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Charcoal burning suicide in Hong Kong

Introduction

Since 1999, Hong Kong has seen both a progressive rise in suicide rates and an outbreak of a new mode of suicide: charcoal burning. This novel act involves burning charcoal within a small sealed room to bring about carbon monoxide poisoning. While it was unclear who invented this lethal method, charcoal burning has attracted enormous public attention and has been quickly popularised as an easy, quick, painless, and non-violent way to end one's life.^{1,2}

Within 2 months of its appearance, charcoal burning became the third commonest method of suicide in Hong Kong. By 2001, it replaced hanging as the second commonest method.³ Charcoal burning was also used to commit family suicide-murder, in which innocent children were killed.⁴ As most victims of charcoal burning suicides are of productive ages, their deaths cause a heavy burden and a social capital loss to Hong Kong society as well as evoke grave humanitarian and public health concerns. The present study aimed to explore the demographic, medical, socio-economic characteristics, and life experiences of people who choose charcoal burning suicide deaths.

Methods

This study was conducted from September 2000 to June 2002 using quantitative and ethnographic methods.⁵ Quantitative data were collected on socio-demographic, medical, and psychiatric characteristics of charcoal burning suicides and non-charcoal burning suicide deaths. The quantitative findings were then contextualised by providing an in-depth understanding of pathways and processes involved in charcoal burning suicides.

Case control study of coroner's records

The coroner's records of the first 160 charcoal burning suicides and 160 age- and gender-matched non-charcoal burning suicides occurred over the same time span were examined. Socio-demographic factors, psychopathology, psychiatric history, help-seeking behaviour, and debt-related factors were compared between the two groups.

Ethnographic enquiry

Ethnographic interviews were conducted with 25 persons who survived a serious charcoal burning suicide attempt. The in-depth interviews aimed to elicit the living experience and the social context surrounding charcoal burning suicides. Psychiatric diagnoses were ascertained by administering the Structured Clinical Interview for DSM-III-R (Diagnostic and Statistical Manual of Mental Disorders, Revised Third Edition).⁶ Beck's Suicidal Intent Scale was also used to assess the participant's suicidal intent.⁷

Results

Charcoal burning suicide has led to a new cohort of deaths during the recent economic downturn. This led to a significant rise in suicide rates among the middle-aged. Charcoal burning suicides mostly occurred among people in their economically productive years (87%), those who were unmarried (67%), and those who lived alone (68%). A high proportion of subjects had serious debt problems (67%) and many had gambling problems (44%). Although a depressed mood (79%) and negative thinking (83%) were common prior to their acts,

Key Messages

1. Charcoal burning suicides embodied the profound and unexpected socio-economic changes that troubled many Hong Kong people in the post-transition era.
2. Media inadvertently prescribed a collective meaning to the method of charcoal burning, and people subscribed to the method when all other means failed. The media should adopt the World Health Organization guideline on suicide reporting.
3. Lending institutions should review their regulations to reduce the high lending rate and improve the risk assessment process.

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the victims rarely identified other core symptoms of clinical depression such as insomnia (15%) and appetite disturbance (5%). It is unlikely that these individuals were clinically depressed prior to the suicide attempt.

Compared with the age- and gender-matched non-charcoal burning suicide controls, charcoal burning victims were significantly more likely to have debt and gambling problems, live alone, be physically fit, and have negative cognition.

The ethnographic data substantiated the above findings. More importantly, it showed that the insurmountable debts accumulated by charcoal burning victims were often a result of excessive borrowing, most commonly from credit card use. Individuals' poor financial judgement and self-control (evidenced by gambling and over-spending) played an important role in initiating and perpetuating the debt. Lax lending policies, lack of proper risk assessment, and aggressive marketing policies by lending institutions contributed to the over-borrowing phenomenon. The victims often denied the looming risks until they were confronted by harassment from debt collectors. The economic downturn triggered the problems by tipping the delicate balance between personal income and loan-related expenditure.

The media was pivotal in promulgating this new method of committing suicide. With widespread coverage, pictorial explanation of the suicide method, and sensational reporting, charcoal burning was popularised as an easy and comfortable way of dying. The media inadvertently legitimised charcoal burning as the solution for personal and financial failure in an era of economic downturn.

Discussion

The above findings provide important insights for suicide prevention strategies. Actions are implicated at three levels: education, regulation, and intervention.

The general public should receive education on financial health, both through personal financial management courses in the school curriculum and continuing education courses run by non-governmental agencies. Social workers should receive relevant training on the subject of financial counselling and management, to provide assistance on financial matters. Personnel who frequently comes into contact with at-risk clients, such as the staff of lending institutions and lawyers, should be made more aware of possible depressive symptoms among clients and be able to make referrals to social workers and health professionals to address the potential victims' mental health needs. Finally, the public should be better informed of bankruptcy procedures and implications, one's rights and responsibilities,

so as to facilitate its role as a safety valve. Despite an increasing concern about the abuse of bankruptcy, this study illustrates the public's fragmented knowledge about bankruptcy.

Regulation in the lending industry is also an important step needed for decreasing this loss of life. The lending rate for credit cards in Hong Kong is astronomical compared with many other countries. Surveillance by the authorities should be strengthened. In addition, the sharing of positive credit data facilitates proper risk assessment and reduces the risk of excessive lending. The expensive fees for filing for bankruptcy should also be reviewed, and a more flexible system of payment introduced. Regulation of debt collection should be examined, as the beginning or anticipation of debt collection activities is a precipitating factor for the suicidal act. Media personnel are urged to follow the World Health Organization guidelines on suicide reporting.⁸ Last but not least, the restriction of the sale of charcoal may have to be considered, particularly given the experience of effective control of carbon monoxide poisoning in other countries.

The high prevalence of gambling problems among the victims raises the need for specialised services for pathological gamblers. Specialised services should also be established to help individuals and families to reconstruct their debts. Early detection and prompt treatment of depressive symptoms, especially negative thoughts, also help curb the rising tides of suicides.

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References

1. Lee DT, Chan KP, Lee S, Yip PS. Burning charcoal: a novel and contagious method of suicide in Asia. *Arch Gen Psychiatry* 2002;59:293-4.
2. Miller G. Mental health in developing countries. China: healing the metaphorical heart. *Science* 2006;311:462-3.
3. Chan KP, Lee DT, Yip PS. Media influence on suicide. Media's role is double edged. *BMJ* 2003;326:498.
4. Lee DT, Chan KP, Yip PS. Charcoal burning is also popular for suicide pacts made on the internet. *BMJ* 2005;330:602.
5. Chan KP, Yip PS, Au J, Lee DT. Charcoal-burning suicide in post-transition Hong Kong. *Br J Psychiatry* 2005;186:67-73.
6. Spitzer RL, Endicott J, Robins E. Research diagnostic criteria: rationale and reliability. *Arch Gen Psychiatry* 1978;35:773-82.
7. Beck AT, Pokorny AD. Development of suicidal intent scales. In: Beck AT, Resnik HL, Lettieri DJ, editors. *The prediction of suicide*. Philadelphia: Charles Press Publishers; 1986:45-58.
8. Preventing suicide: a resource for media professionals. Guidelines for media. Geneva: World Health Organization; 2000.