery care in community settings and will understand the role of nurses and midwives in public health, within the community, and within families.

Applied Knowledge and Understanding
The student will be able to apply the acquired knowledge to utilize tools of statistics and epidemiology to interpret health data and health indicators. The student will be able to apply principles of hygiene and prevention in the planning of community care, use organizational models to plan community care interventions, and recognize and apply the role of nurses and midwives in health promotion within family and community settings.

Independent Judgment
The student will develop the ability to critically analyze statistical and epidemiological data to identify priorities for community health interventions, evaluate the impact of nursing and midwifery activities on public health improvement, and formulate judgments regarding the effectiveness of organizational models applied in community care settings.

Communication Skills
The student will be able to use appropriate technical language to present epidemiological data and the results of statistical analyses, communicate effectively with the community and with healthcare professionals to promote health, and clearly present their evaluations regarding the organization of community care.

Learning Skills
The student will acquire the necessary skills to develop autonomy in updating their knowledge of epidemiology, medical statistics, and hygiene in relation to community care, to integrate theoretical knowledge with practical field experiences, and to enhance their ability to learn from real cases and epidemiological data to improve the quality of community care.

Contents

STATISTICA MEDICA E STATISTICA PER LA RICERCA SPERIMENTALE E TECNOLOGICA: Unità statistica, campione e popolazione, variabili e dati, presentazione dei dati in grafici e tabelle. Statistica descrittiva: indici di posizione e dispersione. Probabilità: operazioni con le probabilità, variabili casuali, la distribuzioni Binomiale e Gaussiana. Introduzione all'inferenza statistica: stima puntuale e distribuzioni di campionamento; stima intervallare e intervallo di confidenza; il test di ipotesi. IGIENE GENERALE E APPLICATA: Cause di malattia e fattori di rischio, le malattie infettive, le malattie cronico degenerative. La vaccino profilassi, la chemioprofilassi. Le misure in epidemiologia. Gli studi epidemiologici osservazionali e sperimentali. La meta-analisi. ASSISTENZA OSTETRICA DI COMUNITA': Storia e fondamenti dell'assistenza ostetrica di comunità. Teoria dell'assistenza ostetrica territoriale. La realtà territoriale italiana: i consultori familiari. Il sistema sanitario nazionale, regionale e POMI. La realtà territoriale estera. Integrazione ospedale-territorio. ASSISTENZA INFERMIERISTICA DI COMUNITA': Organizzazione dei servizi territoriali e loro integrazione con ospedali e reti sociali: analisi del contesto. Il sistema welfare regionale e il territorio. Modelli di presa in carico e attività di prevenzione. Organizzazione assistenza territoriale infermieristica rapportata al contesto sociale.

Detailed program

MEDICAL STATISTICS – Introduction to Statistics: types of variables; construction of tables and graphs (for one or more variables). Descriptive Statistics: indices of location (mean, median, mode, percentiles); indices of dispersion (deviance, variance, standard deviation, coefficient of variation); random and systematic errors as related to any measurement process: indices of precision and accuracy; correlation and simple linear regression. Probability: definitions of probability; conditional probability and independence; probability of the union and intersection of events; examples of applications in the clinical context (sensitivity, specificity and predictive values of a diagnostic test); the Binomial distribution; the Normal distribution. Inference: sample and population; sample estimates and population parameters; sampling distributions of estimators (distribution of the sample mean); confidence interval. STATISTICS IN SPERIMENTAL AND TECHNOLOGICAL RESEARCH – Hypothesis testing: the logic of hypothesis testing; type I and II errors, p-value; confidence intervals and hypothesis testing: statistical vs clinical significance; example of tests. GENERAL AND APPLIED HYGIENE - The goal of this course is to present a practical approach to community assessment and to teach public health skills that can be used to identify, measure, and prioritize health care needs for defined communities, target populations. The course is aimed at students who will be involved in decisions process about the efficient allocation of community health resources. These are the main objectives of the course: health as a relative concept; mechanisms through which the determinants of population health operate; principles of prevention and health promotion; primary, secondary and tertiary preventive services; healthcare systems (Beveridge, Bismarck etc.); analysis of demographic trends and their influence on epidemiologic determinants; analysis of healthcare demand and needs; health status measurement; trends in diagnosis of chronic diseases and treatment patterns; disease management and integrated care; epidemiologic indicators (incidence, prevalence, absolute risk, risk difference, relative risk, odds ratio, NNT); sources of information; types of epidemiologic studies; outcomes research; healthcare planning tools; principles and methods of health technology assessment (HTA); value-Based Healthcare. COMMUNITY MIDWIFERY - Midwifery community care history and fundamentals; midwifery community care theory; the italian context: "Consultori Familiari"; National Health Service and POMI guidelines; the foreign midwifery community care; hospital and territory integration strategy. COMMUNITY NURSING - Socio-political and normative interpretation for

a critical reading of actuality and organizational models of the XXI century in reference to the local context: excursus of models: from model to model tasks for goals, the model aims to model processes for case management, assistance territorial; organization of local services: the needs and complexity for service in the territory; some strategies for the future through critical management services on the territory and examination regulations of the regional social health plan.

Prerequisites

No prerequisite is required

Teaching form

18 lessons of 4 hours of lectures and exercises with the application of the Fry and Johnstone's model.

Textbook and teaching resource

Statistica medica e per la ricerca
Bland M (2013) Statistica Medica, Apogeo
Pagano M., Gauvreau M. (2003) Biostatistica,Idelson-Gnocchi;
Bossi A., Cortinovis I. (1996) Statistica medica. Esercitazioni, Città Studi Edizione.

Igiene generale e applicata
Dispense
Signorelli C (editor). Igiene e Sanità Pubblica. SEU, Roma, 2017

Assistenza infermieristica di comunità
L'INFERMIERE DI FAMIGLIA E CURE PRIMARIE. Aspetti gestionali e competenze cliniche. Capitolo 4: la figura del primary nursing: aspetti gestionali e competenze cliniche. Piccin Nuova Libraria Padova 2017.
Ripa P., Bergomi P., Frisone F., Loi D., I principi dell'organizzazione professionale dell'infermiere. Viaggio nella professione infermieristica. Maggioli Editore Bologna 2013
Potter P. Fundamental of Nursing, 7° edition. Traduzione edizione italiana ed.Elsevier Milano 2010
PNNR - Prospettive sociali e sanitarie vol 1 anno 2021

Assistenza ostetrica di comunità
Dahlen H. G., Barclay L. M., Homer C. S. E. (2010) The novice birthing: theorising first-time mothers' experiences of birth at home and in hospital in Australia. Midwifery, 26: 53-63; Federazione Nazionale dei Collegi delle Ostetriche (2008) Guida all'esercizio della professione di ostetrica, 2 ed., Torino: ed. C. G. Edizioni medico scientifiche; Fahy K., Foureur M., Hastie C. (2008) Birth Territory and Midwifery Guardianship. Books for Midwives; Kirkham M. (2003) Birth centres: a social model for maternity care. London: Books for Midwives; Marchi A. (2007) Il Parto: piano di assistenza, linee guida e EBM: Strumentazione in Ostetricia e Ginecologia. Firenze: Ed. SEE; Schmid V. (2007) Salute e nascita, la salutogenesi in gravidanza. Milano: Ed. Urra-Apogeo; Walsh D. (2007) Evidence-based care for normal labour and birth, a guide for midwives. Oxon: Routledge, 14-28.

Semester

First year, first semester

Assessment method

Written examination with multiple choice test. There are no in itinere tests

Office hours

Office hours
Agreed with teachers by e-mail.

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING | QUALITY EDUCATION | GENDER EQUALITY