



Electronic surveillance in health and social care settings: a brief review



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Introduction & methods

The Social Care Institute for Excellence (SCIE) conducted this brief review of the literature on surveillance in health and social care settings, on behalf of the Care Quality Commission. The review focuses on the use and effectiveness of electronic surveillance tools in health and social care settings. It provides a concise summary of a sample of relevant evidence on the topic (nine peer reviewed articles) and signposts routes to further information, rather than offering a definitive or comprehensive statement of the research. Our approach involved:¹

- **agreeing key search terms and themes** related to the high-level concepts of interest, namely; *electronic surveillance (video recording, video surveillance, devices sensors, monitors, CCTV, covert surveillance), health and social care settings and adult abuse*
- **conducting systematic search of relevant databases** and other sources
- **screening records retrieved** against agreed inclusion and exclusion criteria.
- **extracting data, and synthesising key themes** for this brief report.

The searches were conducted in August 2014.

¹ See Annex 1 for details.

History

There are two main forms of surveillance: overt (that which people are made aware of, for example, Closed Circuit Television, CCTV) and covert (designed to ensure the person subject to the surveillance is not aware it is being used (Home Office, 2014)).

The use of technology for surveillance has become increasingly pervasive in public places (Mortenson 2013), and the same is said to be true for its application in health and care settings (Desai, 2009; Woolrych *et al.*, 2013). While there is 'a long history of surveillance of those living in institutional settings' (Mortenson *et al.*, 2013 citing Salzman-Erikson and Eriksson, 2012), the availability and range of new technologies now provide more options in this respect. These include, for example: cameras (video surveillance); alarms, monitors and sensors (assistive technologies and telecare); and web-based technologies. It is also likely to be difficult to estimate the extent of usage; in relation to CCTV in psychiatric wards alone, Desai notes that 'there is no single body that collects and monitors this information' (2009, p46).

Surveillance has been a controversial issue for some time. Mortenson *et al.* (2013, pp4-5) typologised the debate about surveillance in terms of:

- **'technical discourse'**: what the system does and how. Related to this, Niemeijer *et al.* (note 2010) note that technology typically aims to help support independence, or help protect against harm. They highlight a further distinction between technologies 'that enable residents, and interventions that *control* residents' (p1139 citing Astell, 2006).
- **'discourse on rights'**: the 'acceptability' of the system and of any trade-offs between benefits (e.g. supporting independent living) and harms (e.g. intrusion into private life)
- **'managerialist discourse'**: how the system can support effective use of scarce resources (and/or prevent use of more costly resources). Related to this, Woolrych *et al.* highlight that the aim of surveillance technologies is to 'support health and independence within the context of limited resources' (2013, p1)

There is recognised need for further research on the effects of its use in health and care settings (Desai, 2009; Woolrych *et al.*, 2013). Its benefits have been identified as its potential to: complement traditional observation techniques; provide 'continuous, real-time data' (Mortenson *et al.* 2013 p2, citing Sixsmith, 2013; Woolrych *et al.*, 2013); and, provide better information about (and therefore help manage) 'high risk behaviour (e.g. falls)' (Mortenson *et al.*, 2013 p2, citing Moffat, 2008).

On the other hand, there have been serious concerns raised about the implications of surveillance for individual privacy, choice and consent (Minuk, 2006). In the United States (US) there has been a relevant, high-profile debate about the use of video surveillance in the rooms of care home residents (termed "granny cams") as a

mechanism for preventing abuse. Bharucha *et al.* (2006) note that advocates of this technology identify it as a necessary response to widespread abuse of vulnerable people. The literature sampled suggests the legal and funding implications of this technology (within the US context) has been particularly prominent in this debate

Ethics, privacy and consent

- **The ethical implications of surveillance are complex and under-researched.** The issue of ethics was one of the most prominent themes in the literature sampled. Niemeijer *et al.*, 2010 note that 'is it still not clear what the ethical and practical implications of [surveillance] interventions would be in a formal residential care setting' (p1130) and that the limited existing research in this area provide 'a perfunctory summary of the views rather than an in-depth analysis' (p1138). There is also a noted gap in terms of evidence on views of people using services (Niemeijer *et al.*, 2010).
- **Privacy is inextricably linked to the notion of consent.** In terms of legislation affecting the UK, Article 8 (1) of the Human Rights Act 1998 gives individuals the right to respect for a private and family life. This is a qualified right in that it can be limited if there is a legitimate aim (Liberty, online). There are ethical issues, therefore, stemming from whether or not a person knows about, and gives their permission to be the subject of surveillance. The issue of consent to the use of surveillance in health and care settings relates not only to that of the person using the service, but also to families, carers, visitors and staff. There are questions about 'moral acceptability' of technological interventions, that is to say, the extent to which any benefits derived from their use are justifiable when there is a conflict with personal freedoms and/or a potential impact on the service user-carer relationship (Niemeijer *et al.*, 2010, p1138).
- **There is a range of relevant government policy and some concern that it is not coherent** - In relation to overt surveillance (CCTV) in NHS settings, Desai (2009) highlighted that government has not had a 'specific, coherent...policy or strategy' (p46). She also notes that the Information Commissioner's Office (2008) stipulated it should be used only after 'alternative ways of improving security' have been explored (p46), and that it should result in 'minimum interference with privacy and rights' (p46, also referencing Mental Health Act Commission 2005). In terms of covert surveillance, the Home Office recently (2014) issued a draft Code of Practice which also summarised a range of UK legislation surrounding its use by public authorities.

- **Environments that comprise both communal and private spaces are particularly complex in terms of surveillance and ethics** - This review found evidence of complexities related to consent - and levels of privacy to which one is entitled - in communal spaces (e.g. lounges, corridors) compared to private spaces (e.g. bedrooms and flats). The definition of what constitutes 'public' and 'private' space may be disputed or unclear (Adelman, 2002) even when care is being provided in an individual's home (Mortenson *et al.*, 2013) and this can have an impact on whether consent is deemed to be required (Desai, 2009). There may also be tension between balancing the rights of patients who do not wish to be subject to monitoring (CCTV, in this case) with those who have given consent (Desai, 2009). One could reasonably extend this to professionals, carers and visitors. Minuk (2006, 224) argues strongly that use of video cameras in residents' bedrooms as a preventative measure, i.e. before any evidence of abuse, are "excessively intrusive" on the grounds that they are an invasion of privacy even though workers will be providing care in that space.
- **The issue of professionals' right to privacy is complex** for example, Kohl notes that 'some commentators make a distinction between professional and non-professional staff in assessing their rights to privacy' (2002, p2098, citing Galloro *supra* note 114, at 24). There is also a debate about implied consent, i.e. if staff have been informed about the use of surveillance technologies and carry on working for the employer, this equates to them giving their consent to be subject to surveillance (Bharucha *et al.*, 2006 citing Rothstein, 2000).

Impact of surveillance

Overall

- **Overall, research on impact, including preventative capability, is limited.** For example, Desai (2009) noted little evidence on effectiveness of CCTV on managing aggressive patient behaviour in NHS settings and concluded that its impact in this respect 'is as yet unknown' (p51). Similarly, Niemeijer *et al.*'s 2010 systematic review of surveillance technologies in residential care for people with dementia or intellectual disabilities noted that 'the effects of this technology...have scarcely been studied' (p1138). Woolrych *et al.* highlight the lack of before-and-after comparative analysis (2013) and, indeed, gold standard measures of effectiveness of an intervention require suitably robust study design (Eccles *et al.*, 2003).
- **Understanding perspective is important.** Niejeimer *et al.*, highlight 'three perspectives: that of the institution, the resident; and the care relation' (2010, p1131). They go on to suggest that institutions are likely to be concerned with whether something works, as well as the impact on risk and on staffing. Critical for

residents, they note, are the complex relationships between surveillance and personal freedoms, while carers are likely to be concerned with 'duty of care versus autonomy of the resident' as well as how technology features within an overall care package (2010, p1131).

Benefits and harms

- **Limited research has indicated there may be potential benefits in terms of patient care.** Desai (2009) highlighted some evaluation evidence that use of infra-red CCTV 'helps to reduce the number of unwelcome intrusions into patients' bedrooms by other patients on the ward' (p47, citing Dix, 2002). She also noted that use of infra-red CCTV allowed less intrusive night-time observations (Desai, 2009, citing Warr *et al.*, 2005). Woolrych *et al.* conclude that 'video surveillance has the potential to generate observational data on the movements and behaviours of various actors within the care facility'; complementing traditional observation techniques through the provision of 'continuous, real-time data' (Mortenson *et al.*, 2013 p2, citing Sixsmith, 2013; also, Bharucha *et al.*, 2006).
- **Surveillance data can support professionals as they review incidents.** Reviewing video footage can help to build a picture of what led to a negative event, such as an accident, occurring (Mortenson *et al.*, 2013). The potential for video footage to provide 'hard evidence' that can be used either by families or in a court of law is reported to be one of the potential benefits cited by proponents of this technology (Cottle, 2004) but a number of authors assert that this should be as part of a holistic approach, rather than something used in isolation (see: [Considerations](#)).
- **Use of surveillance technology offers some potential efficiencies in terms of staffing.** Whereas previously, surveillance could be burdensome in terms of human resources, improved technologies mean that it can now complement traditional staff models, offering potential efficiencies (Mortenson *et al.*, 2013). Mortenson *et al.*, provide the example of how Ambient Assistive Living (AAL) technologies such as fall detectors or other sensor-based products '[offer] the possibility for large numbers of individuals to be monitored automatically and continually...by a relatively small number of people' (2013, p6) although this was within the context of enabling people to live at home independently for longer (rather than in institutions).
- **Awareness of surveillance could have positive and negative impacts on staff behaviour.** Desai (2009) suggests that staff may change their behaviour out of fear that their actions could be perceived in a negative way when viewed on CCTV. She highlights a study in which they are 'reluctant to engage in therapeutic touch' (Desai, 2009, p49 citing Chambers and Gilliard, 2005). Providing a range of legal references, Cottle sets out some of the concerns from staff about how their actions may be perceived negatively on video, as well as noting, on the other hand, that

proponents of this type of surveillance include some care home administrators who think its use will help 'to raise previously concealed issues' (Cottle, 2004, p126).

On the other hand, in the same study, staff felt better able to restrain patients appropriately, on the basis that CCTV 'would provide evidence of their proper conduct' (Desai, 2009, p49 citing Chambers and Gilliard, 2005).

- **There may be the potential for misuse of CCTV by staff.** Desai also noted the potential for abuse of overt surveillance by staff, for example (p48, citing Warr *et al* 2005) 'targeting of certain patients' bedrooms' to judge whether their behaviour when alone was consistent with that observed in communal settings and highlighted how the guidance available at that time (specifically, Data Protection Act 1998 and CCTV Code of Practice 2008) 'are insufficient' for addressing the risk of staff breaching agreements made with service users about how CCTV will be used (p48).
- **Awareness of, or uncertainty about whether surveillance is in use can potentially have a negative impact on people using services.** Evidence from research on telecare indicates that awareness of surveillance can have an impact on the behaviour of people using services, specifically, leading them to act in a way they would not do otherwise, out of fear that their normal behavior would trigger 'alarms, warnings and contact from care-givers' (Mortenson *et al.*'s 2013 p10, citing Percival and Hanson, 2006). They also highlight research which shows that when people are aware surveillance is in use, they 'anticipate having a sense of 'being watched' even without the presence of video-cameras' (Mortenson *et al.*'s, 2013, citing: Percival and Hanson, 2006; Savage 2010; and, Sixsmith and Sixsmith, 2000). From wider literature, Desai notes that 'not knowing whether one is being watched or not results in the 'self-monitoring' of behaviour' (p50, 2009, citing Marx, 2002, p10).

Considerations

- **Implementing surveillance technology can have unintended consequences.** Woolrych *et al.* emphasise the importance of recognising that technology can be 'socially transformative in nature' (2013, p8). It can change the way people behave in unexpected ways. Mortenson *et al.* also urge the reader to recognise that '[u]ltimately, surveillance is about power, or the way individuals and groups within society interact and influence one another.' (2013, p8). They note this can be positive or negative and, within the context relevant here '...attention should be focused on how the new technology will affect power relations in informal and formal caring relationships...' (2013, p15).
- **It is likely to be important to provide support and guidance to enable staff to engage with surveillance technologies appropriately.** Staff may not always be comfortable with using surveillance to monitor patient behaviour, or clear about how to respond when patients behave in a way that caused concern. As a result, additional surveillance-specific staff training may be warranted (Desai, 2009). A

number of authors note the importance of having clear legislation, policies and procedures for use of surveillance in place specific to the care environment, recognising it as both a place where people live and a workplace (Adelman, 2002; Cottle, 2004; Kohl, 2002)

- **Professional judgement is critically important when using video to reflect on incidents.** Desai conclude that CCTV per se does not prevent violent incidents, even when monitoring is undertaken in 'real time' (p49) because it does not replace professional judgement about when to intervene and how (Desai, 2009, citing Koskela 2000) and can distort reality (Desai, 2009) or create 'trial by video' approach to incident review (Woolrych *et al.*, 2013 p7 citing Schnellet *et al.*, 2004). Evaluation of CCTV use in psychiatric wards illustrated that it can affect the culture, becoming the first port-of-call in the event of an incident (Desai, 2009, citing Chambers and Gilliard, 2005). Woolrych *et al.* highlighted impact on safety culture as a potential benefit of video surveillance, but cautioned against over-reliance on this technology given the complexity of the care environment and the 'narrow frame of reference' it provides (2013, p7, citing Nowak and Hubbard, 2009). This was supported by Desai who argues that CCTV evidence of abuse 'should not be presented as a full account of an incident' (2009, p48).
- **Overall, this review found no definitive evidence** about: when and when not to use surveillance; and effectiveness or impacts (positive and negative) of different methods with different populations, under different circumstances. Evidence was limited and patchy. There was also a notable gap in terms of service user and carer views on the topic although there was reference to the value of person-centered care, and a theme indicating it is important that surveillance is not used in isolation, and does not replace human intervention. The study on CCTV in psychiatric units, for example, emphasised it should complement human observation and face-to-face therapeutic activities (Desai, 2009, citing Koskela, 2000; Lyon, 2001; and, Mental Health Act Commission, 2005).

Limitations

This is a brief review aimed at illustrating some of the key issues related to the topic. It therefore includes, necessarily, only a very small sample of the literature. It should be noted that the types of surveillance technologies included in the literature seem very diverse (for example, a CCTV camera on a hospital ward aimed at preventing aggressive behaviour, and sensors in a person's own home, with remote monitoring triggering a response if they have an accident). While the review comprises literature from peer-reviewed academic journals as well as relevant guidance from established, credible organisations, it has not undergone critical appraisal to assess quality. It should also be noted that the literature comes from the US as well as the UK and there are

considerable differences, for example, in terms of policy, practice, funding and culture that mean results may not be directly comparable or transferable. There is a noted paucity of studies designed to address questions of intervention effectiveness. Finally, as the legal aspect is prominent in the US “Granny-cam” debate, some of the literature included comes from legal journals rather than from the health or social sciences.

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Annex 1: Methods

The information specialist agreed questions for the review based on preliminary mapping research, which was then tested, and supplemented with use of additional search engine searches.

Figure 1: Overall Development Process



Using this preliminary data the information specialist developed a search protocol, which was agreed with the commissioning team and then broken into suitable free-text and thesaurus terms for bibliographic database searching.

Once terms and search protocol were agreed the information specialist conducted a rapid systematic search using these across the sources summarised in Table 1.

Table 1. Sources searched

| Search types | Sources |
|----------------------|--|
| Databases | Google, Google Scholar, CINAHL, Social Care Online (SCO), Abstracts in Social Gerontology, MEDLINE, ASSIA, SSA, BNI, AMED, SocINDEX, Social Policy & Practice (SPP), The Cochrane library, The Campbell collaboration, PMC, HMIC, Zetoc, Westlaw PsycINFO, EMBASE, OT Seeker, IBSS, Science direct, CRD: HTA, NHS EDD, DARE (27) |
| Journal Sites | Taylor Francis Journals site, Cambridge Journals site (2) |
| Journals | Journal of elder abuse & neglect, Journal of adult protection, Systematic reviews journal, British journal of social work, British journal of general practice, British medical journal, Surveillance & society (7) |
| Organisations | ADASS, UNISON, GMB, College of Social Work, Older peoples advocacy alliance, AgeUK, HCPC, BASW, RRA, JRF, SCIE, National Care Forum, NMC, NPSA, Care UK, RNHA, UKHCA, House of Commons, Quality Compliance systems, Office of surveillance commissioners, EHRC, RCN, MENCAP, CQC, Home Office, ICO GOV.UK (27) |

Database searching sought to identify relevant high quality research, guidance, policy and legislation. The search did not aim to be exhaustive. Database searching was complemented with web-searching of key sources and broad searching using Google. On completion of searching, an inclusion & exclusion criteria was agreed with the research team. Abstracts were screened against this and a final set of papers included (see: References).

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