



LITHUANIAN SPORTS UNIVERSITY

STUDY MODULE PROGRAMME (SMP)

| | | | | | | | | | | | |
|-------------|-------------------|-----|--------|-------------|------------------|--|--|--|--------------|--|--|
| Module Code | B | 710 | B | 100 | Accredited until | | | | Renewal date | | |
| | Branch of Science | | Progr. | Registr. №. | | | | | | | |

Entitlement

Physiotherapy in Obstetrics, Gynaecology and Paediatrics

Prerequisites

Anatomy, physiology, basics of physiotherapy.

Course (module) Learning Outcomes

| №. | Learning Outcomes | Teaching / Learning Methods | Assessment Methods |
|----|---|--|--|
| 1 | To have a framework for clinical reasoning, based on the knowledge of biomedical sciences | Formal lecture | Seminar, Test |
| 2 | To collect, analyze and critically interpret a patient, client-related subjective and objective information. | Exercise classes, Practical exercises (tasks) | Problem-solving task, Test |
| 3 | To set physical therapy diagnosis and physical therapy needs, based on the information gathered, research analysis and critical interpretation. | Exercise classes, Formal lecture, Problem-based learning | Background reading, Problem-solving task, Test |
| 4 | To establish physical therapy intervention plan based on physical therapy diagnosis. | Exercise classes, Formal lecture, Scientific paper analysis | Group work, Paper |
| 5 | To be able to modify the procedure in the light of the continuous evaluation of the results and to stop it, if such a need is determined. | Exercise classes, Formal lecture, Practical exercises (tasks) | Reporting for practice work, Test |
| 6 | To communicate with patients, clients and other related persons in accordance with the general and medical ethics, moral and legal norms. | Exercise classes, Problem-based learning, Problem-solving sessions | Reporting for practice work, Test |
| 7 | To plan and execute physical therapy examination based on clinical hypothesis. | Case analysis (Case study), Exercise classes, Formal lecture, Problem-based learning | Case analysis (study), Reporting for practice work, Test |

Main aim

To introduce students with the etiology, pathogenesis, and clinical manifestations of diseases in obstetrics, gynaecology and pediatrics, and help to master physiotherapy in those patients.

Summary

The methods and means of Physiotherapy on the patients with gynaecological diseases, in obstetrics and pediatrics. Common gynaecological conditions. Physical and physiological changes of labour. General objectives of physiotherapy and plan of the treatment. Child's Motor development, reflexes, functional movements and motor skills. Movement disorders in Children. Peculiarities of physiotherapy in Pediatrics.

Level of module

| | | |
|--------------------|----------|--|
| Level of programme | | Subject group (under the regulation of the area) |
| Cycle | Type | |
| First | Bachelor | |

Group under financial classification

9.Reabilitacija ir slauga, sportas (išskyrus trenerius)

Syllabus

| №. | Sections and themes | Responsible lecturer |
|------|--|----------------------|
| 1. | Gynaecology. | |
| 1.1 | Urogenital system of man and woman. Diseases of sexual organs. | |
| 1.2 | Physiological periods of woman life . Menopause. | |
| 1.3 | Impairments related to weakness of pelvic floor muscles. | |
| 1.4 | Women's health. Strengthening of | |
| 1.5 | Exercise with Gymballs for pelvic floor muscles. | |
| 1.6 | Examination of urogenital system. Physiotherapy. | |
| 1.7 | Examination of patients with urinary incontinence. King's questionnaire. Exercise. | |
| 2. | Obstetrics. | |
| 2.1 | Obstetrics. Fertilization. Pregnancy. Physiology, diagnosis, and periods of pregnancy. Body changes of pregnant woman. | |
| 2.2 | Pathologies related to pregnancy. Toxicosis. Physiotherapy. | |
| 2.3 | Delivery, its stages. Postpartum, physiotherapy. | |
| 2.4 | Measurements of pregnant women. Exercise - indications and contraindications. | |
| 2.5 | Positions to facilitate the discomfort of pregnancy. Exercise during pregnancy. Indications and contraindications. | |
| 2.6 | Pregnancy-related pathology. | |
| 2.7 | Physiotherapy during postnatal period. Indications and contraindications for exercise. | |
| 3. | Paediatrics. | |
| 3.1 | Neonatology. Prematurity. | |
| 3.2 | Growth, development, and maturation. Principles of motor development. Neonatal and infant reflexes. | |
| 3.3 | The motor development of the form. Motor Age. Motor coefficient. Developmental retardation and physiotherapy | |
| 3.4 | Genetically inherited disease. | |
| 3.5 | Orthopedic disease in children. Torticollis, spinal deformities, legs' deformities. | |
| 3.6 | Respiratory problems in children and physiotherapy. | |
| 3.7 | Metabolic disorders in children. Rachitis, CD, obesity. | |
| 3.8 | Neurological diseases in children. | |
| 3.9 | Preterm, term, post term babies. | |
| 3.10 | Reflexive exercise. assessment of reflexes. | |
| 3.11 | Promotion of motor development. Passive exercise. Massage for infants and children. | |
| 3.12 | Active exercises for babies and children. General and special motor abilities. | |
| 3.13 | Muscle testing in children. | |
| 3.14 | Torticollis, evaluation, physiotherapy. | |
| 3.15 | Leg deformities | |
| 3.16 | Gaming. Safe exercises for children. | |
| 3.17 | Spinal deformities. Improper posture. | |
| 3.18 | Muscle dystrophies. Rett syndrom. | |
| 3.19 | Cystic fibrosis. Bronchial asthma. | |
| 3.20 | Hip dysplasia. | |
| 3.21 | Muscle dystrophy, physiotherapy. | |
| 3.22 | Hydrocephalus. Epilepsy. | |
| 3.23 | Autism spectrum disorders. | |
| 3.24 | Haemophilia and physiotherapy. | |
| 3.25 | Down syndrom. | |
| 3.26 | Spina bifida. | |

| №. | Sections and themes | Responsible lecturer |
|------|--|----------------------|
| 3.27 | Fetal alcohol syndrom. Newborn abstinence syndrom. | |
| 3.28 | Traumatis in children. | |
| 3.29 | Obesity in children, physiotherapy. | |
| 3.30 | CP. | |
| 3.31 | Cancer in children. Burns. | |
| 3.32 | Summary of the course. | |

Evaluation procedure of knowledge and abilities:

References

| №. | Title | Edition in Lithuanian Sports University library | | In Lithuanian Sports University bookstore | Number of ex. in the methodical cabinet of the depart. |
|----|---|---|---------------------|---|--|
| | | Pressmark | Number of exemplars | | |
| 1. | Mante J., Haslam J., Barton S. Physiotherapy in Obstetrics and Gynaecology. Butterworth Heinemann, 2019 (first ed.2004) | | | Yes | 1 |
| 2. | Campbell S.K., Linden D.W., Palisano R.J. Physical Therapy for Children. W.B. Saunders Company, 2012 | 615.8 Ph-09 | 1 | Yes | 1 |
| 3. | Irion JM., Irion GL. (2010). Women's Health in Physical Therapy. Lippincott Williams & Wilkins. | | | No | 1 |
| 4. | Goodway, J. D., Ozmun, J. C., & Gallahue, D. L. (2019). Understanding motor development: Infants, children, adolescents, adults. Jones & Bartlett Learning. | 0080059707 | 1 | No | 1 |

Additional literature

| №. | Title |
|----|--|
| 1. | Anatomijos atlasai ir anatomijos vadovėlis. |
| 2. | Goodway, J. D., Ozmun, J. C., & Gallahue, D. L. (2019). Understanding motor development: Infants, children, adolescents, adults. Jones & Bartlett Learning. |
| 3. | Dumoulin, C., Cacciari, L. P., & Hay-Smith, E. J. C. (2018). Pelvic floor muscle training versus no treatment, or inactive control treatments, for urinary incontinence in women. Cochrane database of systematic reviews, (10). |
| 4. | Woodley, S. J., Boyle, R., Cody, J. D., Mørkved, S., & Hay-Smith, E. J. C. (2017). Pelvic floor muscle training for prevention and treatment of urinary and faecal incontinence in antenatal and postnatal women. Cochrane Database of Systematic Reviews, (12). |
| 5. | Anderson, G., & Medina, S. R. B. (2019). Autism Spectrum Disorders: Role of Pre-and Post-Natal GammaDelta ($\gamma\delta$) T Cells and Immune Regulation. Current pharmaceutical design. |
| 6. | Macias, C. G., & Gan, V. (2017). Congenital muscular torticollis: Clinical features and diagnosis. UpToDate. |
| 7. | Harris, S. T., Liu, J., Wilcox, S., Moran, R., & Gallagher, A. (2015). Exercise during pregnancy and its association with gestational weight gain. Maternal and child health journal, 19(3), 528-537. |
| 8. | Mateo, F., Soria-Olivas, E., Carrasco, J. J., Bonanad, S., Querol, F., & Pérez-Alenda, S. (2018). HemoKinect: a microsoft kinect V2 based exergaming software to supervise physical exercise of patients with hemophilia. Sensors, 18(8), 2439. |
| 9. | Carter, K., Sunderman, S., & Burnett, S. W. (2018). The effect of vestibular stimulation exercises on balance, coordination, and agility in children with Down syndrome. American Journal of Psychiatry and Neuroscience, 6(2), 28-32. |

| №. | Title |
|-----|---|
| 10. | Chen, Y., Fanchiang, H. D., & Howard, A. (2018). Effectiveness of virtual reality in children with cerebral palsy: a systematic review and meta-analysis of randomized controlled trials. <i>Physical therapy</i> , 98(1), 63-77. |
| 11. | Størvold, G. V., Jahnsen, R. B., Evensen, K. A. I., & Bratberg, G. H. (2020). Is more frequent physical therapy associated with increased gross motor improvement in children with cerebral palsy? A national prospective cohort study. <i>Disability and rehabilitation</i> , 42(10), 1430-1438. |
| 12. | Flemban, A., & Elsayed, W. (2018). Effect of combined rehabilitation program with botulinum toxin type A injections on gross motor function scores in children with spastic cerebral palsy. <i>Journal of physical therapy science</i> , 30(7), 902-905. |
| 13. | Kaplan, S. L., Coulter, C., & Sargent, B. (2018). Physical therapy management of congenital muscular torticollis: a 2018 evidence-based clinical practice guideline from the APTA Academy of Pediatric Physical Therapy. <i>Pediatric Physical Therapy</i> , 30(4), 240-290. |
| 14. | American Diabetes Association. (2018). 12. Children and adolescents: standards of medical care in diabetes—2018. <i>Diabetes Care</i> , 41(Supplement 1), S126-S136. |
| 15. | Ospina, P. A., McComb, A., Wiart, L. E., Eisenstat, D. D., & McNeely, M. L. (2018). Physical therapy interventions, other than general physical exercise interventions, in children and adolescents before, during and following treatment for cancer. <i>Cochrane Database of Systematic Reviews</i> , (1). |
| 16. | Gorgon, E. J. R. (2018). Caregiver-provided physical therapy home programs for children with motor delay: a scoping review. <i>Physical therapy</i> , 98(6), 480-493. |
| 17. | Brandão, M. B., Mancini, M. C., Ferre, C. L., Figueiredo, P. R., Oliveira, R. H., Gonçalves, S. C., ... & Gordon, A. M. (2018). Does dosage matter? A pilot study of hand-arm bimanual intensive training (habit) dose and dosing schedule in children with unilateral cerebral palsy. <i>Physical & occupational therapy in pediatrics</i> , 38(3), 227-242. |
| 18. | Fosdahl, M. A., Jahnsen, R., Pripp, A. H., & Holm, I. (2020). Change in popliteal angle and hamstrings spasticity during childhood in ambulant children with spastic bilateral cerebral palsy. A register-based cohort study. <i>BMC pediatrics</i> , 20(1), 1-9. |
| 19. | Akhbari Ziegler, S., Dirks, T., & Hadders-Algra, M. (2019). Coaching in early physical therapy intervention: the COPCA program as an example of translation of theory into practice. <i>Disability and rehabilitation</i> , 41(15), 1846-1854. |
| 20. | Hadders-Algra, M., Tacke, U., Pietz, J., Rupp, A., & Philippi, H. (2019). Standardized Infant NeuroDevelopmental Assessment developmental and socio-emotional scales: reliability and predictive value in an at-risk population. <i>Developmental Medicine & Child Neurology</i> . |

Coordinating lecturer

| Position | Degree, surname, name | Schedule №. |
|---------------------|-----------------------|-------------|
| Associate Professor | | 43 |

Subdivision

| Entitlement | Code |
|-------------|------|
| a | 2006 |

Study module teaching form №. 1

| Semester | Mode of studies | Structure | | | | Total hours | Credits | |
|----------|-----------------|-----------|----------|-----------|-----------|-------------|---------|----|
| | | Theory | Seminars | Lab Works | Ind. work | | | |
| A | S | D | 16 | 6 | 26 | 212 | 260 | 10 |

Languages of instruction:

| | | | | | | | | | | | |
|------------|---|---------|---|---------|---|--------|---|--------|---|-------|------|
| Lithuanian | L | English | E | Russian | R | French | F | German | G | Other | Oth. |
|------------|---|---------|---|---------|---|--------|---|--------|---|-------|------|

Plan of in-class hours

| №. of Themes | Academic hours | | | №. of Themes | Academic hours | | |
|--------------|----------------|----------|-----------|--------------|----------------|----------|-----------|
| | Theory | Seminars | Lab Works | | Theory | Seminars | Lab Works |
| 1.1 | 1 | 0 | 0 | 3.10 | 1 | 0 | 0 |
| 1.2 | 1 | 0 | 0 | 3.11 | 0 | 0 | 1 |

