

## SHORT REPORT

### REPORT ON THE CHANGES IN THE TREND OF SUICIDAL BEHAVIOR IN CAMERON HIGHLANDS MALAYSIA.

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#### ABSTRACT

***Objective:*** This study was carried out to look at the changes in the trend of suicidal behavior in a hill resort in Cameron Highlands Malaysia. ***Methods:*** Data on suicides and parasuicides from the year of 1995-2005 were collected from the only hospital in Cameron Highlands and also from police headquarters for the district in Brinchang. ***Results:*** The result obtained showed that the suicide rate in Cameron Highlands has declined greatly to about 15 per 100,000 compared to 60 per 100,000 in the preceding two decade. ***Conclusion:*** The reduction in suicide does not merely apply to death by pesticides but also to hanging, indicating that it may not merely be due to reduced access to pesticides.

***Keywords:*** suicide, Cameron Highlands Malaysia

#### Introduction

Several developing countries have reported relatively high suicide rates particularly from rural areas where there are numerous small farms [1]. One important contributory factor could be the ease of access to pesticides, their wide use for self-poisoning and their relatively high lethality when ingested. In addition, there are large numbers of accidental poisonings with these substances. It has been estimated that there are in excess of 250,000 deaths per year due to pesticides poisoning world wide, most of which result from intentional self-poisoning. This accounts

for almost a third of the estimated approximate suicide death toll worldwide of 900,000 individuals per year (World Health Organisation 2004) [2].

An earlier study showed that the suicide rates in Cameron Highlands were one of the highest in the world, especially among Indians [3]. Cameron Highlands is a hill resort in Peninsular Malaysia, and, by virtue of its situation, relatively isolated from the rest of the country. The Indian population in Cameron Highlands used to be largely a farming community, many being workers on tea estates, vegetable farms, and flower nurseries.

They also maintain their own small plots of land.

Maniam [3] found that 81% of suicides and 78% of parasuicides were among Indians, although they only form 25% of the population. About 94% of suicides and 66% of parasuicides were by self-poisoning with weed-killers or insecticides, mostly organophosphorous compounds (15% used paraquat. The average annual suicide rate for Indians (over 10 years of age) was 157 per 100,000. Interpersonal difficulties such as marital quarrels and other family conflicts, figured prominently as precipitating factors, accounting for 43.75% of the suicides in which reasons were recorded.

Maniam [4] followed up his earlier study and examined using essentially the same methodology. There was 83 suicides and 157 attempted suicides in Cameron Highlands between October 1984 and September 1993 and found that the over representation of Indians in attempted suicide had remained consistent. He reported that paraquat accounted for 65% of all suicides, up from 15% a decade previously.

### **Methodology**

In this study, we employed methodology identical to that used by Maniam in 1988 on suicides and parasuicides from the year of 1995-2005 were collected from the only hospital in Cameron Highlands and also from District Police Headquarters situated in Brinchang [3]. The data were cross checked to avoid duplication.

### **Results**

The result obtained showed that the suicide rate in Cameron Highlands has declined greatly to about 15 per 100,000 compared to 60 per 100,000 in the 1970s and 1980s [3]. There is a sharp drop in the suicide rates from the year of 1995 onwards. There is also similar drop in attempted suicides cases. Pesticide ingestion was still the leading cause of death. Hanging was the other method.

### **Discussion**

The reduction in suicide does not merely apply to death by pesticides but also to hanging, indicating that it may not merely be due to reduced access to pesticides. Some other factors appear to be contributing to the change in suicidal behavior in Cameron Highlands. A serious limitation of this study is the difficulty in accessing primary source data from the Hospital, Police and Statistic Department and the difficulty in obtaining data on ethnic distribution of the population. We are currently working on this.

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3. International Association for Suicide Prevention
4. Prof Keith Hawton, Centre for Suicide Research, Oxford University

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