Framework of Elderly Suicide Prevention Programme (ESPP) and experience of the CPH team

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Elderly suicide in Hong Kong
Extent of the problem

- High rate of elderly suicide:
  - Two to three times higher in the elderly (25–35 per 100,000) than the general population (10-13 per 100,000)
  - 30% of all suicide deaths were aged 60 or above
- High rate of success
- Ageing population
  - Population aged 65 or above increased from 0.63 million in 1996 to 0.83 million in 2005* (32% increase)
- Little research or local data

*Census and Statistics Department, Hong Kong Special Administrative Region (2005)
Suicide rates by age group in Hong Kong

Suicide rates (per 100,000), by gender and age, China, Hong Kong SAR, 2002.

<table>
<thead>
<tr>
<th>Age group</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-14</td>
<td>0.7</td>
</tr>
<tr>
<td>15-24</td>
<td>11.0</td>
</tr>
<tr>
<td>25-34</td>
<td>19.5</td>
</tr>
<tr>
<td>35-44</td>
<td>16.6</td>
</tr>
<tr>
<td>45-54</td>
<td>18.2</td>
</tr>
<tr>
<td>55-64</td>
<td>19.4</td>
</tr>
<tr>
<td>65-74</td>
<td>19.5</td>
</tr>
<tr>
<td>75+</td>
<td>38.8</td>
</tr>
</tbody>
</table>

- **Total**
- **Male**
- **Female**

World Health Organization, Geneva, 2006
What do we know about elderly suicide?

1. Suicides in the elderly are consistently associated with a number of risk factors, e.g. past history of suicide, physical illness, psychiatric illness and certain personality traits.

2. Some of these factors are modifiable, e.g. depressive illness.

3. Elderly who eventually commit suicide would make contact with a primary care physician in a reasonably short period before their suicide (but not necessarily for a mood problem).

4. They would also verbalise their suicidal ideation to people around them.
What do we know about elderly suicide?

5. Locally, elderly with a history of attempted suicide have a re-attempt rate of 3.6% and a completed suicide rate of 5.5%

6. Programme aimed at educating primary care physicians about depression has been shown to reduce suicide rate

7. Telecheck shown to be a useful tool in providing care for elderly at risk of suicide

8. Relevant and locally validated instruments are available
Aims of ESPP

1. Early detection of elderly at risk of suicide
2. Effective and adequate management
Early detection

1. Raising the awareness of target referrers and general public:
   a. Promotional and bibliographic material
   b. Liaison with target medical referrers
   c. Liaison with non-medical target referrers
   d. Organise training sessions, lectures, publicity activities
   e. Setting up of regional committee with local NGOs
Early detection

2. Improving access to service
   a. Setting-up of Fast Track Clinic (FTC) with an aim of providing medical assessment in a timely manner
   b. Early intervention service by CPNs within 7 days of referral with medical outreach in exceptional cases
   c. Non-medical referral accepted, including screening using the GDS and referrals from listed NGOs
Effective and adequate management

1. Individual biopsychosocial assessment with early intervention service
2. Multidisciplinary approach including involvement of referrer
3. Adequate biological and psychosocial treatment
4. Coordination of psychosocial support and mobilising resources from the community
5. Intensive follow-up by home visits and/or telecheck
6. In-patient facility
Service boundary

1. Age 65 or above
2. Residing in the relevant catchment areas
3. Inclusion criteria
   a. Suicidal ideation/thoughts/talk/plan
   b. Previous attempt of suicide
   c. Suspected moderate to severe depression (either by medical assessment or by screening using the GDS)
Workflow of ESPP

- SWD/NGO/hotlines (Screening)
- GP/DH
- TMH/POH A&E, in-patient

Mood problem
Suicidal idea
Suicide attempt
Consultation

Early Intervention (CPN)
Home visits/telecheck

FTC

Multidisciplinary team
In-patient service
Elderly Suicide Prevention Programme
Castle Peak Hospital
Patient profile 2002-2003
Collaborators

- Miss YM Lau, Nursing Officer
- Miss LK Leung, Registered Nurse
- Mr. SL Pang, Registered Nurse
- Dr. SC Ting, Medical Officer
- Dr. SW Li, Consultant Psychiatrist
Methodology and data collection

• Consecutive patients entering the CPH ESPP service satisfying the inclusion criteria from July 2002 to April 2003
• Demographic and clinical data were collected by clinical interview, supplemented by case notes review if necessary, using standard intake form
• Cross-sectional profile compiled
Demographics

N = 115

Age:
- Mean age = 76 (7.68)
- Range: 61 - 95

Sex:
- Female: 86 (74.8%)
- Male: 29 (25.2%)
- F:M = 3:1
## Age distribution of patients

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>60-64</td>
<td>4</td>
<td>3.5%</td>
</tr>
<tr>
<td>65-69</td>
<td>21</td>
<td>18.3%</td>
</tr>
<tr>
<td>70-74</td>
<td>30</td>
<td>26.1%</td>
</tr>
<tr>
<td>75-79</td>
<td>28</td>
<td>24.3%</td>
</tr>
<tr>
<td>80-84</td>
<td>12</td>
<td>10.4%</td>
</tr>
<tr>
<td>85-89</td>
<td>12</td>
<td>10.4%</td>
</tr>
<tr>
<td>90-94</td>
<td>7</td>
<td>6.1%</td>
</tr>
<tr>
<td>95-99</td>
<td>1</td>
<td>0.9%</td>
</tr>
<tr>
<td></td>
<td>115</td>
<td>100%</td>
</tr>
</tbody>
</table>
Residential catchment areas

- Tuen Mun: 54
- Yuen Long: 42
- Tin Shui Wai: 19

N = 115
Types of accommodation

N = 115
Types of accommodation

• Public housing: 33%
• Private housing: 31.3%
• Old age homes: 27.8%
• Others: 7.9%
Marital status

- Married and living with spouse: 29
- Married but not living with spouse: 12
- Widowed: 59
- Separated/divorced: 3
- Single: 9

N = 112
Marital status

• Married: 36.6%
• Single/widowed/divorced/separated: 63.4%
Living situation

N = 112
Living situation

- Living alone: 16%
- Living with spouse: 25.9%
- Living with other relatives: 27.7%
- Others (e.g. OAH): 30.4%
Education level

N = 112

- Nil: 62
- Primary: 36
- Junior secondary: 10
- Higher secondary: 2
- Post-secondary: 2
Financial situation

• On public assistance (CSSA and/or DA): 65 (58%)

• Not on public assistance: 47 (42%)

(N = 112)
## Financial situation

<table>
<thead>
<tr>
<th>Source</th>
<th>Frequency</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>CSSA</td>
<td>53</td>
<td>46.1%</td>
</tr>
<tr>
<td>Relative (R)</td>
<td>35</td>
<td>30.4%</td>
</tr>
<tr>
<td>R + DA</td>
<td>9</td>
<td>7.8%</td>
</tr>
<tr>
<td>Self-support (SS)</td>
<td>12</td>
<td>10.4%</td>
</tr>
<tr>
<td>SS + DA</td>
<td>3</td>
<td>2.6%</td>
</tr>
</tbody>
</table>
Religion

![Bar chart showing the distribution of religious beliefs among 112 people. The chart shows the following counts:
- Nil: 37 people
- Christianity: 17 people
- Traditional Chinese: 62 people]
Sources of referral

N = 115
Sources of referral

• Internal (medical) = 51.3%
• External (medical) = 28.7%
• Non-medical (screening) = 20%
Diagnosis

- Dementia: 17 cases
- Mood disorders: 86 cases
- Not applicable: 4 cases
- Others: 1 case
- Psychotic disorders: 6 cases

N = 114
Diagnosis

- Mood disorders = 74.8%
- Psychotic disorders = 5.2%
- Dementia = 14.8%
- Others = 0.9%
- No psychiatric diagnosis = 3.5%
Past psychiatric history

- Yes: 11 (9.6%)
- No: 100 (87%)
- Missing data: 4
Physical illness

N = 112

- Hypertension: 58
- Diabetes mellitus: 31
- Stroke: 19
- COAD: 11
- Parkinson's disease: 5
- Cardiac disease: 17
- Cancers: 11
- Visual impairment: 22
- Chronic pain: 32
- Incontinence: 13
- Others: 27

N = 112
Number of physical illnesses

<table>
<thead>
<tr>
<th>Number of physical illnesses</th>
<th>Frequency (N=115)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>12</td>
<td>10.4%</td>
</tr>
<tr>
<td>1</td>
<td>30</td>
<td>26.1%</td>
</tr>
<tr>
<td>2</td>
<td>31</td>
<td>27.0%</td>
</tr>
<tr>
<td>3</td>
<td>23</td>
<td>20.0%</td>
</tr>
<tr>
<td>4</td>
<td>12</td>
<td>10.4%</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>4.3%</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>1.7%</td>
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### Total number of suicide attempts (including current episode)

<table>
<thead>
<tr>
<th>Number of suicide attempt</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>87</td>
<td>77.7%</td>
</tr>
<tr>
<td>1</td>
<td>24</td>
<td>21.4%</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>0.9%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>112</strong></td>
<td></td>
</tr>
<tr>
<td>Attempt of suicide in current episode</td>
<td>Frequency</td>
<td>Percentage</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>-----------</td>
<td>------------</td>
</tr>
<tr>
<td>No</td>
<td>90</td>
<td>80.4%</td>
</tr>
<tr>
<td>Yes</td>
<td>22</td>
<td>19.6%</td>
</tr>
<tr>
<td>Total</td>
<td>112</td>
<td></td>
</tr>
</tbody>
</table>
## Admission in the current episode

<table>
<thead>
<tr>
<th>Admission</th>
<th>Frequency</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>No</td>
<td>98</td>
<td>87.5%</td>
</tr>
<tr>
<td>Yes</td>
<td>14</td>
<td>12.5%</td>
</tr>
<tr>
<td>Total</td>
<td>112</td>
<td></td>
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</tbody>
</table>
MMSE score (N=83)
• Mean = 20.7 (6.31)
  • Range: 3-30

GDS score (N=105)
• Mean = 8.3 (4.16)
  • Range: 0-15
Re-attempt after first appointment (N=113):
  • Yes=1 (0.9%)
  • No=112 (97.4%)

Completed suicide after first appointment (N=113):
  • Yes=0 (0%)
  • No=113 (100%)
Characteristics of the suicide attempters
## Age distribution of suicide attempters

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<tr>
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<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>100%</td>
</tr>
</tbody>
</table>
Demographics of suicide attempters

- **Age**
  - Mean age = 76.4

- **Sex**
  - Female = 15 (68.2%)
  - Male = 7 (31.8%)
  - F:M = 2.1:1

- **Marital status:**
  - Married = 7 (31.8%)
  - Single/widowed = 15 (68.2%)
Diagnosis of suicide attempters

- Mood disorders = 19 (86.4%)
- Dementia = 2 (9.1%)
- Psychotic disorders = 1 (4.5%)
Method of suicide attempt

Total number of attempts = 22
Method of suicide attempt

- Overdose = 4.5%
- Poisoning = 22.7%
- Physical methods (self-cutting, attempted hanging, attempt to jump from height) = 68.3%
- Others = 4.5%
Precipitating factors of suicide attempters

N = 22

- Financial hardship: 2
- Interpersonal conflict: 9
- Grief: 0
- Physical illness: 10
- Others: 1
<table>
<thead>
<tr>
<th></th>
<th>Verbal suicidal cue:</th>
<th>Final rite:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes: 8 (36.4%)</td>
<td>Yes: 1 (4.5%)</td>
</tr>
<tr>
<td></td>
<td>No: 14 (63.6%)</td>
<td>No: 21 (95.5%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Suicidal note:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes: 0 (0%)</td>
</tr>
<tr>
<td></td>
<td>No: 22 (100%)</td>
</tr>
</tbody>
</table>
Other variables

- Religion:
  - Nil = 7 (31.8%)
  - Traditional Chinese = 15 (68.2%)
  - Christianity = 0 (0%)
- Admission for the current episode:
  - Yes = 11 (50%)
  - No = 11 (50%)
- Mean number of physical illness = 2.36
- Mean MMSE score = 18.7
- Mean GDS score = 7.7
Profile of ESPP patients in CPH 2002-2003

- Age between 70-80 (mean age = 76)
- Female
- Unmarried
- Equally likely to live in public, private housing or OAH
- No formal education
- On public assistance
- With a diagnosis of Mood disorder
- With two physical illnesses
- Referred from internal sources
Profile of suicide attempters

• Mean age of 76.4 (59.1% over the age of 75)
• Female
• Single/widowed
• 86.4% had a diagnosis of mood disorder
• 68.3% attempted suicide with a physical method, mostly precipitated by physical illness or interpersonal conflict