UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Knowing Physiology, Diagnosis and Treatment Basics of Postural Defects

2526-3-I0101D129

Aims

Acquire fundamental knowledge of human physiology, develop the ability to diagnose major posture vices and learn relevant treatment methodologies in order to apply a critical and evidence-based approach in the analysis and management of postural disorders.

The specific objectives, formulated according to the Dublin Descriptors, are as follows:

1. Knowledge and Understanding:
   know the physiological foundations underlying posture and its vices, along with a clear understanding of diagnostic and therapeutic methodologies for their management.

2. Application of Knowledge and Understanding:
   develop the ability to apply theoretical knowledge to identify and critically analyze posture vices in simulated clinical settings.

3. Autonomy of Judgment:
   independently evaluate information related to posture vices, making critical and evidence-based judgments for framing and choosing intervention strategies.

4. Communication Skills:
   communicate information about posture vices clearly and effectively with both specialists and non-experts, using appropriate and understandable language.

5. Learning Skills:
   develop the skills necessary for continuous independent learning in the field of posture and its disorders, using a variety of sources and constantly updating their knowledge

Contents

Physiology of posture, major changes in posture, diagnosis and therapeutic approach

Detailed program

Introduction to posturology
Physiology and main postural defects
Diagnostic and therapeutic approach
Visit to a dedicated clinic

Prerequisites

Enrolment in the third year of the Degree in Nursing

Teaching form

The lesson takes place in the dispensing mode in presence through frontal lesson and practical demonstration

Textbook and teaching resource

Aubonnet R, Shoykhet A, Jacob D, Di Lorenzo G, Petersen H, Gargiulo P.Physiol Meas. (2022) Postural control paradigm (BioVRSea): towards a neurophysiological signature.
3;43(11). doi: 10.1088/1361-6579/ac9c43.

Baudry S, Penzer F, Duchateau, (2014) Vision and proprioception do not influence the excitability of the corticomotoneuronal pathway during upright standing in young and elderly adults. J.Neuroscience ;268:247-54. doi: 10.1016/j.neuroscience.2014.03.026.

Efstathiou MA, Giannaki CD, Roupa Z, Hadjisavvas S, Stefanakis M.. (2022) Evidence of distorted proprioception and postural control in studies of experimentally induced pain: a critical review of the literature. Scand J Pain; 22(3):445-456. doi: 10.1515/sjpain-2021-0205.

Henry M, Baudry S. (2019) Age-related changes in leg proprioception: implications for postural control. J Neurophysiol,122(2):525-538. doi: 10.1152/jn.00067.2019.

Moon KM, Kim J, Seong Y, Suh BC, Kang K, Choe HK, Kim K.. (2021) Proprioception, the regulator of motr function, BMB Reports;54(8):393-402. doi: 10.5483/BMBRep.2021.54.8.052.

Pollock AS, Durward BR, Rowe PJ, Paul JP..(2000) What is balance?; Clin Rehabil 14(4):402-6. doi: 10.1191/0269215500cr342oa.

Proske U, Gandevia SC. (2012), The proprioceptive senses: their roles in signaling body shape, body position and movement, and muscle force. Physiological reviews; 92(4):1651-97. doi: 10.1152/physrev.00048.2011.

Semester

second semester

Assessment method

Frequency

Office hours

By appointment

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING