Is schooling good for Indigenous children's health?

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Abstract

Overseas research has found a correlation between parental schooling and child and individual health, and between literacy levels and population health. Research in Australian Indigenous contexts does not point to such a straightforward connection. This paper will extrapolate to the Indigenous schooling context from correlational studies which implicate lack of control over destiny and social exclusion for poor health with stress hormones being the plausible pathway. Alternatively, 'social support' and certain cultural factors have been found to moderate stress. Revisiting data from two classroom ethnographies, I propose a scenario where the broader societal picture is lived out in the microcosm of the classroom. The degree to which Indigenous students are socially incorporated and supported within the organisation of the classroom could have significant implications for their health in the longer term. I will also bring attention to an innovative, Aboriginal controlled learning and community development program which fosters 'mastery,' 'social and cultural inclusion' and 'support' by bringing the family into the school.

The link between schooling and health

There is extensive research evidence to support the notion that *schooling and literacy* enhance population and individual health. Strong positive correlations have been found between parental levels of schooling and infant and child survival and child health (Caldwell 1993). Explanations proposed by this body of work are that schooling promotes modernity and a scientific worldview. Furthermore, it is proposed that better-schooled mothers have more self-confidence and higher expectations of western medicine and are more assertive in seeking out appropriate health-care for their children and complying with the prescribed medical treatment. It is proposed that for each additional year of maternal schooling child mortality is reduced 7-9 per cent. Studies have found that in countries with equivalent gross national products, adult mortality is inversely related to levels of adult literacy. It is suggested that a 10% increase in literacy rates could lead to a 10% decrease in child mortality. Evidence associates poor attainment at school with risk of unemployment, perceived

social marginality and at best low status, low control jobs in adult life (Marmot and Wilkinson 1999).

Little research into the connection between years of schooling and health has been conducted with colonised Indigenous populations with even less regarding Australian Indigenous health (Boughton 2000). The few Australian statistically based studies do not point to a straightforward connection between schooling and Indigenous health (Gray and Boughton 2001; Ewald and Boughton 2002). It is likely that the impact of colonisation may confound the health-schooling connection.

Colonisation has brought to Indigenous Australians a low socio-economic status, racism and social exclusion. These factors have been negatively associated with population health in overseas studies (Devitt, Hall and Tsey 2001) whereas positive correlations have been found for social support and cultural cohesion.

In this paper, I will begin by summarising some of the literature investigating the particular 'social determinants' of health which could be seen to characterise the colonisation experiences of Aboriginal Australians. It is possible that these same factors might militate against any health promoting effects of schooling. I will then extrapolate from the international large scale studies to the microcosm of the classroom focussing in particular on the notions of social exclusion and social support. I will argue that the specific nature of schooling could make a difference, not only with regard to academic outcomes for Aboriginal students, but in the longer term with regard to their social and emotional well being and their physical health.

The Societal Context

Social exclusion and health

Social exclusion is one of a multitude of factors which might contribute to the poor health and low life expectancy of Aboriginal Australians, possibly nullifying any positive effects of schooling. In seeking to explain the current state of Aboriginal health Mathews, Weeramanthri, and D'Abbs (1995) quote Ooderoo Noonucal, "Let no one say the past is dead. The past is all about us and within." Mathews et al implicate Australia's history of colonisation, Aboriginal dispossession and marginalisation for the disproportionate levels of poor education, unemployment, poverty, drug abuse and subsequent poor health endured by Aboriginal people today. Colonisation has resulted in a legacy of domination by the majority non-Indigenous society over almost every aspect of Aboriginal life to the extent that institutional structures in law, health, education, social services and the like, are all planned around the needs and cultural assumptions of White Australia. Raphael and Swan (1997) propose that this has had devastating effects on Indigenous mental-health :

> The current high levels of loss, traumatic and premature mortality, the separation of children from their families, through family breakup and justice policies, plus continuing racism, disadvantage, and other effects of white colonization, contribute to the present high level of stress." (1997: 17)

'Social exclusion' would encapsulate the cumulative effect of colonisation on Aboriginal people. It is a term conceptualised in 'social determinants' research which

encompasses the state of economic hardship and the process of marginalisation of groups resulting from colonisation.

> Exclusion processes are dynamic and multidimensional in nature. They are linked not only to unemployment and /or to low income, but also to housing conditions, levels of education and opportunities, health, discrimination, citizenship and integration in the local community. (*European Social Policy White Paper (1994)* cited in Shaw, Dorling, Davey-Smith 1999: 222)

Social exclusion limits people's access to resources, and to social networks and support. It impedes their access to full social and economic participation and it imposes enormous stresses on people's daily lives. Australian Indigenous social exclusion is evident in lack of access to health services, a poor standard of living including inadequate housing and municipal service delivery, and experiences of racism.

Access to services

Educated professional Aboriginal women, interviewed by Katona and Cahill, felt that the most debilitating influence in their lives was their daily encounter with the cultural domination of non-Aboriginal society and its impeding of their access to essential health and other services in a rural Northern Territory town where they lived and worked (Katona et al 2000:62). Anderson (1997) documents clinical processes which work against equitable access to medical services for Aboriginal people with regard to the allocation of therapies for end-stage kidney disease. His study maps a direct connection between discrimination on the basis of Aboriginality and health. Cunningham (2002), in a retrospective analysis of routinely collected administrative data from the National Hospital Morbidity Database, found that, in public hospitals, Indigenous inpatients who presented at the hospital with a sudden or severe symptom, were significantly less likely than other inpatients to undergo a subsequent diagnostic or therapeutic procedure, even after adjusting for patient, episode and hospital characteristics. This applied to most diseases and conditions and is an indication of a systematic difference in the treatment of patients who identified as Indigenous. These findings are consistent with those for African Americans in the USA (Gornick 1999, Williams 1999).

Although the reasons for these disparities in access to health resources have not been thoroughly tested, each of the authors above place substantial responsibility with medical practitioners' stereotypical assessments of patient motivation and compliance, and the institutionalised culture and practice of health services including the social and physical structure of health care centres (Anderson 1997; Gornick 1999; Humphery, Fitz & Weeramanthri, 2001). Cultural issues and distance of treatment from home may also play a part. Communication access is an issue in the Northern Territory where, up until recently, the lack of an interpreter service for speakers of Aboriginal languages was implicated in detrimental effects on Aboriginal health (Lawrie 1999). Even since the establishment of the interpreter service, communication between renal clinic health practitioners and Indigenous clients have been found to be seriously inadequate, limiting the opportunity for patients to make genuinely informed choices in managing their renal disease, and compromising the quality of care. (Cass, Lowell, Christie, Snelling, Flack, Marrnganyin. & Brown, 2002).

Standard of living

USA studies have found that lack of access to municipal services in segregated housing estates, exposure to environmental toxins, and poor quality housing, in residential areas populated predominantly by African Americans were all found to correspond with higher rates of infant and adult mortality (Collins 1999; Williams 1999). In Australia, Runcie & Bailie (2000) report that there are serious inadequacies in housing and health infrastructure in Indigenous communities. Issues of hygiene, overcrowding, lack of electricity and running water, excessive dust, and lack of protection from the weather are issues for many Aboriginal communities (Maidment 2002).

Racism

Morris and Cowlishaw (1997) document the many forms of racism experienced by Indigenous people in Australia. They state of Australia,

> Discrimination on the basis of race is abhorred as immoral, and Aboriginal people live in an unprecedented time of formal equality. But there are dramatic disparities in the conditions of life between Aboriginal people and others on every statistical indicator of social well being (See Dodson 1995). Thus, despite the prevailing rhetoric of anti-racism, evidence of the destructive outcomes of racialised inequalitites and of racialised marginality is compelling. Racist expression is seen as 'merely offensive but never harmful' (Goldberg 1993:38) but the harm is there for all to see (1997:3).

Broadly speaking racism could be defined as "belief systems concerning characteristic inferiority or superiority associated with group membership; and patterns of behavior that differentially affect the esteem, social opportunities, and life chances of members of racial groups as a function of those belief systems." (Rollock and Gordon, 2000:5) Recent research shows a strong connection between individual experiences with racism and ill health.For example, Rollock and Gordon (2000:6) in a synopsis of research into the *impact of racism on mental health* state that "racism can erode the mental health status of individual victims and dominate the institutional and cultural mechanisms through which it operates." Research has found that racism generates internal stresses in individuals resulting in mental health problems. On occasion, it may lead to "full-blown personal self-hatred" or more commonly negatively impact on personal identity. It can generate coping strategies in adults which restrict their capacity for both 'intra- and inter-group interaction' and ultimately lead to limitations to life style. Experiences of racism can negatively impact on people's general emotional experiences and expression, their health and psychophysiology which may then be transmitted intergenerationally. At the societal level, "institutionalized racism detracts from the overall capacity of a community to promote the development of its residents." (See Rollock and Gordon 2000:6.) Several studies have concluded that racism that is internalised by the victim can negatively impact on an individual's sense of ambition, self-assertion, and erosion of sense of self and can lead to depression, anxiety, substance abuse, and chronic physical health problems. (Krieger 2000, Miliora 2000; Williams 1999: 185) Katona and Cahill reported that the Aboriginal women they interviewed appear to have internalised racism so that it seriously undermined their sense of self and well-being (Katona et al 2001).

With regard to the *impact of racism on physical health,* research suggests that the subjective experience of discrimination, by provoking particular responses such as anger, cynicism and anxiety, may generate stress which can lead to cardiovascular reactivity, high blood pressure and negative health consequences on both objective and self-reported measures of physical health (Franklin 1998, Williams 1999; Krieger 2000).

The 'control factor'

As with other aspects of social exclusion, not having control or mastery over one's own life circumstances has also been found to correlate highly with ill health (Marmot & Wilkinson 1999). *The 'control factor'* or as Len Syme calls it 'having mastery' amounts to the extent to which a person feels that they can master everyday events and obstacles without these becoming overwhelming. When an individual feels in control of the situation, she or he is better able to handle stress apparently with less ill health consequences than for the person who has less of a sense of mastery (Devitt et al 2001). A social gradient is apparent in all industrialised countries where people lower down the social and economic hierarchy experience more ill health than those above them (Bartley, Blane & Montgomery, 1997). Similarly, for those in employment, high work demands place more stress on those whose work status offers them little room for discretion as compared with, say, their managers who have greater latitude for discretion. The greater the stress experienced the more ill health.

These are a few examples of accumulated research evidence that social exclusion, whether on the basis of 'race' and socio-economic status, among other factors, reduces the extent of control that people have over their lives and ultimately impacts upon their health and wellbeing.

The health consequences of stress

Social exclusion creates trauma and leads to deprivation in people and this in turn generates stress. Flinn (1999) documented this process in his longitudinal ethnographic study of rural Caribbean children both over the long (ten years) and short (hourly and daily) terms. In his study, 264 children ranging in age from two months to 18 years were monitored. Flinn used the hormone cortisol as a marker of stress, as cortisol, along with the adrenalin hormone, is produced in our bodies in an effort to help us cope with both physical and psychological stress. Cortisol levels were measured through saliva swabs taken randomly throughout the day. Flinn found that 'chronically stressed' children had higher average cortisol levels and were ill more often than the control group. Children defined as chronically stressed were those who experienced two or more risk factors which included,

> parental conflict, mild abuse or neglect, high frequency of reported daily stressors, inhibited or anxious temperament, parent alcoholism, low ... peer friendship ranking, and reported anti-social (theft, fighting, or runaway) behaviors." (Flinn 1999: 125)

For all ages of children, Flinn found that a traumatic family event such as punishment, quarrelling, fighting or embarrassment corresponded with higher cortisol levels and he concluded that "family interactions were a critical pycho-social stressor in most children's lives..." (1999: 123) Furthermore, he found that there were higher frequencies of illness for three to five days after such a traumatic event than when there had been no such stress event.

Flinn's study is part of a large body of literature which confirms that *psychological stress affects health* (Flinn, 1999: 124) and stress is believed to be the mediating factor between the social environment and the health consequences.

Other studies indicate that traumatic events are associated with illnesses such as cancer or cardiovascular disease. Such traumas have included divorce, death of a close family member, change of address and job loss. The health response is as follows:

> Chronic and traumatic stress can diminish long-term health functions, including cellular repair, immune response, and brain expansion. Stress during childhood may be particularly taxing because of the additional demands of growth and development (Flinn 1999: p.105-6).

The challenge for medical research has been to expose the actual *biological pathways* by which seemingly remote factors such as social structure, work and social and cultural environment can impact on the individual psychology leading to immune responses of the brain and pathophysiological changes and organ impairment. Because the endocrine and neuroendocrine systems are very responsive to cognitive and emotional experiences which impact on the physiology, hormones such as cortisol and adrenalin can be used as convenient markers of stress (Panter-Brick & Worthman 1999). Too great a concentration of these stress hormones can be "highly pathogenic" (Sapolsky 1999:19). It is proposed that elevated levels of stress- generated hormones could possibly suppress the immune system, or contribute to the formation of arterial plaques, or damage parts of the nervous system. Such eventualities may make a person vulnerable to diseases such as diabetes, infectious diseases, heart disease and strokes. In sum, they hypothesise that if a biological stress response is activated too frequently or for too long there is the potential for health costs. However, moderating factors such as individual coping responses and social support appear to underlie social and individual differences in the response to life stressors.

Moderators of stress

Certain factors have been found to moderate the severity of stress experienced by individuals and assist them to be more resilient to stressful life circumstances. For example, individual temperament and personality can increase or lessen the impact of stress and social support has also been found to buffer stress.

Social support

Stansfeld (1999: 155), drawing on the definition of Cohen and Syme (1985) describes *social support* as "resources provided by other persons ... [including] information leading the subject to believe that he is cared for and loved, is esteemed and valued and belongs to a social network of communication and mutual obligation (Cobb 1976)." Social support could be seen as an avenue by which people can regain control of their lives (Syme 1996; Syme 1998: 6). Stansfeld (1999: 156) depicts it in a framework which I have compiled in the following table.

Table 1

Types of social support

Emotional Support:

Informational - information to help in problem solving

Self-Appraisal - actions of others that boost one's self-esteem

Instrumental or practical: Offering needed resources, finances, assistance

Negative interaction: Fostering dependency or negative self-appraisal

The kinds of stressful life events which have been found to trigger negative health responses include social isolation, school change, job entry, unemployment, bereavement and retirement. The kinds of support that studies have found to buffer the stress effects of such life events include emotional support such as having someone to confide in, social work which provides access to social services and counselling, and the provision of information about services, about life-style issues, and the like. Those delivering the support have been spouses/partners, relatives, work colleagues, or professional service providers. The kinds of health outcomes achieved have included improvements in morbidity (illness), in mortality (death rates) and in levels of mental illness (eg depression and anxiety). The actual nature of the support and the person delivering it can trigger differential effects on males than on females, and on different aspects of health. For example, intimate but negative social relationships have been found to have a detrimental impact on health; emotional support can buffer the effects of traumatic life circumstances on the incidence of depression; being married is more beneficial to the health of men than for women whereas women benefit more from the emotional support of close friends or relatives (Stansfeld 1999).

Stansfeld (1999) also found that social integration or cohesion can have beneficial effects on health within the whole community to an extent that even supersedes individual personal relationship effects. Social cohesion depends upon there being mutual trust and respect between different sections of a community, where there is substantial participation in communal activities and public affairs, and high membership in various community groups.

Cultural Factors

There is also evidence that certain cultural factors may buffer the stress effects of social exclusion, racism or immigration for cultural minority groups. For example, Italian immigrants to the USA maintained better health where they retained the Italian traditional family-oriented social structure. "But as they became assimilated into the

surrounding American culture, where the individual rather than the family and community was considered to be the dominant unit, incidence of coronary heart disease rose" (Stansfeld 1990: 170). This is despite improvements in diet and a decrease in smoking. Such elements as spirituality (Bowen 1998; Jackson & Sellers 1998) and a strong sense of cultural identity, family support and association with members of one's own cultural community (Jackson & Sellers 1998; Niles 1999) were also found to buffer stress effects.

Schooling and the Aboriginal Child

The research referred to above associating stressful life experience with long term physical and mental ill health has implications for Aboriginal children in urban mainstream classrooms. As will be seen from the two cases to follow, a teacher's relationships with her students, the depth of her understanding of their backgrounds, her expectations and methods of sanctioning them and organising their learning, can make a profound impact upon a child. The nature of this impact can range from social exclusion as in the first case, to social and cultural incorporation in the second.

National statistics on Indigenous student participation, retention and attainment rates indicate that mainstream schooling has not been successful in engaging them in learning (Beresford & Partington, in press). A variety of explanations have been offered for this phenomenon. The one being proposed here is that the domination of white Australia in the population and society at large, is also reflected in schools. For example, because of structural barriers combined with a small population, Indigenous people are under represented on school councils, as teachers, curriculum writers, school administrators and government officers. Consequently, school policy and programs are predominantly informed by the perceptions, life experience, priorities and processes of the dominant group. In addition to this, the systemic but largely invisible nature of this domination makes it difficult to identify and expose (Malin and Ngarritjan-Kessaris 1999; Moreton-Robinson 1998). The first of the case studies to follow will demonstrate how this process of inadvertent domination can work in the microcosm of the classroom.

Social exclusion in the classroom

It is clear that many Aboriginal children find themselves in particularly stressful situations, daily, in the community (Raphael & Swan 1997; Traves 2000) and, as I will argue here, also in mainstream classrooms. I will describe below ways that everyday, taken for granted classroom events can both obstruct Aboriginal children's opportunities for learning and be potentially stressful to them. I will indicate how and why the accumulation of such events amounts to their social exclusion.

Indigenous Australians have reported experiencing blatant racist episodes in their schooling and often parents explicitly instruct their children on appropriate ways for dealing with these (e.g. Malin 1989; Groome 1988). However, more subtle forms of racism operate to disadvantage Aboriginal students in schools.

My detailed micro-ethnography of daily life in an urban early childhood classroom gives a clear picture of how unintentional, invisible discrimination along racial lines, can occur. It depicts how an experienced, respected and generally well-intentioned teacher unknowingly discriminated against Aboriginal children in her class in a mainstream urban school. The research (Malin 1997; 1994) found that the seemingly

minor oversights, misinter-pretations, preconceived ideas, and prejudices of an ordinary non-Aboriginal teacher compounded over the year to result in the social exclusion and academic marginalisation of Aboriginal children in her classroom. It is only when small events are monitored, documented and then compounded that the pathways of systemic discrimination are made visible. Of relevance to this paper is the data relating to differential access to precious teacher resources and the accumulated stresses of daily life which fell disproportionately on the three darker skinned Aboriginal children in the class.

Access to resources

Videotaped classroom activity documented across a year exposed a pattern of unequal distribution in the amount of emotional support and quality instruction, by the teacher, to the three darker skinned Aboriginal students in the class when compared with that given to the rest of the students.

Social/emotional resources. Certain teacher actions would communicate to students feelings of warmth and acceptance, including verbal or physical expressions of affection, of high expectations and approval, and of camaraderie including the sharing of jokes and personal stories. The allocation of these resources were proportionate to the level of the 'ability groups' with the Aboriginal students, who were over represented in the 'lowest' group, receiving the least. In addition, these students received proportionately more punishments than other children which were primarily in the form of exclusion from the lesson, often sitting facing the wall at the front of the class, and sometimes for actions not punished when done by other children.

Academic resources. Two factors believed to be essential to effective classroom learning are 'time on task' and quality scaffolded instruction. The three Aboriginal students consistently received less of these than the rest of the class over the year. There were a number of ways that these children received less time on task. These included them consistently being the last to be served by the teacher; once served, they had less time for instruction or for independent desk work, because time ran out; they spent much time in 'time out' as punishment; and were not allowed to take a reader home for home reading because of not returning a previous book.

The quality of instruction offered these students was of poorer quality for the following reasons: inappropriate ability group placement through inaccurate assessment of attainment and through 'demotion' to a lower group as punishment; ongoing inaccurate gauging of attainment because of miscommunication resulting from not understanding the dialect of Aboriginal English, or from insufficient response time allowed during questioning.

Evidence of stressful events

'Naomi was a the five year old Aboriginal student who was closely monitored across a school year. Based on events documented on videotape, through observation and through teacher and student interviews, it was apparent that Naomi experienced significant stress throughout the year. Many incidents pointed to *her social exclusion* including the behaviour of other students towards her, particularly after she had received a reprimand, when they would make faces at her, move away from her, declare that they would not play with her, or refuse her requests to play with them. At times, she would offer them food or money in an effort to win their friendship. On many occasions, the teacher's behaviour towards her also excluded her. For example, on one occasion, after not having correct answers ratified, Naomi asked

the teacher if she liked her work. The teacher interpreted these requests as Naomi bragging and ignored them. After being ignored for a sustained period, Naomi retaliated with an angry outburst by telling the three children with whom she had the most positive relations, that she hated them and their work. Through the year, the teacher ignored or failed to understand Naomi's efforts to share jokes with her or chat with her. It was apparent that Naomi lacked credibility with the teacher, who often double checked on assertions Naomi made about what she had done outside of school; the teacher's low expectations of Naomi resulted in her sending another child on errands with her; and also resulted in her double checking that Naomi's competent work was indeed hers. Two years after these events, I questioned Naomi about whether she remembered sitting in 'time out' with her face to the wall. She commented that the experience had been a 'horrible' one for her. [Malin 1994; 1997]

Social support versus exclusion

My conceptualisation of inequitable access to resources in the classroom is analogous, although at a micro level, to the much investigated notions of 'social support' and its antithesis, 'social exclusion' which are considered to be among the significant social determinants of health (Brunner & Marmot 1999). As is evident above, the three darker skinned Aboriginal children had less access to social support whether practical or emotional than other children while also receiving more intensive and frequent negative communications from the teacher. Naomi's experiences of invisibility and lack of recognition and validation of achievements are consistent with the "invisibility syndrome" often experienced by African Americans. (Franklin 1998:242) Such an experience is stressful and can provoke a range of emotions including disillusionment, anxiety and anger. As stated earlier, such stress responses are thought to have associations with ill health. Clearly, this is evidence of social exclusion. Shaw & Smith (1999:223) explain that *social exclusion* results in the receiving of limited access to resources, not only of the economic kind, but also the resources which come from living within a society - such as educational opportunities, social networks and social support. Both the receiving of low levels of social support, or being socially excluded are associated with higher stress levels. Flinn (1999) found that such factors as punishment, conflict, social exclusion and the like contributed to heightened cortisol levels in children with associated increase in flu and colds. From this, it would be reasonable to extrapolate that the treatment of these three Aboriginal students, particularly if continued over time, may contribute to their ill health in the long term.

The differential treatment of three Aboriginal children when compounded over a year resulted in their receiving less instruction and poorer quality instruction than other children. In a sense, these students' opportunities for academic learning was bartered for their 'good' behaviour where 'good' behaviour was interpreted differently depending upon the respective cultural backgrounds of the students and teacher. This exemplifies a form of institutional racism which is invisible to most of those concerned but creates a stage where Aboriginal students are seen by their peers to be incompetent academically and dissident behaviourally, reinforcing racist stereotypes which are commonly held in the larger society. Furthermore, there is now research evidence which points to possible long term health implications from such exclusionary processes for these children, particularly if they are exposed to such a regime in subsequent years at school. Both Naomi's and the teacher's actions described are well within the range of what would be normal in classrooms today.

A supportive and incorporative curriculum

Hudspith's study (1996; 1997) shows a Darwin-based teacher working very differently with her Aboriginal students than in the study above. Hudspith's 'Mrs Banks' was loved and respected by the students and their parents, *and* she progressed them academically far beyond their achievements in any of their previous years in primary school. Mrs Banks was considered to be a good teacher of Aboriginal primary school students, from the perspectives of the principal, her colleagues and the parents. Aboriginal parents said of her,

> .... You look at [Mrs Banks] and her class and they respect her because she's their teacher, but they respect her because she's like their mother or someone older than them that they respect (Hudspith, 1997: 99)

> "[Mrs Banks] had something interesting every day for the kids there and they really wanted to go to school. [My son] talked a lot about school then, and he never wanted to come shopping with me because he was doing something at school and he was really excited about it... But now [he's not in Mrs Banks' class] he wants to stay home and look after the baby and he's glad to do it because he'd rather do that than go to school. (Hudspith 1996: 184)

Unlike in my study, the environment of Mrs Banks' class was a *socially and academically supportive* one for the Aboriginal students. They were well resourced with practical, effective instructional support which advanced their academic learning. Hudspith characterised Mrs Banks' pedagogy as "visible", that is explicit and interventionist. Mrs Banks expected that each of the students would improve their academic skills and she explicitly communicated this to them. Most of the day was spent on literacy and numeracy with little time for videos, physical education, and no free time for colouring or playing activities and yet the students were engaged and enjoyed their work.

In addition, Mrs Banks' students felt confident in themselves, their identities and their ability. Hudspith characterised Mrs Banks' pedagogy as being*'incorporative'* of the student, not only in the class, but also in the larger, urban mainstream school. She assisted the children to understand that different teachers have different expectations of children's behaviour and that they must show respect to all teachers. Other teachers noted that the behaviour of Mrs Banks' children, in the school at large, improved dramatically from that of the previous year when in different classes. Mrs Banks also fostered links with the children's homes in a number of ways. They all knew their own and the others' 'country' of origin and the nature of their relationships with one another. Visitors to the class were commonplace and were also situated, relative to the students, according to land and kin. Mrs Banks knew the families well, visited them regularly and continued her contact with them long after the children left her class. Mrs Banks *brought the students' culture into the classroom*, implicitly, in the ways that she used discipline and in the interpersonal interactions that were nurtured. Hudspith writes, "In this way Aboriginality was embedded in the mundane aspects of classroom activities and relationships; Aboriginal identities were tacitly reaffirmed in the taken-for-granted ways in which people related to each other and to the group." (1996: 105). Social and cultural inclusion in Mrs Banks' class extended beyond the class to the school and broader community. In sum, one could extrapolate from these characteristics that schooling for the children in Mrs Banks'

class would be educationally supportive, enjoyable, relatively stress free and in the longer term, if sustained, health promoting.

Table 2 summarises everyday classroom practices which can enhance or obstruct a student's incorporation into the learning community of the classroom.

Table 2

Social Support in Primary School Classroom Practices

Practical academic support	**Emotional support**
Time on task • Reading aloud at school • Instruction time given for each individual and each small group • Time each student is left to work independently - too long or too short • Time spent in 'time out' • Encouragement to read aloud at home **Selection criteria for Group Work** • Objectivity of selection criteria • Nature of membership - attainment or heterogenous or both	**Self-appraisal** • Genuine participation in humorous exchanges with child • shares personal stories • expresses approval of child • expresses approval of child's work **Factors fostering social exclusion** • Teacher displays of irritation/dislike of student • Excessive or inconsistent reprimands and punishments • Student 'invisibility'- not receiving public or private recognition of achievements • Resultant rejection by peers
Quality of time on task • Order in which children receive individual/small group instruction • Extent of scaffolded instruction • Individual or group instruction • Whether the task is appropriate to student's current level of understanding • Teacher's understanding of what	**Teacher attitudes and expectations** • Assume that all children can learn • Being critically aware of own stereotypes of child's ability & propensities based on ethnicity, background • Working to change negative stereotypes • Supporting students' cultural identities

the child is saying	

This last scenario demonstrates that mainstream schooling can function to empower Aboriginal children. Currently, however, this is not the status quo and for this reason some students have become alienated from the system despite wanting to continue to learn. Irrkerlantye Learning Centre, the final case-study to be presented here, is one which focuses on those students who would have otherwise dropped out of school. In this section to follow, I will speculate on how its organisational structure and functioning might contribute to social and cultural cohesion and support for the Arrernte families involved.

A community development and education centre

Irrkerlantye Learning Centre is an Alice Springs-based Eastern/Central Arrernte education and community development program which began as an alternative secondary school for Aboriginal children from the Town Camps, considered to be 'at risk'. The background of many students is characterised by involvement with the juvenile justice system over such issues as substance abuse, violent and anti-social behaviours and, clearly, they and their families experience substantial levels of sustained stress.

The Irrkerlantye secondary-school program offers secondary aged students mainstream literacy and numeracy curriculum options and vocational education and training courses. At the Centre, the students' families also have access to vocational education and training courses including horticulture, construction, media, leadership and art. Irrkerlantye assists each family to devise a long term community development plan for their family and strategies for carrying out that plan through education, training and CDEP (work for the dole) work programs. From descriptions of the Centre by those involved (eg Traves 2000, Flynn 2001), it would appear that it offers social support to the families, that its practices are culturally inclusive, and that it minimises negative communications.

Social support and access to resources

In addition to the education courses referred to above, the Centre provides families with ready access to networking and advocacy support with local service agencies, for example, health services, social and emotional well being counselling, and programs focused on women's health and drug dependencies. Breakfast and lunch are provided as is access to transportation, a computer, printer, telephone and office space.

Cultural cohesion

There is reason to believe that Irrkerlantye fosters cultural cohesion. Flynn (2001:2) reports,

> Most of the people attending Irrkerlantye are affiliated with one or other of the four clans who are comfortable working together within the Arrernte social framework. These clans are traditionally associated with lands in Alice Springs and to the east and north of the town.

In her consultations with participants, Flynn found that Irrkerlantye was valued for the "sense of community" that it generated and because it was perceived to be a "happy and safe environment". (Flynn 2001:4) Flynn stated in her report,

> The issue of community identity and the physical space to exist is an important one for the Arrernte people of Alice Springs. Urban development means there are less and less places for the type of interaction that is needed to affirm each other in a supportive environment. Various factors have led to the marginalisation of generations of people which erodes family and cultural integrity. The critical alienation experienced by many Arrernte youth and adults over the past five or six years is symptomatic of the chronic stress on communities largely stemming from the reluctance of government agencies to recognise and respect Arrernte people's cultural heritage. Irrkerlantye and Ngarte Mikwekenhe (its corporate body) are addressing the basic human need of family and community well being. (2001: 2 & 3)

Families had expressed the fear that the young people were using Arrernte language incorrectly and were losing their Arrernte culture and so language and culture learning were being incorporated into the curriculum and also reinforced during the regular fieldtrips through which families were reconnecting with their homelands.

Flynn reported that participants view Irrkerlantye as a "safe" and "happy" place. It is likely, therefore, that the family focus and cultural cohesion, referred to above, minimise negative and potentially disempowering interactions which apparently characterise the young people's experiences in the Alice Springs mainstream community (Flynn 2001).

An evaluation is currently being conducted on Irrkerlantye Learning Centre to seek to ascertain its success in meeting its goals and to determine whether there have been any health or social benefits from the program. (Malin and Maidment, in progress)

Aspects of schooling which promote health

In this discussion paper, I have argued that the legacy of colonisation for Aboriginal people has had devastating consequences for their health. I have highlighted the 'social determinants' research which points to the likely stress-induced health consequences of social exclusion through lack of equitable access to resources, racism, and loss of a sense of control over one's destiny. Alternatively, social support and certain cultural factors including a shared spiritual affiliation, cultural identity and family support have all been found to offer some protection from the damaging effects of stress.

Similarly, years of schooling and levels of literacy have also been positively correlated with the health of a population, in overseas studies. However, current statistics on Indigenous retention and attainment in Australian schools would indicate that schools, in general, are not succeeding in meeting the educational needs of

Aboriginal students. From there, it would not be a great leap in logic to suggest that school failure might have long term negative ramifications for Indigenous health.

The case studies presented here have demonstrated ways that social support can be reinforced or undermined through the organisation of learning and behaviour management in the primary school classroom. The first case study illustrated ways that fairly commonplace classroom social and academic routines created potentially stressful situations for Aboriginal students ultimately resulting in their marginalisation within the class. Many of the stressful circumstances that were documented are equivalent to ones found by Flinn to raise cortisol levels in children and subsequently to be followed by bouts of ill health. Other studies have found associations between sustained elevated levels of stress hormones such as cortisol and adrenalin and physical illness.

I am suggesting here then, that the positive health effects of schooling found in overseas studies may be cancelled out, in Aboriginal Australian contexts, by the marginalising processes of colonisation, which extend into the classroom. To a large extent, the negative consequences of classroom practices are unintended but are products of Australian institutions being configured to the needs of the dominant non-Indigenous group. The second case demonstrated how, with specific cultural knowledge, personal knowledge of the families and community, and good teaching skills, teachers can organise their classes around regimes of social and cultural support. In this environment, the students blossomed, their literacy levels and their confidence levels were significantly elevated and their anti-social behaviour evaporated. We could extrapolate from this that their sense of belonging and of being supported and their increased levels of confidence at being more academically able should be health promoting if sustained in the long term.

However, because this latter scenario is not commonplace many Aboriginal children are alienated from the system and this situation led to the establishment of the third case study, the holistic, inter-generational community development and learning centre. The significance of such home-grown, locally controlled Indigenous schools is under-lined by research findings suggesting that the health-promoting process of 'regaining control' is most effective if it begins at the grass roots and is not imposed from above (Syme 1996; 1998). Whether the 'control factor', in addition to social and cultural support comes into play at Irrkerlantye Learning Centre is currently being investigated, along with the possibility that the Centre has contributed to a decrease in juvenile crime in Alice Springs over the past two years (Malin and Maidment, in progress).

Policy Implications

A number of recommendations and policy implications follow from the issues addressed in this paper. For the most part they relate to teacher preparation and inservice education, staffing, variety in models of schooling and further research.

It is clear that teacher education is not sufficiently preparing teachers to teach Aboriginal children. Compulsory units in Indigenous Studies are needed which cover the history of colonisation in Australia, the stolen generations and contemporary social issues including the latest research evidence on the social determinants of health which impact upon Indigenous Australians. Also general Aboriginal cultural knowledge about the spiritual, political and economic connections with the land and

kinship systems, for example, is important. This latter knowledge helps people to understand the devastation caused by Aboriginal dispossession. Units in Indigenous Education should also be compulsory for undergraduate education students and these should cover topics such as the impact of health on education and vice versa, in Indigenous contexts, including topics on nutrition, hearing loss and pre-and post natal care. Classroom management and the organisation of learning are also important topics for Indigenous Education including the issues discussed in this paper about social support and cultural incorporation. Genuine cultural incorporation involves a teacher acquiring considerable knowledge about the local families, and cultural matters which local communities consider to be relevant. It requires involvement of family members in their children's education in every way possible. Professional development programs covering these issues are also needed for practising teachers along with encouragement for them to pursue university studies in those same areas.

Implications for staffing arising from the research reported here include the urgent need for a greater Indigenous presence in schools, particularly from the local communities. There has always been a severe shortage of Indigenous teachers and teaching assistants, particularly in urban schools. Turning this around would require increased recruitment efforts on the parts of University Schools of Education. Furthermore, retaining Indigenous teachers already employed in school systems has been difficult implying that greater social support is needed for Indigenous teachers. Clearly articulated career paths may be needed for Indigenous Teaching Assistants for them to either move into teaching themselves, or take on more responsibilities and influence within the schools. Increased Indigenous membership on school Boards would help schools to be more responsive to local Indigenous community concerns.

Governments' and Education Departments' support of local Indigenous education initiatives is important. As the variety of schooling options available to Indigenous parents increases, it is likely that Indigenous student attendance and retention will also increase. If such a school is to include a community development focus, as does Irrkerlantye referred to above, it is likely to need collaboration between health, education, Indigenous community councils and agencies, and correctional services departments in their funding arrangements.

It would be most beneficial if a data base, on the internet, could be assembled which included directories of the various Indigenous controlled schools around Australia, a summary of their organisational structures, aims and objectives, achievements, contact details and funding arrangements.

Further in depth research into what is working for Indigenous students in schools is essential, along with a continually updated database of what research results already exist. Policy guidelines then need to be informed by current research about best practice as opposed to those informed by unevaluated but fashionable trends.

Finally, research investigating ways that schools can contribute to improved Indigenous health, in any number of ways, is of enormous importance in a time when the mortality rate of Indigenous adults is on the increase.

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