

Health and psychosocial profile among HIV affected children- a case control study

Bant DD, Mahesh V, Bathija V G, Lokare L, Godbole M, Manjunath NS

ABSTRACT

Background: Children diagnosed with paediatric HIV disease are thought to be at risk for psychological adjustment problems due to the multiple medical and psychosocial stressors accompanying this chronic illness.

Aim: To study the difference in the psycho-social problems and nutritional status between HIV infected children and children without HIV/AIDS.

Methods: A cross sectional study of HIV positive children and children not affected by HIV. Child Behaviour Checklist (CBCL) was used to assess psycho-social profile. Analysis: Chi-Square and Z test were used as test of significance. $P < 0.05$ was considered as significant.

Results: The mean age of cases is 9.5 years and controls are 8.5 years; mother to child (92%) was the most common route of transmission. There was no statistical significance among cases and controls for Depression and Withdrawal Problems, social problems ($p=0.019$) were more in cases compared to controls.

Conclusion: Children affected by HIV/AIDS suffer from social problems without much psychological impairment. If it can be taken care of, then the resulting development of psychosocial manifestations can be less burdensome.

Keywords: HIV positive children, psycho-social profile, child behaviour checklist

INTRODUCTION

HIV infected children are at increased risk for psychological disturbance due to the direct effects of HIV infection on brain structures involved in the regulation of emotion, behaviour, and cognition. Moreover, they suffer due to the indirect effects related to coping with the range of medical, psychological, and social stressors associated with the disease.¹ Previous studies have shown high rates of emotional and behavioral disturbance like attention-deficit hyperactivity disorder (ADHD), oppositional defiant disorder, and problems in social functioning relative to their peers.² However, little is known about the factors associated with psychological adjustment in children with HIV. Coping style and health locus of control have been linked to adjustment in other chronic illnesses, such that individuals who report more of an internal health locus of control and individuals who endorse using more problem-focused coping strategies tend to have more adaptive responses to their illness.³ These factors have not been systematically explored in children with HIV disease.

A number of cross-sectional studies have found that chronically ill children are at increased risk of psychosocial problems. These children have been reported to have lower self-esteem, poorer body-image and more problems in psychological well-being, behaviour and social adjustment than those without chronic conditions.⁴ HIV-positive patients can live a longer life because of medical and social advances like ART, but treatment programs have not been able to eradicate the virus and cure the disease. As a result, patients are living longer with a chronic condition that continuously presents social, physical, and psychological challenges.⁵ Consequently, HIV-infected patients, like all patients with chronic medical disorders, are at increased risk for specific psychiatric and psychosocial problems. Various studies have linked HIV/AIDS with a number of psychosocial problems, depression being the most common one.⁵ The present study was undertaken to assess the psycho-social profile among HIV affected children as no such study was conducted in this part of India.

MATERIALS AND METHODS

It is a cross sectional study conducted from March to August 2011, in Hubli, Karnataka. A sample size 50 cases and 50 controls were included after obtaining informed consent form the caregivers. Thirty cases were from HIV high risk clinic, in KIMS, Hubli and 20 cases were taken randomly by house visits to families residing in Hubli, with the help of link worker from a NGO linked with ART centre, KIMS, Hubli. Controls were selected randomly from paediatrics OPD, Hubli. Mentally retarded children or children with any diagnosed psychiatric illness were excluded from both cases and controls.

A predesigned, pretested semi structured questionnaire was used to collect the data on socio-demographic profile. CBCL – Child behavior checklist (Modified Kannada Version) was used to assess the psychosocial profile consisting of 46 questions, categorized into three categories withdrawal problems, depression problems and social problems. CD4 count – Latest CD4 count was obtained from the ART record. Blinding was done to assess the psycho-social parameters studies (i.e., interviewer and interviewee were unaware of the categorization of questions).

Statistical Analysis: Data was entered into Excel sheet for analysis. Chi square test for categorical data and Z test for mean score of Psycho-social profile between cases and controls was used as tests of significance. $P < 0.05$ was considered as statistically significant for tests of significance.

RESULTS

A total of one hundred subjects consisting of 50 cases and 50 controls matched for age and sex were included in the study. The mean age of cases is 9.5 yrs and majority of them were females in age group of > 10 years. Majority of the cases are orphans (64%) i.e., lost either of the parents or taken care by guardians or orphanages, whereas in 72% of controls both the parents were caregivers and majority of them belonged to poor socio-economic status (46%) and BPL (32%).

In majority of the cases (76%) the duration of

infection was less than 48 months and the most common route of transmission was mother to child (92%) and uncertain in the other children. CD4 percentage was more than 25% in 58% of cases.

Table 1 shows the psycho-social profile among the study group. There is no statistical significance among cases and controls for depression and withdrawal Problems, but it was found that social problems were more in cases compared to controls and it was statistically significant.

There was also no statistical significance among cases (Hospital cases Vs House visit cases) for depression and withdrawal problems, and also between CD4 percent, duration of infection with the psycho-social profile among the cases.

Table 1: Psycho-social profile of the study group

	Depression	Withdrawal	Social Problems
Between cases and controls			
HIV positive children	2.92	3.54	13.82
Controls	1.84	3.16	12.22
p value (* significant)	0.087	0.586	0.019*
Between Cases			
Hospital cases	3.17	3.37	12.97
House cases	2.55	3.80	15.10
p value (* significant)	0.554	0.671	0.022*

DISCUSSION

Children diagnosed with paediatric HIV disease are thought to be at risk for psychological adjustment problems due to the multiple medical and psychosocial stressors accompanying this chronic illness. Despite this, little is known about the specific factors that predict psychological adjustment in these children, nor is it known how these children and families fare when compared to families of similar backgrounds.

In the study a total of 100 subjects were included by purposive sampling and it was observed that the mean age of cases is 9.5 years and controls are 8.5 years. Majority of the cases were females, unlike a previous study done by Sarker M et al.,⁶ where boys formed the bulk of the cases. Orphans constituted almost two third of the cases, where the children

lost either of the parents or taken care by guardians or orphanages. However, a study done by Ira Shah et al., revealed that that both parents were the caregiver in 57%; only mother in 20% of children; and grandparents in 5.4% of cases.⁷ Similarly, Isaranurug et al., observed that the main caregivers were grandparents, and only 13.7% of infected HIV positive children lived with their mothers.⁸

In our study it was observed that most frequent route of transmission (92%) is mother to child. Majority of the cases (58%) have CD4 percentage more than 25%, a finding almost similar to a study done by Pol RR et al.⁹

We observed that there was no statistical significance among cases and controls for depression and withdrawal problems, but it was found that social problems were more in cases compared to controls. Similar observations were also made by different researchers where it was observed that there were no significant differences in the levels of depression/anxiety, withdrawal and

social problems between the cases and the control group.^{6,7,9}

CONCLUSION

The study concludes that children infected with HIV/AIDS are faced with psycho-social problems. Adequate training of health care professional and creating an unstigmatised atmosphere in nearby primary and secondary health care settings would help children and their parents to access nearest health facility for care and support which in turn improves the health status of such children.

AUTHOR NOTE

Dattatreya D Bant, Professor, (**Corresponding Author**) dattatreyabant@yahoo.com
V Mahesh, Postgraduate
Bathija V Geeta, Associate Professor
Lokare L, Assistant Professor
Godbole M, Assistant Professor
Nekar S Manjunath, Assistant Professor
 Department of Community Medicine, Karnataka
 Institute of Medical Sciences, Hubli, Karnataka

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