

HUMAN T-CELL LYMPHOTROPIC VIRUS TYPE 1 (HTLV-1) RELATED  
KNOWLEDGE, ATTITUDE AND BEHAVIOUR PATTERN AMONG  
MOTHERS WHO PARTICIPATED IN THE JAMAICA BREAST-FEEDING  
INTERVENTION (JBI) STUDY

A Thesis  
Submitted in Partial Fulfilment of the Requirements for the Degree of  
Master of Public Health

of  
The University of the West Indies

Carol Mercedes Jones Cooper  
2006

Department of Community Health and Psychiatry  
Faculty of Medical Sciences  
Mona Campus

## ABSTRACT

Human T-cell Lymphotropic Virus Type-1 (HTLV-1) related Knowledge, Attitude and Behaviour Pattern among Mothers who participated in the Jamaica Breast-feeding Intervention (JBI) Study

CAROL JONES COOPER

HTLV-1 is a type c retrovirus. It is endemic in Jamaica with a crude seroprevalence of 5-6%. The HTLV-1 virus is the first human retrovirus to be associated with a malignant disease. It causes the highly aggressive Adult T-cell Leukemia/Lymphoma (ATL) and chronic inflammatory syndromes such as pediatric infective dermatitis and Tropical Spastic Paraparesis (TSP).

Transmission is by sexual intercourse, blood transfusion, sharing of infected needles and from mother to child. Vertical transmission and sexual intercourse are the two major pathways of the virus. More women are at risk of contracting the virus since it seem to be more efficiently transmitted from male to female compared to female to male.

Our study aims to answer the retention of knowledge, attitude and behaviour in a group of women, five years after they were involved in a mother to child risk reduction study. A cross sectional study was conducted using both quantitative and qualitative research methods. A 46 point structured questionnaire was

administered to 88 mothers, evaluating their knowledge and attitude with regards to the HTLV-1 virus. This was complemented by focus group discussions.

We find an overall fairly good awareness about the HTLV-1 virus among the mothers but identified important deficiencies. Only 58% of the mothers knew that the virus is a sexually transmitted disease. Also of concern was the low proportion having knowledge regarding the diseases aetiologically linked to the virus. For ATL, 30.7% identified same as one of the diseases caused by the virus. Similar percentages (37.0%) acknowledged TSP and infective dermatitis. Only 33% knew that there is no cure for the HTLV-1 virus. The consequences of these findings are discussed.

Since no vaccine is available and there is presently no cure, prevention strategies in the spread of the virus must be based on interrupting the different modes of transmission. In Jamaica, all blood donated is tested for the HTLV-1 virus. Sharing of infected needle has not significantly contributed to the spread of HIV in Jamaica. Counseling infected individuals on breastfeeding and sexual practices is the only proven method to reduce HTLV-1 related diseases. Education and counseling are therefore the key components.

**Keywords:** Carol Jones Cooper; Jamaica Breast-feeding Intervention (JBI) study mothers; Knowledge; Attitude; Transmission; HTLV-1 virus.