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Diarrhoea in Minorities in China

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Introduction

China is composed of 57 ethnic groupings. These groupings are associated with a particular territory, usually speaking a single language, and having the same characteristics or aspirations developed from a common historical and cultural background. According to the Census in China in 1990, the total population of China was 1,130 million, and the major ethnic grouping called Han was approximately 1,039 million (almost 92% of the total population). All other groupings in China are called "minorities". There are seven provinces where more than 20% of the population was composed of minorities: Tibet 95.9%, Xinjiang 61.0%, Guangxi 38.4%, Qinghai 36.4%, Ningxia 33.4%, Yunnan 27,1% and Guizhou 22.6%.

Diarrhoeal Morbidity in Minorities

Under the instruction of the National Control of Diarrhoeal Diseases Program (CDD) and WHO, household surveys on diarrhoeal morbidity in children under 5 years old were taken in 8 provinces after 1990. This included the Yunnan, Ningxia and Qinghai provinces which have more than 20% minority population.

Table I shows the results of a prospective study on diarrhoeal disease in Xinjiang Autonomous Region from May 1990 to April 1991. During the study, participants were questioned four times by trained investigators.[1] There was a significant difference in incidence between Weiwuer and other minorities (X^2=14.519.7, $p<0.01$), but no significant difference between other minorities.

The results indicated that for children under 5, diarrhoeal morbidities in Yunnan, Ningxia, Qinghai and Xinjiang were higher than for the whole population. The morbidities in different minorities varied. Morbidity in age

Table I Morbidity of Diarrhoeal Disease by Minority in Xinjiang

Minority	Population observed Person/year	Morbidity (Episodes/person/year)
Han	8,869 (25%)	0.89
Weiwuer	16,482 (47%)	1.47
Hazak	5,117 (15%)	0.84
Others	4,605 (13%)	0.88
Total	35,073	1.16

groups under 5 and over 60 years was higher than in other age groups, but there was no significant difference between genders.

Diarrhoeal Mortality in Minorities

Comparison in mortality rates between the Weiwuer and the Bai (a minority mainly living in Yunnan Province) is shown in Table II.

Percentage of deaths due to diarrhoea was 7.6% for Weiwuer, 9.4% for Hazak, and 2.2% for Han and others. Compared with the 5.9/1000 death rate, 0.15/1000 diarrhoeal mortality and 0.002% case-fatality rate in the whole of China,[2] the mortality with diarrhoea in minorities in Xinjiang was higher. However, the mortality from diarrhoea in the Bai of Yunnan province was lower. The percentage of deaths due to diarrhoea in children under 5 was higher than for other age groups. Percentage of deaths due to diarrhoea was higher for all age groups in Weiwuer and Hazak than in Han and others.

Risk Factors for Diarrhoea in Xinjiang

In the Weiwuer in Xinjiang[3] risk factors for diarrhoea morbidity were examined. Diarrhoeal morbidity was inversely related to literacy level, washing of hands before eating and after defecating, house hygiene, type of drinking water and type of latrine.

Table II Mortality of Diarrhoea in Minorities

	Weiwuer		Bai	
	n	mortality	n	mortality
Diarrhoea	11	(.31/1000)	0	
Diarrhoea-assoicated	16	(.46/1000)	2	(.33/1000)
Other causes	140	(4/1000)	24	(3.9/1000)
Total	167	(4.76/1000)	26	(4.26/1000)

Prevention of Diarrhoea in Minorities

Prevention is the main strategy in China for diarrhoeal disease control. According to the National CDD Program, the targets for prevention of diarrhoea during the period of 1992-1995 are: a 20% reduction of morbidity and fatality rate; a 60% rate of exclusive breast feeding of children under 4 months; 30% of infants under 1 year old reasonably receiving weaning food; 85% of the rural population having access to improved water supply and 40% of population educated in how to prevent diarrhoea.[4]

In minority areas, health education is focusing on the use of clean water, washing hands before eating and after defecating and breast feeding. Methods used include case management at home using posters, blackboards, brochures and face to face instruction by health workers. In some areas, like Xinjiang, Tibet, and Yunnan, health education material is distributed in the local language. Generally, population access to improved water supply in the minority areas was less than in other parts of China.

Management of Diarrhoea Cases

One important task regarding management of diarrhoeal cases in National CDD Program is to encourage correct case management at home, which includes continuation of feeding or breast feeding, taking more water and education regarding when to seek health service assistance during diarrhoeal episodes.

Table III shows the feeding practice following diarrhoea in 3 provinces. More than half the mothers continued to feed their infants and some

gave additional water. Table IV shows caretakers knowledge of when to seek medical help.

Until the end of 1992, there were 31,075 health facilities, and 638,230 health professionals including 187,543 from a minority at the country and township level in minority autonomous areas. There were 76,188 villages in the areas, and 59,356 villages with 77,842 health service centres, in which about half of the health workers were from minorities.[5] These health facilities play a key role in treatment of diarrhoeal cases.

About half of diarrhoeal cases received treatment in health facilities. However, ORS use rate was very low and IV antibiotic use rate very high in these facilities.

Table III Feeding Practice of Caretakers of Children under 5 with Diarrhoea in Last 24 Hours

Province	Continue Feeding	Continue Breast Feeding	Increase water intake
Yunnan	64%	56%	58%
Ningxia	66%	97%	33%
Qinghai	86%	100%	10%

Table IV Knowledge of Caretakers Regarding Use of Health Service for Children under 5 with Diarrhoea in Yunnan Province

Reasons to refer Child to see doctor	Caretakers Interviewed	
	n	%
Passing many stools	330	78%
Very thirsty	4	1%
Sunken eyes	16	4%
Fever	106	25%
Not eating/drinking	63	15%
Not getting better	165	39%
3 or more reasons stated	76	18%

Conclusions

Diarrhoeal morbidity varies in minorities. In most minority areas, a high morbidity of diarrhoea is a major constraint to the community's health and social development. However, lack of resources will limit the implementation of strategies of diarrhoeal control in minority areas.

The character of high morbidity and low mortality determines that the strategy of diarrhoeal control in minority areas will be prevention. Improving water supply and health education will be key approaches.

With high access rate to health facilities and traditional feeding practice during diarrhoea, diarrhoeal mortality in Chinese minorities was lower than other developing countries. Abuse of antibiotics and IV infusion in health facilities increased cost and sideeffects in the treatment of diarrhoea, and would be improved in future by increasing ORS distribution and improved training of health workers. Diarrhoeal disease research in minorities should be emphasized in order to obtain scientific evidence and make CDD activities more feasible and tailored to the needs of certain minorities.

References

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