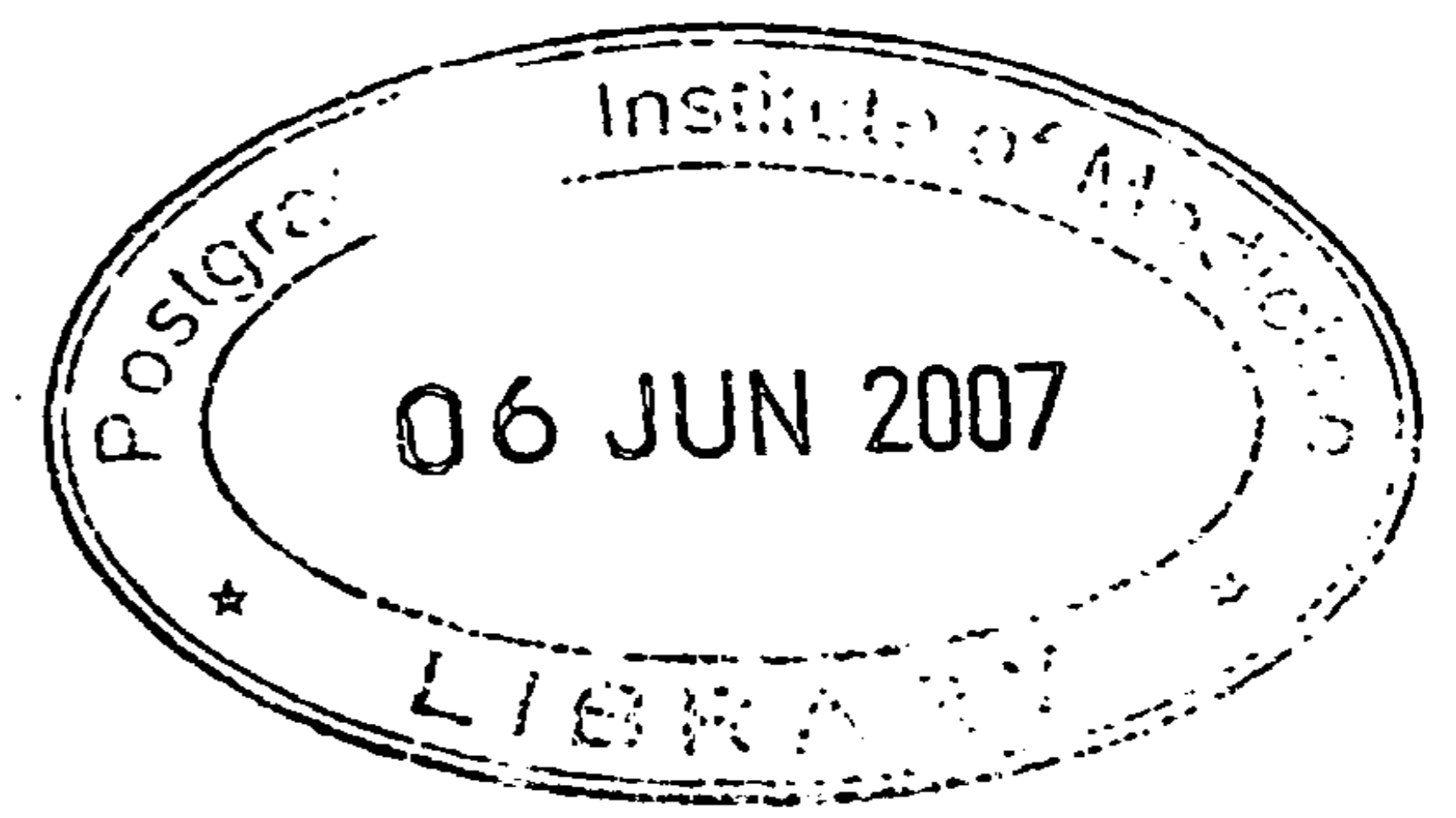


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Abstract

The present study was carried out among 424 women between the ages of 35-65 years attending Well Woman Clinics (WWC) in the Colombo Municipal Council area aiming to describe the knowledge on osteoporosis and practices adopted for its prevention by them.

This cross sectional descriptive study was carried out for four months starting from August 2006 and the sample size was calculated to be 422 according to the WHO guidelines published in Sample Size Calculation in Health studies. A convenient sampling technique was adopted to recruit study participants to the study.

Information was obtained through an interviewer administered questionnaire with four components. First component obtained data on the socio-demographic features of the study participants. The second component obtained information about the knowledge on osteoporosis. Knowledge was determined in the areas of pathogenesis, signs and symptoms, protective factors and risk factors of osteoporosis. The overall knowledge on osteoporosis was subjected to a scoring system where each correct response was given a score of 1 and each incorrect answer or indication of lack of knowledge of the answer either in the affirmative or in the negative was given a score of zero. The overall knowledge was categorized into two categories of satisfactory (score of 50% or more) and not satisfactory (score of less than

50%). These levels of overall knowledge were analyzed in relation to socio-demographic features of the study sample.

Questions on nutrition, calcium supplementation and vitamin D intake, physical activity level in domestic and employment settings, intake of Hormone Replacement Therapy following cessation of ovarian activity were asked for the determination of the practices for the prevention of prevention of osteoporosis. Physical activity levels were determined using a scoring system according to the indices stated according to energy expenditure and protein requirement levels and Body Mass Index in the Technical Report Series NO:724 published by World Health Organization (WHO). Those who had an average index of 3.4 or less were categorized as sedentary, those with an average index between 3.5 to 6.0 were categorized as moderately active and those with an average index above 6.0 were classified as very highly active. Data levels of physical activity were analyzed in relation to the socio-demographic features of the study population.

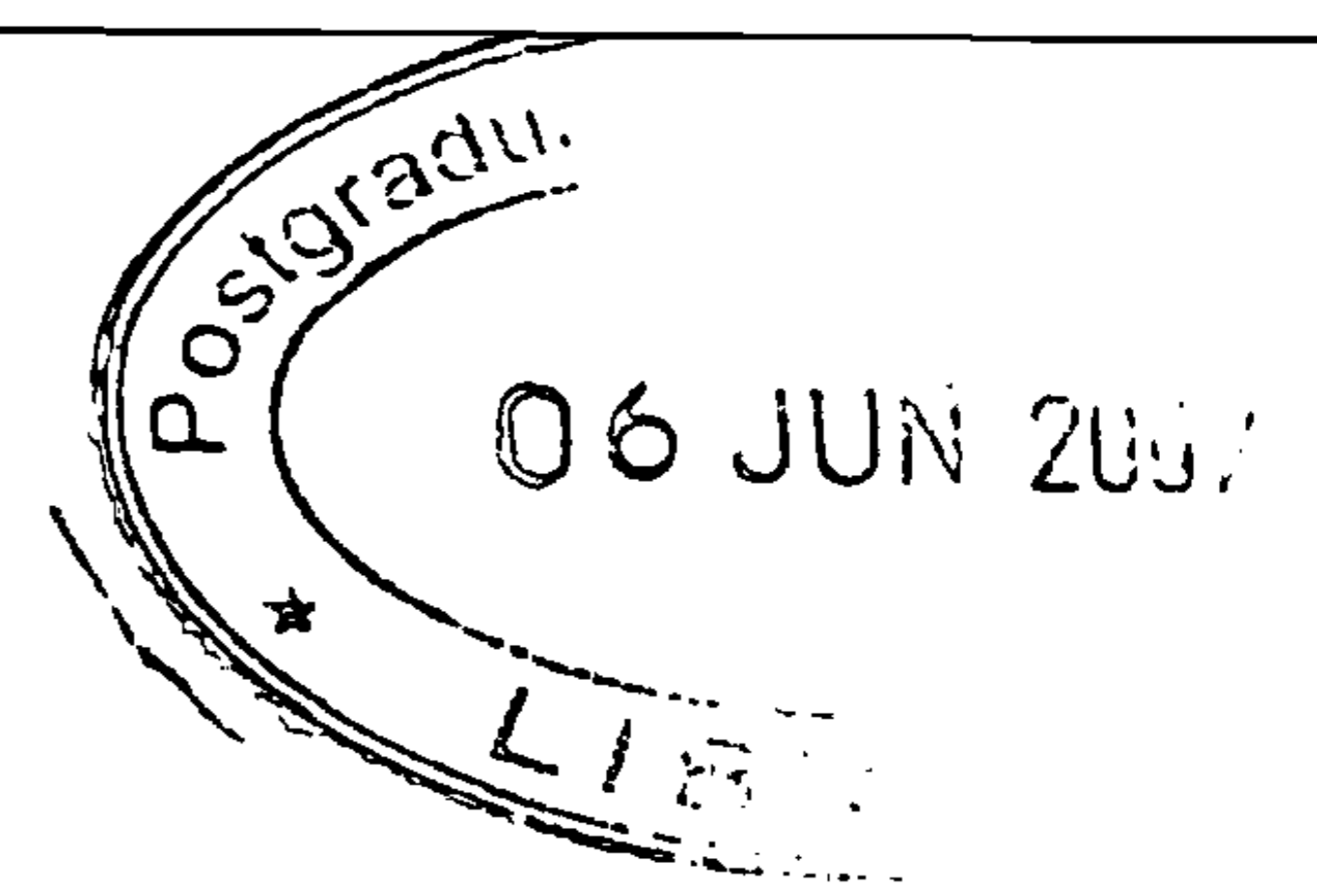
Fourth component of the questionnaire carried questions on the sources of information on osteoporosis among the study population. The obtained data was analyzed using Statistical Package for Social Sciences II.

The mean age of the study sample was years (SD=7.7 years; range 35-65 years). Majority of the clinic attendees were 35-39 years of age (28.9%). The largest ethnic and religious groups attending WWCs were Sinhalese (49.5%)

and Buddhists (41.7%) respectively. Majority were currently married (93.6%; n=397), 28.3% (n=120) have reached menopause and most (88.9%; n=375) have had a school education. Gainfully employed women were a minority (37.3%) and the average monthly income of an employed study participant was Rs. 9569 (range Rs.2000-23000).

Overall knowledge on osteoporosis was low among the participants. It was associated with level of education ($p < 0.01$) and Sinhalese ethnicity (OR=2.6; $p < 0.01$). Those who had an education of G.C.E. Ordinary level or more had a higher had a satisfactory level of knowledge compared to their less educated counterparts (19.8%; n=84). Those who were of Sinhalese (22.2%; n=94) ethnicity had a satisfactory level of knowledge compared to their counterparts belonging to other ethnicities (22.2%; n=94). Age, religion and marital status were not significantly associated with the satisfactory level of knowledge.

Calcium supplementation intake (59.2%; n=251) was commonly related to supplementation during pregnancy Hormone Replacement Therapy (HRT) following cessation of ovarian activity was (3.3%) and prevalence of vitamin D intake was 00%. As for nutrition, 91.7% (n=389) of the study participants had a balanced diet rich in calcium. In the domestic setting, level of physical activity was associated with age (OR=2.5; $p < 0.01$) and level of education (OR=2.95; $p < 0.01$). Women who were ≤ 45 years were less active in the domestic setting compared to their older counterparts (36.8%; n=156). Those who had an education of G.C.E. Ordinary level or more also lead a less active



life at home (13%%; n=55). In the employment setting, level of physical activity was associated with level of education (OR=0.2; p<0.01) and religion (OR=0.2; p<0.04). The commonest source of information on osteoporosis among these women was the television. (37%; n=157)

In this backdrop, it is recommended that promotion of lifestyle modifications such as taking part in physical exercise, intake of a balanced diet rich in calcium, intake of calcium supplementation at an appropriate age and Hormone Replacement Therapy under medical supervision following cessation of ovarian activity by the WWCs.

Educating preventive health workers on osteoporosis and its prevention is recommended an effective and sustained prevention of osteoporosis.

As television and radio were shown to be the main source of information on osteoporosis among the study sample, social marketing campaigns to educate the general population should be launched through these media. .