

A 9-year Review of Patient Profile of the Elderly Suicide Prevention Programme of a Regional Hospital in Hong Kong

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Abstract

Aim: This study aims to examine the patient profile of all the patients who have attended the Fast Track Clinic under the Elderly Suicide Prevention Programme of Castle Peak Hospital from 2002 to 2010.

Methods: Case notes of the 1,097 patients who presented during the study period were reviewed.

Results: Among the 1,097 patients, 89% of them were diagnosed to have depressive illness. 84 of them attempted suicide upon presentation and they were more likely to have previous suicidal attempts than the non attempters. Over half of them employed a lethal, physical method. After their recruitment into the Elderly Suicide Prevention Programme, only three among the 84 (3.6%) suicide attempters eventually committed suicide under the active care of the service.

Conclusions: The elderly suicide attempters employed a lethal method which reflected their high suicidal intent. The programme can be regarded as successful in reducing the reattempt rate of this high risk group.

Keywords: depression, suicide attempt, elderly, suicide prevention

Introduction

It is well known that people aged 65 or above has a high rate of suicide (29.8 per 100,000), which is about two to three times higher than the general population (10.5 per 100,000) in Hong Kong (Department of Health, Census and Statistics Department 2007). Different measures have been put in place to tackle this problem, one of which is the implementation of the territory wide Elderly Suicide Prevention Programme (ESPP)

in different psychiatric centers under the Hospital Authority in Hong Kong (Wu AYK, 2007).

The ESPP was founded in Hong Kong in 2002 with an aim for the early detection of elderly at risk of suicide and to provide effective and adequate management to this group of patients. It operates on a case management approach in which each patient is managed by a case community psychiatric nurse (CPN) and a case doctor. The elderly is

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referred to the ESPP by different sources e.g. from doctors working in other Departments of the Hospital Authority, the Department of Health, the private practice and also the Non Governmental Organizations in Hong Kong. They would first receive early intervention by CPNs and then an appointment at the Fast Track Clinic (FTC) would be arranged where they would be assessed by doctors. It was found in previous studies that suicides in the elderly were consistently associated with a number of risk factors, e.g. past history of suicide (Chiu, et al., 2004), physical illness (Salib, Rahim, El-Nimr, & Habeed, 2005; Tadros & Salib, 2007; Waern M, 2003), psychiatric illness, in particular, depressive illness (Chiu, et al., 2004) and certain personality traits (Duberstein, 1995). It is believed that if the modifiable risk factors, e.g. depressive illness, is properly managed, suicide can be prevented. It was found that ESPP in Hong Kong significantly reduces suicide rate in late-life suicide attempters compared to generic service (Chan, et al.). Since the inception of ESPP, the suicide rate at population level among women who are over 85 years old in Hong Kong is persistently reduced.

The Castle Peak Hospital is one of the seven centers with ESPP and the team caters to all referrals of elderly with suspected depression with or without suicidal attempt living in the New Territories West Cluster of Hong Kong where the population is about 1.1 million. From January 2002 to March 2010, a total of 1,097 elderly were seen at FTC. This review aims at analyzing the profile of these patients and to compare those who have attempted suicide at presentation to those who have not.

Methods

Data collection

All patients who attended FTC at Castle Peak Hospital from January 2002 to March 2010 were included. Their case

notes were reviewed retrospectively where their demographic and clinical data were collected. Information about the demographic characteristics, including age, sex, marital status and living condition was collected for all patients recruited in this ESPP service. Minimal state examination (MMSE) score and geriatric depression score (GDS) were obtained during their first assessment by the case CPN. The clinical diagnoses were made by the case doctor upon thorough psychiatric assessment. Information about their outcome was collected from their case notes.

The suicidality was assessed on a scale with scoring from zero to five. They will score zero if they do not have any sense of worthlessness, one if they feel life is not worth living, two if there is wish of death or any thought of possible death to self, three if there is wish of death or any thought of possible death to self plus known depression in recent two years, four if they have suicidal ideas or gesture, five if there is suicide attempt.

Those who have attempted suicide at the time of their presentation were compared to those who have not.

Data analysis

Data were analyzed using SPSS (Windows version 17.0). For continuous data, variables were presented as means and standard deviations (*SD*) for normally distributed data or as medians (*Mdn*) and interquartile ranges for skewed data. The Kolmogorov-Smirnov Test was used to test for normality. For categorical data, variables were presented as numbers and percentages.

The Mann-Whitney U test was used for comparison of continuous variables with skewed distribution if there were only two groups and the Kruskal Wallis test was used if there were more than two groups. For comparison of categorical data, the Pearson's chi-square or Fisher's exact test was used.

Results

Characteristics of the patients

The baseline demographics and clinical characteristics of all the cases are summarized in Table 1. Among the 1,097 patients, 746 of them (68%) were female. Their mean age was 74.9 (*SD*=7.1). More than half of the cases were living with family (65.9%). 46.2% of them were married while the others were either divorced, widowed or never married. 89% of them were diagnosed to have depressive illness

About half of the cases were precipitated by physical illness. There were 629 patients who had hypertension, 242 had diabetes mellitus, 213 had chronic pain disorders, 172 had stroke, 164 had cardiac conditions, 146 had visual impairment, 92 had chronic obstructive airway disease and 68 had cancer. The mean of the number of physical illness was 1.9 (*SD*=1.4).

There were 143 (13%) patients with previous suicide attempt(s) while 84 (7.7%) patients attempted suicide for the current episode. Including the suicide attempt for the current episode, 96(8.8%) patients had one suicide attempt, 16(1.5%) patients had two attempts, six (0.5%) had three attempts, one (0.1%) had four attempts and one (0.1%) had five attempts.

Concerning the assessment of suicidality, 290 (26.4%) patients scored 0, 290 (26.4%) patients scored 1, 198 (18%) scored 2, 46 (4.2%) scored 3, 189 (17.2%) scored 4 and 84 (7.7%) scored 5.

GDS was performed on 1,040 patients during early intervention by CPN and their mean score was 9.5(*SD*=3.3). MMSE was performed on 1,028 patients at initial assessment with a mean score of 23.2(*SD*=5.4).

Characteristics of the suicide attempters in the current episode

There were 84 patients who have attempted suicide at the time they presented to FTC. The clinical characteristics of all the cases were summarized in Table 2. Their mean age was 75 (*SD*=6.9). Forty-nine (58.3%) of them were female. Although there were more female in this group, the number of male among the suicide attempters was more than the expected count when compared to the group without suicide attempt. Table 3 summarized the difference between the suicide attempters and non attempters.

About half of the suicide attempts were precipitated by physical illness. The mean number of physical illness of these patients was 2.4 (*SD*=1.6). A higher percentage of the suicide attempters had previous suicide attempts and were admitted to the hospital at the time they presented to FTC. More than half of the suicide attempters employed a physical method (attempt to jump from height, self-cutting, attempted hanging) to end their lives. It was uncommon to leave suicidal note or arrange final rite before their attempt. Only four left a suicidal note and five performed final rite. Thirty of them had verbal suicidal cue before their suicide attempt.

Outcome of the patients

Up to 31st March 2010, 489 patients were still attending FTC while 608 had stopped attending the clinic. Seven (1.2%) died of suicide while 219 (36%) died of natural causes. 229 (37.7%) were discharged from the clinic. 89 (14.6%) were stepped down to the general psychogeriatric clinic for continuation of care while 22 (3.6%) were transferred to another psychiatric center as they had moved to live in another district which belongs to a different cluster under the Hospital Authority. 42 (6.9%) stopped attending the clinic due to other reasons including the refusal of service.

Table 1

Baseline demographics and clinical characteristics of the patients

	(N=1097)	
	n	%
Gender		
Male	351	32
Female	746	68
Marital Status		
Not married (Single/widowed/divorced)	590	53.8
Living situation		
Living alone	264	24.1
Living with family	723	65.9
Others (eg Old age homes)	110	10
Educational level		
None	420	38.3
6 years or less	464	42.3
More than 6 years	213	19.4
Types of accommodation		
Public housing	435	39.7
Private flat	426	38.8
Village house	134	12.2
Old age homes	112	9.3
Employment		
Yes	10	9.1%
Source of referral		
Other departments of Hospital Authority	472	43
Non-medical screening	304	27.7
Consultation-liaison	116	10.6
Private practice	109	9.9
Department of Health	80	7.3
CPH	16	1.5
Diagnosis		
Mood disorders	976	89
Dementia	83	7.6
Psychotic disorders	17	1.5
Others	6	0.5
No psychiatric diagnosis	15	1.4
Hospitalization in the current episode		
Yes	45	4.1
Attempt of suicide for the current episode		
Yes	84	7.7
Past history of suicide		
Yes	143	13
Precipitants of present illness		
Physical illness	546	49.8
Interpersonal conflict	119	10.8
Grief	102	9.3
Social isolation	60	5.5
Financial difficulty	59	5.4
Psychiatric problem	47	4.3
Others	84	7.7
Combination of above	80	7.3

Table 2

Clinical characteristics of the suicide attempters

	(N=84)	
	n	%
Diagnosis		
Mood disorders	77	91.7
Dementia	4	4.8
Psychotic disorders	2	2.4
No psychiatric diagnosis	1	1.1
Precipitants of suicide attempt		
Physical illness	48	57.1
Interpersonal conflict	25	29.8
Financial difficulty	4	4.8
Grief	2	2.4
Psychiatric problem	1	1.2
Others	1	1.2
Combination of above	3	3.6
Method of suicide		
Attempt to jump from height	24	28.6
Drug overdose	20	23.8
Self-cutting	15	17.9
Hanging	10	11.9
Poisoning	7	8.3
Others	6	7.1
Charcoal burning	2	2.4

Table 3
Comparison between suicide attempters and non attempters

	Suicide attempters (N=84)		Non attempters (N=1013)		p value
	n	%	n	%	
Gender					
Male	35	41.7	316	31.2	.048*
Female	49	58.3	697	68.8	
Marital Status					
Not married (single/widowed/divorced)	45	7.6	545	92.4	.968
Living with others					
Yes	77	91.7	756	74.6	<.001**
Employment					
Yes	1	1.2	9	0.9	.551 ^a
Past suicide attempt					
Yes	47	56	96	9.5	<.001**
Hospitalization for current episode					
Yes	20	23.8	25	2.5	<.001** ^a
	<i>Mdn</i>	Interquartile range	<i>Mdn</i>	Interquartile range	
Age	74.5	9	74	11	.869
Number of physical illness	1	1	2	2	<.001**

^aFisher's exact test

*p<.05. **p<.01

For the seven patients who committed suicide after they presented to FTC, three of them had previous suicidal attempt while four of them did not.

Discussion

In this group of patients, the commonest precipitant of the mood disorder as well as suicidal attempt according to the patients was physical illness. The patients might have a recently diagnosed major physical illness which could be regarded as an important life event, or they had been troubled by the distressing symptoms of certain chronic conditions, in particular, pain. This is compatible with that found overseas (Salib, et al., 2005; Tadros & Salib, 2007; Waern M, 2003) and in Chinese (Zhou, et al., 2004) that physical illness was associated with elderly suicide. Besides generating a feeling of hopelessness, this recent change in their health triggered a catastrophic reaction and excessive anxiety regarding their health condition. As a result, they became over concerned about their health and preoccupied with any physical symptom that they had (Tadros & Salib, 2007).

The ratio of attempted to completed suicides is considered much lower among seniors than young adults as elderly suicides demonstrate greater lethality and determination compared to younger groups (Conwell, 2001). Therefore suicidal attempt in the elderly should be treated seriously. It is well known that the suicide rate of elderly male is higher than that of elderly female (Cattell, 2000; Frierson, 1991). Although the female suicide attempters still outnumbered the male suicide attempters among this group of patients, we should take note of the skewed sex distribution with more female than male in the group. Comparison between the suicide attempters and non attempters found a much more similarity in sex distribution for the group with suicide attempt.

The male to female ratio for the age group 75-79 in Hong Kong were around 9:10 in 2008 (Demographic Statistics Section, Census and Statistics Department, The Government of the Hong Kong Special Administrative Region 2008). The fact that more female were referred to ESPP may be explained by the higher prevalence of depression in female. It may also be related to the higher acceptance towards help in the general female population comparing with the male. It is not uncommon for health care workers to be turned down when they are offering help particularly in terms of provision of service to the elderly male. As mentioned in the introduction section, outcome study has found that ESPP was more effective in reducing the local suicide rate among the female elderly. The effect can apply to the male elderly if more of them are recruited into the programme.

The suicide attempters in our cohort were more likely to live with others. This finding is contrary to the common belief that living alone is a risk factor of elderly suicide (Cattell, 2000). However, in a local study examining socio-demographic aspects of elderly suicides between 1983 and 1986, it was found that 58.7% of the suicide victims lived with their family while 19.2% lived alone (Kwan, 1988). One reason for the finding in our cohort is that those who are living with family have better support and their family will escort them to attend the clinic and make sure that they comply well with the service. However some of the suicidal attempters who are living alone may be hidden in the community, their failed suicidal attempts are not discovered so they are not referred to the mental health service. Even for those who are referred to the mental health service, they may still refuse to attend the clinic. Therefore they are not among the patient cohort. Another reason is that living with others may actually be a risk factor for suicide as we can see that 30% of the suicide

attempts in our patient cohort are precipitated by interpersonal conflict. Living together in a small confined environment is characteristic in Hong Kong and it is understandably stressful. The situation is even worse if there is long standing relationship problem.

From the analysis of the patient profile, the suicide attempters had a high suicidal intent but at the same time it was hard to detect as not many of them made final arrangement or had verbal suicidal cue. Very few of them left suicidal note and this agrees with finding of a local study that only 49 of the 279 (18%) elderly who committed suicide in 1992 left suicide notes (Chi, Yip, Yu, & Halliday, 1998).

We are unable to comment on the severity of depressive symptoms at presentation as there was no formal assessment by validated instrument, only GDS was done which was a screening tool. Further analysis of this cohort particularly on the different outcome parameters is needed to conclude about the effectiveness of the programme. This cohort of patients under ESPP is a special group and the findings may not be generalized to the elderly population in Hong Kong. Nevertheless the analysis of the characteristics of suicide attempters among the group agrees with what were found in overseas and local study.

Conclusions

ESPP of the Castle Peak Hospital can be regarded as successful in keeping the suicide rate of this high risk group to a low level. There is still work ahead in reaching out to the elderly male.

Conflict of interest:
None.

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None.

摘要

香港老人精神科速治服務病人特徵的九年回顧

老人精神科速治服務自二零零二年成立以來，為有自殺傾向的長者提供快捷和適當的診斷和治療。青山醫院乃其中提供此服務的醫院，在二零零二至二零一零年間，一共醫治了一千零九十七名長者。當中有八十九份比的長者被診斷患有抑鬱症。八十四名長者於求診時有自殺舉動，而這些長者相比那些沒有自殺舉動的，較多有過往自殺舉動的歷史。他們都傾向選擇具有危險性的方法自殺，這可反映他們自殺的決心。在接受了青山醫院的老人精神科速治服務以後，有自殺舉動的八十四位長者當中，只有三位在治療其間死於自殺，可見服務的成效。

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