

## The Impact of Chronic Illness on Education

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### Introduction

Every classroom, at some stage, will include a child who suffers from a chronic illness. This chronic illness could be one of many and the impact it has, in the educational sense, could be slight or significant. The illness may impact not only on the child involved, but also on the child's family, classmates, teacher, and school. This paper will address some of these issues while looking more closely at three particular illnesses. It will also offer suggested strategies to teachers for coping with chronic illness in the classroom.

Asthma is a chronic illness of great significance in New Zealand schools. It is a condition that makes breathing difficult. The lungs produce excess amounts of mucus, there is mucosal swelling, constriction of the airways, and the muscles tighten. The airways become sensitive and highly reactive to infection, exercise, and triggers things or conditions that contribute to an asthma episode (Getch & Neuharth-Pritchett 1999).

Even though it is generally believed that asthma is one of the leading causes of absenteeism from school (Getch & Neuharth-Pritchett, 1999; Bethea, 1998; McNaughton, S., Smith, L., Rea, H., Asher, I., Mitchell, E., Mulder, Seelye, J., Stewart, A., Taylor, G. 1993), there are varying reports on the effect this illness has on academic performance. Bethea (1998) states that asthma often interrupts learning by distracting or keeping children away from school and that it can cause embarrassment and anxiety to the point of decreased concentration. Bethea (1998) also believes that asthma medications can affect concentration and handwriting. Getch & Neuharth-Pritchett (1999) suggest that although these children may have a higher degree of absenteeism, their school performance does not differ significantly. They do, however, acknowledge that other areas of child development may be affected. "Children with asthma are more likely to have experiences with depression or withdrawal, lower self-esteem and levels of confidence, and feelings of inadequacy and helplessness" (Hamlet et al 1992, MacLean et al 1992, cited in Getch & Neuharth-Pritchett 1999).

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Pless and Nolan (cited in Getch & Neuharth-Pritchett 1999) agree that there are greater risks for psychosocial maladjustment in children who experience symptoms of chronic physical disorders. It is important that teachers monitor evidence of these psychosocial

effects of asthma as they may lead to learning difficulties and, possibly, further stress and anxiety, which in turn, may influence the frequency and severity of asthmatic episodes.

Teachers of asthmatic children should seek guidance from the child's caregivers as to when the student should be kept inside, excused from gym, sent to the nurse, and when caregivers should be notified about an asthma problem (Bethea 1998). Teachers should also be aware of some of the triggers of asthma and try to create a classroom environment that minimizes the chance of asthma attacks, for example, keeping the classroom free from dust, plants that generate pollen, and strong smells or perfumes. Cold or dry air can also be potential triggers, as can excessive exercise and laughing or crying too hard.

Although the above strategies seem practical, a study by McNaughton et al (1993) suggest that there might be little value in concentrating health education on asthma management strategies without intervening in social and economic conditions. Their study looks at the relationships between school attendance and performance, family management and knowledge of asthma and conditions of living. The results of their study reveal large differences in the number of days off school in children with asthma, but that this is associated with social, economic and cultural experiences. They believe that education needs to be "personalised and adapted to the child and to the family's social, economic, psychological and cultural circumstances" (McNaughton et al 1993). They found that children from socially disadvantaged families tend to receive less community resources and health and educational services. The implication they drew from this is that the management of asthma is undermined in those families.

Another chronic illness found in children in classrooms is diabetes. Diabetes is an autoimmune illness that occurs in two forms: noninsulin-dependent diabetes, and

insulin-dependent diabetes, better known as juvenile diabetes. Although students with diabetes may look or even act like other students in the classroom, they have health-related issues and often require modifications to their daily routine during the school day (Rosenthal-Malek & Greenspan 1999).

Diabetes can have significant effects on students in the classroom. Some of these issues are the need for a specific eating regime, testing of blood sugar levels, awareness of the time of day, and awareness of activity levels during the day. It is believed that diabetes does not affect a student's performance in the long run but may affect learning on specific days (Johnson et al 1992, cited in Rosenthal-Malek & Greenspan, 1999). Children with diabetes do not have a higher incidence of learning problems but they may have problems with reading or writing due to blurred vision or they may be thinking about how hungry or how dizzy they are feeling (Rosenthal-Malek & Greenspan, 1999).

Teachers also need to be aware that diabetes may affect behaviour at times. Many students become moody and belligerent if their blood sugar level is low so it may appear to a teacher that a child is deliberately disobeying them when the student only did what was needed to meet their needs at the time, for example, leaving the room for a drink. Attendance may also be affected by diabetes, but this varies with different students as the timing of their highs and lows varies (Rosenthal-Malek & Greenspan, 1999). Teachers must also be aware that diabetics might be affected by low blood sugar during the night, which may cause them to be late for school or to feel unwell while at school.

As with asthma, there should be constant communication with the diabetic child's caregivers. Teachers may be able to keep caregivers informed about any patterns of either highs or lows during the child's school day. It is also important that caregivers are informed if there is going to be any strenuous activity that is not part of the daily school routine. As teachers, there is the need to understand how diabetes can affect a student's ability to function successfully in the classroom, the basic elements of the disease and its management, as well as the best ways to include these children in classroom routines (Rosenthal-Malek & Greenspan, 1999).

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A chronic illness can also be an infectious illness as in the case of the human immunodeficiency virus (HIV), which causes the breakdown of the body's immune system leading, in some cases, to the development of acquired immunodeficiency syndrome (AIDS). The issue of children with infectious diseases in schools raises important medical, educational, ethical and legal questions.

Although caregivers have a right to expect that a school will not expose their children to unnecessary risk, it is not within a school's power to eliminate risk from infectious diseases. Just as teachers have the right to be protected against unnecessary risk, they too, cannot expect the school to eliminate the risk to their health. There are issues of confidentiality and the Privacy Act. Who should be told if there is an HIV positive child in the school? By law, disclosure of a child's HIV status to anyone in the school can only be done with the informed consent of the parents and age appropriate assent of the child (*Parent and School*, 1994). Parents of children and Board of Trustee members have no right to information regarding the HIV status of other children. If special education services are requested for an HIV-infected child because of absenteeism or learning disabilities, the HIV status of the child cannot be revealed. However, limited disclosure may be important so that the school is able to provide information regarding other infectious diseases in the school, which may be harmful to the HIV-infected child, and also to allow provision of services and support.

Although it is believed that HIV is not infectious on a day-to-day basis (Reeve 1996), it is a feared disease and there are many issues about the inclusion of these children in schools. Under the Health Act the Medical Officer has wide powers in cases of infectious disease and can exclude children from school (Reeve 1996), but by law, schools have the obligation to educate children with HIV. There have been varying reports on the spread of HIV and whether or not it can be transmitted in the absence of sexual or precutaneous exposure. No studies or reports have suggested transmission of HIV in school during contact sport such as rugby or boxing and several reports (e.g. *Parent and School*, 1994), suggest that the disease cannot be transmitted through an infected child biting another child.

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Participation in school is believed to provide a sense of normality for children with HIV infection and that these children should not be excluded or isolated. Socialisation is important to the development of the child and attendance at school is believed to promote a sense of well-being and reduce feelings of isolation and rejection (*Parent and School*, 1994). The severity of the disease will determine the school's ability to educate a child who is HIV positive, but the education of these children should not differ from the education of other children. A child who is HIV positive and asymptomatic is indistinguishable from a child who is well, but in a symptomatic situation, the child 'may have evidence of central nervous dysfunction resulting in decreased cognitive function and academic performance' (*Parent and School* 1994). Other issues that may affect the education of these children are behavioural problems due to the illness and increasing family disruption.

Unless otherwise disabled by their illness, children are routinely placed into mainstream education classrooms, but because these illnesses may accompany other disabilities, these students could be placed into any special education classroom. If placed in general classrooms, in cases where confidentiality is not an issue and where the child concerned is comfortable about talking about their illness with others, it may be useful to educate the class about the illness of one of its members so that they know warning signs and symptoms. This may help to reduce fear and rejection, and help the children become aware of what they can do if an emergency occurs. Having a child with a chronic illness impacts on other class members in other ways. It may teach other children patience, tolerance and understanding, and to help each other by having children with special needs amongst them.

Teachers and other school personnel should be trained in the recognition and management of emergencies as well as in universal precautions for handling blood and blood-containing body fluids. It is also a good idea to incorporate general hygiene practices within the classroom whether or not there is a known case of an infectious disease amongst the children. It is possible for a child, or someone else, to be carrying an infectious disease without knowing it as the symptoms often appear after the infectious period (Reeve 1996). Reeve (1996), suggests that vaccination and antibiotics should not be relied upon, and that hygiene and precautions are far more

important. This is highly pertinent to meningococcal disease, which New Zealand has experienced high rates of, particularly within the Maori and Pacific Island communities (*Education Gazette*, January 1999, p. 2). The bacteria that cause meningitis are found in the nose and throat, and can be spread by close contact with someone carrying it. Children should be advised not to share drink bottles, food or wind instruments.

It is important that teachers understand that the parents of chronically ill children are also experiencing stress of different kinds. Besides the emotional stress and worry of having a chronically ill child, there may also be financial stress with medication costs and lack of insurance; there may be frightening episodes with a child with asthma; there may be fear with a child who is HIV positive; they may have to face fear and rejection from their community. Getch & Neuharth-Pritchett (1999), believe that these strains can take a toll on the child and the family system, which ultimately affect the child's performance in school, as well as the child's relationship with the teacher.

In all cases of chronic illness, open communication between the student, the student's caregivers, medical personnel, and the school is really important and helps to increase the chances of controlling the child's illness. Teachers should become familiar with their school's policy regarding medication, medication forms, requirements for physician's signatures, requirements for administration of medicines, and whether children can carry medication with them. Teachers should also become familiar with resources available, for example, to help educate other children about asthma.

In the classroom, the most important thing a teacher can do is show understanding and sensitivity towards the child. An internet website where children had written to their teachers about how they were feeling contained this statement (Fleitas 1999). 'I wish you would treat me like a student instead of a patient'. Many expressed the desire to be just like everybody else. Other children expressed gratitude for their teachers' understanding and sensitivity. Others made pleas for more understanding, for example, when they appear not to be concentrating in class, as their behaviour may just be due to their condition. Not only do chronically ill children have to deal with

the physical aspects of their illness, they also have thoughts and feelings about their illness to contend with along with what is being taught to them in class.

Chronic illness in children impacts on many people in many different ways. Teachers need to become as informed as possible about the illness. They should encourage communication with those involved, and to be as understanding and sensitive to these children and their families as possible.

### **Bionote**

Katrina Teh is a student in the Graduate Intensive Diploma Programme at Auckland College of Education. Her previous work experience and qualifications are in the area of biological science.

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