How can the lessons learnt from High Reliability Organisations (HROs) be applied to custodial settings? A Rapid Evidence Assessment (REA)

Emma Higginson *is a Forensic Psychologist in Training at HM Prison and Probation Service.* ***Robert Smith*** *is a Senior Registered Forensic Psychologist at HM Prison and Probation Service.* ***Dr Catharine Booth*** *is a Principal Psychologist at HM Prison and Probation Service.* ***Emma Preece*** *is a Regional Lead Chartered and Registered Forensic and Occupational Psychologist at HM Prison and Probation Service.*

The paradigm of High Reliability Organisations (HROs) emerged following studies of three technologically complex but functionally different types of organisations: naval aircraft carriers, air traffic control systems, and nuclear power. The researchers were interested in understanding why these high-hazard organisations 'with a disposition to fail had not' (p.11).[1] A range of sectors within society, such as nuclear power plants, aviation, hospitals, construction sites and the military, facilitate high hazard operations yet consistently operate safely and effectively long-term. Such sectors have been coined as High Reliability Organisations (HROs).[2]

The concept of HROs was developed further and five hallmarks were identified: preoccupation with failure, reluctance to simplify interpretations, sensitivity to operations, commitment to resilience, and deference to expertise.[3] Preoccupation with failure related to being alert to failures, preparing for and preventing failure where possible, and responding to and recovering from failures when they do occur. Reluctance to simplify interpretations highlights the importance of not overlooking subtle aspects of complex problems and avoiding classifying conditions into convenient or preconceived categories. Executing recovery following problem events and learning from mistakes relates to commitment to resilience. Sensitivity to operations refers to the acknowledgement that failures are often the result of more than one source or cause. Finally, deference to expertise is about ensuring that staff with the problem-solving knowledge, skills and abilities are involved in the solution identification process and avoiding restrictions caused by hierarchy.

Human factors linked to incidents

Human factors are 'about people in their living and working situations, about their relationship with machines, with procedures and with the environment about them, and about their relationships with other people at work' (p.1).[4] A consistently occurring factor which featured in almost all incidents within the maritime industry was the human element which suggests that the majority of these are avoidable if understanding and behaviour is improved.[5] Twelve factors, coined as 'the Deadly Dozen' (p.4), were identified as the most common conditions that can act as a precursor to human error:

- ❏ Situational awareness: Do you really know what's happening?
- ❏ Alerting: Do you really speak up when you should?
- ❏ Communication: Do you really understand everyone?
- ❏ Complacency: Is everything really okay?
  Culture: Do you really have a good safety culture?
- ❏ Local practices: Efficient or dangerous shortcuts?
- ❏ Fatigue: Just tired or dangerously tired?
- ❏ Distractions: Multi-tasking or dangerously distracted?
- ❏ Pressure: Just busy or dangerously overloaded?
- ❏ Capability: Is your team really capable?
- ❏ Teamwork: How well do you really work together?

1. Roberts, K. H. (Ed.). (1993). *New challenges to understanding organizations.* Macmillan Publishing Company.
2. Roberts, K. H. (1989). New challenges in organizational research: High reliability organizations. *Industrial Crisis Quarterly, 3*(2), 111–125.
3 . Weick, K. E., & Sutcliffe, K. M. (2001). *Managing the Unexpected: Assuring High Performance in an Age of Complexity.* Jossey-Bass, a John Wiley & Sons.
4. Kharoufah, H., Murray, J., Baxter, G., & Wild, G. (2018). A review of human factors causations in commercial air transport accidents and incidents: From to 2000–2016. Progress in Aerospace Sciences, 99, 1-13.
5. Maritime & Coastguard Agency. (2016). HUMAN ELEMENT GUIDANCE – PART 2. The Deadly Dozen – 12 Significant People Factors in Maritime Safety. MGN 520 (M) Human Element Guidance - GOV.UK (www.gov.uk)

The Deadly Dozen factors and HRO principles link in terms of their focus on problem identification and problem resolution.

Relevance to custodial settings

An overriding aim within His Majesty's Prison and Probation Service (HMPPS) is that of protecting the public, including victims, children, and vulnerable adults.[6] Holding people in prison securely enables the prevention of further offences being committed which, in turn, protects the public. People in prison having the ability to overcome physical security restraints or barriers, such as a wall, a fence, or locks, can lead to escapes. These incidents often gain a large amount of media attention which induces fear among members of the public.[7]

There were nine escapes from UK prisons in the 12 months to March 2024.[8] One particularly high-profile escape occurred in September 2023 from HMP Wandsworth, a Category B prison. An unannounced inspection of HMP Wandsworth took place between 22nd April and 2nd May 2024 by HM Chief Inspector of Prisons (HMIP).[9] The inspection revealed that, prior to the escape, security procedures had been neglected for some time. Within custodial settings, staff are required to meet the daily needs of many people with complex challenges. At the same time, they are required to communicate with each other on violent incidents, regularly complete head counts, and ensure all doors and gates are locked. Implementing the HRO principles in custodial settings could enable staff to understand the cause of mistakes, help predict what could go wrong in the future and thereby make prisons a safer place to work and live and improve protection of the public.

Holding people in prison securely enables the prevention of further offences being committed which, in turn, protects the public.

The current review

Several reviews have drawn upon the empirical literature regarding the relevance of HRO principles in settings such as hospitals, construction sites, oil refineries, the military, and aviation, and how they can be implemented.[10 11 12 13] However, at the current time, research into how HRO principles can be applied to custodial settings, does not appear to exist. To this end, the current Rapid Evidence Assessment (REA) aims to answer the question of 'How can the lessons learnt from High Reliability Organisations (HROs) be applied to custodial settings?' and inform future policy and practice to improve physical security within custodial settings. Suggestions for future research have been made.

Method

Rapid Evidence Assessments (REAs) are less exhaustive than full systematic reviews but should not be less systematic.[14] They are recognised for their use in informing policy and identifying areas for future research. The process within the current review was guided by the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines.[15] The guidelines focus on having a clear research question, search strategy, sources of information, reference management system, inclusion and exclusion criteria, and methods of quality assessment and data extraction.

Following the initial scoping review, search terms were developed and tested for each main concept of the research question to provide scope and rigour. The

6. Ministry of Justice. (2023/24). Guide to HMPPS Annual Digest. Official Statistics Bulletin. Guide to HMPPS Annual Digest 2021/22 (publishing.service.gov.uk)
7. Culp, R. F. (2005). Frequency and characteristics of prison escapes in the United States: An analysis of national data. *The Prison Journal, 85*(3), 270-291.
8. See footnote 6: Ministry of Justice. (2023/24).
9. HM Chief Inspector of Prisons. (2024). Report on an unannounced inspection of HMP Wandsworth.13 and 20-24 September 2021 (justiceinspectorates.gov.uk)
10. Memarian, B. (2012). *Development of high reliability construction work systems: lessons from production practices of high performance work crews.* Arizona State University.
11. Høyland, S. A., Skotnes, R. Ø., & Holte, K. A. (2018). An empirical exploration of the presence of HRO safety principles across the health care sector and construction industry in Norway. *Safety science, 107,* 161-172.
12. Lekka, C., & Sugden, C. (2011). The successes and challenges of implementing high reliability principles: A case study of a UK oil refinery. *Process Safety and Environmental Protection, 89*(6), 443-451.
13. Amici, B., & Farnese, M. L. (2024). Learning to manage the unexpected: applying Weick and Sutcliffe's HRO principles to oil tanker accidents. *Disaster Prevention and Management: An International Journal, 33*(2), 98-113.
14. Moons, P., Goossens, E., & Thompson, D. R. (2021). Rapid reviews: the pros and cons of an accelerated review process. *European Journal of Cardiovascular Nursing, 20*(5), 515-519.
15. Moher, D., Liberati, A., Tetzlaff, J. and Altman, D.G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *Annals of Internal Medicine, 15*(4), 264-269.

search string was inputted into ProQuest Central, OVID and Scopus. These databases were selected based on their relevance to the topics of health and social sciences, including psychology.

The inclusion and exclusion criteria were developed using the SPIDER framework to ensure relevance to the research question.[16] The initial search yielded a total of 768 results across the three databases. Once 304 duplicates were removed, there were 464 results to be screened. After titles and abstracts were screened for relevance, 196 results were eligible for review of the full text. Following this, 17 papers remained to be quality assessed.

Quality appraisal was conducted using the Critical Appraisal Skills Programme (CASP) quality assurance checklist for Qualitative Research.[17] This tool was selected as it is considered useful for quality appraising qualitative evidence syntheses.[18] Total scores for each paper were converted into percentages and a cut-off point of 70 per cent was determined to indicate high quality. Two papers scored 60 per cent and were therefore excluded, which left 15 papers. These 15 papers included research which had been conducted in a range of settings, such as hospitals, construction sites and oil refineries. At this point, it was decided that only research papers which had been conducted within healthcare settings would be included. This was due to healthcare settings aligning most closely to custodial settings in terms of face-to-face contact with service users, staff working as a team, and challenges staff face such as burn out and stretched resources.[19] [20] Once papers in other settings had been excluded, six papers remained. Four of these papers scored 100 per cent using the CASP quality assurance checklist for Qualitative Research whilst the remaining two scored 95 per cent.

Meta-ethnography is defined as an interpretive and inductive synthesis methodology.[21] Using this approach, interpretations are made by the meta-ethnographer which generate hypotheses and high-level theorising, bring together consensus and contradictions within individual studies, and uniquely derive formalised new knowledge. This method of data synthesis was chosen as it is uniquely suited to producing conceptual models and theory.

Findings

Six studies published between 2013 and 2023 and comprising of a total of 214 participants were included in the synthesis.[22] [23] [24] [25] [26] [27] All six studies were conducted in hospitals. Five were conducted in the United States of America (USA) and one was conducted in Canada. Two studies used a sample of staff in leader/director roles only, whilst the remaining four used a sample of staff in a range of roles (e.g., Vice Presidents, registered nurses, medical doctors, and support staff). All six studies used qualitative methods for data collection such as interviews, surveys, focus groups, direct observation, and document analysis. Various methods of data analysis were employed, such as thematic analysis, constant comparison, and content analysis.

Open mindedness

Engage in root cause analysis. One paper discovered that high and low performing safety units provided different responses to mistakes: low performing units focused on providing education to specific staff who were deemed to have made the mistake whilst high performing units were motivated to identify the system error. Similarly, participants in two other studies highlighted the importance of 'maintaining a questioning attitude' to identify the cause of a mistake and avoiding attributing blame.

16. Cooke, A., Smith, D., & Booth, A. (2012). Beyond PICO: The SPIDER tool for qualitative evidence synthesis. *Qualitative Health Research, 22*(10), 1435-1444.
17. Critical Appraisal Skills Programme. (2017). CASP Qualitative Research Checklist. Qualitative Studies Checklist - CASP.
18. Long, H. A., French, D. P., & Brooks, J. M. (2020). Optimising the value of the critical appraisal skills programme (CAS) tool for quality appraisal in qualitative evidence synthesis. *Research Methods in Medicine and Health Sciences, 1*(1), 31-42.
19. O'Mahony, N. (2011). Nurse burnout and the working environment. *Emergency Nurse, 19*(5).
20. Finney, C., Stergiopoulos, E., Hensel, J., Bonato, S., & Dewa, C. S. (2013). Organizational stressors associated with job stress and burnout in correctional officers: a systematic review. *BMC public health, 13,* 1-13.
21. France, E. F., Wells, M., Lang, H., & Williams, B. (2016). Why, when and how to update a meta-ethnography qualitative synthesis. *Systematic Reviews, 5*(1), 44.
22. Murray, J. S., Cox, G. R., Watts, B. V., Montoya Jr, A., Sawyer, A. M., & Fankhauser, J. (2023). Leading for High Reliability During the COVID-19 Pandemic: A Pilot Quality Improvement Initiative to Identify Challenges Faced and Lessons Learned. *Journal of Clinical Outcomes Management, 30*(2).
23. Mossburg, S. E., Weaver, S. J., Pillari, M., & Biddison, E. D. (2019). Manifestations of high-reliability principles on hospital units with varying safety profiles: A qualitative analysis. *Journal of nursing care quality, 34*(3), 230-235.
24. Scott-Martinet, K. (2016). *Implementing high reliability organization principles (HROPs) in a US hospital: A case study.* Northcentral University.
25. Jennings, B. M., Yeager, K. A., Feistritzer, N. R., Gullatte, M. M., & Martyn, K. K. (2018). Enacting high reliability principles while caring for people with Ebola Virus Disease. American Journal of Infection Control, 46(10), 1167-1173.
26. Goldenhar, L. M., Brady, P. W., Sutcliffe, K. M., & Muething, S. E. (2013). Huddling for high reliability and situation awareness. *BMJ Quality & Safety, 22*(11), 899-906.
27. Rotteau, L., Goldman, J., Shojania, K. G., Vogus, T. J., Christianson, M., Baker, G. R., ... & Coffey, M. (2022). Striving for high reliability in healthcare: a qualitative study of the implementation of a hospital safety programme. *BMJ Quality & Safety, 31*(12), 867-877.

Many participants commented that having a blame-free and non-punitive environment was an integral part of the definition of safety culture.

Adapt after mistakes. In one paper, it was highlighted that staff were 'in a state of constant learning'; they viewed near misses and accidents as an opportunity to seek improved practices. Adaptivity and flexibility were essential to ensure that staff were considering what was truly working; 'we've always done it this way' was not spoken. If something was not working, they would adapt or change protocols. If a protocol was needed but did not exist, it was developed. Similarly, another paper discovered that staff from high-performing units were proactive and unafraid of changing their strategy. Participants in another study reported that in order to be resilient, they needed to engage in adaptive and creative problem solving.

Long-term commitment

Embed processes into daily practice. Participants in one study reported that they kept the HRO principles on the forefront of their minds throughout their practice. Similarly, one paper discovered that participants viewed HRO principles as not a checklist but rather something that was woven throughout everything they did. They reported 'constantly infiltrating' their practice with patient safety and embedding safety discussions into staff meetings. Although the hospital scored highly in patient safety, they did not become complacent. Staff caring for patients with Ebola constantly reminded each other of the dangers of the disease which motivated them to adhere to protocols. They created a number of 'family rules' which included the fact that everybody was responsible for everybody else. These 'family rules' were repeated every morning in the daily huddles (meetings). Another paper discovered that hospital staff associated high reliability with standardisation and repeatability.

High performing units were motivated to identify the system error.

Do it properly. The staff in one study reported that the pace of their practice was always slow; for most of their protocols, there was standardised steps, and these were strictly adhered to which took time. Nurses had an 'obsession with cleanliness' and were of the view that 'if you have time to lean, you have time to clean'. Staff would wipe floors 'just in case' a droplet of blood had fallen. They viewed the mundane task of cleaning as of paramount importance. Participants used a 'safety buddy' who would act as a second pair of eyes to spot problems and/or offer reminders. Within three studies, participants reported that they would never proceed in the face of uncertainty. They highlighted the importance of stopping a process and reevaluating if something seemed wrong. In terms of implementing the HRO principles, many participants in one study highlighted the importance of working slowly and doing it 'the right way' rather than rushing it. They voiced that staff are already overtaxed and it is important that they are not further overloaded or overwhelmed; participants recommended that training is provided in stages.

Teamwork

Information sharing. One study discovered that 'daily huddles' (meetings) facilitated more and better-quality information sharing within and across units. It enabled staff to develop a shared understanding of the events that were occurring on each unit and everyone's role. This, in turn, facilitated accountability and trust and enabled them to deliver well-coordinated care. Participants in three of the studies reported that daily meetings served as a forum for staff to ask questions, raise concerns, and obtain answers in real time. Staff felt empowered to speak up and publicly express disagreement, even with those in power. It was reported that communication is a major responsibility, particularly when staff were changing roles.

A number of papers commented on the importance of reporting problems, mistakes, and near misses through electronic recording systems. A hospital within one study did this by reporting serious safety matters on the intranet. They also had a 'good catch' reporting tool to raise awareness of the kinds of mistakes that can happen. Similarly, participants in another study maintained a log of near misses and learnt from them. Reporting problems and mistakes was 'the norm' and actively encouraged. Another study discovered that staff from high performing units reported issues face-to-face during daily briefings.

Shared decision making: Staff of all grades were expected at all daily huddles (meetings) so that major decisions could be made as a group. Front line staff felt as though they had a credible voice and that their recommendations would be taken seriously and acted upon. It was noted in one study that the attitude of the managers was that 'whatever the nurses want to do, that's what we'll do'. Nurses were recognised as being experts in caring for critically ill patients, and physicians heavily relied upon them. Staff of all grades treated

each other as 'equals'. However, it was evident in three studies that there was a disconnect between decision makers and front-line staff. One study discovered that, in low performing units, physicians communicated with case managers instead of nurses. Another study found that managers often overturned the decisions of frontline staff. Similarly, a shared understanding of where the expertise lay was evident in another study but this often equated with seniority and professional background rather than expertise with the specific problem at hand.

Barriers

Practicalities. Difficulties managing competing priorities was noted as a barrier to implementing the principles. For example, participants in one study voiced that priorities, such as the staffing crisis, pulled them away from focusing on HRO roll out, and participants in another found that sometimes they were unable to attend briefings due to needing to care for deteriorating patients. Participants also found that implementing the principles took 'manpower and time'; participants faced difficulties as they felt pressure to be efficient. It was highlighted in another study that, with larger teams of staff, there is less opportunity for team bonding and communication across the whole team declines. Participants in one study raised concerns about the complex nature of HRO principles and communicating these to staff.

Participants viewed HRO principles as not a checklist but rather something that was woven throughout everything they did.

Culture. Participants in two studies raised that the culture of the organisation may be a barrier to implementing the HRO principles on a consistent basis. It was noted that long-term staff members can be comfortable with the status quo and reluctant to try something new. Staff may view HRO principles as 'just another initiative with a new name'. They might try new ideas for a short while and then revert to the status quo. It was noted that these staff members may actively sabotage the process by not adhering to it or making negative remarks which could have a detrimental effect on other members of staff. In both studies, managers found it difficult to sustain a high level of passion about safety on a regular basis, especially on units where staff are 'desensitised to danger'. Both studies also found that issues can arise over perceived authority, and staff can be fearful of being blamed for mistakes.

Discussion

This REA revealed several ways in which learning from HROs can be applied to custodial settings to improve physical security. Mistakes in custodial settings could involve a gate or cell door being left open or an escape. The above findings suggest that, rather than attributing blame to specific members of staff, the focus should be on establishing the root cause or system failure which led to the mistake. Staff should be open minded and not make assumptions about what the cause could have been. Mistakes should be viewed as an opportunity to learn and improve practices. This is in line with the HRO principles of reluctance to simplify, commitment to resilience and sensitivity to operations.[28] These findings are also in line with the research suggesting individual accountability and a learning organisation are key to developing a culture of reliability.[29]

Prioritising cleanliness in hospitals bears parallels with the importance of security in custodial settings. In order to embed HRO principles into daily practice in custodial settings, the above findings suggest that staff may benefit from constant reminders of the principles and reflecting on whether they are adhering to them, for example at the morning briefing. They may also benefit from constantly reminding themselves and each other of the consequences which could arise from leaving a gate or cell door open (e.g., a prisoner escaping, lone night staff being harmed, people in prison who are non-associates coming into contact with each other). It was identified that staff should not proceed in the face of uncertainty; this suggests that, if operational staff do not feel prepared to unlock people in prison, they should pause until they are ready. These findings are in line with the HRO principle of preoccupation with failure and the Deadly Dozen factors of culture, pressure, and complacency. Finally, methods of implementing HRO principles should be done gradually.

Staff in custodial settings may also find that meetings enable the sharing of high-quality up-to-date information and provide them with an opportunity to ask questions and raise concerns. Having an electronic recording system to report not just incidents but near misses and 'good catches', such as a gate being left open, may be useful. The above findings indicate that

28. See footnote 3: Weick, K. E., & Sutcliffe, K. M. (2001).
29. See footnote 5: Maritime & Coastguard Agency. (2016).

decisions should be made as a group and the opinions of officers are particularly valuable. These findings are in line with the HRO principles of preoccupation with failure and deference to expertise. They are also in line with the research which suggests communication between staff and understanding each other are key to a culture of reliability and the prevention of human error.

The current research revealed two barriers to implementing HRO principles: practicalities and culture of the organisation. It is acknowledged that, similar to healthcare settings, staff and resources within custodial settings are stretched. The above findings suggest that competing priorities, such as imminent risks of violence and/or self-harm, may act as a barrier to officers adhering to procedures based on HRO principles. Distraction is a central factor in human error and accidents. In addition, staffing groups regularly change within custodial settings and there can be a high turnover of staff which could act as a barrier to group cohesion. Similar to hospitals, staff in custodial settings may feel pressure to be efficient, for example to unlock people in prison on time as being late would have a knock-on effect on visits and healthcare appointments. This is in line with the Deadly Dozen factor of pressure. A culture may exist in custodial settings where long-term staff are fearful of change. Further, blame culture may prevent staff from reporting mistakes.

Staff felt empowered to speak up and publicly express disagreement, even with those in power.

Limitations of the research

Given there was limited existing research into HRO principles and custodial settings, the findings from healthcare settings were utilised and applied. These findings were not intended to be generalised to custodial settings; therefore, caution should be applied. In addition, the research in the included papers was conducted in the USA and Canada which limits the generalisability of the findings to the UK as the setting characteristics may differ. Finally, a total of 90 papers which were identified during the search were inaccessible. However, upon reviewing the abstracts, several of these (81) would have been excluded due to them being conducted in non-healthcare settings and/or not including empirical research. The remaining nine papers could have provided further insight into the implementation of HRO principles and improving safety.

Implications for policy and practice

The findings of this REA have several implications for policy and practice related to safety and security in custodial settings. They are as follows:

- ❏ Daily staff briefings on the wing are highly important. Where possible, it would be beneficial for a range of staff from different grades and departments to be in attendance so that different perspectives can be heard. It would be beneficial to have an 'open door' approach regarding such meetings. Staff meetings are likely to be especially important when staff change shifts, for example when night staff take over from day staff and vice versa.
- ❏ Decisions regarding safety and security would benefit from taking a prison-wide approach. Specifically, incorporating the views of staff working across the prison rather than being made solely by a prison's Security Department and/or Senior Leadership Team (SLT). Contributions from operational and non-operational staff may provide different insights to risks and risk management solutions. The annual State of Security assessment would be a useful mechanism to use for this purpose.
- ❏ It may be beneficial for staff to continually remind themselves of the consequences of failures in physical security, such as leaving a gate or cell door open. This could be reinforced within daily staff briefings and displayed on posters in offices or by key cabinets. Staff from all grades and departments could also complete eLearning on basic security awareness via the Security Risk and Capability Learning Hub. This can be accessed through the intranet.
- ❏ The importance of double checking that the roll check is correct and that all cell doors and gates are locked could be reinforced. If resources allow, it would be beneficial to have a second member of staff to check that cell doors and gates are locked. This could be for a short-term period to support staff when new in post. Local policies should be adhered to. The importance of staff encouraging each other to adhere to HRO principles could also be reinforced.

- ❏ It is important that operational staff only unlock in the morning/after lunch when they feel prepared to do so. For example, when they are confident that potential risks can be sufficiently managed. If a risk to security has been identified, the unlocking process should be paused until the issue is resolved.
- ❏ When mistakes occur, such as a gate or cell door is left open, the focus should be on establishing the root cause or system failure which led to the mistake. Staff should be open minded and not make assumptions about what the cause could have been. It should be viewed as an opportunity to learn and improve practices. Involving Security Analysts to check for themes in mistakes could prove useful. For example, is it the same gate that is unlocked or is it at the same time of day. Mitigations can then be put into place.
- ❏ It is important that the environment is blame free and nonpunitive as this may prevent staff from reporting mistakes.
- ❏ The Security Intelligence Reporting (SIR) system could be used to report not just incidents but near misses and 'good catches'.
- ❏ Conversations within and between departments about promising practice and what is going well is important.
- ❏ As the concepts within the HRO paradigm are complex, consideration could be given to how this can be introduced to staff so that it is accessible. Awareness sessions could be delivered in full staff briefings, and posters and signs could be distributed in key areas (e.g., by gates, key cabinets, and in staff offices) to support the awareness sessions. Those leading HMPPS capability workstreams and learning and development could consider how the HRO principles can be embedded in learning and optimised in our practice.
- ❏ Two barriers to implementing HRO principles have been found to be practicalities and the culture of the organisation. Whilst it is appreciated that staff are likely to have many competing priorities, the importance of HRO principles and related processes should be highlighted in terms of how they move the organisation towards long term successful outcomes. To address the culture barrier, it may be beneficial for the awareness sessions to make links between the HRO principles and the processes the establishment already follows, rather than introducing them as entirely new concepts. For example, links could be made to the State of Security assessment and SIR system that are already in line with HRO principles.

Recommendations for future research

This research is one of the first, if not the first, of its kind. It is recommended that future research is carried out in this area to gain further insight into how the HRO principles can be implemented in custodial settings. Future research could also focus on how insight into HRO principles could be developed. Following the awareness sessions, the implementation of HRO principles could be piloted on a small number of wings in UK prisons, and research could be carried out to evaluate the success of this and any barriers that were faced.

Conclusion

This REA has synthesised the existing literature on HROs and associated principles and applied them to custodial settings for the first time. It has identified various ways in which HRO principles can be embedded within custodial settings and the benefits of doing so, but also the barriers to implementation. To this end, implications have been set out for policy and practice. The implementation of HRO principles could improve physical security within custodial settings which is a priority for HMPPS and key in protecting the public. As the existing research on this topic is limited, it is recommended that further research in this area is conducted.

This is an open access article under the terms of the Creative Commons Attribution (CC BY — Attribution) License which permits use and distribution in any medium provided the original work is properly cited. For more details please visit: https://creativecommons.org/licenses/by/4.0/