

Suicide prevention in old age in China 2002–2017: The linkage to the MIPAA

Jing Wu¹, Xianyun Li², Shengming Yan³

Abstract. China has become an ageing country. In view of this, when developing and implementing ageing policies in China, the high rate of suicide among older people is an urgent issue that can no longer be ignored. A notable feature of suicide among older people is the rural-urban differences. Suicide in old age is linked to a number of risk factors, such as the increasing proportion of older people in the population; social isolation, *inter alia* in rural areas; a lack of social support; intergenerational family conflicts; and physical and mental illnesses, amongst others. Suicide in China, like most of the developing countries, has social and cultural characteristics beyond psychiatric mechanisms. Therefore, the issues associated with rapid socioeconomic changes and population ageing need to be taken into account when developing specific suicide prevention programmes and strategies targeted at older people. The *Madrid International Plan of Action on Ageing* (MIPAA) 2002 has put forward the guidelines for action on ageing at macro, meso and micro levels, i.e. improving the living conditions of older people, strengthening intergenerational family solidarity, and meeting the physical and mental health needs of older people. In line with the objectives of the MIPAA, suicide prevention programmes in old age from social and cultural perspectives, to some extent, have been developed and implemented as follows: 1) welfare support at country level, i.e. improving the physical and mental healthcare and pension systems; 2) caring support at community level, i.e. strengthening neighbourhood networks and mutual help groups; and 3) emotional support at family level, i.e. advocating emotional closeness and intimacy among the generations within families. In order to promote older people's wellbeing, and in turn decrease suicide risk at the individual level, suicide prevention work for older people in the future should take into consideration the incorporation of the framework of active ageing and its relevant concepts.

Keywords: suicide, suicide prevention, mental health, old age, China, MIPAA

¹ Department of Sociology and Work Science, University of Gothenburg, Sweden; Centre for Ageing and Health (AgeCap), University of Gothenburg, Sweden. (*jing.wu@gu.se*)

² Beijing Huilongguan Hospital, Beijing Suicide Research and Prevention Centre, WHO Collaborating Centre for Research and Training in Suicide Prevention, China.

³ Department of Sociology, Peking University, China.

Introduction

China has become an ageing country (Research Group of National Strategies to Population Ageing, 2014a). The number of people aged 60 and above was 222 million by the end of 2015, accounting for 16.1 percent of the total population (Du & Wang, 2016). When compared with Western countries, China's population ageing has its own distinct characteristics (Li, 2009; Research Group of National Strategies to Population Ageing, 2014a). Firstly, China's one-child policy (1979-2015) has greatly accelerated the change of the fertility rate and thus speeds up the process of population ageing (Li, 2009). Since the fertility rate has dropped rapidly, family size has been rapidly reduced. As a result, the reduction of family size and dramatic changes in structure have greatly affected the function of the family such as elderly care, especially in rural areas. Secondly, in China, population ageing rapidly occurred under weak social and economic conditions, which means China's population ageing is 'getting old before getting rich' (Li, 2009; Research Group of National Strategies to Population Ageing, 2014a). This pattern is not only reflected in the individual economic indicators of per capita GDP, but also in other aspects of social and economic development, such as the structure of employment, education, urbanisation and social care, amongst others. Thirdly, since the implementation of the reform and the opening-up policy, China has been focusing mainly on economic development but paying insufficient attention to social development. In particular, the strategies to addressing population ageing have not been comprehensive and, consequently, the social care service system for the older population is still experiencing a lot of problems and facing numerous challenges (Li, 2009; Research Group of National Strategies to Population Ageing, 2014a; Du & Wang, 2016).

Based on an analysis report of the National Health Services Survey in China (MOH, 2008), 13.2 percent of the people aged 60 and over reported moderate anxiety or depression (among them 8.5 percent in urban areas and 15.8 percent in rural areas). The proportion of those who have depressive symptoms also increases with age among older people, for instance, 60–69 years old, 70–79 years old, 80 years old and above were 11.1 percent, 15.1 percent and 19.4 percent respectively (Research Group of National Strategies to Population Ageing, 2014b). The *Madrid International Plan of Action on Ageing* (MIPAA) (United Nations, 2002) aims to offer coherent recommendations for dealing with ageing issues and addressing the challenges posed by ageing in the twenty-first century, and it has put forward the guidelines for action on ageing at macro, meso and micro levels, i.e. improving the living conditions of older people, strengthening the intergenerational family solidarity, and meeting the physical and mental health needs of older people. According to the MIPAA, mental health problems, which are a leading cause of disability and of reduced quality of life, are clearly not an inevitable outcome of growing old, but a significant increase in the number of older persons with mental illnesses can be expected due to population ageing (United Nations, 2002). Domestic and international research results have shown that depression is the most common mental disorder among suicide victims and depressive symptoms are the major risk factors for suicide among the older population (Beautrais, 2002; Conwell, Duberstein & Caine, 2002; Phillips, Yang, Zhang, Wang, Ji & Zhou, 2002; Turvey, Conwell, Jones, Phillips, Simonsick, Pearson & Wallance, 2002; Wang, Li, Zhang, Phillips & Yang, 2007). This suggests that the prevention, early identification, diagnosis and active treatment of mood disorders should be taken into consideration in suicide prevention in old age (Wang *et al.*, 2007). Mental health

services play a crucial role in active ageing and should be part of long-term care. Particular attention needs to be paid in providing a proper diagnoses to mental illnesses (especially depression) and the suicide rate among the elderly (Research Group of National Strategies to Population Ageing, 2014a).

Suicide features and trends in old age in China

Given its large population, China is estimated to account for about 25 percent of total suicide deaths globally (Yip, Liu & Law, 2008; WHO, 2010). China's suicide age-pattern is transitioning to elderly predominance due to the increasing percentages of elderly suicides among total suicides (Zhong, Chiu & Conwell, 2016a). The high rate of suicide among older people is an urgent issue that cannot be ignored when developing and implementing ageing policies. Suicide in old age is linked to risk factors such as the increasing proportion of older people in the population; social isolation, *inter alia* in rural areas; a lack of social support; intergenerational family conflicts; and physical and mental illnesses among others (He & Lester, 2001; Tsoh, Chiu, Duberstein, Chan, Chi, Yip & Conwell, 2005; Li, Xiao & Xiao, 2009; Sha, Yip & Law, 2017).

A notable feature of suicide among older people is the rural-urban differences. Zhong and his colleagues (2016a) reported that the residence- and gender-patterns of suicide among the older population continue to reflect rural and male predominance, with the suicide rate of older people in the rural area of China remaining a high relative to other countries worldwide. 'Beijing Suicide Research and Prevention Centre Hui Long Guan Psychiatric Hospital', which is the first research institution on suicide prevention in China and approved as the 'World Health Organization Collaborating Centre for Research and Training in Suicide Prevention' in 2007, has recently been carrying out a cross-sectional survey on the acceptability of suicide and the occurrence of suicidal ideation and suicidal behaviour among a multi-stage stratified random sample of rural residents from Wu'an City of Hebei Province, Yuncheng City and Laiwu City of Shandong Province, and urban residents from Beijing, Shenyang, and Tianjin City. Similar results were found as those of Zhong et al (2016a). Among 514 respondents aged 60 years old and over, the lifetime prevalence of suicidal ideation and suicidal behaviour among urban residents were significantly lower than among rural residents (2.74 percent versus 11.25 percent; 0.30 percent versus 1.88 percent) (Table 1). The suicidality of the rural older persons is higher than the urban older persons so it is extremely necessary to establish effective measures to identify, manage, and reduce the older persons' suicidality in rural areas (Li, *unpublished manuscript*).

Table 1. Reported acceptability of suicide and rates of suicidal ideation and attempted suicide among randomly selected older respondents

Variables	Total (N=514)	Urban (N1=347)	Rural (N2=167)	Chi square	P
	% (n/N)	% (n/N)	% (n/N)		
Prior active suicidal ideation	5.5(27/489)	2.7(9/329)	11.3(18/160)	14.96	<0.001
Prior attempted suicide	0.8(4/489)	0.3(1/329)	1.9(3/160)	Fisher's exact	0.105
<i>Blood relatives</i>					
Attempted suicide	1.4(7/495)	1.2(4/334)	1.9(3/161)	Fisher's exact	0.687
Committed suicide	5.5(27/495)	4.5(15/334)	7.5(12/161)	1.85	0.174
<i>Other relatives or acquaintances</i>					
Attempted suicide	12.3(61/495)	3.0(10/334)	31.7(51/161)	82.72	<0.001
Committed suicide	35.8(134/495)	13.8(46/334)	54.7(88/161)	91.98	<0.001

Some scholars explored different mechanisms of older persons' suicide in rural China from sociological perspectives based on Durkheim's theories of suicide, i.e. the egoism suicide in order to escape from intolerable disease pains, the despairing suicide caused by the living dilemma (Liu, 2013) and the increasing altruistic suicide which is followed through in order not to become a burden on the families in the rapid process of urbanization (Du, 2017). As mentioned in the MIPAA (United Nations, 2002), in many low-income countries and countries with economies-in-transition, older persons in rural areas may be left behind without traditional family support and even without adequate financial resources.

Suicide prevention in old age in China

In 2004, Phillips published an article entitled 'Suicide prevention in developing countries: Where should we start?' in *World Psychiatry* (Phillips, 2004) and he summarised that during the latest two decades, in China, suicide prevention and intervention work have mainly been focused on: 1) restricting access to suicide means and methods; 2) improving the ability of primary care facilities to manage the medical complications of suicide attempts; 3) raising health professionals' skills to recognise and manage psychiatric problems in relation to suicide; 4) conducting community-based screening programmes to identify high-risk individuals; 5) broadening crisis support services and targeted mental health services for high-risk individuals; 6) expanding social support networks for people at high risk; and 7) implementing health promotion campaigns and activities on mental health and suicide, among others (Phillips 2004). A decade later Zhong, Chiu & Conwell (2016b) published the latest findings of the rates and characteristics of the suicide of older persons in China (2013-14) in *Journal of Affective Disorders*. They suggested that older people, especially those in rural China, should be considered as the key target population for suicide prevention due to limited

mental health service resources. There is a pressing need to integrate mental health services and suicide prevention into primary care practice since primary care services have been widely available in both rural and urban communities (Zhong *et al*, 2016b).

The MIPAA 2002 requires that countries must establish ageing policies and promote the active participation of older people in society (United Nations, 2002). The older population is an important resource for society and its role in social and economic development cannot be ignored. In order to ensure that older people can be fully integrated and participate in society, it is necessary to eliminate ageism attitudes, discriminatory behaviours, neglect, abuse and violence against older persons and improve their living conditions and social status to promote their participating in society (Research Group of National Strategies to Population Ageing, 2014a; Wu, 2017). The *Elderly Rights Law* in 2012 stipulates that '*all local governments should include old age into the plan for national economic and social development and gradually increase their investment in old age*'. In 2007, there were 377,000 activity centres for older persons in China, of which 63,187,000 seniors were using the activity centres to participate in activities. A total of 51,000 schools for the aged were established and in total 4,422,000 seniors were using the resources and services of the schools. To a large extent, these cultural, social and mental activities have played an important role in mental health promotion for older persons (Research Group of National Strategies to Population Ageing, 2014a).

The Chinese government has realised the importance of the mental health of its older population and has formulated a series of policies and strategies. In April 2002, the 'Mental Health Work Plan for China' (2002-2010), jointly promulgated by the Ministry of Health and the Ministry of Civil Affairs, clearly stated that one of the goals of mental health work in China was to '*carry out interventions in the psychological behaviour of target population, including increasing prevalence of dementia, depression and other mental illnesses in old age, and reducing the risk of mental illness in old age*'. In September 2004, the Ministry of Health, Ministry of Education and other departments jointly issued the 'Guidance on Further Strengthening Mental Health Work'. This official document stressed that '*mental health promotion and mental illness interventions in old age should be taken into consideration, and mental health counseling activities should be carried out by using existing mental health resources*' (Research Group of National Strategies to Population Ageing, 2014b).

Suicide prevention for older people in urban China

'The Beijing Psychological Crisis Intervention Hotline' was established by the 'Beijing Suicide Research and Prevention Center of Beijing Hui Long Guan Psychiatric Hospital' in 2002 and has become the 'Beijing Psychological Counselling Hotline' since 2010. The focus of this service provision is mental health education, psychosocial support for callers with mental problems, the provision of mental health-related knowledge, and referral services to mental health institutions (<http://www.crisis.org.cn/>). This hotline provides 24/7 free professional support and nationwide intervention for depressed and suicidal individuals. To date, the hotline has provided professional services to more than 260,000 callers with mental problems and saved thousands of lives of suicide victims. In December 2004, following the evaluation of the centre by the chief examiner of the 'American Suicide Society Evaluation Committee' and the director of the 'International Suicide Prevention Association' it was stated that all

aspects of the hotline were in line with international standards, and in many ways even have even exceeded international standards, especially the hotline training and supervision.

In urban China, in the last two decades, a number of the communities in big cities (e.g. in Beijing, Shanghai, Guangdong Province, Liaoning Province, and Sichuan Province, etc.) have paid great attention to the dangers arising from social isolation and mental illness. This was done by means of placing more emphasis on community empowerment and mutual aid groups, including peer outreach and neighbourhood visiting programmes, in order to facilitate the active participation of older people in voluntary activities (Zhang, Gao & Wang, 2011). The Older persons' depressive disorder in relation to community intervention has been researched and evidence has been provided that a comprehensive continuum of services in the community can relieve the depressive symptoms of older people and thus prevent unnecessary institutionalisation (Wang & Du, 2009).

Suicide prevention for older people in rural China

Based on a study by Yu, Li, Cuijpers, Wu & Wu (2012) there was a higher prevalence of depression in the Chinese older population compared with those reported two decades ago. Traditional Chinese culture, which values family significantly and contributed to the previously reported lower prevalence rate, changed dramatically, which may explain the current higher prevalence. In addition to the deterioration of family support, the worsening of health status is another significant factor (Yu *et al*, 2012). The increasing incidence of suicide of older persons in rural areas reveals that the improvement of formal medical care institutions and the endowment of insurance institutions in rural China are key in suicide intervention (Liu, 2013). Based on a study by Du (2017), the altruistic suicide of older persons mainly lies in that they still have close economic ties with their offspring after their old age, especially in the aspect of elderly care. In other words, family support for older people is still the main form of care in rural China. Therefore, from this perspective, the government needs to explore a variety of older persons' care models and increase support for older persons in rural areas, in order to prevent and reduce the incidence of suicides among older people (Du, 2017).

The MIPAA explicitly described that at the family level, intergenerational ties can be valuable for everyone. Despite geographic mobility and other pressures of contemporary life that can keep people apart, the great majority of people in all cultures maintain close relations with their families throughout their lives. All sectors of society, including governments, should aim to strengthen those ties (United Nations, 2002). The Chinese Government has started to explore a flexible work system for the care of older people and other methods to improve family capabilities. In the newly issued *13th Five-year Plan on National Economic and Social Development* in China, it is clearly pointed out that 'we should improve the care system for families in rural areas' (Du & Wang, 2016).

Future direction of suicide prevention in old age in China

In line with the objectives of the MIPAA, suicide prevention programmes in old age from social and cultural perspectives have been to some extent developed and implemented as follows: 1) welfare support at country level, i.e. improving the physical and mental healthcare and pension systems; 2) caring support at community level, i.e. strengthening neighbourhood networks and mutual help groups; and 3) emotional support at family level, i.e. advocating emotional closeness and intimacy among the generations within families (Wang & Du, 2009; Zhang, Gao & Wang, 2011; Liu, 2013; Research Group of National Strategies to Population Ageing, 2014a; Research Group of National Strategies to Population Ageing, 2014b; Du & Wang, 2016). Some suggestions could be taken into consideration for future suicide prevention work in old age (Phillips, 2004).

Emotional and social support are more important than financial support for promoting the mental health of older persons and they provide a basis for developing health management with a focus on healthy ageing of older people in China (Heshmati, 2016). Support through on-going family and community care relationships is necessary to improve resilience and positive ageing (Dong, Chang, Zeng & Simon, 2015). A joint effort by family members and communities is needed in future suicide prevention and mental health promotion work.

As suggested by the MIPAA (United Nations, 2002), it is necessary to provide on-going training to health-care professionals in the detection and assessment of all mental disorders and of depression. Besides medical and health-care professionals, social workers can also play an important role in suicide prevention through broader health and wellbeing initiatives and education, and implementing intervention strategies within mental health settings as well as providing post-intervention support to those bereaved by suicide (Maple, Pearce, Sanford & Cerel, 2017).

On the one hand, in urban areas of China, the size of families tends to be miniaturised. Children live apart from their parents, and the living environment of older persons is relatively closed, which may lead to loneliness and social isolation in old age (Zhang, Gao & Wang, 2011). On the other hand, in rural areas of China, as the process of urbanisation accelerates, the younger generation works in the cities so that a huge number of older people are left behind (Du & Wang, 2016; Du, 2017). The 'elderly village' phenomenon in rural China has a negative impact on the mental health of older people in rural areas (Li, 2009; Du, 2017). Given the urban-rural differences in older persons' suicide rates, concrete suicide prevention strategies need to be established and carried out for older people living in urban and rural areas separately. According to the MIPAA, the older migrants from rural to urban areas in low-income countries often face loss of social networks and suffer from the lack of a supporting infrastructure in cities, which can lead to their marginalisation and social exclusion in many aspects of life (Wu, 2017), in particular if they are ill or disabled (United Nations, 2002). Special attention should be paid to the mental health needs of this target population.

To summarise, in order to better promote older peoples' wellbeing and in turn decrease suicide risk at the individual level, in the future, suicide prevention work for older people should take into consideration the incorporation of the framework of active ageing and relevant concepts. More opportunities, programmes and support should be provided in order to encourage older people to participate in or continue to participate in cultural, economic, political, and social life and lifelong learning, based on different lifestyles in urban and rural areas (Research Group of National Strategies to Population Ageing, 2014a).

References

- Beautrais, A. (2002). A case-control study of suicide and attempted suicide in older adults. *Suicide and Life-Threatening Behavior*, 32(1):1-9. <https://doi.org/10.1521/suli.32.1.1.22184>
- Conwell, Y., Duberstein, P.R., & Caine, E.D. (2002). Risk factors for suicide in later life. *Biological Psychiatry*, 52(3):193-204. [https://doi.org/10.1016/S0006-3223\(02\)01347-1](https://doi.org/10.1016/S0006-3223(02)01347-1)
- Dong, X.Q., Chang, E.-S., Zeng, P., & Simon, M.A. (2015). Suicide in the global Chinese aging population: A review of risk and protective factors, consequences, and interventions. *Aging and Disease*, 6(2):121-130. doi: 10.14336/AD.2014.0223
- Du, J. (2017). An analysis of the formation mechanism of the rural elderly altruistic suicide in the background of urbanization: A case study of S village in the middle of Hubei. *South China Population*, 32(2):50-61. (in Chinese)
- Du, P., & Wang, Y. (2016). Population ageing and the development of social care service systems for older persons in China. *International Journal on Ageing in Developing Countries*, 1(1):40-52.
- He, Z.X., & Lester, D. (2001). Elderly suicide in China. *Psychological Report*, 89(3):675-676. <https://doi.org/10.2466/pr0.2001.89.3.675>
- Heshmati, A. (2016). *The economics of healthy ageing in China*. Discussion paper no. 9713. Bonn: The Institute for the Study of Labor.
- Li, J.X. (2009). *The structure of Chinese population*. Beijing: Social Sciences Academic Press. (in Chinese)
- Li, X., Xiao, Z., & Xiao, S. (2009). Suicide among the elderly in mainland China. *Psychogeriatrics*, 9(2):62-66. <https://doi.org/10.1111/j.1479-8301.2009.00269.x>
- Liu, Y. (2013). The suicides of the rural elderly and the crisis intervention in China: 1980-2009. *South China Population*. 28(2):57-64. (in Chinese)
- Maple, M., Pearce, T., Sanford, R.L., & Cerel, J. (2017). The role of social work in suicide prevention, intervention, and postvention: A scoping review. *Australian Social Work*, 70(3):289-301. <https://doi.org/10.1080/0312407X.2016.1213871>
- Ministry of Health (MOH). (2008). *An analysis report of National Health Services Survey in China*. Beijing: Center for Health Statistics and Information. (in Chinese)
- Phillips, M.R. (2004). Suicide prevention in developing countries: Where should we start? *World Psychiatry*, 3(3): 156-157.
- Phillips, M.R., Yang, G, Zhang, Y., Wang, L., Ji, H., & Zhou, M. (2002). Risk factors for suicide in China: A national case-control psychological autopsy study. *Lancet*, 360(9347):1728-1736. [https://doi.org/10.1016/S0140-6736\(02\)11681-3](https://doi.org/10.1016/S0140-6736(02)11681-3)

- Research Group of National Strategies to Population Ageing. (2014a). *A study on Healthy Ageing and Elderly Health Support Systems*. Beijing: Hualing Publishing House. (in Chinese)
- Research Group of National Strategies to Population Ageing. (2014b). *A study on elderly living conditions in urban and rural China*. Beijing: Hualing Publishing House. (in Chinese)
- Sha, F., Yip, P.S.F., & Law, Y.W. (2017). Decomposing change in China's suicide rate, 1990-2010: Ageing and urbanization. *Injury Prevention*, 23(1):40-45. <http://dx.doi.org/10.1136/injuryprev-2016-042006>
- Tsoh, J., Chiu, H.F.K., Duberstein, P.R., Chan, S.S.M., Chi, I., Yip, P.S.F., & Conwell, Y. (2005). Attempted suicide in elderly Chinese persons: A multi-group, controlled study. *The American Journal of Geriatric Psychiatry*, 13(7):562-571. <https://doi.org/10.1097/00019442-200507000-00004>
- Turvey, C.L., Conwell, Y., Jones, M.P., Phillips, C., Simonsick, E., Pearson, J.L., & Wallace, R. (2002). Risk factors for late-life suicide: A prospective, community-based study. *The American Journal of Geriatric Psychiatry*, 10(4):398-406. <https://doi.org/10.1097/00019442-200207000-00006>
- United Nations. (2002). *Political declaration and Madrid international plan of action on ageing (MIPAA)*. Second World Assembly on Ageing, Madrid, Spain, 8-12 April 2002. New York: United Nations.
- Wang, H., & Du, X. (2009). Effectiveness of community intervention on elderly depressive disorders in Beijing Yuetan community. *Community Health Work Platform*, 5:919-921. (in Chinese)
- Wang, S., Li, X., Zhang, Y., Fillips, M.R., & Yang, G. (2007). The association between somatic diseases and depression among 304 older adults who completed suicide. *Chinese Journal of Gerontology*, 27(22):2212-2214. (in Chinese)
- World Health Organization (WHO). (2010). *Towards evidence-based suicide prevention programs*. Manila: World Health Organization, Regional Office for the Western Pacific.
- Wu, J. (2017). European older adults' suicide and well-being in the context of welfare state and family: Revisiting relevant theories. *Injury Prevention (Electronic Edition)*, 6(4):62-66. DOI: 10.3868/j.issn.2095-1566.2017.04.013 (in Chinese)
- Yip, P.S.F., Liu, K.Y., & Law, C.K. (2008). Years of life lost from suicide in China, 1990-2000. *Crisis*, 29(3):131-136. <https://doi.org/10.1027/0227-5910.29.3.131>
- Yu, J., Li, J., Cuijpers, P., Wu, S., & Wu, Z. (2012). Prevalence and correlates of depressive symptoms in Chinese older adults: A population-based study. *International Journal of Geriatric Psychiatry*, 27(3):305-312. <https://doi.org/10.1002/gps.2721>
- Zhang, R., Gao, Y., & Wang, G. (2011). Mental health needs and intervention status of community-dwelling elderly in China. *Chinese Journal of Gerontology*, 31(14):2797-2799. (in Chinese)
- Zhong, B.-L., Chiu, H.F.K., & Conwell, Y. (2016a). Elderly suicide trends in the context of transforming China, 1987-2014. *Scientific Reports*, 6:37724. doi: 10.1038/srep37724 (2016).
- Zhong, B.-L., Chiu, H.F.K., & Conwell, Y. (2016b). Rates and characteristics of elderly suicide in China, 2013-14. *Journal of Affective Disorders*, 206: 273-279. <https://doi.org/10.1016/j.jad.2016.09.003>