

Physiotherapy in Paediatrics

Code: 102976
ECTS Credits: 6

Degree	Type	Year	Semester
2500892 Physiotherapy	OT	3	2

Contact

Name: Saida Garces Aguilar
Email: Saida.Garces@uab.cat

Use of Languages

Principal working language: catalan (cat)
Some groups entirely in English: No
Some groups entirely in Catalan: Yes
Some groups entirely in Spanish: No

Teachers

Saida Garces Aguilar

Prerequisites

There are no prerequisites.

Objectives and Contextualisation

The subject is optional and is taught in the third year of Degree in Physiotherapy. This subject goes directed to know the world of Pediatrics from the focus of Physiotherapy. Have basic notions of development of the healthy child, to be able to understand the pathology and, to deepen in the treatment of physiotherapy proper.

The objectives of the subject are:

1. Know the development of the healthy child, to treat the different pathologies that the child can present throughout of all its development until reaching adulthood.
2. Recognize the risk factors that can affect the development of the child from birth and what may compromise their further development.
3. Know how to observe and recognize the social, family and psychological factors that influence the child's environment and what They will have an impact on the health and / or illness of the child.
4. Be able to carry out the functional assessment of the child, taking into account age and motor development which corresponds to it, using the appropriate assessments for the age and functional status of the child.
5. Plan the goals and the treatment of physiotherapy with the coordination of the other health professionals they cater to the child and his family.
6. Know the deficiencies and the disabilities that can appear due to the pathology and understand the needs basic you may need.
7. Know how to apply the different physiotherapy techniques in paediatrics.
8. Evaluate, adapt and follow the evolution of the child, carrying out new treatment proposals in case it is necessary.
9. Work in different clinical cases to plan the appropriate physiotherapy treatment in each case.

Competences

- Apply quality-assurance mechanisms in physiotherapy practice, in accordance with the recognised and validated criteria.
- Constantly renew one's professional knowledge, competences and skills.
- Design the physiotherapy intervention plan in accordance with the criteria of appropriateness, validity and efficiency.
- Develop independent learning strategies
- Display a strategic and flexible attitude to learning.
- Display interpersonal skills.
- Display knowledge of the physiotherapy methods, procedures and interventions in clinical therapeutics.
- Evaluate the functional state of the patient, considering the physical, psychological and social aspects.
- Integrate, through clinical experience, the ethical and professional values, knowledge, skills and attitudes of physiotherapy, in order to resolve specific clinical cases in the hospital and non-hospital environments, and primary and community care.
- Participate in drawing up physiotherapy protocols on the basis of scientific evidence, and promote professional activities that facilitate physiotherapy research.
- Work in teams.

Learning Outcomes

1. Apply physiotherapy methods, procedures and interventions to conditions in gynaecology, obstetrics and paediatrics.
2. Apply the evaluation procedures required in physiotherapy, in order to determine the degree of damage to the urogenital apparatus and its possible functional repercussions.
3. Apply the evaluation procedures required in physiotherapy to paediatrics, in order to determine the degree of damage and its possible functional repercussions.
4. Describe and analyse evidence-based physiotherapy protocols for gynaecological, obstetric and paediatric conditions.
5. Describe and analyse the quality-assurance mechanisms of physiotherapy in gynaecology, obstetrics and paediatrics.
6. Describe the injuries and diseases in obstetrics, gynaecology and paediatrics, identifying the symptoms that appear during the process, their etiology and the associated medical, surgical and rehabilitation treatments.
7. Describe the physiotherapy techniques in therapy for gynaecological, obstetric and paediatric conditions and display up-to-date knowledge of their effectiveness.
8. Describe the principles behind evaluation in paediatrics.
9. Describe the principles behind the evaluation of the urogenital apparatus.
10. Design therapeutic exercises and activities for obstetric, gynaecological and paediatric diseases and injuries.
11. Develop independent learning strategies
12. Display a strategic and flexible attitude to learning.
13. Display interpersonal skills.
14. Use physiotherapy to treat clinical cases involving gynaecological, obstetric and paediatric conditions.
15. Work in teams.

Content

UNIT 1: INTRODUCTION TO THE SUBJECT (Teacher: Spending to be confirmed)

- 1.1 Basic concepts of the subject.
- 1.2 Presentation of the program.
- 1.3 Seminars and self-employment learning
- 1.4 Type of evaluation.

UNIT 2: INTRODUCTION TO THE PEDIATRIC PHYSIOTHERAPY (Teacher: Spending to be confirmed)

2.1 Healthy child development.

2.2 Most frequent pathologies that children may present and their relationship with the environment (Neurological conditions, orthopaedic alterations, psychomotor alterations).

2.3 Prevention and early detection of childhood pathologies through CRIBLETS.

UNIT 3: NEWBORN EXPLORATION (Teacher: Spending to be confirmed)

3.1 Morphology.

3.2 Prenatal and postnatal development.

3.3 Apgar Test.

3.4 Archaic reflections.

3.5 Muscular tone.

UNIT 4: PREMATURE NEWBORN (Teacher: Spending to be confirmed)

4.1 Characteristics of premature baby.

4.2 Causes and disorders that can be found.

4.3 Physiotherapy treatment in the incubator.

UNIT 5: PSYCHOMOTOR DEVELOPMENT (Teacher: Spending to be confirmed)

5.1 Normal psychomotor development.

5.1.1 Stages of the healthy child development.

5.2 Pathological development.

5.2.1 Warning signs.

UNIT 6: PHYSIOTHERAPIST'S ROLE (Teacher: Spending to be confirmed)

6.1 Relationship, involvement and attitude of the physiotherapist towards the child, the family and the environment.

6.1.2 Therapeutic intervention and importance of the relationship with the family.

6.2.3 Different areas of treatment.

UNIT 7: THE GAME (Teacher: Spending to be confirmed)

7.1 Differentiating elements of the adult treatment.

7.2 The game as a tool to carry out the treatment of Physiotherapy. (The game and the toys, the functional game, different stages of the game).

UNIT 8: CLINICAL HISTORY (Teacher: Spending to be confirmed)

8.1 Evaluation and observation.

8.2 Exploration.

8.3 Pain evaluation.

UNIT 9: CONGENITAL TORTICOLLIS (Teacher: Spending to be confirmed)

9.1 Definition and classification.

9.2 Exploration and differential diagnosis.

9.3 Aims of physiotherapy treatment.

9.4 Conservative treatment of physiotherapy.

9.5 Post-surgical treatment of physiotherapy.

UNIT 10: OBSTETRIC BRACHIAL PLEXUS PARALYSIS (Teacher: Spending to be confirmed)

10.1 Definition, classification and prognosis.

10.2 Associated lesions.

10.3 Exploration and evaluation.

10.4 Aims of physiotherapy treatment.

10.5 Conservative treatment of physiotherapy.

10.6 Residual deformities and regression period.

10.7 Early and delayed post-surgical physiotherapy treatment.

UNIT 11: CONGENITAL HIP DISLOCATION (Teacher: Saida Garcés)

11.1 Definition, aetiology and classification.

11.2 Evaluation.

11.2.1 Barlow Test. Subluxation.

11.2.2 Ortolani Test. Dislocation.

11.3 Exploration of normal and pathological baby.

11.3.1 Luxation.

11.3.2 Subluxation.

11.4 Conservative treatment. Orthosis.

11.5 Post-surgical physiotherapy treatment.

UNIT 12: PERTHES DISEASE (Teacher: Saida Garcés)

12.1 Definition. Aetiology.

12.2 Clinic. Prognosis.

12.2.1 Caterall classification.

12.3 Aims of physiotherapy treatment

12.4 Conservative physiotherapytreatment.

12.4.1 Orthosis.

12.5 Post-operative physiotherapy treatment.

UNIT 13: CLUBFOOT(Teacher: Saida Garcés)

13.1 Definition, classification.

13.2 Talipes equinovarus. Aetiology.

13.2.1 Exploration.

13.2.2 Conservative treatment. Physiotherapy. Orthosis Plaster.

13.2.3 Complications.

13.3 Post-surgical physiotherapy treatment in the baby and child.

UNIT 14: ALTERATIONS OF THE SPINE: SCOLIOSIS, KYPHOSIS, SPONDYLOLISTHESIS, etc. (Teacher: Saida Garcés)

14.1 Definition. Classification.

14.2 Exploration.

14.2.1 Front. Side Face. Back.

14.2.2 R.X.

14.3 Child, youth and teenage idiopathic scoliosis.

14.3.1 Neutral vertebra.

14.3.2 Identification of the primary curve.

14.4 Objectives of physiotherapy treatment.

14.5. Physiotherapy treatment.

14.5.1 Without a corset.

14.5.2 With a corset. Rules of use of the corset.

14.5.3 Corset removal.

14.6 Post-operative physiotherapy treatment.

UNIT 15: CEREBRAL PALSY (Teacher: Saida Garcés)

15.1 Definition. Classification.

15.1.1 Alterations of psychomotor development.

15.1.2 Disorders and deformities.

15.2. Topographical distribution of the injury.

15.2.1 Stages of affectation.

15.3 Tone alterations.

15.3.1 Spasticity. Athetosis. Ataxia

15.3.2 Tone disorders. Hypertonia. Hypotonia.

15.4 Orthopaedic disorders.

15.5 Aims of physiotherapy treatment.

15.6 Physiotherapy treatment.

15.6.1 Levels of intervention depending on age.

15.6.2 Collaboration between the physiotherapist, parents, other professionals and school.

15.6.3 Follow-up of the evolution of the child.

15.7 Methods of treatment for cerebral palsy.

UNIT 16: JUVENILE IDEOPATHY ARTHRITIS (Teacher: Spending to be confirmed)

UNIT 17: AUTISM SPECTRUM DISORDER (TEA) (Teacher: Saida Garcés)

17.1 Definition.

17.2 Characteristics.

17.3 Associated symptoms.

17.4 Levels of TEA.

UNIT 18: PHYSIOTHERAPY IN MULTIDISABILITIES (Teacher: Saida Garcés)

18.1 Definition of multidisabilities.

18.2 Perception from multidisabilities.

18.3 The movement.

18.4 Communication.

18.5 Inclusion.

18.6 Low cost.

UNIT 19: THE FEEDING IN CHILDREN WITH GRAVE DISABILITIES (Teacher: Saida Garcés)

19.1 Definition of feeding.

19.2 Different types of feeding.

19.3 Alterations in swallowing.

19.4 Guideline treatment and relation with physiotherapy.

UNIT 20: PEDIATRIC ONCOLOGY (Teacher: Spending to be confirmed)

UNIT 21: PEDIATRIC MASSAGE (Teacher: Spending to be confirmed)

UNIT 22: ACONDROPLASIA (Teacher: Saida Garcés)

UNIT 23: NEUROMUSCULAR DISEASES (Teacher: Saida Garcés)

UNIT 24: RESPIRATORY PATHOLOGY AND PHYSIOTHERAPIST TREATMENT (Teacher: Saida Garcés)

24.1 Common pathology.

24.2 Exploration and detection of the respiratory pathology.

24.3 Techniques of respiratory physiotherapy.

Methodology

- LABORATORY PRACTICES:

Place to put into practice the different ways of performing physiotherapy treatment with own characteristics of children, depending on age and other relevant aspects of the infant.

*Units that will be put into practice:

- Stimulation of Psychomotor development.
- Practice on the game.
- Practice on Cerebral Palsy: Make a pelvic moulding seat of plaster.
- Practice on the multidisability "Putting yourself in the skin of the multidisability".

- WRITTEN WORK:

Teachers will give you some guide to do the written work when the subject start.

The groups will be formed by 4-5 students (it depends on the total students).

The topics to work will be proposed by the teachers.

- READING ARTICLES / INTEREST REPORTS

The teachers can suggest some interesting article with the objective of study or read it.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
LABORATORY PRACTICES (PLAB)	6	0.24	14, 1, 3, 2, 7, 5, 4, 8, 6, 11, 10, 13, 12, 15
THEORY (TE)	46	1.84	1, 3, 2, 8, 6
Type: Autonomous			
PREPARATION OF WRITTEN WORKS	23	0.92	14, 1, 3, 2, 7, 4, 9, 8, 6, 11, 10, 12
READING ARTICLES /REPORTS OF INTEREST	20	0.8	1, 6
SELF-STUDY	55	2.2	14, 1, 3, 9, 8, 6, 11, 12

Assessment

The final scoring will be the amount of: Written evaluation through objective tests with selection of items on alternate answer (50%), Attendance and active participation in class and seminars (15%), theoretical evaluation of written work (25%), oral defence of written work (10%). It is necessary a final scoring greater or equal as 5 to pass the subject. Students who miss exams or who do not do the final written work, they have a NO EVALUATE on the subject.

- Attendance and active participation in class and seminars 15%:

The verify assistance in class and seminars must be greater or equal as 80%: the student who assist a minimum of 80% to the classes, will obtain directly 1,5 points/10 in the final scoring.

Those students who have a justified reason to miss more than 80% and the teacher consider it, will offer to do a complementary work to be able to obtain 15% in the final scoring.

- Written evaluation through objective tests with selection of items on alternate answer 50%:

- There will be 2 mid-term exams with the objective of eliminatory of lessons: each one of them has account 25% (partial I 25%, partial II 25%). Each mid-term exam will consist on 30 questions of true (V) or false (F). Each incorrect question remains a correct question. Unanswered questions will not subtract points. The first mid-term exam will be on mid-semester (first part of subjects) and the second mid-term exam will be when de subjects finished (at the end of the course). Each exam takes 60 minutes.

- In order to pass the course, one must pass the both mid-term exams with a minimum of 5. The other marks make average with the exams score.

- Students who don't pass the first mid-term exam, will not be admitted to the second mid-term exam and they must to do the final exam with all the subjects (date of the exam according to schedule). Students who don't pass the second mid-term exam it will be the same process (They must to do the final exam).

- In the case of do not pass some mid-term exam, the final exam will consist on 50 questions of true (V) or false (F). Each incorrect question remains a correct question. That exam has account 50%. It takes 90 minutes.

- In the case of do not pass the final exam, it will be a 'recovery examination', that consist on 50 questions of true (V) or false (F). Each incorrect question remains a correct question. It takes 90 minutes (date of the exam according to schedule).

- If some student makes an application for revision of some exam, it will be on the agreed schedule with the teacher.

- Theoretical evaluation of written work (25%):

The written work will be awarded at the end of the course (date according to schedule). The delivery of the written work will be in paper and digital form (email). Written works submitted late will mean NO EVALUATE.

There will be a document on virtual campus with all the instructions to make the written work.

- Oral defence of written work (10%):

The dates of the oral defence will be according at the beginning of the subject. These will be always after the delivery of the written works.

The oral defence will take 30 minutes: 20 minutes to expose and 10 minutes to questions and assessment.

It is essential that every people of the group expose and defence the work this day.

The mark obtained will be the same to everyone.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Attendance and active participation in class and seminars.	15%	0	0	14, 1, 3, 2, 11, 10, 13, 12, 15

Oral defense	10%	0	0	14, 1, 3, 2, 11, 10, 13, 12
Theory-written evaluation	25%	0	0	14, 1, 3, 2, 7, 5, 4, 9, 8, 6, 10, 13, 12, 15
Written evaluation through objective tests of alternate answer.	50%	0	0	3, 7, 5, 4, 9, 8, 6

Bibliography

Specific Bibliography:

FAGOAGA, J. *Fisioterapia práctica en pediatría*. Barcelona. McGraw-Hill, 2005

GASSIER, J. *Manual del desarrollo psicomotor del niño*. Barcelona: Masson, 1996

LE METAYER, M. *Reeducación cerebromotriz del niño pequeño*. Barcelona: Masson, 2001

MACIAS, L., FAGOAGA, J. *Fisioterapia en pediatría*. Barcelona: Ed. Médica Panamericana, 2018

SERRA GABRIEL, DIAZ PETIT, DE SANDE CARRIL. *Fisioterapia en neurología, sistema respiratorio, y aparato cardiovascular*. Barcelona: Ed. Masson, 2005

STAHOLI, L. T. *Ortopedia pediátrica*. Madrid: Marban Libros, 2003 TACHDJIAN. *Ortopedia pediátrica* 4 vol. Barcelona: Interamericana, 1990

Bibliografía de consulta

BOBATH, B., BOBATH, K. *Desarrollo motor en distintos tipos de parálisis cerebrales*. Buenos Aires: Panamericana, 1997

BRAZELTON, T. B. *Escala para la valoración del comportamiento neonatal*. Barcelona: Paidós, 1997

CRUZ, M., BOSCH, J. *Atlas de síndromes pediátricos*. Barcelona: Espax, 1998

DE PABLOS, J., GONZÁLEZ HERRANZ, P. *Apuntes de fracturas infantiles*. Madrid: Hergon, 2001

GONZÁLEZ VIEJO, COHO RIAMBAU, SALINAS CASTRO. *Escoliosis. Realidad tridimensional*. Barcelona: Masson 2001

LEVITT, S. *Tratamiento de la P.C. y del retraso motor*. Madrid: Panamericana, 2001

LEONHART, M. *El niño ciego*. ONCE

PONCES J. *Paràlisi cerebral infantil*. Barcelona: Generalitat de Catalunya. Departament de Benestar Social, 1991

SOYEZ-PAPIERNIK, E. *Comprendre la rééducation des anomalies du développement*. Paris: Masson; 2005

Internet resources:

Ortopedia en niños <http://www.patient.co.uk/doctor/Orthopaedic-Problems-in-Childhood.htm>

Tortícolis congénita

http://journals.lww.com/jcraniofacialsurgery/Fulltext/2005/03000/Treatment_of_Recalcitrant_Idiopathic_Muscular.

<http://www.pediatriceducation.org/2008/12/15/file:///C:/pubmed/12101935>

<http://www.pediatriceducation.org/2008/12/15/>

Parálisis cerebral http://sinu.unisinu.edu.co/investigacion/revistas_en_pdf/medicina/puntaje_de_apgar.pdf