Understanding and improving relationships between responders and the public using crowd psychology: CBRN mass decontamination

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CBRN (Chemical, Biological, Radiological, Nuclear)

Procedure:
(a) quarantine (not dispersal) for
(b) decontamination
Background

• Increased risk of incidents involving chemical, biological, radiological, or nuclear (CBRN) agents.

• Planning for incidents has neglected public psychology and behaviour.
• Quarantine and decon: A stressful emergency response procedure

• Decon may be more stressful for the public than the incident itself (e.g. Holloway et al., 1997).

• Significance: lack of compliance, risk!
The research

• A unique collaboration between Public Health England and social psychologists

• Using crowd psychology to improve practices

• Enhancing relationships between crowd and responders
The problem – what we found

Decon guidance instructions:
- Crowd ‘panic’ and ‘disorder’ assumed as endogenous
- Communication neglected
- Management strategy emphasises ‘control’ of the public instead

Field exercises (drills)
- Emphasis on technical aspects (equipment) over social relationships

Small decon incidents
- Public complained of lack of information, lack of concern for their dignity
- These concerns made them less willing to comply with decontamination!
- Increased risk of spreading contaminants!
CBRN

Objectives:

• To change practices ->
• **To motivate** the public to **self-organize**

Why?
1. Issues of legitimacy in use of coercion
2. There may not be enough ES personnel in the right place to enforce the order!
The social identity approach

• The dominant model in the psychology of groups and crowds in Europe and North America
‘Social identity’

- ‘those aspects of an individual's self-concept based upon their social group or category memberships, together with their emotional, evaluative and other psychological correlates’ (Tajfel, 1978, p. 63)

- A social identity is defined and evaluated in relation to other groups
‘SOCIAL IDENTITY’

• We all have personal identities

• We also each have multiple social identities

• Social identities are based on SOCIAL CATEGORIES

Turner et al. (1987)
Personal identity:
• That which makes me unique, different from you
• My ‘personality’

Social identities:
• English
• Man United fans
• Psychologists
• Crowd specialists
• Men

Tajfel & Turner (1979)
### Variability of identity according to group context

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Science faculty</th>
<th>Arts faculty</th>
<th>Clerical staff</th>
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<tr>
<td>John</td>
<td>Hani</td>
<td>Bill</td>
<td>Fred</td>
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</tbody>
</table>

**More inclusive**

**More exclusive**
Consequences: When there is shared social identity in a crowd...

There is more likely to be **social support**
- People *give* social support
- People *expect* social support

Shared social identity makes coordination in a crowd easier

- Because there is shared understanding and expected support for valued group behaviour...
Developing hypotheses: Research on policing of football crowds

Portugal Euro 2004: A natural experiment:

Coercive vs facilitative policing

- Fans perceived facilitative policing as more legitimate than they expected
- Fans maintained strong bonds with fans from other countries
- After the event, but not before, identification with England fans correlated with ‘similarity to police’ in match cities
Portugal Euro 2004: A natural experiment

Results: qualitative/PSP

Self-regulation:

– “I feel that the majority of fans who follow England now do so to support the team and will not tolerate their enjoyment as supporters curtailed by people out for trouble”

– “One guy had a go at a Portuguese supporter when they scored… there were looks of derision toward the England fan from everyone else”
Applying social psych to CBRN decon

• Testing our hypotheses:
  – Effective responder communication – respecting needs
  ➔
  – reduce anxiety
  – increase cooperation
  – increase compliance

– Why? Good communications enhance the legitimacy of the responders’ actions and increases identification with them
Observation and survey at a field exercise

- ‘Big city’ multi-agency exercise
- 115 volunteers completed a pre-exercise and post-exercise questionnaire.
Observation and survey at a field exercise

Results

- Good comms enhanced legitimacy and enhanced identification and compliance
Mass decontamination experiment

• 112 volunteers
• Three different communications conditions:
  • Theory-based (respect needs)
  • Standard-practice
  • Brief

Four different types of data collected:
  1. Timings for how long each group took to go through decontamination
  2. Observational data
  3. Quantitative questionnaire data
  4. Qualitative questionnaire data
Mass decontamination experiment

Procedure

• Participants listened to a scenario

• Then removed outer clothing and showered in mock incident
An experiment: Results

1. Effective responder communication ➔
2. **Enhanced the legitimacy** of the responders’ actions ➔
3. **Increased identification** with them ➔
4. Reduced anxiety, increased cooperation, less confusion, increased compliance, **better decon**

Recommendations

• 1. Emergency responders should communicate openly and honestly with members of the public about the actions they are taking.

Recommendations

2. Emergency responders should communicate in a health-focused way about decontamination.
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• **WHY decontamination is necessary**
Recommendations

• 2. Emergency responders should communicate in a health-focused way about decontamination.

  • WHY decontamination is necessary
  • HOW decontamination will protect someone, and their loved ones
Recommendations

• 2. Emergency responders should communicate in a health-focused way about decontamination.

• WHY decontamination is necessary

• HOW decontamination will protect someone, and their loved ones

• WHAT the process will involve
Recommendations

- 3. Emergency responders should provide members of the public with sufficient practical information during the decontamination process.
Recommendations

• 4. Emergency responders should respect public needs for privacy and modesty.
Conclusion

• Effective communication changes relationships increases compliance

• These four recommendations could improve behavioural and psychological outcomes – could save lives

• Applicable across a range of mass emergencies and disasters
Key message and implications

• Use of ‘soft skills’ (communications, respect) can change social identification in emergencies and save lives

• These ideas are being recognized and used by CBRN responder organizations
References

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