Exploring the impact of the physical space on therapeutic processes: A rapid evidence assessment

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Research suggests that the condition of therapy rooms affects clients' perceptions of their practitioner's competence, and quality of care.[1] Additionally, the conditions of the room can impact on therapeutic relationships, comfort, and engagement.[2] Research in prisons and general forensic practice in this area is scant, despite the challenges being widely acknowledged.[3] A rapid evidence assessment was conducted to evaluate evidence from forensic and psychotherapy literature to inform recommendations for delivering rehabilitative prison interventions.

People in prison across England and Wales may engage in a range of interventions, for example psychological therapy, programmes, and structured supervision sessions.[4] The environments they take place in often varies among prisons, depending on resource and infrastructure. Spaces can range from purpose built and well-designed areas, to repurposed rooms in locations that are not always optimal. Prisoner and practitioner experiences of therapeutic environments in prisons have seldom been investigated. Some research is available which considers the environment of prisons more generally, but this does not specifically draw upon the rooms within prisons, where interventions are delivered.

Generally, prisons have been described as 'counter-therapeutic',[5] and having the potential to trigger reactions to previous trauma.[6] Whilst this might be the case for many aspects of a prison's environment, the condition of the rooms where interventions are delivered is one that receives little attention in research. This includes not just the elements of the room itself, such as its aesthetics, colour and furnishings, but its location within the prison, be that a portacabin, a concourse or on a busy wing. This issue becomes more obvious with prisons that have aging buildings and fabrics, which many do, where levels of noise and footfall in surrounding areas are high, with spaces in need of refurbishment.

Previous non-prison related research has found that the physical therapy space can enhance feelings of safety and comfort, and that client retention was significantly associated with a 'welcoming environment' (as perceived by clients).[7] Retention is particularly important with rehabilitative interventions since non-completion and withdrawal can actually increase risk of recidivism.[8] This suggests that the consideration of physical therapy spaces may have practical implications that can optimise intervention delivery in prisons. With rehabilitation and relevant interventions being a key objective for UK prisons,[9] and a scarcity of prison specific research in this area, a rapid evidence assessment (REA) was carried out. This REA aimed to synthesise qualitative and quantitative studies that explored the views of practitioners and clients from

1. Nasar, J., & Devlin, A. (2011). Impressions of psychopractitioners' offices. *Journal of Counselling Psychology, 58*(3), 310-320.
2. Sinclair, T. (2020). What's in a therapy room? – A mixed methods study exploring clients' practitioners' views and experiences of the physical environment of the therapy room. *Couns Psychother Res., 21*(6), 118-129.
3. Tite, L. (2013). *Counselling psychologists' experiences of working with clients who present with anger issues in prison settings: An interpretive phenomenological analysis* [PhD thesis]. London.
4. Walton, J., Ramsay, L., Cunningham, C., & Henfrey, S. (2017). New directions: Integrating a biopsychosocial approach in the design and delivery of programs for high-risk service users in Her Majesty's Prison and Probation Service. *Advancing Corrections: Journal of the International Corrections and Prison Association, 3,* 21–47.
5. Fletcher, J. (2014). Inside story: working in a women's prison. *Therapy Today, 25*(3), 28-31.
6. Hocken, K., Taylor, J., & Walton, J. (2022). Trauma and the experience of imprisonment. In P. Willmott & L. Jones (Eds.), *Trauma-informed forensic practice* (pp. 298–312). Routledge.
7. Backhaus, K. (2008). *Client and practitioner perspectives on the importance of the physical environment of the therapy room: A mixed methods study* [Ph.D. thesis]. Texas Woman's University.
8. McMurran, M., & Theodosi, E. (2007). Is treatment non-completion associated with increased reconviction over no treatment? Psychology, *Crime & Law, 13*(4), 333–343.
9. Ministry of Justice. (2011). *Compendium of reoffending statistics and analysis 2011*. Ministry of Justice.

across forensic and psychotherapy settings, and experimental studies that had evaluated the effect of the physical environment on therapy outcomes.

Rapid Evidence Assessment

REAs can be used to search for, and evaluate, data and evidence to develop our understanding about a subject and to inform policy or practice. This involved screening and critically appraising the data gathered in line with inclusion and exclusion criteria that were developed to ensure rigor and transparency. These criteria were developed using the parameters of population, intervention, comparison, outcome, context and time (PICOC/T).

This REA focused on male and female adults who were engaged in or have participated in talking-based therapies such as Cognitive Behavioural Therapy (CBT) or counselling. It excluded children under 18 and those involved in non-talking therapies (e.g., medical or physical). Practitioners, students, and professionals in psychotherapy, psychology, counselling, or related fields were included, while non-health or non-social care professionals were excluded.

The intervention explored was the importance of the physical environment therapeutic process, with the physical environment acting as the independent variable. The REA compared opinions regarding standard, routine therapy spaces with those that have undergone changes believed to affect the therapy. Any study that did not focus on the physical environment's role in therapy was excluded.

The outcomes of interest were the views or ratings from practitioners, students, and clients about how the physical environment impacts therapy, as well as the client's progress toward therapeutic goals. Studies that did not analyse these perspectives or the effect of the environment on progress were excluded.

The REA was limited to qualitative and quantitative studies published in English since 1980. Qualitative research was required to use interviews, focus groups, or similar methods, while quantitative research could have involved randomised control trials, matched comparisons, or various types of ratings. Excluded were non-scientific, weak, or minimally informative studies, including non-controlled studies, single case studies, and opinion papers.

The search involved exploration across three databases: SAGE, Taylor and Francis, and ProQuest. These databases were three of those made available by a designated University database at the time of writing. To locate a broad literature range, two search strings were used.[10] [11] In both searches, steps were taken to determine whether studies met the inclusion criteria. Firstly, the titles and abstracts of studies were examined. Those not relevant to the inclusion criteria in the PICOC/T were excluded. Those potentially relevant were saved and retrieved in full, to be reviewed against the PICOC/T criteria. Those deemed as not meeting the criteria were excluded (1,718), with the remaining studies (7) critically appraised.

A preference for therapy environments which mimicked living room settings was reported.

Results

This REA aimed to explore the importance of the physical environment on therapeutic processes. Given the scant research in this area, the search strategy and the inclusion criteria were broad. Despite this, only five qualitative studies and two quantitative studies were included. Unfortunately, none were from forensic settings, and no experimental studies were found. Instead, the research gathered originated from counselling and psychotherapy studies in non-secure settings. Experimental studies that were prison specific, may have enhanced the generalisability of findings. Data extraction facilitated a concise synthesis of the main findings across the studies.

Theme 1: Comfort

Comfort was identified as a key theme, with three of the reviewed papers highlighting its importance. A preference for therapy environments which mimicked living room settings was reported.[12] Studies also highlighted that feelings of comfort can be affected if therapy occurs in a location other than the usual (comfortable) room, despite having the same

10. Search string 1: general psychotherapy therap* AND Counselling AND psychotherapy* AND environment AND impact* AND "therapy room" AND outcome* AND effect.
11. Search string 2: therap* AND Counselling AND psychotherapy* AND environment AND impact* AND "therapy room" AND outcome* AND effect AND secure settings AND prison* AND correction*.
12. Jones, J. (2020). A place for therapy: Clients reflect on their experiences in psycho-practitioners' offices. *Qualitative Social Work, 19*(3), 406–423.

practitioner. Another reviewed paper, found that participants provided higher ratings of comfort in rooms containing a rug, pillows or cushions, fabric, plants, and artwork.[13] The third paper also found that practitioners highlighted the importance of using spaces to provide comfort to meet the physical needs for clients and themselves.[14]

This theme highlights the importance of developing physical environments for prison interventions that are comfortable for both clients and practitioners. Any strategic use of furniture to support this is likely to be beneficial. For example, even something as small as adjustable chairs can lower heart rate variability, which invokes a more settled state and is suggested to be better for short-term memory, cognitive flexibility, and focus retention.[15] In fact, seating has been shown to be one of the most crucial items in a therapy room, with both clients and practitioners reporting preferences for large, soft, seating.[16] In the context of intervention rooms, utilising comfortably cushioned and soft seats may improve engagement.

Theme 2

Insight into the practitioner and therapeutic relationship: Another key theme arising three of the reviewed papers, was the physical space being used by clients to draw inferences about their practitioner. Findings highlighted that clients used the physical space to develop conclusions about practitioners, such as their areas of specialty and warmth in therapeutic style. This was supported by another paper reviewed, which proposed that practitioners were rated highly on trustworthiness, and expertise when a room contained a rug, cushions, fabrics, plants, and artwork. Such additions to prison intervention rooms are likely to support or even mirror and extend the warm, empathic style that practitioners delivering some interventions are encouraged to adopt.

The former of these papers reported that the physical environment is experienced by clients as influential to their relationship with the practitioner. Clients reported that they used the physical space to make inferences about their practitioner, such as their interests, expertise and whether they were relatable. This can be particularly important in the context of prison interventions, where some clients can struggle to trust staff, or build rapport due to the effects of their trauma histories. Rooms in prisons where interventions are delivered, if they are unfurnished or are otherwise bare and stark, are unlikely to make prisoners feel valued or foster the physical space and sensory tone necessary for them to begin to trust and engage with practitioners. Essentially, rooms can set the tone for therapeutic relationships.

Perceptions of the physical therapy space were used to draw inferences about practitioner competence, and relatability.

Theme 3

Aiding therapy processes: The third and most prominent theme indicated that the physical space could aid therapeutic processes, with 4 papers drawing upon this topic. One study found that art works in the therapy space helped clients develop feelings of connection to people from other time periods or communities.[17] However, another paper found that the presence of nature in therapy settings encouraged connectedness.[18] One paper reviewed found that practitioners used the physical space to convey therapeutic messages to clients, engage them in discussions and to appropriately self-disclose, all of which was aimed to enhance the therapy process. This involved the use of colour, artwork and self-revealing or decorative objects. The placement of objects gives clients insight into their practitioners, which might benefit intervention spaces in prisons. Whilst intervention specific materials are often used in prisons to convey therapeutic messages, it might be beneficial to consider how this could be achieved more creatively.

One study found that the presence of nature enhanced the therapy process through alleviating negative thoughts and emotions triggered by therapy.

13. Smalley, L. (2014). *The influence of the physical environment on client comfort, perception of practitioner, and retention in therapy: An examination of differences in undergraduate women (Ph.D. thesis).* Spalding University.
14. Jones, J. (2018). A phenomenological study of the office environments of clinical social workers. *Health Environments Research & Design Journal, 11*(3), 38–48.
15. Miller, H. (2017). *Texas A&M cognitive research summary* [Proprietary and confidential]. Texas, USA.
16. Backhaus, K. (2008). *Client and practitioner perspectives on the importance of the physical environment of the therapy room: A mixed methods study* [Doctoral dissertation]. Texas Woman's University.
17. Coles, A., Harrison, F., & Todd, S. (2019). Flexing the frame: Practitioner experiences of museum-based group art psychotherapy for adults with complex mental health difficulties. *International Journal of Art Therapy, 24*(2), 56–67.
18. Dybvik, J., Sundsford, S., Wang, C., & Nivison, M. (2018). Significance of nature in a clinical setting and its perceived therapeutic value from patients' perspective. *European Journal of Psychotherapy & Counselling, 20*(4), 429–449.

The paper also reported that the presence of nature encouraged a helpful perspective on client problems, in turn encouraging the use of alternative perspectives and problem solving. Participants described that being in nature provided a backdrop that made their problems seem less severe, which in turn helped them change their perspective and ways of dealing with problems. Similarly, one study found that inviting clients to engage in therapeutic practices outdoors was also beneficial.[19] Participants reported that this encouraged autonomy, presence in the moment, equality between clients and practitioners, and increased motivation. It may be of benefit for practitioners to consider how they might incorporate nature into the intervention space. This might be done using plants, outdoor breaks, or natural light from windows.

Theme 4

Facilitating engagement: The final theme was the influence of the physical environment in enhancing engagement. This could be considered the least prominent theme, with two of the returned papers drawing upon this area. One of the included studies reported that art objects in the therapy environment encouraged clients to think about their internal world, supporting them to self-reflect. This included art works, artefacts, and photographs. This was facilitated by clients simply expressing whether they liked or disliked an object, as this enabled reflection on how one relates to given things. This was reported to be beneficial with clients who found it difficult to engage in self-reflection. Therefore, when developing spaces for prison interventions, it might be of benefit to consider the use of art works or presenting material artistically. This may encourage self-reflection from clients, inviting them to begin thinking about their inner world or engaging in conversation with their therapists to build rapport.

Colour can be particularly impactful on client engagement in therapeutic environments. For example, one of the included studies reported that participants preferred therapy rooms to be 'neutral' with 'non-vibrant' colours.[20] Specifically, blue, green, and grey were the most preferred wall colours. In addition, blue, white, and green were the colours most preferred for practitioner shirts. Although it is not practical to direct staff to wear specific colours of clothing, it may be beneficial to paint an intervention room in specific colours that promote engagement.

Discussion

The current REA aimed to explore the effect of the physical environment on therapeutic outcomes, following organisational interest, and recognition that it has the potential to shape the way intervention environments are developed, shape stakeholders of this area, and encourage possible changes in resource provision this might encourage. The REA was also motivated in part by the author's experiences when developing a room for intervention delivery at a prison. From professional experience, resources for rehabilitative interventions can vary between prisons. Some use purpose-built spaces, though this is not always the case.

> The results of this REA also suggested that comfort and a 'homeliness feeling' was important.

Whilst this REA did not return any research studies from prisons, the findings highlight that the physical spaces where therapy takes place can have an impact on important therapeutic processes such as engagement, client retention, and sense of safety. These processes have been found to be crucial to rehabilitative interventions that support change in prison settings, and to reducing risk.[21] The physical environment can positively reinforce rehabilitation, or potentially have a more negative impact.[22] Despite the challenges of providing interventions in prison being widely acknowledged,[23] there is limited research informing which adjustments could be made to intervention spaces. The lack of studies relating to prison interventions in the papers returned was disappointing but reflected the scarcity within the literature base, and the need for further study. That said, the results provided findings from psychotherapy literature, which may offer some considerations for practice in prisons.

Research within environmental psychology has reliably demonstrated that physical settings can have multiple impacts upon the people who use them.[24] In

19. Revell, S., & McLeod, J. (2017). Therapists' experience of walk and talk therapy: A descriptive phenomenological study. *European Journal of Psychotherapy & Counselling, 19*(3), 267–289.
20. Rosser, J. J. (2015). *Psychotherapeutic implications of applied color theory* [Unpublished doctoral dissertation]. The Chicago School of Professional Psychology.
21. McMurran, M., & Ward, T. (2010). Treatment readiness, treatment engagement, and behaviour change. *Criminal Behaviour and Mental Health, 20*(2), 75–85.
22. Mann, R., Fitzalan Howard, F., & Tew, J. (2018). What is a rehabilitative prison culture? *Prison Service Journal, 235,* 3–9.
23. Liebling, A. (2011). Moral performance, inhuman and degrading treatment, and prison pain. *Punishment & Society, 13*(5), 530–549.
24. Lei, S. (2010). Classroom physical design influencing student learning and evaluations of college instructors: A review of literature. *Education, 131*(1), 128–134.

psychotherapy, it is suggested that the therapy room functions to provide a safe environment for clients and to aid therapy processes.[25] Aspects of the prison environment such as, metal doors, barred windows, high walls, and imposing fences, are likely to have a contrasting effect.

Research highlights that the physical state of a given setting can influence the impressions given to those who use them.[26] In the context of therapeutic practices, findings from this REA, support this by highlighting that perceptions of the physical therapy space were used to draw inferences about practitioner competence, and relatability. Some practitioners are trained to demonstrate a warm, empathic style when working therapeutically with people in prison. Their efforts to optimise space for engagement, motivation, and safeness, may support practitioners in doing this.

It has been noted that counselling practitioners and their clients both feel that a therapy room influences their working relationships.[27] This was also supported by the REA with both clients and practitioners experiencing the environment as a key part of relationship building. In some prison interventions, the quality of therapeutic relationships are considered to have a key influence on outcomes.[28] Strong therapeutic relationships have also been found to be 'helpful in keeping clients in therapy' (p.569).[29] Client retention is particularly important in rehabilitative interventions, given its previously discussed links to reconviction.

The current findings highlighted that therapy delivered in the presence of nature helped establish feelings of tranquillity and autonomy, and improved wellbeing. This is supported in wider research, where presence of nature is reported to induce more positive feelings than views of non-natural environments.[30] Existing research also indicates that incorporating nature into indoor spaces using plants can enhance comfort, mood, and the perceived attractiveness of the environment.[31] This suggests there may be value in using outdoors space for rehabilitative work where safety and security requirements can be upheld, or more simply imitating nature indoors with use of plants

Previous studies of therapy environments have reported that physical comfort for all parties was crucial.[32] The results of this REA also suggested that comfort and a 'homeliness feeling' was important. These are likely to be more significant for people in prison who are away from home and ordinary comforts. Comfort is also important when considered against the backdrop of trauma in the prison population. There may be considerable benefit to investing in soft, home-design furniture as a basic standard in the rooms where interventions are delivered.

The nature of the physical environment should be a key consideration for those involved in developing spaces for prison interventions.

The findings of the REA also suggest that practitioners used the physical environment to meet the basic needs of clients and convey therapeutic messages. Thus, it will likely be beneficial to consider how those delivering interventions in prison can meet client needs using the physical space. Although people in prisons needs are likely to differ, facilities to make a drink, comfortable seating, and ventilation (depending on room temperature) are simple amenities that may support with meeting basic needs. More generally, practitioners delivering interventions can convey therapeutic messages with colour, furnishings, and in creatively presenting intervention content.

A sense of connectedness can be protective against multiple behaviours, including substance use, risky sexual behaviour, and violence.[33] The current

25. Frank, J., & Frank, J. (1993). *Persuasion and healing: A comparative study of psychotherapy* (3rd ed.). Johns Hopkins University Press.
26. Devlin, A., Donovan, S., Nicolov, A., Nold, O., Packard, A., & Zandan, G. (2009). "Impressive?" Credentials, family photographs, and the perception of practitioner qualities. *Journal of Environmental Psychology, 29*(4), 503–512.
27. Sinclair, T. (2020). What's in a therapy room? A mixed methods study exploring clients' and practitioners' views and experiences of the physical environment of the therapy room. *Counselling and Psychotherapy Research, 21*(6), 118–129.
28. Kozar, C., & Day, A. (2012). The therapeutic alliance in offending behavior programs: A necessary and sufficient condition for change? *Aggression and Violent Behavior, 17*(5), 482–487.
29. Horvath, A., & Luborsky, L. (1993). The role of the therapeutic alliance in psychotherapy. *Journal of Consulting and Clinical Psychology, 61*(4), 561–573.
30. Bringslimark, T., Hartig, T., & Patil, G. (2009). The psychological benefits of indoor plants: A critical review of the experimental literature. *Journal of Environmental Psychology, 29*(4), 422–433.
31. Larsen, L., Adams, J., Deal, B., Kweon, B. S., & Tyler, E. (1998). Plants in the workplace: The effects of plant density on productivity, attitudes, and perceptions. *Environment and Behavior, 30*(3), 261–281.
32. Pearson, M., & Wilson, H. (2012). Soothing spaces and healing places: Is there an ideal counselling room design? *Psychotherapy in Australia, 18*(3), 46–53.
33. Bernat, D., & Resnick, M. (2009). Connectedness in the lives of adolescents. In R. DiClemente Santelli & R. Crosby (Eds.), *Adolescent health: Understanding and preventing risk behaviors* (pp. 375–389). Jossey-Bass/Wiley.

findings suggest that the introduction of art and nature into the therapy environment may enhance feelings of connectedness amongst clients. This suggestion seems relevant to the physical spaces for prison interventions also.

A limitation to the current REA is that the literature used was not specific to prison interventions and was low in quantity. As a result, any application of the proposed considerations should be considered cautiously. There are many variables within the studies identified which were arguably different to those in prison interventions and their outcomes. For example, in prisons, engagement in interventions may have bearing on a person's sentence progression. Variables that could also impact upon engagement in prisons include resourcing or unforeseen regime changes.[34] [35] Those who engage with interventions in the community, outside of probation requirements, are not influenced by such constraints. This includes prevalence of substances or custodial violence, opportunities to consolidate learning in relevant situations, or more nuanced factors such as prison culture. In addition, the rapid nature of an REA means that some literature may not have been located. Furthermore, until searched with rigor, the level of available literature is unknown.

Implications for Practice

The current findings suggest the nature of the physical environment should be a key consideration for those involved in developing spaces for prison interventions.

Given these findings, the following considerations for practice are made:

1. It may be beneficial to invest in soft, home-design furniture and décor as a basic standard in prison intervention rooms.
2. Explore provision to paint intervention rooms specific colours such as tones of blue, green, or grey given they could promote engagement and cues for safeness.
3. The use of indoor plants, outdoor breaks and natural light may be beneficial.
4. The presence of non-intervention related objects that give clients insight into their practitioners' interests or personality might be valuable.
5. The use of artworks or presenting intervention material creatively, may enhance client engagement.

Conclusion

There is evidence to suggest that the physical environment can impact on several therapy processes including engagement, relationships, connectedness, wellbeing, and receptiveness. This can in turn can aid therapeutic processes such as engagement, which is important in prison interventions. Whilst there is a scarcity of literature investigating the effects of the physical environment on intervention outcomes in prisons, the current findings from general psychotherapy provide interesting considerations that might be of use. The findings from this paper also highlight the need for further research in forensic settings, and more rigorous searches in prospective evidence reviews.

34. Programmes staffing shortages.
35. Prison lockdowns/ restrictions on service user movements due to incidents.