Do visits or time spent in hot spots matter most? A randomised control trial in the West Midlands Police

A practitioner-led randomised control trial to assess if shorter and more frequent patrols in hot spots reduced crime and anti-social behaviour more than less frequent longer patrols.

Key details

Status	Complete
Lead institution	University of Cambridge
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Police region	Eastern
Level of research	Masters
Project start date	June 2015
Date completed	January 2016

Hypothesis

This experiment is set against the backdrop of targeted place based demand reduction implementation across the West Midlands Police force area in an unprecedented time of austerity and uncertainty for those charged with delivering patrol; Neighbourhood Police Constables and Police Community Support Officers.

The main objective of this study was to assess if shorter and more frequent patrols (9 units of 5 minute patrols per day) in hotspots reduced crime and anti-social behaviour more than less frequent longer patrols (3 units of 15 minute patrols per day).

The second objective of this study was to capture officers patrol outputs in order to examine which activities, if any, are high or low in frequency; do these outputs matter as much as providing visible capable guardianship?

Fewer units of longer duration are associated with greater crime falls, indicating that they are more effective than more frequent shorter patrols. The findings from this experiment confirm Koper's (1995) finding that longer units of 10-15 minutes duration are more effective.

Additionally activity analysis of police constable and police community support officers overwhelmingly indicates that the highest frequency outputs, accounting for nearly 90% of all activity during 15 minute patrol days, do not require police powers (that is, community engagement and visits to high demand crime and ASB micro-locations within hotspots).

The hypothesis for this small scale randomised control trial is that shorter more frequent patrols of hotspots will result in greater deterrence of street crime and ASB calls for service. Shorter more frequent patrols being 5 minutes in length conducted 9 times during a late shift compared with longer less frequent patrols of 15 minutes conducted 3 times during a late shift.

Will creating more frequent initial deterrence and leaving less time for deterrence decay to kick in cause there to be less crime? Research to date suggests that the threshold of patrol time required to create a lasting deterrent effect is around 10 minutes (Koper, 1995). In contrast, however, there is now emerging evidence that suggests the frequency of visits may have more of an influential (Ariel, 2015) role.

Geographical area

Birmingham West & Central Local Policing Unit, Birmingham, West Midlands.

Target sample size

- 7 hotspots.
- 100 days.

Participants - inclusion criteria

- Random assignment of days to 3 x 15 minute patrols or 9 x 5 minute patrols.
- Geo-fenced patrols.

Interventions

- Patrol Data fed back to patrol officers.
- Street Crime, ASB tracked.
- Street Crime converted to Crime Harm for comparison.
- Activity Analysis of over 2000 individual patrols.
- Sample Treated as population data, effect size measured using Cohen's d and descriptive statistics.

Study design

An experiment was designed in which seven hotspots were randomly allocated to one or other patrol mode for a period of 150 days between June and November 2015. Patrol visits were tracked using patrolling officers' personal issue global positioning system (GPS) 'Airwave' radios where patrol information was fed back and officers help to account for the number of patrols conducted.

Although this research took place over 150 days the results presented are based on 100 days of patrol as a result of a breakdown in 'geo-fencing' software during the last 50 days.

Summary of findings

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