

MASS ANXIETY ATTACK IN A PRIMARY SCHOOL

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SUMMARY

An alarm about suspected toxic gas leakage was raised in a primary school. All the students were evacuated by the staff and the community to a district hospital in Teluk Intan, Perak, about 8 km from the school. Sixty-four primary students from the school, four secondary school students and a student's mother, who was near the school, were all examined by a team of medical officers. Perceptions and records of the incidence from the students, staff and medical officers were recorded and examined by the author who visited the school and the hospital after the incidence. Psychosomatic symptoms related to anxiety attack were predominant. There was no evidence of any gas leak. Symptomatic management was given by the medical officers. The psychogenic aetiology of the subsequent physical symptoms and behaviour, and the difference from epidemic hysteria are discussed.

INTRODUCTION

Epidemic hysteria among Malaysian secondary school students and Malaysian factory-workers have been reported. Periodic outbreaks of epidemic hysteria still occur. In the Malaysian

context, this invariably involve supernatural beliefs and some communal efforts to call in shamans (known locally as *bomohs*). The number of persons involved who were admitted to the hospital in these outbreaks had varied from none to less than ten.

With the mass media, the Bhopal toxic gas disaster in India is the latest of a series of accidents in the process of industrialisation. The headlines of "135 pupils hit by mysterious gas" in *The New Straits Times*, 30 March 1985, and "Gas that hit pupils baffled probe teams" in the subsequent day's press media led to some anxious parents from other towns to contact the head of the nearby residential science school for information about their adolescents. Initially, the author queried whether an epidemic hysteria had occurred in a primary school in a village near a town for the first time.

The author who noticed that no mental health professional was involved in the investigation of the event, decided to contribute a psychosocial perspective to the study.

METHOD

Official permission was obtained from the Perak State Education Director and the Lower Perak Education Officer to visit the school and meet with the seven staff members and seven students on Friday, 5 April 1985. Permission was also obtained from the Perak State Medical and

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Health Services to meet with the Lower Perak Public Health Officer, a public health inspector and the medical-officer-in-charge of the District Hospital at Teluk Intan on Saturday, 6 April 1985.

The medical-officer-in-charge gave permission to look at the records of the 69 persons seen between 11.10 am to 12.30 pm by a team of five doctors, two male hospital assistants and three assistant nurses. Three of the doctors, a hospital assistant and assistant nurse were interviewed by the author on 6 April 1985.

On 7 April 1985, the village-headman and his two daughters, the mother of the only out-patient girl who was brought to the hospital again at night, two of her neighbours and school-mates and the father of one of them were also interviewed in their homes. Two other home-visits were conducted. Two secondary school students (one was seen as a patient) were also interviewed on the same day.

RESULTS

The location and students

Sandwiched between the meandering Perak River and the main trunk road from Teluk Intan and Hutan Melintang are four villages, namely Kampong Batu Lapan, Kampong Bandri, Kampong Sungei Ipel and Kampong Sungei Buloh. The Sungei Buloh National Primary School is situated in Kampong Sungei Ipel. It is 200m away from a mosque which is beside the trunk road. The nearest factory, an oil-palm mill, is 3km away. The village headman's house is about 20km away. Opposite this traditional single-storey country school resting on cement stilts is a modern secondary science school with double-storey buildings, science laboratory, playing field and hostel for the students. The land was donated by an oil palm plantation. This primary school has no electricity supply and no telephone.

The school is surrounded by coconut trees and some secondary jungle rattan. It has a small football field. Beside the main school building is a small wooden house which serves as classrooms

for Standards I and II pupils. Nearby grows a mango tree. The main single-storey school building is divided into four classrooms and a multi-purpose room.

The teachers commuted daily from Teluk Intan, 12 km away. About eight of the 144 students in six classes crossed the Perak River by small rowing boats to attend school. 135 students attended school on the day of the incident.

The event

Around 9.30 am, on Thursday, 28 March 1985, the Standard I class-teacher reassured his students who complained of a citrus fruit smell in the air. This classroom and another Standard II classroom were situated in the single-storey wooden house facing the main school building. The Standard II teacher felt that her room was congested. Although none of the students complained of physical symptoms except for some pungent smell, she asked them to move out to the open space between the building. It was a cloudy day.

In the main school building, a series of low wooden partitions divides the space into five sections. As one moves away from the staff-room cum headmaster's room, there are the classrooms for Standards VI (30 students), IV (23 students), III (25 students) and V (15 students). Student A, a 12-year-old female of Standard VI developed dizziness, nausea and stomach-ache after inhaling some pleasant citrus-fragrance in the air. Student B, a 10-year-old in Standard IV was informed by his friends that there was poisonous gas in the air. Nine-year-old, student C in Standard III experienced abdominal pain and dizziness when he smelt something. Eleven-year-old, Standard V student D, complained of abdominal pain to his friend who sat beside him. This friend advised him to wait for his teacher. D became frightened when he heard the alarm bell ringing for a long time, so he concluded that there must be an emergency.

At 9.45 am, the senior assistant (also a class teacher) had discussed with the headmaster about the commotion. The decision was made to ring

the alarm bell to gather the students outside the classrooms. They would be given a packet each of cooked rice with some prawns. This was a supplementary food for the needy students provided under an Education Department project. The headmaster, after discussion with the teachers, personally drove to the police station at Hutan Melintang, about 4km away to lodge a report.

Some students felt better and were able to consume the food packets. Others felt nauseated. A few cried. Later, a decision was made to evacuate the students to a mosque 200m away. Instead of walking orderly, some ran, some cried and a few fainted. A few students, reexperienced stomach-ache. A clerk at the local administrative (*Penghulu*) office, telephoned the Fire Department around 10.00 am. Around 10.30 am, the headmaster of the nearby secondary school phoned the Public Health Office to enquire about the unusual smell. None of his secondary school students had any physical symptoms.

Request for ambulance service was received around 10.20 am at the District Hospital. When the first ambulance arrived at around 10.55 am, a few crying ladies wanted to accompany the children in the ambulance. A senior hospital assistant had to restrict the number of children to 15 students per ambulance. A passing mini-van gave a lift to some students. Other students and teachers were given lifts by a fire-brigade vehicle, a car and an express bus too.

Three secondary school students from a nearby village were waiting for public transport when they witnessed the commotion in front of the mosque. Two of them developed abdominal pain, including one with giddiness. The other did not report any symptom to the doctor except for the history of alleged inhalation of poisonous gas. All of them, including the teachers, some parents, and the remaining 135 students who were present managed to find transport to the hospital by the time the headmaster returned from Hutan Melintang Police Station at around 11.30 am. By then, at least six officials (at least two officers from the Lower Perak Education Office), a Fire Department Officer, a Health Officer, an Information Depart-

ment Officer and a Police Officer had arrived to investigate the incidence.

The first patient was seen at 11.10 am in the Accidents and Emergency Room of the District Hospital. Subsequently, all of those who came to the hospital gathered in an area just in front of the Emergency Room cum Administration Building. Only 69 persons were seen, including the three secondary school students waiting at the nearby bus stop and a secondary school boy from the nearby Secondary Science School together with a mother who complained of giddiness and headache. Teachers and medical staff identified the students who required medical attention. 71 of the 135 students did not require medical attention. There was a tendency for more girls than boys to be selected for medical attention – 57 boys (30%) and 78 girls (60%) were seen.

A team of five doctors, two male hospital assistants, at least three assistant nurses were mobilized by the medical-officer-in-charge. They completed their initial examination and management by 12.30 pm. Only two male and two female students were admitted.

At 1.30 pm, through the arrangement of the local education officer and the head of the secondary school, Teluk Intan, all the remaining 131 students and teachers were transported by the secondary school buses back to their homes and school.

All the four students admitted were discharged the day after admission. The only child who was brought back at night for stomach-ache was treated again as an outpatient at 9.15 pm on the same day.

With the permission of the State Director of Education, a school holiday was declared for the subsequent day, Friday. No recurrence of noxious smell nor any physical complaint occurred when school reopened on Monday.

Findings from medical reports

The records varied from no complaints, just being frightened, having nausea, giddiness, abdo-

minal pains to entries like "inhaled poisonous gas" and "accidentally smell a gas drifting by". Apart from signs that the students had cried, there was no definite physical sign except epigastric tenderness. Only four medical records did not have names of the patients during this hectic period. One had no complaint, another had giddiness, one said that he was just frightened and the fourth person had slight abdominal pain. For the latter two students, the doctors wrote down "reassured". For others, oral anti-spasmodic, anti-spasmodic injections or an antacid were given for symptomatic relief.

The class and age of the 64 students affected are as follows: Std I (seven-years-old) – 9 students; Std II (eight-years-old) – 5 students; Std III (nine-years-old) – 18 students; Std IV (ten-years-old) – 11 students (one of whom was admitted); Std V (11-years-old) – 11 students; Std VI (12-years-old) – 10 students (three of whom were admitted).

Health team report

A health team which inspected the area did not locate the source of any gas from the only palm oil factory or any leakage from any passing ship or vehicle. There was no spraying of insecticide nor weedicide on that day.

Perception of the event

None of the students who were interviewed in the presence of the school staff gave any supernatural explanation of the events. Some mentioned about poisonous gas; one girl even had her idea of how some gas cylinders might have exploded.

But when a few students and parents were interviewed in their homes, they mentioned spontaneously that some frightened classmates had shouted that there were ghosts. Tales of two Indian alcoholics who had died after consumption of illegal alcohol, marks of blood dripping down from the roof ("some birds might have eaten some rats or other birds", said the same informant), and picture frames falling down from one of the two isolated classrooms, were shared. Two of the teachers whom the author interviewed

separately outside the school had heard of these tales before.

The medical officers had managed the students on the assumption that a gas leak had occurred. They felt that panic contributed a great deal to the symptoms.

Follow-up

The author had a brief telephone conversation with a senior staff at the District Education Office about eight months later. Since then, there has been no further incidence in the school nor any other school in the Lower Perak District.

DISCUSSION

The series of events constructed by the author is based partly on the self-reports of the informants, description of behaviour of others by participant observers at the time of occurrence and the brief written notes of the medical officers and hospital assistants. The limitations of all these modes of information gathering are further subjected to the investigator's selective choice of material for a report. He then attempts to conceptualize the process involved with the data from other sources and psychiatric literature.

The presence of obnoxious smell was beyond doubt. Some teachers and villagers admitted that they were frightened of the effects of poisonous gas from a nearby palm oil factory. They felt helpless. Genuinely they felt that evacuation was the best mode of coping with the situation. They turn to modern medicine for treatment. Supernatural causes did not come to their thoughts at all. Public health officers did not detect any poisonous gas nor spraying of herbicide.

A few children were able to verbalize their fear of inhaling poisonous gas. Others reacted to the classmates and adults' anxiety and complained of physical symptoms. With modern scientific fiction and real disaster, one of the girls wondered whether some gas cylinders had exploded, and was unable to name the source of these cylinders. A few younger girls when

frightened shouted "ghosts". This further frightened a few others. The threat of immediate danger from a perceived obnoxious gas was so real that the predominant reaction in some children was panic. These primary school students were not under any stress of impending examination. The community they came from were generally happy with the staff in the school too. Apart from a few parents and siblings who accompanied their children to the hospital, none of the families nearby took their pre-school children to the hospital for similar complaints. None of the villagers felt that there was a need to call in a *bomoh* (shaman) to drive away spirits.

Suspected toxic poisoning had been reported among anxious elementary school children in Massachusetts¹ and school-girls and adults on the West Bank.^{2,3} Extensive investigations did not reveal any harmful chemicals nor poisonous gas. Like the physical symptoms reported in this incidence, all of them were psychogenic in aetiology. To distinguish this from epidemic hysteria which in the Malaysian setting usually connotes a supernatural aetiology, the author prefers the term 'mass anxiety attack' to stress the group behaviour during panic.

In this incidence, the adults' frantic appeal to modern technical medicine for help partly contributed to the panic. As a preventive measure for a rare phenomenon of any sudden emergency, be it fire or perceived poisonous gas, schools and institutions may like to evaluate their emergency evacuation procedures. Some of the informants felt that method of sounding the alarm, by ringing the bell continuously, had aggravated the situation. The excited behaviour of some adult volunteers might also have added to the panic. Alternatively, one could ask a calm-natured person to inform the class to evacuate in an orderly fashion without

using the alarm. Declaring the following two to three days to be holidays in situations where there is a great deal of anxiety will prevent recurrence. Depending on the development stage of the students, a cognitive discussion may be done in conjunction with the drill. This will allow an opportunity for the introduction of facts or behavioural attitude that will contribute to their schema⁴ of likely events and improve their coping skill.

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