

Period of Study: 1 year.

Method of Sampling: Conveniently selected oldage homes in urban area of Thiruvananthapuram district.

Methodology: Study to be conducted using self developed Proforma and Questionnaires by Interview method.

Outcome Measures: SF36 QOL Questionnaire: It is a generic measure which consists of 36 questions spanning 8 domains. It has been validated for geriatric population.

Barthel Index: It is to assess the level of functional independence/dependence for ten Activities of Daily Living (ADLs) primarily related to personal care and mobility. It tests ten ADLs including the ability to independently feed oneself, bathe, groom oneself, control of bowels and bladder, toilet use, transfers, mobility on level surfaces and stairs. It has a point value for each section. A higher score means the patient is more independent.

O9

Study to assess the role of peripheral exercise in rehabilitation of C.O.P.D patients

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Introduction: C.O.P.D is characterized by irreversible airflow limitation. Despite the availability of a host of medications a C.O.P.D patient suffers from physical disability ranging from mild exercise intolerance to limitation of ADL.

Type of study: Prospective case control study.

Place of study: S.N.P.Hospital Kolkata.

Methodology: The study was conducted on 40 patients of C.O.P.D who fell in 2nd stage of GOLD criteria, to assess the role of peripheral exercise in rehabilitation. The patients were divided in two groups of 20 each.

The groups received the following treatment regimen:-

GROUP 1:

- Drugs
- Specific chest exercises.
- Occupational therapy.
- Nutritional supplementation.

GROUP 2:

- Drugs
- Specific chest exercises.
- Peripheral exercises.
- Occupational therapy.
- Nutritional supplementation.

Subjects reported to the training facility three times a week for 1.5 hrs each session. The total duration of training of each subject was 8 weeks.

Result analysis: Results were analyzed by comparing the BODE index of patients before the beginning of programme with that of after completion of 8 weeks of programme.

Result: Result showed a better improvement in BODE index of the second group in comparison to that of the first group.

Conclusion: The findings of this study relates to short term impact of peripheral exercise on the activity of c.o.p.d patients &

may contribute to improving programmes by addressing patient needs.

Keywords: C.O.P.D, Pulmonary rehabilitation, Peripheral exercises.

O10

Differently abled in the service of the differently abled

Sundar S

Objective: To explore and implement a new model of vocational rehabilitation in which hearing impaired children are trained to make ocular prosthesis

Methods: Freedom trust nurtures exceptionally talented hearing and speech impaired children and gives them a scholarship to develop their talents. Some of these children have become excellent artists and five of our artists have received National awards. These differently abled children need to take up a profession after the skills have been imparted.

An artificial eye is a cosmetic aid which improves the appearance without any vision. People who have lost their eye either due to injury or tumor or any blind shrunken eye are ideal candidates for artificial eye fitting. Making an artificial eye needs a lot of painting, involves many procedures and takes about 8 hours to complete one shell. Children who are good at art and who are differently abled are trained by a senior ocularist for one year and after the training they have been absorbed into a sheltered work shop where they make ocular prosthesis under supervision.

Results: Over the last one year, since inception 55 patients have been given ocular prostheses and are well integrated with their new eyes. The uniqueness of this new approach is that differently abled children who have outstanding talent in art are vocationally trained and placed in a sheltered workshop where patients with visual disability are cosmetically rehabilitated.

O11

Power wheelchair for all in need-towards accomplishment of a vision

Anees Javed

We a group of professionals including a doctor-Physiatrist, Alumni of Calicut Medical College and engineers-who are eminent professors and Students at National Institute of Technology, Calicut have decided to build a movement for making millions of differently abled person's life better via science and technology incorporated with our social and cultural values. We want to concentrate on issues faced by our physically challenged brothers and sisters who are also challenged by money from accessing technology for their pride and survival. Now we are successful in making worlds cheapest but efficient power wheel chair which we want to provide to the needy after assessing the familial and disease condition with the help of Disabled Persons Organizations, Palliative Care Units and Other NGOs.

This study is regarding cost effectiveness of the Power Wheel Chairs we made and a chance to live demonstrate this power wheel chair will be inspirational to my fellow Physiatrists

Study setting: Palliative care Unit, Ponnani, THQH and National Institute of Technology, Calicut.

Objectives of investigation: To construct a power wheel chair which is cheapest and efficient

Methods used: 1) Cost comparison study; 2) Functional Evaluation of Wheel Chair Questionnaire :Using this validated questionnaire we have assessed patient satisfaction and functional ability in comparison with those using our wheel chairs with that of another company wheel chair with similar specifications

Results: Cost of our wheel chair was only 20%-33% of other similar companies while patient satisfaction was comparable with the compared wheel chair-on pilot study with 5 persons.

Our study is ongoing one and hopefully we expect better result as we modify our wheel chair and make it of custom moulded fashion

Conclusion: This study will be completed by dec31 this year which completes the second stage of our research development. With indigenous material and proper scientific attitude we can make quality assistive devices at very cheap cost.

Keywords: Power wheel chair, Assistive technology, Low cost, Functional evaluation of wheel chair questionnaire

O12

Nutritional status of adolescent children with reference to prevalence of obesity in a Chandigarh school – a pilot study

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Aims: To estimate the prevalence of Obesity in adolescents attending school in the north Indian city of Chandigarh.

Research Design and Methods: A Pilot Project was undertaken on total of 75 adolescents (Boys/Girl= 42/33) attending a private school (aged 11-15 years) participated in a community-based cross-sectional survey. Anthropometric examination included height, weight, body mass index, waist circumference, hip circumference, waist-hip ratio and blood pressure measurement. Socio-demographic characteristics and Lifestyle parameters were investigated using a questionnaire. Nutritional status in terms of BMI, was determined, using Centre for Disease Control (CDC), USA, BMI for Age percentile charts.

Results and conclusions will be shared in the presentation.

O13

Role of physical activity and dietary measures in addition to calcium and vitamin D supplementation in the prevention of osteoporosis in postmenopausal women

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Background: Inadequate physical activity and dietary intake of calcium and vitamin D contribute to the high prevalence of osteoporosis among elderly women. The purpose of this study was to find out the relation of diet, physical activity and calcium, vitamin D3 to bone mineral density in postmenopausal women and to assess

their effects in the prevention of osteoporosis in postmenopausal women.

Methods: We screened elderly postmenopausal women (age >50 years) without any co-morbidities (subjects N=73) on OPD basis for bone mineral density (using DEXA scan of 3 sites spine, hip and neck of femur and total body). On the basis of detailed present and past history of diet (calcium content), physical activity levels (using duration and type of activity as per GPPAQ general practice physical activity questionnaire) and laboratory tests (serum calcium, serum phosphorus, vitamin D3 levels), we identified effects of each of them on bone mineral density (age matched Z scores). The subjects were then classified into 2 groups A and B. Group A (N=23) included osteoporotic subjects (BMD T<-2.5) and Group B (N=50) included osteopenic subjects (BMD T>-2.5). All subjects were given dietary advice and asked to practice regular physical activity including exercises along with rich diet supplemented with 500 mg of calcium plus 700 IU of vitamin D (cholecalciferol) per day. Bone mineral density (age matched Z scores) was measured by dual-energy x-ray absorptiometry every twelve months.

Result: The correlation between physical activity, calcium, vitamin D3 levels and bone mineral density was determined by regression analysis. The strongest association was found between stair climbing and walking speed and duration of weight bearing activities and hip (femur) total body bone mineral densities.

Conclusion: The positive association between stair climbing and walking speed and duration of weight bearing activities and hip (femur) cortical bone measures in postmenopausal women may indicate a lifestyle factor in addition to calcium and vitamin D3 supplementation that can help prevent bone loss. Given the significantly greater hours per week of weight bearing physical activity done by subjects, duration is an important determinant of the effect physical activity has on bone.

Keywords: General Practice Physical Activity Questionnaire, bone mineral density

O14

Obesity and depression—are they related....?

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Background: Obesity and depression –both are common clinical conditions with important deleterious effects on health outcomes. Strong evidence suggests their association with functional limitations. Hence, a study was taken up to assess the relation between obesity and depression.

Study design: Descriptive study.

Objectives: To study the prevalence of depression in obesity and to assess if there is an association between the two conditions.

Setting: Lifestyle disease management clinic, Dept. of PM&R, Medical College, Calicut

Methods: Anthropometric measures were taken, BMI calculated by dividing the subject's weight in kilograms by the square of his or her height in metres. Depression was assessed using PHQ [Patient Health Questionnaire]. Statistical analysis was done using spss16 software.

Results and conclusions: Prevalence of depression was found to be more amongst the obese compared to those with a normal BMI. There was found to be a significant association between obesity and depression. [p value <0.05]. Thus, it is important to evaluate