

Ethical and Practical Issues in Video Surveillance of Psychiatric Units

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Objectives: Video surveillance is used in inpatient psychiatry in many countries and institutions. However, its use varies considerably because of a lack of research, discussion, and agreement on best practice. This review provides an overview of current issues in the use of video surveillance in psychiatry, with a focus on ethical questions and their practical implications.

Methods: A narrative review of literature on video surveillance in psychiatry was conducted. References were identified through searches of PubMed, CINAHL, MEDLINE, PsycINFO, and Google Scholar for articles published before December 2018. Sixteen articles in English and German were reviewed.

Results: The ethical challenges and practical implications differ between surveillance of public spaces versus private areas, such as bedrooms or seclusion rooms. The most common reason for video surveillance was to increase

security and safety. However, empirical evidence suggests that it is not useful in increasing security of shared spaces on psychiatric wards. Some evidence exists for clinical benefits of video surveillance in private spaces (e.g., allowing patients to sleep undisturbed). Video surveillance can increase patients' choices regarding monitoring options. The main ethical conflict lies in balancing patients' autonomy and privacy versus patient and staff security and safety.

Conclusions: Whether video monitoring is used in the most effective and ethical manner needs to be reconsidered. Available evidence does not support its use as a security measure. More research is needed to evaluate the benefits, risks, and best practices of using video monitoring for patient observation, with consideration given to increasing the role of patient consent.

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Over the past decades, video surveillance, also known as closed-circuit television (CCTV), has been installed in psychiatric wards throughout the developed world (1–7). Cameras record communal areas shared by patients and staff (1, 2, 5–7) and private areas ranging from patient bedrooms (4, 8) to seclusion rooms (1–3, 5), with large variations among countries and institutions. Although the use of video surveillance in public spaces, particularly in cities, has been widely discussed (9–11), the introduction of video surveillance to psychiatric wards has received comparatively little scrutiny. However, the use of video surveillance in psychiatry is controversial and a discussion of ethical and practical issues is long overdue.

METHODS

References were identified through searches of PubMed, CINAHL, MEDLINE, PsycINFO, and Google Scholar for articles published before December 2018, using the terms “psychi*,” “video,” “monitoring,” “CCTV,” “observation,” “privacy,” “coercion,” “seclusion,” and “restraint.” Articles in English and German resulting from these searches and

relevant references cited in those articles were reviewed. A total of 16 articles with a main focus on video monitoring in psychiatry were identified. Of these, nine were original research articles; the other seven were ethical reviews. Six articles addressed both monitoring of private and shared spaces, a further six were limited to the monitoring of shared

HIGHLIGHTS

- The main ethical conflict with regard to video surveillance in psychiatry lies between patients' autonomy and privacy versus patient and staff security and safety.
- Empirical evidence suggests that video surveillance is not useful in increasing security of shared spaces on psychiatric wards.
- Some empirical evidence exists for clinical benefits of video surveillance in private spaces of psychiatric wards (e.g., to allow patients to sleep undisturbed by staff engaging in direct observation).
- Video surveillance can increase patients' choices during coercive measures, such as seclusion and restraint.

spaces, and four were limited to private spaces (i.e., bedrooms and seclusion and restraint rooms). Owing to the heterogeneous nature of the available research, a narrative review of literature was conducted.

RESULTS

Video Surveillance in Shared Spaces for Security Purposes

Psychiatric institutions primarily installed video surveillance to increase security for patients and staff (1, 2, 5, 6, 8). Violence in psychiatric institutions is a serious concern for all persons involved, whether directed at staff by patients, among patients, or from staff toward patients (12). For this reason, video surveillance is often intended to prevent, recognize, or document violent incidents, sexual assaults, theft, and other unwanted behavior (5–7). The benefit being sought, increased security, often has been thought to outweigh the loss of privacy involved (5). However, the aspects of security that video monitoring was expected to improve (e.g., prevention of violence or self-harm and more rapid intervention by staff) has varied across studies and has often remained undefined (1, 7, 8). In this article, security is understood as protection from intentional harms, in contrast to safety, which refers to prevention of accidental harms.

Empirical data have shown that video surveillance helps to create a sense of security among many patients and staff. A majority feels more secure in the presence of video surveillance (1, 4, 5), with one study finding that 82.6% of patients believed that video surveillance increases the security and safety of patients and visitors on the ward (1). However, no evidence was found that video surveillance—apart from an increased sense of security—increases objective security. Several smaller studies found no association between the occurrence of violent incidents and the presence of video surveillance on psychiatric wards (2, 4, 6). Larger studies of video surveillance in other types of public areas also found no correlation between violent crime and the presence of cameras (13).

An example of studies that failed to provide evidence of an impact of video monitoring on violence rates comes from Vartiainen and Hakola (2), who examined the impact of renovations and the addition of video surveillance to a forensic ward. They found a drop in violent incidents from 70 in the year before the renovations to 57 (–18%) the next year. However, renovating the ward changed many variables at once, including reducing the number of beds from 50 to 39 (–22%). The authors suggested that the video monitoring may have had an impact on the number of violent incidents. However, this conclusion is questionable, considering the concomitant reduction in beds. If anything, it appears that the count of violent incidents per bed increased, although this was not reported in the study.

Paradoxically, use of video surveillance can have negative effects on security. Overreliance on video surveillance systems for security was one of the main criticisms from an

investigation of a mental health ward in the United Kingdom after the death of a staff member as a result of assault by a patient (14). Judging by the available evidence, the subjective increase in security does not translate into actual decrements in the frequency of violence and by itself cannot justify the use of video cameras in psychiatric institutions.

Video Observation in Private Spaces to Monitor Individual Patients

Cameras can also be used for real-time observation of patients, using the camera as “remote eyes” for the staff (1, 3, 4). This use is different from the use of video surveillance for security purposes (Table 1). In this case, the main benefit of video surveillance is that observing patients via video cameras may be less disturbing to patients (4). However, whether cameras are considered less or more disturbing than direct observation varies widely among patients: some patients reported that they preferred being observed via a camera because they felt less aware of the observation, whereas others felt uncomfortable having a camera in their room (4). To date, no studies have been conducted of variation in preferences or benefits for different patient groups, leaving an opportunity for more focused application of video technology in the future.

Video observation in bedrooms. Sleep disorders are a pervasive issue among psychiatric patients (15). Because of sleep’s importance for mental health, patients are often instructed in sleep hygiene, which includes strategies such as avoiding stimulants at night, exercising in the afternoon, and reducing noise (16). However, efforts to improve sleep quality can clash with routine nighttime observations (4). These checks sometimes require staff to enter the room at short intervals (e.g., every 15 minutes) so that they can be certain that the patient is breathing and otherwise safe, which can wake the patient and, in the case of shared rooms, other patients as well (4).

To solve this problem, a small proportion of psychiatric hospitals use infrared cameras in bedrooms to allow staff to perform their observation duties without disturbing patients (4, 8). In addition, some nurses feel safer using video cameras for nighttime observations, because patients can get upset or even aggressive when awakened repeatedly during the night by observations, presenting a threat at a time when staffing on the unit is typically reduced (4). Patients expressed mixed opinions, with some opting into video monitoring to enjoy undisturbed sleep, and others preferring traditional observation (4). Because patients have reasonable expectations of privacy in bedrooms, precautions must be taken to protect it when video observation is used (Box 1).

Seclusion and restraint rooms. Coercive measures such as seclusion and restraint have psychological or physical consequences for some patients. These experiences can be traumatic (17), and mechanical restraints can cause serious injury and even death (18). Therefore, it is necessary to

TABLE 1. Characteristics of video surveillance on psychiatric units, by main purpose

Characteristic	Health and well-being of individual patients in private spaces	Security of patients and staff in shared spaces
N of people viewed	One patient	Multiple patients and staff
Main location of cameras	Private spaces (bedrooms, seclusion rooms, restraint rooms)	Shared spaces (e.g., public hallways, kitchen)
Time frame of observation	Limited to a short duration while staff is using the camera for real-time observations	Constant filming required for continuous deterrence and to capture all incidents
Consent	Can be sought with each patient	Is not sought, but patients are informed, e.g., via a sign
Privacy	Privacy is expected and can be violated	Privacy is not expected and thus cannot be violated
Storage of sensitive data	No storage, given that observations are done in real-time	Storage required if videos are saved for evidence purposes
Staff requirements	Existing staff can use the video cameras for routine observations	Additional trained staff may be required to view and assess continuous video streams
Effectiveness	Some evidence of benefits for patients	No evidence of the effectiveness of video surveillance in increasing security
Potential overlap between public and private areas	Bedrooms with two or more patients, staff is present during video observations, etc.	Patient is alone in a public space and assumes that he has a moment of privacy, for example

monitor patients in this setting more reliably than usual, both to ensure identification and prompt response to potential medical complications and, by enabling human interaction, to reduce psychological harm caused by seclusion or restraint (17, 19, 20). For this purpose, video cameras have been used in seclusion rooms for over 2 decades, but their use remains controversial (3, 8, 12).

In-person observation during coercive measures has a twofold benefit: it reduces the risk of harm during the intervention (19), and it provides the opportunity for therapeutic interactions (21). In their systematic review of coercion in psychiatry, Newton-Howes and Mullen (22) found that “the most common conceptualization [of coercion] was that of being dehumanized through a loss of normal human interaction and isolation.” A number of studies have suggested that the main factor in comforting patients during an episode of seclusion or restraint is contact with staff (17, 19, 23–25). For example, a retrospective study on the traumatic effects of seclusion and restraint found that 57% of patients said that they would have desired more personal attention from staff during the intervention (17). A review of the literature on seclusion practices also found that “more interaction and better communication between the secluded patient and the staff was a central recommendation” (20). Face-to-face observation of patients provides one such opportunity for interaction and communication (12). However, when video cameras are used to observe patients, there is no therapeutic interaction, and the observation simply becomes a matter of safety monitoring and risk management (12).

Although in-person observation facilitates therapeutic effects, it does not guarantee that they will occur. A study by Cardell and Pitula (21) of constant observation of

inpatients with suicidal ideation showed that patients felt a therapeutic effect from observation only if it went hand-in-hand with supportive interactions. Supportive interactions were as simple as being friendly, acknowledging patients, distracting them, or providing information. However, some observers who were perceived as distanced and unsupportive caused considerable distress for some patients and subjectively worsened their state.

It has been argued that considering the importance of human interaction, all patients undergoing coercive measures should have this contact and that

video monitoring should not be used at all (26). However, overstimulation leading to agitation is one of the reasons for secluding patients, with the reduction of stimuli being proposed as one of the therapeutic mechanisms (27). In such situations, video monitoring can be a way to allow overstimulated patients to be left alone while also allowing staff to carry out their observation duties. However, the evidence is only anecdotal, and more research is needed to identify objective benefits of video monitoring in the context of seclusion and restraint. The measures delineated in Box 1 are also applicable here. (On a different note, filming distressed patients who are in seclusion or restraint and cannot escape from view can result in a severe infringement on privacy, which is discussed below.)

Effects on Workload

Although hopes have been expressed that video monitoring could free up staff time for other tasks (1), Page and Meiklejohn (28) argued that video monitoring for nighttime observations does not allow for a reduction in staffing. They found that observation via video camera, including start-up of the system, took about as long as traditional observation, including walking to the patient's room and back. However, the duration and quality of observations using a video camera versus traditional observation have not been quantified, and no research has evaluated the impact of watching multiple video streams at once on potential time savings and accuracy of the data gathered. Moreover, someone still needs to be present to interpret and, if necessary, react to what is being seen, whether in person or through a monitor (8, 28). Therefore, the person using video surveillance for observations needs to be equally qualified to perform observations

BOX 1. Recommendations for use of video monitoring in personal spaces in psychiatric units^a

The default mode of observation should be traditional, face-to-face observation (4). The indication for video monitoring needs to be clearly defined and justified (3). A vague notion of "increased safety" is not adequate (6). In units where the default is video monitoring, patients should be given at least the right to opt out in favor of in-person observation. Staff should switch on cameras just before an observation and switch them off when no observation is ongoing (4). Patients need to be clearly informed about when they are observed and when they have privacy so that they have the chance to present themselves accordingly (3).

Cameras that are not in use (e.g., because of a lack of patient consent) should be clearly made nonfunctional (e.g., covered up or removed), so that patients can be certain that they are not being watched and so that the camera can't be used by staff accidentally or deliberately (4).

Monitors should be visible only to staff involved with the patients' care (3, 4).

^a The recommendations are based on findings by Olsen (3) and Warr and colleagues (4) on the use of video monitoring as a tool for patient observation. Recommendations are not listed in order of importance.

face to face. As Koskela (9) put it, "[T]he camera itself has no eyes. Its lens is blind unless someone is looking through it."

Possible Adverse Effects of Video Surveillance

Concerns have been expressed that the presence of video cameras might have an adverse effect on patients' well-being (1–5, 8, 26). A study among 213 inpatients on a video-monitored secure ward found that 13 patients (6%) who experienced video surveillance in communal spaces felt that their symptoms of fear, distrust, or delusion were worsened (1). In a study by Warr and colleagues (4), patients also raised concerns that video cameras might increase paranoid thoughts. These data suggest that a certain percentage of patients might indeed be significantly negatively affected by video surveillance, but confirmation in other samples is needed. Although only a small percentage of patients are affected, these negative effects occur in the context of a lack of demonstrable evidence for benefits of video surveillance in public ward areas.

In addition, some experts have voiced concerns that the use of video cameras might directly contribute to an atmosphere of detachment, control, and fear, which could promote occurrence of the very events that surveillance is supposed to reduce (6, 12). Because of a lack of empirical evidence, this can currently neither be confirmed nor refuted. It should be noted that undertaking to monitor public or private spaces on a ward may create a legal duty for staff to do so diligently, with possible civil liability or disciplinary sanctions imposed for lapses.

Consent

Whether patients need to consent to video monitoring is under debate. Stolovy and colleagues (5) argued that a ward is a public space, and thus patient consent is not needed, but patients simply should be informed of the presence of cameras. Other authors have described similar approaches, in which patients were not asked for their consent but were informed of the presence of cameras (6). In the German state of Nordrhein-Westfalen, policy makers went even further, arguing that a patient bedroom is also a public space, because staff members are allowed to enter without the patient's

permission (1). This caused a heated public debate, which prompted the government of Nordrhein-Westfalen to prohibit video monitoring in psychiatric units altogether (29).

However, control over decisions about video monitoring seems to be meaningful to many patients. Opinions on video monitoring on the ward and in bedrooms vary widely, with some patients finding it reassuring while others perceive it as an intrusion (1, 4). It is likely that similar diversity exists for preferences regarding video surveillance during coercive measures, such as seclusion (3), although this has not been studied.

The issue of consent is complicated by the fact that many patients who need to be monitored, potentially via video camera, are admitted involuntarily. Such patients may be antagonistic toward staff and not inclined to consent to video monitoring, even if it were likely to benefit them. One study, however, showed that patients who had been involuntarily admitted acknowledged the potential usefulness of video monitoring significantly more often than patients who had admitted themselves (69.6% versus 46.1%) (1). In the same vein, voluntarily admitted patients more often expressed a perception of dehumanization from undergoing video monitoring in seclusion and restraint rooms. The reason for this was not evident from the data, but the authors suggested that it might stem from a sense of being wrongfully criminalized. This underlines the need to communicate with and explain the benefits of video monitoring to patients so that a suitable monitoring solution can be found, even for those admitted involuntarily. Because of the lack of evidence for objective benefits of video monitoring beyond patient preference, there currently are no data that support subjecting involuntarily admitted patients to video monitoring against their will.

So far, no significant differences have been found in overall attitudes on video monitoring in different patient populations (1). However, patients with schizophrenia may have a more nuanced view than other patient groups, with twice as many (14.8%) objecting to video monitoring in seclusion and restraint rooms, whereas only 7.4% objected to surveillance in shared spaces (1). This finding suggests that

video monitoring is a complex subject that needs to be considered in a differentiated manner on a case-by-case basis.

Therefore, offering patients options wherever possible when observation is required (i.e., bedrooms at night and seclusion rooms) could be considered ethically desirable as part of the obligation of supporting patients' autonomy, one of the four cardinal principles of biomedical ethics (30). However, when resources are limited, the principle of autonomy can be in conflict with the principle of distributive justice (30). Thus administrators and clinicians need to consider carefully whether circumstances permit monitoring options to be made available to patients.

In our view, consent to video monitoring of private spaces should be sought when alternative options are available, in deference to an ethical obligation to respect patients' autonomy, regardless of whether this is legally required. Once consent is obtained, care should be taken to respect patients' preferences, which Warr and colleagues (4) reported did not always occur. For example, staff members sometimes accidentally turned on the wrong camera, which could have resulted in viewing a patient who had not consented, or they used the cameras during daytime and not only at night, as had been agreed upon with patients. This is an example of what Desai (12) called "function creep"—when camera systems are used for purposes other than what was initially intended and agreed upon. Therefore, Warr and colleagues (4) suggested that cameras should be covered in rooms of patients who have not given consent to video monitoring. However, respecting the boundaries of patients' consent and preventing human error can ultimately be achieved only through appropriate training and sensitizing of staff (4).

For emergencies requiring the use of seclusion or restraint, psychiatric advance directives could provide an opportunity for patients to express their preferences on the type of monitoring desired. We note, however, that use of advance directives is still rare among psychiatric patients (31), and even when advance directives exist, staff may fail to consult or honor them in crisis situations (32). Patients' directives on preferences regarding seclusion or restraint are overridden particularly often (32), and more work is needed to improve the extent and frequency with which psychiatric advance directives are honored during such episodes (33).

Privacy and Dignity

Privacy is a major concern with regard to video monitoring in psychiatry (1–6, 8, 12), with the majority of commentators agreeing that privacy should be protected as far as possible, albeit with varying definitions of privacy (34). Privacy can be understood as a moral right that can be deduced from the principle of autonomy (30), i.e., the right to autonomous control of the dissemination of information about oneself. This approach is reflected in the European Convention of Human Rights, which states that every human being has a "right to respect for his private . . . life" (35), a right that has been applied specifically to the context of video monitoring

in psychiatry (8). Most legal systems recognize a right to privacy, although the definition of privacy varies widely across jurisdictions (34). The general notion of privacy has been variously described as a right to be unobserved or undisturbed (36), not be intruded upon (34), or simply "to be left alone" (37). Any form of observation, whether in person or via CCTV, may thus be in tension with this understanding of patient privacy (4).

Privacy is integral to maintaining one's self-image and sense of identity, including for psychiatric inpatients (3). Patients often have a reduced ability to control their self-presentation, particularly in seclusion or restraint, and adding constant video monitoring can lead to a sense of shame, as aspects of self are exposed that the patient would rather have concealed (3). These concerns are not purely theoretical: in a study by Schütze (1), 11.3% of patients agreed with the statement that video surveillance is "degrading, inhumane and a breach of my personal rights," 73.7% disagreed, and 15% expressed no opinion. The constant possibility of being watched can lead people to observe and control themselves in ways that comply with the potential observer's goals and intentions (12, 38, 39). Because patients do not know when someone is viewing the images, they have to assume that they could be seen at any time and behave accordingly, assuming they have the capacity to do so (38). Even if the intention of video surveillance is not to alter behavior but merely to document it, the effects on the patient are the same (38), including a potential loss of sense of self and personal identity (3).

To our knowledge, it has not previously been pointed out that installing video cameras comes with a risk of inadvertently introducing constant observation. With traditional observation methods, it is time-consuming to observe a patient constantly, because observation is tied to physical presence. With cameras, this is reversed. It is easier to view a constant video stream as needed or when needed than to turn the camera on and off each and every time it is used to view a patient. Video monitoring indications and duration need to be clearly defined to avoid misuse and to protect patients' privacy (3, 4). The duration of observation should be defined on clinical grounds (3). If only intermittent observation is required, monitoring should not be increased simply because it is technically feasible or easier to leave the camera running constantly.

As noted above, patients have contrasting opinions on the extent to which video monitoring is an intrusion on their privacy, compared with traditional modes of observation (4). This substantial variance in the impact on patients' personal sense of privacy and dignity underlines the need to evaluate the use of video monitoring in each individual case and the desirability of seeking consent for its use, when possible (26).

Saving Recordings

The literature on video surveillance in psychiatry is divided on whether to record and store video recordings of patients. The main arguments in favor of saving videos are that they

can provide documentation of incidents for research or serve as evidence in case of allegations of misconduct or for civil or criminal court proceedings (5, 7, 40). Stolovy and colleagues (5) stated that “the photographed scene helps to clarify the situation and mitigates any conflict between two versions of the same event.” Videotape evidence has helped to prove the innocence of staff members wrongfully accused of abusing patients (5, 7). Stolovy and colleagues (5) also reported a case of abuse by a staff person that had been caught on camera: video footage showed a staff member shoving a patient, which led to the staff member’s dismissal (5). The usefulness of video recordings in case of conflict needs to be viewed critically. Although videos might well help to clarify what happened, the idea that video recordings can “mitigate any conflict” is almost certainly overstated. After all, videos show only one aspect of reality (9). Recorded videos often lack a full sequence of events, which may have begun in another space before moving into view of the camera. Crucial actions may be obscured by the positioning of bodies or furniture, and image quality may not be good enough to allow smaller objects, facial expressions, and other key evidence to be identified. Koskela (9) warned that “people are reduced to doll-like bodies lacking personal qualities, and surveillance is reduced to the observation of bodily movements. The technical equipment that separates the two sides of surveillance makes it difficult for the space to be recognized as a lived, experienced space.”

Further, Desai (12) argued that if we give too much importance to the questions of establishing blame or fault in our clinical settings, we risk fostering an environment of control and distrust, detracting from an atmosphere of care and communication. In research, video recordings have successfully been used to document and subsequently study inpatient aggression (7, 40, 41). The authors of one of these studies also found benefit in reviewing footage for clinical or administrative reasons (7). To date, these potential benefits remain sparsely elucidated, and more research is needed to demonstrate the usefulness of storing video recordings for clinical purposes outside a research setting. What is certain is that storing personally identifiable video recordings of vulnerable patients comes with significant data protection issues (42). However, the details of data protection and country-specific laws go beyond the scope of this article.

CONCLUSIONS

Whether video monitoring is being used in the most effective and ethical manner on psychiatric units needs to be reconsidered. For this, a clear distinction must be made between the two main purposes of video surveillance: constant surveillance for security purposes and selective observation of the safety and well-being of patients. Administrators need to clarify the purpose of video surveillance in their institution, and whether video monitoring can truly contribute to addressing it. Considering the lack of evidence regarding the effectiveness of video surveillance in increasing security, we currently see no justification for its use as a security measure.

Furthermore, there are indications that imposing video surveillance could cause psychological harm to a small but non-negligible percentage of patients with mental disorders.

On the other hand, video surveillance could be beneficial if patients are offered a choice in observation modalities. This is particularly promising for nighttime video monitoring—e.g., for contributing to improved sleep quality. Similarly, use of video surveillance in seclusion rooms could be beneficial for some patients, if their agreement is elicited beforehand, for instance, in advance directives. However, the overwhelming evidence in favor of increasing therapeutic interaction for secluded patients’ well-being means that, in most cases, traditional observation will be superior to video monitoring. Furthermore, the implementation of such an approach will depend on how well systems of consent and psychiatric advance directives work in practice.

Although available data call into question the effectiveness of video monitoring in reducing violent incidents, more research is needed to determine the impact of video monitoring in private areas. Thus it is currently not possible to make a recommendation on whether psychiatric units should acquire a video surveillance system to provide an option for monitoring the safety and well-being of patients. However, there are many existing video monitoring systems. We argue that video surveillance systems that were installed to increase security need to be reevaluated, because the anticipated benefits might not exist, and if they are retained, more effective and ethical use might be possible.

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