Suicide attempts in French prisons: Results of the TARTARE survey

Gaëlle Encrenaz, Alain Miras, Benjamin Contrand, Stephane Pujos, Cédric Galera, Grégory Michel and Emmanuel Lagarde
Suicide rates in custody exceed those in the general population

In 2008, in France → 190 p 100,000
(compared to 30 p 100,000 in the general population of males aged between 25 and 65)

France ranks first in Europe
Suicide rates in custody in Europe
Background (2)

• Socioeconomic differences and other characteristics of prisoners before imprisonment may explain the raised suicide rates in prison

• Most people who commit suicide have serious mental disorders – whether in custody or not

• Some other risk factors, directly linked to imprisonment have been reported to be associated with an increased risk of suicide (such as awaiting trial)

• Even if prison is a violent environment, inmate to inmate violence has never been tested as a risk factor of suicide
Objectives

(1) To describe suicidal behaviours in prisons

(2) To determine whether violence in prison was associated with suicide attempts during imprisonment
Population and Methods

Population

- All male inmates of a jail (awaiting trial or misdemeanants) (Bordeaux, France)

- About 800 inmates are incarcerated in this jail and the occupation rate is almost 200 %

- This prison is in the top 10% of French prisons with the highest suicide rate
Population and Methods

**Data Collection**

- Inmates were face-to-face interviewed by a trained psychologist or a medical doctor.
- Interviews were carried out in the parlours.
- They lasted between one and two hours.
- From May to October 2009.
Population and Methods

Questionnaire (1)

- **Socio-demographic variables**
  age, matrimonial status, educational level, housing ownership and country of birth

- **Imprisonment and imprisonment conditions**
  Sentence, charges, living conditions in the prison and in the cell: noise, smell, brightness, privacy, hygiene, friends, work and other activities

- **Suicidal behaviours**
  
  | Suicidal ideation | Lifetime |
  | Suicide attempts   | + During imprisonment |
Population and Methods

Questionnaire (2)

• Impulsivness
  the Barratt Impulsivness Scale

• Psychopathology
  Hyperactivity and attention deficit
  Anxiety and depression
  Antisocial personality

  The Adult Behavior Checklist (ABCL)

• Mental health services utilization during imprisonment

• Violence (victim or perpetrator)
  Frequency and types of sustained and perpetrated violences
Results (1)

- 375 inmates were interviewed

  - Sentenced prisoners 195 (52 %)
  - Awaiting trial 180 (48 %)

- Age: average 36 [18-78]

- Most frequent charges (administration data)
  - Injuries and homicide (30.9 %)
  - Robbery and falsification (30.3 %)
  - Drugs (17.7 %)
  - Sexual assaults (12.6 %)
Results (2)

• Reported lifetime history of suicidal attempt → 19.7 %

• During custody
  
  Suicidal ideation → 47.6 %
  
  Suicide attempt incidence → 13.4 p 100 persons-year

• After a suicide attempt in custody
  
  - 51.4 % were admitted at the hospital
  
  - 69.4 % were referred to a psychiatrist or a psychologist
## Results (3)

Factors associated with suicide attempts in prison (final logistic regression)

<table>
<thead>
<tr>
<th>Variables</th>
<th>OR</th>
<th>95% IC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being victim of physical or sexual violence without being a perpetrator</td>
<td>5.4</td>
<td>[2.4;12.2]</td>
</tr>
<tr>
<td>Anxiety and depressive symptoms (Achenbach score ≥ 85th percentile)</td>
<td>3.3</td>
<td>[1.4;7.7]</td>
</tr>
<tr>
<td>Having one or more children</td>
<td>3.0</td>
<td>[1.2;7.7]</td>
</tr>
<tr>
<td>Having a health status perceived as bad</td>
<td>2.5</td>
<td>[1.1;5.5]</td>
</tr>
</tbody>
</table>
Results (4)

- Factors not significantly associated with the likelihood of suicide attempts in prison
  - Personal history of suicide attempts
  - Antisocial personality
  - Hyperactivity
  - Addictive behaviors
  - Social support (friends)
  - Awaiting trial
  - Age
  - Matrimonial status
Discussion

• Evidence of a strong association between violence and suicide attempts

• Cross-sectional design of the survey
→ Causal inference ?

• Selection bias → only one type of prison

• Self reported data → but good consistency with available administration data
Conclusion

• Suicide risk is likely to change over time during imprisonment

• this risk has to be screened during imprisonment

• Being victim of violence is an important factor associated with suicide attempts in prison

• These results could allow to improve screening checklists of suicide risk in prison