Universitat Autònoma de Barcelona

2021/2022

Integrated Approach to the Origin of Mental Disorders: Biology, Person and Environment

Code: 43880
ECTS Credits: 6

Degree	Type	Year	Semester
4316222 Research in Clinical and Health Psychology	OT	0	1

The proposed teaching and assessment methodology that appear in the guide may be subject to changes as a result of the restrictions to face-to-face class attendance imposed by the health authorities.

Contact

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Use of Languages

Principal working language: spanish (spa)

Other comments on languages

English will be used in some sessions to familiarise students with research technical language

Teachers

Lorena Chanes Puiggros

Sergi Ballespí Sola

Prerequisites

It is advisable to have previously studied psychopathology courses.

Objectives and Contextualisation

The overall objective of this module is to provide an integrated view of causality in psychopathology, considering the interaction of genetic, biological, social and person factors. It aims to cover an aspect that is rarely addressed in undergraduate courses: the integration of knowledge that comes from different disciplines (genetics, neurosciences, epidemiology, basic, evolutionary, clinical and social psychology, etc.) in relation to the origin of mental disorders.

One of the fundamental gaps in psychopathology is over-fragmentation. However, it is increasingly evident that mental disorders can only be explained by complex approaches. This module aims to make an integrative journey by placing the focus of attention on two aspects that still receive little attention in psychopathology. Beyond the presentation of risk factors, it is sought to deepen (1) into the *interaction* between genetic-biological, person and sociocultural factors, since this interaction is, in itself, a causal agent that transcends the presence of risk factors separately; and (2) the psychological *mechanisms* that mediate or translate the effect of risk factors into a state of vulnerability or resilience to disorders.

Although psychoses and affective disorders will be taken as fundamental examples, this integrative approach is carried out from a transversal perspective, providing a conceptual framework of knowledge in psychopathology applicable to the origin of any mental disorder. In addition, these new concepts are very useful for clinical case formulation, and profoundly affect our understanding of psychological treatments.

Competences

- Analyze critically the most current theories, models and methods of psychological research in the field of clinical and health psychology.
- Analyze data and interpret results on research in clinical and health psychology.
- Discuss the results the results on clinical and health psychology research, and contrast them with existing scientific literature and draw conclusions and practical applications.
- Integrate knowledge and use it to make judgements in complex situations, with incomplete information, while keeping in mind social and ethical responsibilities.
- Search for information in scientific literature using appropriate channels and integrate such information to propose and contextualize a research topic.
- Use acquired knowledge as a basis for originality in the application of ideas, often in a research context.
- Use scientific terminology to argue the results of research in the context of scientific production, to understand and interact effectively with other professionals.

Learning Outcomes

1. Analyse and understand different risk factors.
2. Contrast the results of the research based on the biological-environment interaction with those that only contemplate one of those factors.
3. Integrate knowledge and use it to make judgements in complex situations, with incomplete information, while keeping in mind social and ethical responsibilities.
4. Interpret the genetic-environmental interaction in a scientific article.
5. Recognise the main etiological influences of psychological disorders.
6. Search for information in scientific literature using appropriate channels and integrate such information to propose and contextualize a research topic.
7. Use acquired knowledge as a basis for originality in the application of ideas, often in a research context.
8. Use scientific terminology to argue the results of research in the context of scientific production, to understand and interact effectively with other professionals.

Content

The module will train the student in the fundamental concepts of the field of study of causation (etiology) in mental disorders, ranging from gene-environment interaction (Ecogenetics) to psychological mechanisms. These are some of the most prominent clinical and research questions that will be addressed:

◊ Reconceptualization of phenotypes: are mental disorders really *diseases*? Redefinition of psychopathological disorders as networks of symptoms that derive from complex interactions. Examples: the affective and psychotic spectra.

◊ Reconceptualization of the concept of 'genetic basis of mental disorders': The genetics of mental disorders is the genetics of sensitivity to the environment.

◊ Reconceptualization of biological bases: Top-down models of environmental influence on brain development.

◊ Reconceptualization of the environment and its measurement: From the "big data" of epidemiology to the "scientific" measurement of daily life and personal relationships.

◊ Key 'person' mediating factors: Temperament, affective attachment, cognitive schemas.

◊ Gene-brain, environment and person interaction: From the concept of "risk" to "differential sensitivity to the environment".

◊ Impact of these new concepts on clinical formulation and psychological treatments.

Methodology

The contents will be presented by the instructors in the form of seminars, where they will present not only topical information, but also an analysis of the ideological-theoretical background underlying very different approaches applied to the same research questions. It will be promoted and expected that students have a great degree of participation during the seminars. This will enable them to learn how to formulate questions and reasoned arguments on complex subjects of great novelty. Each of the students will be asked to do "mental experiments" to promote the transfer of concepts worked in class to the specific field of their interest (usually the one on which the research work is done). One of the most important aspects will be the work of reflective criticism on the data and conclusions presented to the students. Finally, each student will perform a critical essay on which s/he will have supervision.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Class discussions	10	0.4	4, 3, 8
Presentation of topics and research	27.5	1.1	1, 2, 4, 5, 7
Type: Supervised			
Supervision meetings of the written essay and presentation	7.5	0.3	6, 4, 3, 8
Type: Autonomous			
Elaboration of the critical essay	40	1.6	2, 4, 3, 7, 8
Preparation and performance of the oral presentation	20	0.8	2, 8
Reading and studying	35	1.4	1, 2, 3, 7
Search of relevant scientific information	10	0.4	6

Assessment

The main activity is the elaboration of a critical scientific essay, not a mere review of the literature in a given field.

The goal is to write an essay on a specific scientific question in the field of the module (test of maximum 4 faces to double s sheet of references) and presentation in class. It does not need to be on a specific psychological disorder, given that the foc application of the conceptual framework of an integrated approach to the understanding of mental phenomena. The followir will be evaluated:

o Proving that the student has reviewed relevant information from different sources (bibliographies, databases, etc).

o Being able to integrate literature that addresses variables from different areas/levels of complexity (e.g., genetic, psychos

o The bility to respond to the scientific question posed, to analyse pros and cons of different approaches in the field and diff underlying research, and to obtain sound conclusions.

Assessment Activities

o The ability to synthesize complex information with clarity and express complex ideas and a discourse in the written and or

Title	Weighting	Hours	ECTS	Learning Outcomes
Grading criteria It is compulsory to attend 90% of sessions. EV1. Attendance (minimum 90%) and quality of active participation in class If the student fails the subject, it is possible to be reevaluated if: a. Not meeting the pass criteria b. Having been assessed on a total of activities weighting two thirds of the total grading of the subject.	10%	0	0	1, 6, 2, 4, 3, 5, 7, 8
EV2. Elaboration of a scientific essay	50%	0	0	6, 4, 3, 7, 8
EV3. Oral presentation of the scientific essay	40%	0	0	7, 8

A student who has delivered the tests with a weight of 4 or more points (40%) cannot be considered as 'not possible to be e

The document describing grading criteria at the Faculty of Psychology is available at: http://www.uab.cat/doc/DOC_avaluac

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Duncan, L.E. & Keller, M.C. (2011). A critical review of the first 10 years of candidate gene-by-environment interaction research in psychiatry. *American Journal of Psychiatry, 168,* 1041-9.

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Complementària

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Wolf, C. & Linden, D.E. (2012). Biological pathways to adaptability--interactions between genome, epigenome, nervous system and environment for adaptive behavior. *Genes, Brain and Behaviour*, *11*, 3-28.

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Software

Not applicable.