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Australia has an electricity mains supply that differs from those of most countries. Safety standards relating to both the mains supply and mains-powered apparatus also differ. This paper describes the mechanism of electric shock and methods of shock protection - core-balance relays, protected earth-free supplies and equipotential earthing are considered. Australian safety standards as applied to earthed mains-powered apparatus are summarized. Particular attention is given to class A and B treatment areas and electromedical apparatus having a patient circuit. Class A, B and Z patient circuits are described.

Keywords: Electric Stimulation Therapy; Electricity; Physical Therapy


The application of hydrocollator packs carries an inherent danger of overheating, which must be avoided. While a variety of temperatures and coverings for the packs has been reported, it has been stated that a bright red skin colour may be indicative of skin damage. It has also been stated that a therapeutically desirable rise in skin temperature would be one to over 40 degrees C during the treatment. In this study hydropack applications to the lumbar region of the back were assessed for onset of sensation after application, and at intervals thereafter for skin temperature, skin colour, and subjective sensation of warmth. The lack of co-relation found between these variables suggests that in clinical work in observation of the skin and also a subjective report, should be obtained at frequent intervals for at least the first nine minutes after application. The need for a rise in skin temperature above 40 degrees C is questioned.

Keywords: Heat; Skin; Thermal Conductivity


Eighteen months after the completion of their training in 1978, 62 per cent of BAppSc (Cumberland) graduates in physiotherapy responded to a questionnaire investigating their work experiences, attitudes and plans. All except 8 per cent were currently employed, and 15 per cent had experienced involuntary unemployment. Satisfaction with the job and career choice was high but there was least gratification regarding work aspects considered the most important. The most frequently cited work stressors were feelings of inadequacy, depression and irritation regarding patients and work overload. The majority of graduates planned to specialise and undertake further study. Many were undecided in their attitudes toward their profession and 39 per cent had not joined the Association. Some attitude changes had occurred since graduation.

Keywords: Career Choice; Employment; Physical Therapy; Work


As educational services accept responsibility for the provision of appropriate education for a wider range of disabled children, therapists and other support personnel will increasingly be called upon to work in an educational model. Team approaches - multidisciplinary, interdisciplinary or
transdisciplinary - provide effective ways of organising staff to service the educational system. The therapists and other support professionals within the teams may work in at least three ways: traditionally; as a consultant; or as a resource person/information source. The advantages and disadvantages of each role are discussed.
Keywords: Child Health Services; Education; Handicapped


A condition described as transient dystonia which may have long term effects on the development of prematurely born infants has been reported in the literature. This study investigated the significance of this condition in 85 high risk infants. The infants were divided into those displaying dystonic and non-dystonic features at four months after expected date of delivery. Neuro-sensory motor status and the developmental quotient of each infant were assessed at 4, 12 and/or 18 months. The condition was present in 22 per cent of the group and developmental deviations were more marked in infants identified as dystonic compared with the non-dystonic. An increased percentage of normal responses by 18 months suggested that the condition may be transient. Implications for physiotherapy involve the recognition and selective treatment of dystonic infants.
Keywords: Child Development; Infant; Infant, premature; Psychomotor Disorders


The hyperkinetic syndrome is a feature of present times. This paper gives a brief survey of literature concerning the problem together with some details about causes, treatments, and methods of assessing the quantity and quality of the excessive movement. Although physiotherapists cannot treat the basic causes, they may give assistance by assessing the nature of the excessive movement and explaining this to teachers and parents, as well as helping with any co-existing clumsiness.
Keywords: Child Behavior; Child Behavior Disorders; Child Development; Hyperkinesis


Two hundred and thirty-eight preschool children were divided into four groups according to the method of referral. Chi-square analysis following a clinical examination in the preschool showed highly significant differences between the groups, particularly in proprioceptive, vestibular and related functioning. Achievement and classroom behaviour in Grade 1, examined in a structured teacher interview, showed highly significant differences between the groups in general performance, English, mathematics, general knowledge and behavioural characteristics. Formal educational assessment in Grade 2 indicated a similar pattern, except that children referred by guidance and medical officers (group 4) deteriorated, and randomly sampled children with vestibular and proprioceptive dysfunction on the preschool examination (group 2) improved.
Keywords: Child Behavior; Child Behavior Disorders; Child Development

An objective test of hand function, standardised for adults in the USA, has been adapted and standardised for the normal adult population of the Brisbane metropolitan area. Test items have been chosen to correspond as accurately as possible with the original test items, and all are readily available. The Australian version is quick to administer, and comprises eight test items, chosen to provide a broad sampling of hand function. Percentile norms are provided for dominant and non-dominant hands for men and women in various age-groups, ranging from 16 to 90 years.

Keywords: Activities of Daily Living; Hand; Handicapped


The two purposes of this paper relate to Man in or beyond his fifth decade. The first purpose is to detail the 'abnormalities' which can be found by palpation examination of the cervical spine posteriorly, and the second is to try to explain what the finds indicate. The “ideal” spine, the “abnormal” spine and three groups of the “average” spine are defined.

The method of examining the cervical spine by palpation techniques is detailed. Discussion centres around what is normal for an ideal spine and the average spine and what it is that changes when the average spine becomes “abnormal”. The associated “new” and “old” tissue changes are discussed in relation to the common findings in the upper, middle and lower cervical spine.

Keywords: Cervical Vertebrae; Palpation; Spine


This paper considers some of the developments in knowledge and understanding of the phenomenon of pain. The “pain-gate” theory and the descending pain suppression mechanisms are mentioned briefly. A number of mechanisms are suggested whereby interferential therapy may relieve pain. A brief description of the interferential stimulus and its potential for utilising the mechanisms described in earlier sections is given. suggestions are made concerning the frequencies used for gaining this pain relieving effect.

Keywords: Electric Stimulation Therapy; Pain; Nervous System


School screening of adolescents reveals a high prevalence of mild rotational deformity. The objective of screening is to prevent serious deformity by regular review of these children, early recognition of progression and provision of spinal bracing for curves greater than 25 per cent. Two per cent of students screened in the age range 11-13 years have curves greater than 10 per cent but only two per thousand screened require active treatment. A program of exercise combined with bracing until skeletal maturity is reached obviates the need for major surgery. Indications for follow-up and treatment are reviewed, and some current concepts of the aetiology of idiopathic scoliosis are examined with particular emphasis on the relationship between scoliosis and growth.

Keywords: Exercise; Musculoskeletal Diseases; Scoliosis; Spine

Birth experiences of 94 primiparous women who had attended birth preparation classes, were compared to a control group of 22 women of similar age and parity who had not attended classes. The results revealed that in contrast to the control group, women who had attended classes were of higher socioeconomic status, were more likely to have the child's father present at birth, felt more prepared for the birth, and were somewhat more positive to the idea that women should have a choice between home birth and hospital birth. However, there were not differences between the groups regarding the frequency of interventions in labour, the length of the labour, the pain experienced and their feelings of satisfaction. Thus, no substantial effect of childbirth education was evident in the management and experiences of the birth.

Keywords: Labor; Pregnancy; Prenatal Care


A study was conducted to look into the characteristics of back pain among pregnant upper class Nigerian women and to examine the reducing influence of antenatal physiotherapy. Of the 99 subjects who completed the questionnaire, 52 had attended antenatal physiotherapy and 47 had not. The results showed that a total of 89 (89.8 per cent) had experienced back pain within the “very mild” to “severe” range; onset of pain was usually around the sixth and seventh month of pregnancy and was mostly felt in the evening. Increasing parity and age seemed to be associated with increasing back pain. Pain was aggravated by tiredness, and about one third of the subjects obtained relief by placing a small pillow behind their back when sitting. Subjects who attended antenatal physiotherapy fared significantly better than those who did not as regards the prevalence of back pain.

Keywords: Backache; Pain; Pregnancy


Inter-observer and intra-observer reliability tests have been investigated for the passive ranges of glenohumeral abduction, lateral rotation with arm by the side and both lateral and medial rotation with the upper arm abducted to 90 degrees, using the hydrogoniometer. This device allows accurate quantification of glenohumeral movement and is most appropriate for the physiotherapy profession as an inexpensive, simple measuring device.

Keywords: Joints; Movement; Shoulder


Non-verbal behaviour forms the major part of communication; responses in interactions are based on the subconscious perception and interpretation of non-verbal messages. Through intuition and experienced, most physiotherapists develop the skills necessary to aid their understanding of the behaviour and responses of patients. Increased awareness of non-verbal skills and the importance of their use will enhance both the physiotherapist-patient relationship and the quality of treatment. This paper discusses the relevance of these skills and the rationale for their implementation in a professional setting.
Keywords: Emotions; Nonverbal Communication; Professional-Patient Relations


A physiotherapy stroke audit was conducted over a twelve month period on all stroke patients discharged from the rehabilitation wards of the Bendigo Home and Hospital for the Aged meeting the criteria. The audit methods is described. Analysis of results revealed problem areas in documentation, outcome, complications and integrated care. A second audit was done over the following six months to assess the value of physiotherapy measures taken to improve outcome and integrated care and to lessen complications. A third audit is in process to accumulate objective information regarding stroke outcome and to test the effectiveness of a physiotherapy project to improve integrated care.

Keywords: Aged; Cerebrovascular Disorders; Rehabilitation


That physiotherapists recognise that need to pursue their professional knowledge is reflected in the large number of educational courses available. However, we know little of the involvement of the physiotherapy population in these programs, or whether behavioural change is occurring as a result of participation. Many of the problems associated with continuing education are explored, particularly in the area of participation, motivation, isolation, and design of programs. Some possible solutions are offered, together with suggestions for future programs, designed to overcome these hypothetical problems. Above all, the author stresses the need for objective information as a pre-requisite for planning successful continuing education programs.

Keywords: Education; Education, medical; Education, medical, continuing


In-service education is one component or method of continuing education. This paper discusses the development of an in-service training program for intern physiotherapists which is being conducted at the Prince Henry and Prince of Wales Hospitals in Sydney. The basic philosophy behind the program is the proposition that the intern year for physiotherapists should be both a year of service and a total learning experience aimed at providing a transition between student training and independent professional responsibilities and capabilities. Accordingly the program was planned to provide training for the interns which would assist them in developing clinical expertise in the task of a junior physiotherapist. The program is proving to be a useful component of the overall learning experiences available to the 19 intern physiotherapists who are allocated to these hospitals each year.

Keywords: Education, medical; Education, medical, continuing; Inservice Training


Officials from nine of the 12 Sydney first grade Rugby League football clubs were interviewed to
determine what their clubs offered their athletes regarding sports injury management. This survey describes the different personnel used by the clubs, and their roles in injury treatment and physical conditioning programs. It is concluded that some clubs are advancing in the areas of immediate injury treatment and injury prevention, but that the majority have deficiencies in their programs related to these areas. It is also suggested that sports medical care and knowledge in this and similar sports would benefit by a greater involvement of a wider range of health professionals, to add to that already provided by medical doctors. Keywords: Athletic Injuries; Sports; Sports Medicine


Leprosy in the past has been shrouded in mystery and characterised by deformity. While much more is known of the disease today, allowing the majority of patients to be treated without undue difficulty, physiotherapy in leprosy has grown out of a need to prevent, minimise and correct deformities caused by the disease. This paper presents the aetiology of deformity in leprosy and outlines the role of physiotherapy in the management of leprosy patients with neuritis and permanent paralysis. It also describes physiotherapy in tendon transfer surgery and emphasises the need for a domiciliary treatment program to suit the leprosy endemic areas in the Northern Territory of Australia. Keywords: Abnormalities; Leprosy; Neuritis; Paralysis