

that included socio-demographic data, items to assess mothers' knowledge of sources and preventive measures of parasitic infections and infestations and her practices was completed. A stool sample was collected from children and examined using formol-ether technique and Sellotape technique was used to detect *Enterobius vermicularis*. *Pediculus capitis* was diagnosed by inspection of the scalp and was found to be the most prevalent parasite found in 58.9% of those children followed by *Enterobius vermicularis* in 46%. A strong positive association between pediculosis and enterobiasis was detected (phi coefficient=0.956,  $p < 0.001$ ). Socio-economic level affected both knowledge and practices scores where one point change in knowledge score or socioeconomic score caused an increase in practice score of 0.279 and 0.071, respectively. Also higher risk of pediculosis was found to be significantly associated with female sex and low socio-economic level. An increase of one point in practice score showed a decrease in the log likelihood ratio of enterobiasis of 14.3%. The majority of mothers (77.3%) were found to be aware that their children had a parasitic infection, which was significantly associated with results of stool analysis. This indicates that awareness building is not enough to be of practical benefit. Appropriate and detailed control methods of parasitic infections and pediculosis must be taught and applied by parents and community. Socio-economic development, organized health programs and motivation should be undertaken to help today's children.

## INTRODUCTION

Intestinal parasitic infections and infestations such as pediculosis persist and flourish wherever poverty, inadequate sanitation, insufficient health care and overcrowding are entrenched. Many surveys have demonstrated a high prevalence in children of slums, shantytowns, and squatter settlements (Crompton & Savioli, 1993; Paredes et al., 1997).

Young children generally have a much higher incidence of certain types of symptomatic enteric parasites than older children and adults (Mahfouz et al., 1997; Oberhelman et al., 1998; Curtale et al., 1999).

In recent years increasing emphasis has been laid on the active participation of individuals and communities in successful disease control programs in which the links between education, health awareness and behavior are key elements (Ruehush et al., 1992; Agyepong, 1992; Kightlinger, 1998). Information about how mothers perceive these infections is important because successful control of intestinal parasitic infections in an endemic area requires a high level of understanding of the social and cultural characteristics of its inhabitants (Koirala, 1998).

This study was conducted in a poor urban district in Alexandria, Egypt, to assess mother's knowledge and practices as regards parasitic infections and infestations that may be present in her preschool child, and to correlate the presence of these infections with her awareness.

## MATERIAL AND METHODS

### *Study design and setting:*

This study is a cross-sectional one conducted in the two main day-care centers in Karmouz area, Alexandria, Egypt.

### *Study Sample:*

As cross tabulation and chi square will be used in the present study so the minimum required sample size was based on this assumption using the following formula [Bernard, 1995]:

$$\text{Sample size } [X^2 N P (1-P)] / [C^2 (N-1) + X^2 P (1-P)]$$