fears of discrimination and harassment (D. DeMatteo, The Hospital for Sick Children HIV Program, personal communication, May 9, 1997).

With the right of children with HIV/AIDS to attend school secured, it is essential that schools know how to accommodate the many needs of these children. Surprisingly, however, there is a paucity of literature, especially Canadian literature, which focuses on this area. Because many families choose not to share their diagnosis with schools, schools may not be fully cognizant of the number of infected Canadian children in attendance. There may be a lack of educational research in this area because schools and other educational institutions misunderstand the need for it. However, if schools developed a more inclusive, respectful, and informed policy towards the acceptance of HIV/AIDS in the classroom, perhaps more parents would be inclined to share the diagnosis with the school. Schools would then be better able to meet the health and psychological needs of everyone concerned. Research is needed in order to help guide this policy and educative programme development.

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Serving Children with HIV/AIDS in Canadian Public Schools: An Interpretation of the CPA Guidelines for Non-Discriminatory Practice

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As a result of recent advances in HIV/AIDS treatments, the near future will bring a significantly increased number of children either infected with – or affected by – HIV/AIDS into public schools in Canada. In order to help the psychologist and other professionals involved in the education of children, we have interpreted the Canadian Psychological Association (CPA) Guidelines for Non-Discriminatory Practice in this context. As with the Canadian Code of Ethics for Psychologists (CPA, 1991) the general principles of the Guidelines for Non-Discriminatory Practice include: I. Respect for the Dignity of Persons, II. Responsible Caring, III. Integrity in Relationships, and IV. Responsibility to Society. In addition, we have included practical vignettes in the hope of stimulating continued dialogue.

Grâce aux récent développements dans les traitements du SIDA/VIH, un nombre nettement plus élevé d'enfants infectés ou affectés par cette maladie fréquentera les écoles publiques au Canada, dans l'avenir. Pour aider le psychologue ou les autres professionnels impliqués dans l'éducation de ces enfants, nous avons interprété les directives de l'Association canadienne de psychologie concernant les mesures anti-discriminatoires, dans un tel contexte. Comme dans le Code canadien de déontologie pour les psychologues (CPA, 1991), les principes généraux des directives de l'Association canadienne de psychologie concernant les mesures anti-discriminatoires incluent: I. Le respect de la dignité des personnes, II. Soins et responsabilitiés, III. Intégrité dans les relations, IV. Responsabilité envers la société. De plus, nous avons inclus des illustrations pratiques dans l'espoir de stimuler un dialogue.

Serving Children With HIV/AIDS in Canadian Public Schools: An Interpretation of the CPA Guidelines for Non-Discriminatory Practice

All children today, wherever they are born live in a world with AIDS. One thousand children, mostly in the developing world, become infected everyday. One million children are HIV positive or have AIDS. Since the beginning of

the pandemic, three million children have developed AIDS, and most have died. Nine million children have lost their mothers through AIDS. (Partners Around the World International, 1997, p. 6)

Although not all children born to HIV positive mothers become infected, the majority of children with HIV/AIDS have contracted this virus from their mothers (Cooper, 1990; Reidy, Taggart, & Asselin, 1991). The life expectancy for many of these children has been limited due in large part to the inability of their immature immune systems to ward off life-threatening opportunistic infections. In many cases, these children become symptomatic during their first two years of life, and often did not live long enough to attend school (Meyers, 1994). However, with the advancement of HIV/AIDS treatments, the onset of opportunistic infections has been dramatically delayed and these children are living substantially longer (Palfrey et al., 1994). The picture of pædiatric HIV/AIDS will, in future, appear closer to a chronic rather than a terminal illness.

Canadian Demographics and Epidemiology

According to Health Canada (1999b), there was a total of 43,347 positive HIV tests and 16,236 AIDS cases reported from all provinces and territories of Canada from the beginning of the epidemic to the end of 1998. Health Canada (1997a, 1999b) acknowledges that the available statistics are misleading for two reasons: (1) there is a significant reporting delay, with one case on record having been delayed for 13 years before being reported; and (2) the statistics for HIV and AIDS represent only those people who came forward for testing (i.e., there are many more HIV infected individuals who are infected but do not know or test for it). In fact, Health Canada (1999b) estimates that as of 1996 there were 11,000-17,000 Canadians who were HIV-infected but unaware of their infection. Therefore, the true number of Canadians living with HIV/AIDS may be significantly higher.

While Canadian men make up the majority of those who tested HIV positive, accounting for 87.4% of the current total, Health Canada (1999b) reports that the proportion of AIDS cases among females is increasing. For example, when comparing the statistics for yearly reported AIDS cases for 1989 and 1998, the number of Canadian women reported to have AIDS has more than doubled (i.e., from 6% to just under 14% of total adult cases reported). From a pædiatric perspective, this statistic is particularly alarming since at least 78.6% of pædiatric AIDS cases can be attributed to perinatal transmission (Health Canada, 1999b). Health Canada (1997b) described this mother to child transmission as follows:

> Perinatal (or vertical) transmission of HIV is the transmission of HIV from an HIV infected pregnant woman to her newborn child. Transmission can occur during gestation (in utero), during delivery, when the fetus makes contact with maternal blood and mucosa in the birth canal, or after delivery, through breast milk. Therefore, women of childbearing age (15-44) are of particular importance since they may transmit HIV infection to their newborn children (p. 1).

As of 1998, there were 243 children (i.e., youth under the age of 19) in Canada who were identified by Health Canada to have been diagnosed with AIDS (Health Canada, 1999a). Furthermore, 1193 children were reported by Health Canada to have been diagnosed with HIV (Health Canada, 1999c). Many more are thought to be infected with HIV without knowing it.

Encouragingly, Health Canada (1999b) stated that the total number of AIDS cases is on the decline. This decline is partially attributed to improved medical treatments. People with HIV are living longer without symptoms, and the diagnosis of full-blown AIDS is occurring less often. HIV/AIDS is appearing more as a chronic than a terminal illness. To illustrate, Figure 1 compares the total number of HIV cases with the total number of diagnosed AIDS cases in Canada, since the onset of the epidemic (approximately 1979) to the end of 1998 (numbers provided by Health Canada, 1997a, 1999a).

The changing demographics mean that a significantly increased number of children attending Canadian public schools will either be infected with, or affected by, HIV/AIDS. (It should be noted that throughout this article, the term "affected by HIV/AIDS" is used to describe children who belong to a family where an immediate family member is infected with the virus.) With the complex pattern of HIV/AIDS infection in children, educators will need to understand the developmental impact of the disease in order to create the optimal learning environment. There are currently few national guidelines for Canadian schools on how to best meet the needs of these children.

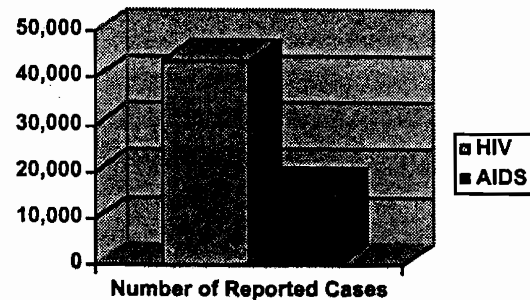

Figure 1. Comparison of the total number of reported HIV cases (43,347) with the total number of the reported diagnosed AIDS cases (16,236) in Canada since the onset of the epidemic (approx. 1979). Figures provided by Health Canada (1997a, 1999a) compiled to the end of 1998.

Psychologists have developed specialized skills that make them well suited to engage in policy discussions concerning HIV/AIDS. The trend towards increased psychological involvement in this area can be seen in both the American Psychological Association and the Canadian Psychological Association (American Psychological Association, 1996; Mills, 1997).

Canadian Code of Ethics and Guidelines for Non-Discriminatory Practice

We believe that the Canadian Code of Ethics for Psychologists (CPA, 1991) is an excellent reference for school psychologists and other professionals who work with infected children and families. The CPA Code of Ethics provided the moral framework for the Canadian Psychological Association's Guidelines for Non-Discriminatory Practice (Crozier, Harris, Larsen, Pettifor & Sloane, 1996). We will present our interpretation[1] of this latter document for the use of psychologists working with infected children and families in the school system. We also see guidelines of this nature as useful to other educational professionals, and to psychologists in other settings who work with this special population.

The Guidelines for Non-Discriminatory Practice were created in response to the changing demographics of Canadian society. As society becomes more diverse, psychologists need to be aware—and respectful—of the varying needs of special populations in general. The guidelines, which are based on the general principles of the Canadian Code of Ethics for Psychologists (Canadian Psychological Association – CPA, 1991), are listed as follows:

I. Respect for the Dignity of Persons,
II. Responsible Caring,
III. Integrity in Relationships, and
IV. Responsibility to Society.

The guidelines can be applied to specific groups of diversity. For the purposes of this article, we have chosen to apply them to children with HIV/AIDS.

In order to help clarify the psychologist's ethical duty when working with children and families with HIV/AIDS in the school system, we have interpreted each of the four principles in this context. This is followed by an illustrative example of positive action on the part of school personnel. Three hypothetical vignettes illustrate dilemmas that may occur when children infected with HIV/AIDS attend school. We provide questions for the vignettes, as well as a

[1] By "interpretation," we mean that we have modified the guidelines – using exact wording from the original document – in order to provide a version that is individualized to this particular vulnerable population.

possible course of action for the first vignette. We hope that the vignettes will stimulate much needed discussion and dialogue.

It is important to remember that psychologists are expected to follow the ethical decision making process outlined in the CPA Code of Ethics (1991) when confronted with an ethical dilemma. When conflict amongst the principles arises, the psychologists are to prioritize them in the order of presentation. For example, if Principle I. (Respect for the Dignity of Persons) is in conflict with Principle II. (Responsible Caring), psychologists are to give Principle I. more weight in the ethical decision making process. The most common exception to this ordering of principles with respect to Principle I. would be if there was "imminent harm," usually life-threatening, towards another person. As discussed in Roberts (2000b), school children with HIV/AIDS pose no imminent harm to others through casual contact in the school environment.

Principle I. Respect for the Dignity of Persons

The principle of Respect for the Dignity of Persons requires psychological professionals in the school systems to appreciate that the innate worth of children and families with HIV/AIDS is not reduced by their condition. Professionals recognize that as the vulnerabilities of children and families with HIV/AIDS increases, and as the ability of these children and their families to control their environment and lives decreases, professionals have an increased responsibility to promote and protect their rights. In addition to specific non-discriminatory practices, special care must be taken to respect the privacy and confidentiality of children and families with HIV/AIDS. Professionals do not practice, condone, or collaborate with any form of discrimination toward this special population. Moreover, professionals continually monitor how they demonstrate respect when working with these children and families.

Principle II. Responsible Caring

The principle of Responsible Caring requires professionals to actively demonstrate a concern for the welfare of the children and families with HIV/AIDS with whom they work. There is an additional responsibility to take care that the children and families have equal access to the benefits of education, as well as to the benefits of psychological knowledge and services.

Professionals recognize that in order to adequately care for children and families with HIV/AIDS, they need to be competent in their professional activities. Competence requires specific knowledge about the disease (i.e., modes of transmission, characteristics of infection, and impact on physical

and mental health). Competence also requires self-monitoring of one's own knowledge base, personal values, experiences, biases, attitudes, and socialization which influence how one practices. Professionals working with children and families with HIV/AIDS engage in self-care to maintain competence. Professionals in the school system also promote and facilitate self-care activities amongst other school professionals of different orientations (teachers, speech-language pathologists, social workers, and so on).

Principle III. Integrity in Relationships

The principle of Integrity in Relationships requires that professionals demonstrate honesty, openness, objectivity, and accuracy in their professional activities with children and families with HIV/AIDS, and that they avoid dishonesty, deception, bias, and inaccuracy. The individual characteristics, values, and beliefs of professionals influence the questions they ask and the assumptions, observations, and interpretations they make regarding HIV/AIDS. Professionals are responsible for managing situations where conflicts arise between their interests and the interests of children and families with HIV/AIDS. Fears of HIV contagion, that sometimes present an apparent conflict of interest between the rights of infected and non-infected individuals, should be dealt with openly, honestly, and carefully. However, present knowledge of the disease stresses that with the proper use of universal precautions risk of contagion is extraordinarily low. The fact that casual interaction with infected individuals does not pose a threat to people needs to be understood by all concerned.

Principle IV. Responsibility to Society

The principle of Responsibility to Society requires that professionals demonstrate a concern for the welfare of all human beings in society. They may choose for themselves the most appropriate and beneficial use of their time and talents to help meet this collective responsibility. There are multiple avenues for social action, including advocating for the rights of children and families with HIV/AIDS. A discipline that maintains high standards for its members is serving the interests of society. Knowledge may be used to influence social policy. Public education, advocacy, or lobbying for the rights of children and families with HIV/AIDS are appropriate. If social policy and societal attitudes seriously ignore or violate the ethical principles of respect, caring, and honesty to the harm of children and families with HIV/AIDS, then professionals have a responsibility to be critical and to advocate for change as quickly as possible. There is social injustice when children or families are

AIDS suffer oppression, professionals have an ethical responsibility to use their knowledge and power to contribute to social change.

A Practical Vignette Which Outlines These Principles in Action

Bethany Miller is starting school in September. Bethany and her mother are both HIV positive. In order to prepare the school personnel for Bethany's arrival, Ms. Miller arranged for a meeting with the principal, teacher, and superintendent. The superintendent also invited the school psychologist to attend. Before the meeting, the educational professionals were apprehensive about meeting with people infected by HIV. They also were concerned about having a child with HIV in their school system. In preparing for this meeting, the school psychologist checked the CPA Code of Ethics and the CPA Guidelines for Non-Discriminatory Practice, as well as relevant and available material on HIV/AIDS (i.e., information regarding modes of transmission, the use of universal precautions, and the psychological impact of HIV on children and families). Before the meeting, the school psychologist shared this information with the other educational professionals and ensured that they were aware of and understood the human rights of children and families infected with HIV/AIDS. At the onset of the meeting, the school psychologist extended her hand to Ms. Miller. During the meeting, the school psychologist ensured that the comments, questions, and opinions of the family were noted, and at appropriate times, advocated on their behalf.

Bethany did attend school that September. In partnership with Bethany's mother, the school psychologist ensured that all professionals chosen to be involved with Bethany were adequately trained in issues surrounding HIV/AIDS, including the use of universal precautions. At all times, these professionals protected Bethany's right for confidentiality.

As the school psychologist was aware of the developmental problems often associated with pædiatric HIV/AIDS (i.e., failure to achieve normal developmental milestones, loss of milestones, reduction of cognitive ability, and possible psychological disturbances)[2] she also ensured that any exceptional learning needs developed by Bethany would be addressed through on-going assessment, special education support, and programme planning. The school psychologist checked with the school and family on a regular basis in order to share information updates, and to make sure that Bethany's well-being was maintained.

Three Practical Vignettes Which Demonstrate Possible Ethical Dilemmas

Vignette Number One

A newly hired school psychologist noticed that the HIV status of a student was discussed openly in front of staff members and parent volunteers who had no need to know the information. The psychologist believed that this discussion was inappropriate, but worried that her lack of experience with the school prevented her from taking a stance. She struggled with this dilemma.

Possible course of action:

After considering the situation, the new psychologist realized that the ethical decision making process outlined in the CPA Code of Ethics would provide her with assistance in working through the dilemma. She referred to the "Companion Manual to the Canadian Code of Ethics for Psychologists, 1991" and she re-familiarized herself with ethically relevant issues and practices. She then developed alternate courses of action. These included:

(a) confronting staff members herself,
(b) confronting responsible administrators, and
(c) consulting with the senior psychologist.

She observed that the CPA Code of Ethics encourages reliance on the discipline, and as such, outlines the appropriateness of seeking consult from colleagues. She decided that her first course of action would be to confer with the senior psychologist. She then booked an appointment and jotted down her specific concerns and gathered information and articles outlining best practice guidelines and the rights of children and families with HIV/AIDS. (For additional information, please refer to Roberts, 2000b) Prepared, she presented her concerns to the senior psychologist. He acknowledged her concerns and the dilemma she was facing, but stressed the ethical responsibility of protecting the confidentiality of the child in question. Together, they agreed upon a subsequent course of action whereby they would present their concerns and documentation to appropriate school officials and thereby advocate for this particularly vulnerable population.

Vignette Number Two

Upon learning about an HIV positive student in attendance at the local elementary school, the Parent Committee became quite alarmed about the safety of the other children. They feared that other children may contract the virus through contact with the infected child. The parent group demanded a meeting with the principal and superintendent. The principal and

superintendent were concerned about this meeting and consequently consulted the school psychologist.

Vignette Number Three

A grade six student diagnosed with AIDS passed away due to complications of his illness. He had attended Springview Elementary school since kindergarten. Some staff members (including the school psychologist) were aware of his condition but others were not. The students knew that he had problems with his health because of his frequent absences, but they were unsure of the specifics. Although there was some discussion about the cause of death, most of the staff and students were consumed with intense grief. The school psychologist headed up the crisis intervention team, and consequently was asked to speak with the staff and students at Springview Elementary school.

Questions which could be applied to the situations outlined in these vignettes are listed below:

What concerns need to be addressed?
What are their options for resolving this conflict?
How does one demonstrate respect for all parties?
How does one care for the well-being of all parties?
How does one maintain honest, open communication?
What ethical principles may be in conflict?
Does respect for the concerns of the larger number override respect for the individual?
What might be the best way for the school psychologist in question to handle this situation?
How might the CPA Code of Ethics serve as a useful guide to the psychologist and teacher?
What are the strengths and weaknesses of this article's interpretation of the CPA Guidelines for Non-Discriminatory Practice?

In summary, demographics suggest that more and more children either infected with – or affected by – HIV/AIDS will be attending Canadian public schools in the future. In order to assist the psychologist and other professionals involved in the education of children, we have interpreted the Canadian Psychological Association Guidelines for Non-Discriminatory Practice in this context. As with the Canadian Code of Ethics for Psychologists (CPA, 1991) the general principles of the Guidelines for Non-Discriminatory Practice include:

I. Respect for the Dignity of Persons, II. Responsible Caring, III. Integrity in Relationships, and IV. Responsibility to Society

In addition, we have included practical vignettes in the hope of stimulating continued dialogue.

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Cross-National Gender Differences in Mathematics Achievement, Attitude, and Self-Efficacy within a Common Intrinsic Structure

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Because of a marked increase in the Canadian immigrant and refugee population in recent years, school psychologists today are frequently called upon to make recommendations concerning the learning needs of students from many diverse backgrounds and cultures. The purpose of this study was to examine possible gender as well as cultural differences in mathematics attitude, achievement, and self-efficacy between Canadian high school students and English-speaking high school students from a northern city in India. Although the participants, tested in their home countries, were administered the same battery of measures, the findings revealed, among other things, significant multivariate and corresponding univariate country, gender, and country x gender interaction effects. The importance of these findings for the practice of school psychology is discussed.

A cause de l'augmentation dramatique des immigrants et des réfugiés dernièrement, on demande présentement souvent aux psychologues scolaires de faire des recommendations en ce qui concerne les besoins d'apprentissage des étudiant(e)s qui sont issue des cultures diverses ou d'un milieu divers. Le but de cette étude était d'évaluer s'il y avait des différences possibles vis-à-vis le sexe et la culture concernant l'attitude envers les mathématiques, des réussites, et l'efficacité de soi. Dans le cadre de cette étude, une comparaison était faite entre des étudiants dans les écoles canadiennes et des étudiants parlant l'anglais qui habitent dans une ville qui se trouve au nord d'Inde. Malgré le fait que les participants ont subi, chez eux, la même série de tests, les données ont démontrées, parmi d'autres choses, qu'il y avait des résultats significatifs "multivariate" et "univariate" en ce qui concerne le pays, le sexe, et les effets interactifs du pays x. L'importance de ces données pour la pratique de la psychologie scolaire est discutée.

Cross-national differences in mathematics achievement as well as gender differences in particular mathematics components have received considerable attention in the last decade in Canada and United States (e.g., Friedman, 1989;

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