

## SYLLABUS

Academic year 2024/2025

<b>Course:</b>	<b>Behavioural Medicine</b>	
<b>Study programme:</b>	General medicine	<b>Type of study:</b> daily
<b>Course type:</b>	Elective	<b>Year:</b> 4 <sup>th</sup> semester
<b>Content:</b>	Lectures/Practices	<b>Length of course:</b> 14/14 hrs
<b>Evaluation:</b>	Obtained credits (OC) with a grade	<b>Credits:</b> 2

Teaching: Once a week, on Mondays 16:30-18:00 (group 1) or Thursdays 16:30-18:00 (group 2)

Place: Lecture room "F", 8<sup>th</sup> floor, Section III, Tr. SNP 1

<b>Week</b>	<b>Lectures</b>	<b>Practices</b>
1 10.02   13.02	<b>Introduction to behavioural medicine</b> Biobehavioural & psychosocial determinants of health. Interlinks between behavioural medicine, healthcare and public health. <i>Dr. Z. Katreniakova, MD</i>	Basic pillars of behavioural medicine: basic science and clinical investigation. Conceptual apparatus of behavioural medicine.
2 17.02   20.02	<b>The continuum of health and illness</b> Pathways to disease, pathways to health. Chronic disease. Multimorbidity. <i>Dr. I. Nagyova</i>	International classification of functional capacity, disability and health (WHO ICF). Comprehensive assessment of examples of using qualifiers, case studies.
3 24.02   27.02	<b>Non-pharmacological interventions</b> Behavioural and psychosocial interventions. Adherence to treatment. Self-management support. <i>Dr. Dagmar Breznoscakova, MD</i>	Behavioural interventions for prevention and management of chronic diseases. Cognitive-behaviour therapy. Biofeedback. Adapted physical activity programmes.
4 03.03   06.03	<b>Psychological, intra-individual processes</b> Internal resources. Health-enhancing and health-damaging psychological factors. <i>Dr. Vladimira Timkova</i>	Illness perception. Self-image. Self-esteem. Learned helplessness. Negative affectivity. Types of personality. Resilience. Mastery.
5 10.03   13.03	<b>Social, extra-individual processes</b> External resources. Health-enhancing and health-damaging social factors. <i>Dr. Pavol Mikula</i>	Caregiving. Social network. Social support. Social inclusion. Social participation. Health status and the labour market.
6 17.03   20.03	<b>Digital health interventions</b> From e-health devices to health e-coaching solutions. The efficacy of e-health applications. Self-navigated help seeking. <i>Drs. J. Evelley</i>	The role of interactive communication technologies in behavioural medicine. Online support groups and virtual communities. Wearable technologies. Serious gaming.

7 24.03   27.03	<b>Stress, coping and health</b> Basic types of stressful situations. Psychological reactions to stress. Coping. Active and passive defence. <i>Dr. Pavol Mikula</i>	Mechanisms of psychological adaptation to stress situations. Appraisals and psychological stress. Mechanisms of adjustment to disease.
8 31.03   03.04	<b>Health behaviour change</b> Theories, processes and measures. Health believes, reasoned action, planned behaviour, stages of change. <i>Dr. I. Nagyova</i>	Health behaviour and motivation to change. Basic tools, processes. Motivational interviewing (MI) examples: sleep diary, smoking cessation, weight control.
9 07.04   10.04	<b>Psychoneuroimmunology</b> Stress and health. Stress and allostasis. Neuroendocrine measures. Immune measures. Genetics of stress. <i>Dr. Miriam Polanova, MD, MPH</i>	Laboratory stress testing methodology. Gene-stress correlation and interaction. The metabolic syndrome, obesity and insulin resistance. Cardiovascular disease and depression. Behavioural oncology.
10 14.04   17.04	Monday 14.04.2025: <b>Presentation of course assignments</b> Thursday 17.04.2025: No teaching <i>Dr. I. Nagyova</i>	
11 21.04   24.04	Monday 21.04.2025: No teaching Thursday 24.04.2025: <b>Presentation of course assignments</b> <i>Dr. I. Nagyova</i>	
12 28.04   <b>30.04</b>	<b>Patient-reported outcomes and quality of life – part I.</b> The concept of quality of life and its use in clinical practice. Psychosocial problems of persons with a chronic condition. <i>Dr. I. Nagyova</i>	Assessment, analysis and interpretation of patient-reported outcomes (PRO). The impact of chronic disease on quality of life. Developing and testing of quality of life questionnaires.
13 05.05   08.05	<b>Patient-reported outcomes and quality of life - part II.</b> The concept of quality of life and its use in clinical practice. Psychosocial problems of persons with a chronic condition. <i>Dr. I. Nagyova</i>	Assessment, analysis and interpretation of patient-reported outcomes (PRO). The impact of chronic disease on quality of life. Developing and testing of quality of life questionnaires.
14 12.05   15.05	<b>Integrating psychosocial and biomedical models of health.</b> Research, clinical care, and health policy. How have clinical care environments integrated psychosocial and behavioural features into prevention and/or treatment decisions? <i>Dr. I. Nagyova</i>	Final test

Notes: Dates in grey colour indicate no teaching. Date in bold (30.04, Wednesday) is substitution for teaching that should be held on 01.05. Thursday.

### ***Suggested reading***

1. Nagyova I, Katreniakova Z (eds.) Behavioural Medicine: Biomedical and Psychosocial Aspects of Chronic Diseases, Equilibria, Kosice, 2014, ISBN 978-80-8143-158-6, pp.280
2. Steptoe A (ed). Handbook of Behavioral Medicine: Methods and Applications. Springer Science & Business Media, 2010, ISBN 0387094881, pp. 1074
3. Talen MR, Burke Valeras A (eds.) Integrated Behavioral Health in Primary Care. Springer-Verlag New York 2013, ISBN 978-1-4614-6888-2, pp. 354
4. McGrady A, Moss D. Pathways to Illness, Pathways to Health. Springer Science & Business Media 2013, ISBN 1441913793, pp. 263
5. Nagyova I (ed.) Measuring Health and Quality of Life in the Chronically Ill. Equilibria, Kosice, 2009, ISBN 978-80-89284-46-7, pp.268

### ***Requirements for the Final Evaluation***

1. At minimum **80% attendance** at practices. Non-participation in practical exercises and seminars shall be properly excused with the teacher, who shall determine a substitute in the corresponding form. The student may replace the excused practical exercises within three weeks at most during the semester (UPJS FM Study rules, Internal regulation No. 3/2016, Art. 12,7).
2. **50 points: Course assignment** (Paper work and Oral presentation; detailed instructions see below)
3. **50 points: Final test.** To obtain the credits at minimum 60% of questions must be answered correctly.

The student can obtain at maximum 100 points in total. The assessment of "passed A through E" will be based on the following scale:

<u>Breakdown of Points</u>	<u>Grade</u>
▪ 91 to 100	A – excellent
▪ 84 to 90	B – very good
▪ 75 to 83	C – good
▪ 68 to 74	D – satisfactory
▪ 60 to 67	E – sufficient

### ***Course Assignment***

For final evaluation you need to prepare a final project Seminar work (25 points) and PowerPoint presentation (or innovative formats such as video, poster etc.) (25 points) relevant to behavioural medicine. You have to prepare a report on interesting behavioural non-pharmacological intervention; describing the study background, aims, methods (sample, intervention, measures, analyses), results and discussion. The focus of the seminar work should be on interdisciplinary collaboration around a medical condition. You also have to highlight the relevance for clinical practice. Please note that reports describing general information and knowledge on chronic disease will not be accepted (!)

#### *How to proceed?*

1. Based on the scientific papers from the electronic information databases, prepare Seminar work and PowerPoint presentation on selected behavioural non-pharmacological health intervention (e.g. nutritional, physical, psychological, digital, mixed) illustrating the advantages and potential shortcomings of such intervention. Example of the topic: Effectiveness of Nordic walking as compared to traditional walking in patients with cardiovascular disease (or diabetes or COPD).
2. For one type of intervention please use at least 3 different sources of literature. Use electronic information resources (see University Library website for a list) such as the following databases: Web of Science, PubMed, ClinicalTrials, UpToDate, Ebsco, ScienceDirect etc. For the remote access (from your home), use the browser settings as described in "The Remote Access" document, which is available on the same University Library website. Use only papers that are available as full texts (not abstracts). The

literature sources used cannot be older than 10 years. A list of relevant journals for course assignment can be found on page 5.

3. Read thoroughly three scientific papers you selected and into the assignment select only the information on processed data (how many patients were included into the study, how many groups they formed, which characteristics were monitored and why, what statistics was used, what conclusion there were, recommendations for practice etc.)
4. Prepare your Seminar work in the form of the text document (e.g. MS Word) titled BM-surname.docx (e.g. BM-smith.docx) and with the following structure:
  - **Title page** (university, faculty, name of the topic, your name and surname, field of study and group, academic year)
  - **Introduction** (briefly describe the non-pharmacological/digital health interventions.)
  - **Article/Study 1** (information from the first scientific paper)
  - **Article/Study 2** (information from the second scientific paper)
  - **Article/Study 3** (information from the third scientific paper)
  - **Conclusions** (your overall evaluation/summary and comparison of results of studies)
  - **References** (list of references according to norm STN ISO 690: 2012)

The **length of the paper should be 5 pages**, excluding title page and references.

5. Based on the Seminar work, prepare a short presentation reflecting the studies (e.g. MS PowerPoint) titled BM-surname.pptx (e.g. BM-smith.pptx).

#### PowerPoint/Prezi presentations – formal requirements

Length of presentation: 5 min speech (approximately 7 slides)

Good quality graphic design: using bullets instead of lengthy texts, pictures, graphs

#### Deadlines

- The presentation of course assignments will be held in weeks 10 and 11 – see Syllabus above. The presentations should be uploaded to MS Teams at minimum 1 hour before presenting.
- Please upload the final version of your Seminar works to MS Teams 1 week after your PowerPoint presentation was held, but no later than on **08.05.2025**.
- The final test (50 points) will be held in week 14.

#### Late Work Policy

All assignments are due on the assigned date unless otherwise indicated by the instructor. Credit for late work will be awarded as follows: 10% of possible points will be deducted for assignments submitted late for each day after the due date (an assignment that is 5 days late would result in a 50% deduction of the possible points for that assignment).

*Created: 05.02.2025*

*Dr Iveta Nagyova, Course supervisor*  
[iveta.nagyova@upjs.sk](mailto:iveta.nagyova@upjs.sk)

## LIST OF JOURNALS – FOR COURSE ASSIGNMENT

1. BEHAVIOURAL NEUROLOGY
2. BEHAVIOURAL PHARMACOLOGY
3. CANADIAN JOURNAL OF BEHAVIOURAL SCIENCE-REVUE
4. BEHAVIOURAL BRAIN RESEARCH
5. BEHAVIOURAL PROCESSES
6. BEHAVIOURAL AND COGNITIVE PSYCHOTHERAPY
7. ANNALS OF BEHAVIORAL MEDICINE
8. AMERICAN BEHAVIORAL SCIENTIST
9. BEHAVIORAL AND BRAIN FUNCTIONS
10. BEHAVIORAL DISORDERS
11. BEHAVIORAL ECOLOGY
12. BEHAVIORAL ECOLOGY AND SOCIOBIOLOGY
13. BEHAVIORAL HEALTHCARE TOMORROW
14. BEHAVIORAL INTERVENTIONS
15. BEHAVIORAL MEDICINE
16. BEHAVIORAL NEUROSCIENCE
17. BEHAVIORAL PSYCHOLOGY-PSICOLOGIA CONDUCTUAL
18. BEHAVIORAL SCIENCES & THE LAW
19. BEHAVIORAL SLEEP MEDICINE
20. COGNITIVE AND BEHAVIORAL NEUROLOGY
21. COGNITIVE AFFECTIVE & BEHAVIORAL NEUROSCIENCE
22. COGNITIVE AND BEHAVIORAL PRACTICE
23. FRONTIERS IN BEHAVIORAL NEUROSCIENCE
24. HISPANIC JOURNAL OF BEHAVIORAL SCIENCES
25. INTEGRATIVE PHYSIOLOGICAL AND BEHAVIORAL SCIENCE
26. INTERNATIONAL JOURNAL OF BEHAVIORAL DEVELOPMENT
27. INTERNATIONAL JOURNAL OF BEHAVIORAL MEDICINE
28. JOURNAL OF APPLIED BEHAVIORAL SCIENCE
29. JOURNAL OF APPLIED BIOBEHAVIORAL RESEARCH
30. INTERNATIONAL JOURNAL OF BEHAVIORAL NUTRITION AND PHYSICAL ACTIVITY
31. JOURNAL OF BEHAVIORAL ADDICTIONS
32. JOURNAL OF BEHAVIORAL AND EXPERIMENTAL ECONOMICS
33. JOURNAL OF BEHAVIORAL DECISION MAKING
34. JOURNAL OF BEHAVIORAL EDUCATION
35. JOURNAL OF BEHAVIORAL FINANCE
36. JOURNAL OF COGNITIVE AND BEHAVIORAL PSYCHOTHERAPIES
37. JOURNAL OF BEHAVIORAL MEDICINE
38. JOURNAL OF BEHAVIORAL HEALTH SERVICES & RESEARCH
39. JOURNAL OF COMPARATIVE PHYSIOLOGY A-NEUROETHOLOGY SENSORY NEURAL AND BEHAVIORAL PHYSIOLOGY
40. JOURNAL OF CONTEXTUAL BEHAVIORAL SCIENCE
41. JOURNAL OF DEVELOPMENTAL AND BEHAVIORAL PEDIATRICS
42. JOURNAL OF EDUCATIONAL AND BEHAVIORAL STATISTICS
43. JOURNAL OF EMOTIONAL AND BEHAVIORAL DISORDERS
44. JOURNAL OF PSYCHOPATHOLOGY AND BEHAVIORAL ASSESSMENT
45. JOURNAL OF THE HISTORY OF THE BEHAVIORAL SCIENCES
46. METHODOLOGY-EUROPEAN JOURNAL OF RESEARCH METHODS FOR THE BEHAVIORAL AND SOCIAL SCIENCES
47. MULTIVARIATE BEHAVIORAL RESEARCH
48. NEUROPSYCHIATRY NEUROPSYCHOLOGY AND BEHAVIORAL NEUROLOGY