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Goiter and hypothyroidism among elementary school children in lowland agricultural area, Brebes district Indonesia (Article)

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Abstract

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The most common cause of goiter is the lack of iodine intake and usually occurs in many communities in upland areas. Pesticides are widely used in the agricultural area, and it was probably the cause of goiter. This research is aimed to identify goiter and hypothyroidism among elementary school children in lowland agricultural areas. Cross-sectional study recruited sample of 100 children aged 9-12 years old from three elementary schools in Brebes District, Indonesia. Goiter existence determined by palpation of a trained nutritionist; level of thyroid stimulating hormone (TSH) measured with mini vidas test kits; and Urinary Iodine Concentration (UIC) measured with acid digestion method. Univariate and bivariate data analysis (Chi-square test, risk estimate) were applied. Proportion of goiter and hypothyroidism was 53.0% and 17.4% respectively. Median UIC was 346 µg/dL. Proportion of goiter in the children whose fathers were farmer and non-farmer was 80,8% and 43,2% respectively (p=0.002; Prevalence Ratio=1.9; 95% CI=1.3-2.6). The proportion of hypothyroidism in the children whose fathers were farmers (29.4%) tends to be higher than non-farmers (13.5%). However, there was no significance difference proportion of hypothyroidism in both group (p=0.255; Prevalence Ratio=2,2; 95% CI=0.8-6.0). © 2018, Indian Journal of Public Health Research and Development. All rights reserved.

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Measure Effectiveness of Different Approaches of Patient Education in Rehabilitation Services

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ABSTRACT

Introduction: Patient education is an important aspect in rehabilitation area. Effective patient education can increase compliance of medical treatment regime and hence early recovery. The study was conducted as there is paucity of data with respect to effectiveness of different approaches to patient education in rehabilitation.

Objective: To measure effectiveness of different approaches of patients' education.

Materials and Method: This cross sectional and qualitative study were conducted among 345 adult patients who sought rehabilitation services from rehabilitation department at KAMC. Using purposive sampling method. Data were collected by using suitably standard questionnaire that was developed by Research Center of Stanford University School of Medicine with necessary modification to protect cultural sensitivity of Saudi Arabia and were analyzed by SPSS (version 22). Frequencies and percentages were used to analyze the data.

Results: Majority (78%) of therapists use practical aspect of patient education and was observed as most preferred type of patient education method as reported by the respondents (76.8%) followed by oral instructions (26.4%), videos/picture (15.9%) and handout (13.6%).

Conclusion: The different approaches followed in the hospital were handouts (written materials), video/picture, oral instructions and practical approach (demonstrations). The study indicated that practical aspects of patient education is most effective and most preferred practiced patient education approach in rehabilitation area.

Keywords: Patient education, Rehabilitation, Oral instructions, Videos/picture. Handout

INTRODUCTION

There are different approaches of educating the patients such as visual, auditory and kinesthetic approaches. The selection of a particular approach depends on the lifestyle and health condition of the patient. Engagement of patients in education rise their performance, satisfaction and coping skills⁴. Visual approach uses visual aids that can help the patients to make a picture in their mind about what they are being

taught⁸. For health care team charts, videos, pictures, even gestures and symbols to make the patient understand about his/her health management⁸. The visual approach can be accompanied with written description in simple language. Gagliano⁷ has discovered that visual approach, such as videos, has strengthen patients' knowledge and cooperation because it is a practical teaching technique, cheap and attracts audience attention⁷.

For auditory approach, patients were provided with health education verbally, so as to make them learn better as health education content is presented in active interaction between the therapists and patients⁸. Through auditory the therapists ask them to repeat what they heard or ask to say what they understand from the conversation⁸. According to an earlier study the verbal education combined with written materials had improved

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Immunological Status of Mumps in Infertile Individuals in Comparison to Children

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ABSTRACT

Mumps is spread easily through the airborne spray from the upper respiratory tract. A Cross-sectional prospective study conducted in Tikrit Teaching Hospital and Primary Health Care Centers.

The study population included adults and children from both gender. The adults population group are to be recruited from university students, while the children are to be recruited from 6th primary, 1st, 2nd and 3rd secondary schools. The sample size is 100 subjects in each adults and children groups [50 subject male and 50 female]. Thus a minimum of 200 subjects to be included in the study. Data on vaccination was taken directly from the each individual or vaccination cards if available. ELISA was used for determination of IgG for mumps diseases in central research Laboratory and Tikrit Laboratory's. The tests were performed according to manufacturer instructions.

Optical density mean value was with predictive value for mumps antibodies concentration. The mumps mean serum value was lower in adult subjects as compared to child group. This finding indicated that immune response to mumps decreased with time and contribute to resurgence of mumps in community. The frequency of mumps non immune status was higher in adults as compared to child. Additionally, mumps immune response with high titer was significantly lower in adults than in children. The high titer rate was 2 times more in children than in adults. These figures indicated that IgG mumps antibody concentration confirmed the possibility of immune reduction with age and explain the outbreak of the disease in vaccinated subjects.

The mean serum mumps IgG concentration was higher in male as compared to female, but not significant. In children, the mean serum mumps IgG was significantly higher in child male as compared to child female. Thus, this study finding do confirm that immune response to mumps vaccination was affected by gender and more intensive in male. The mean mumps serum IgG values were significantly higher in child male as compared to adult male.

Keywords: Immunological, status, mumps, infertile, individuals, comparison children.

INTRODUCTION

Immunization is one of the most successful and cost-effective public health interventions to prevent deaths and disabilities from vaccine-preventable diseases. Smallpox was eradicated and the world was about to eradicate poliomyelitis. Significant reductions have been achieved in reducing disease, disability and death due to

diphtheria, tetanus, pertussis and measles. In 2003 alone, it is estimated that immunization has managed to avoid more than 2 million deaths.^[1]

Mumps was a common childhood disease before a vaccination became available for the virus. When people think of mumps, they often think of swollen cheeks due to the swelling of the salivary glands located next to the ears. However, because of the types of tissues that the mumps virus can infect, complications such as encephalitis, meningitis, swelling of the ovaries, and swelling of the testes can occur. Before the vaccination was introduced, mumps was the most common cause of acquired deafness in children^[2]

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