



CASE STUDY

Designing a sensory room for post-secondary institutions

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ABSTRACT

Disabled and neurodivergent students face persistent barriers in post-secondary education, including challenges related to sensory regulation, accommodations, and inclusion. Sensory rooms, defined as controlled environments designed to support self-regulation, are common in schools and clinical settings but rare in higher education. This study aimed to identify sensory accessibility needs and co-develop a community-informed framework for implementing a sensory room in a post-secondary setting. A community-led consultation involving 41 participants was conducted through semi-structured interviews across two stages: needs identification and design input. Participants included disabled and neurodivergent students and accessibility professionals. Thematic analysis identified six key themes, including sensory barriers on campus, design principles emphasising user control, inclusive access models, and the role of sensory spaces in fostering community. Sensory rooms represent a promising strategy to improve accessibility and wellbeing when grounded in meaningful community engagement and institutional commitment.

KEYWORDS: neurodiversity, sensory processing, higher education, accessibility, sensory room.

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Introduction

Neurodiverse students, including autistic and disabled individuals, often encounter environmental and structural barriers within post-secondary education systems.

Neurodiversity refers to natural variation in cognitive and neurological functioning across populations, whereas neurodivergence describes individuals whose neurocognitive profiles diverge from dominant norms (e.g., autistic individuals, individuals with ADHD). Importantly, not all disabled individuals are neurodivergent, and not all neurodivergent individuals identify as disabled. Neurodiverse students often encounter challenges related to academic accommodations, sensory regulation, and social participation, leading to disproportionate rates of stress, exclusion, and academic difficulty (Horlin et al., 2024; Kim et al., 2023). Autistic students in particular report a lack of flexible and personalised support systems, and frequently experience discrimination and harassment in university environments (Kim et al., 2023).

These barriers are further compounded by the sensory environments of university campuses, which are often loud, crowded, and unpredictable. For students with autism spectrum disorder (ASD) and attention-deficit/hyperactivity disorder (ADHD), these overstimulating conditions can lead to heightened anxiety, sensory overload, and significant challenges in maintaining focus or regulating emotions (Black et al., 2022). Changes in routine and environmental unpredictability also contribute to distress and avoidance behaviours, reinforcing cycles of academic disengagement and social isolation (Van Hees et al., 2015). Despite growing advocacy efforts and calls for Universal Design for Learning and strengths-based pedagogical frameworks (Hamilton & Petty, 2023), many neurodiverse students remain underserved and unsupported within post-secondary institutions (Cerilli et al., 2025; Santhanam & Wilson, 2024).

One promising strategy for addressing these challenges is the implementation of sensory rooms. Sensory rooms are intentionally designed spaces that provide controlled sensory input through the use of lighting, sound, textures, movement, and sometimes scent (Unwin et al., 2022; Wilkinson et al., 2023). These environments are widely used in elementary school and clinical contexts to help individuals with sensory-processing difficulties manage their input and achieve states of calm or focus (De Domenico et al., 2024; Unwin et al., 2022). In elementary and secondary education, particularly in programmes for autistic students,



sensory rooms have been shown to support attention, regulation, and classroom engagement (De Domenico et al., 2024).

In contrast, sensory rooms remain rare in post-secondary environments, despite evidence of continued sensory-processing needs among students with ASD and ADHD (Clinge et al., 2016; Sarrett, 2018). Students frequently report a lack of sensory-friendly infrastructure on campus, even as universities begin to explore restorative spaces and mental wellness strategies (Du et al., 2022). When available, sensory rooms offer opportunities for students to temporarily withdraw from overstimulating environments, recalibrate their sensory systems, and return to academic activities with improved focus and emotional regulation (Mallory & Keehn, 2021; Sarrett, 2018).

Emerging empirical evidence supports the physiological and psychological benefits of sensory rooms in young adults. For instance, Otsuka et al. (2025) found that sensory room interventions improved autonomic regulation, as indicated by increases in respiratory sinus arrhythmia, a marker of vagal tone and parasympathetic function. Virtual sensory rooms have also demonstrated efficacy in reducing anxiety and depression among adults with disabilities while enhancing sensory processing (Mills et al., 2023). Related research on sensory-enriched environments highlights their role in mood recovery and fatigue reduction through multi-modal input such as sound, scent, and lighting (Sona et al., 2019).

However, the implementation of sensory rooms in higher education remains limited due to a range of practical and institutional barriers. Financial constraints are a significant factor: sensory rooms require investment in specialised equipment and materials, alongside ongoing maintenance (Wilkinson et al., 2023). Space allocation is another challenge, as many universities prioritise academic and administrative needs over supportive infrastructure (Black et al., 2022). Stigma also plays a role in reducing utilisation, with students hesitant to use resources perceived as only for individuals with disabilities (Barbic et al., 2019). Finally, although emerging evidence supports the benefits of sensory rooms, large-scale, long-term studies in post-secondary settings are still limited (Mills et al., 2023; Otsuka et al., 2025).

Given these challenges and opportunities, this study was designed as a community-led consultation and applied case study to examine how sensory room recommendations can be translated into concrete design and implementation decisions within institutional constraints. The project aimed to engage autistic, disabled, and neurodiverse individuals, alongside



accessibility professionals, in co-developing a design framework for a sensory room in a post-secondary setting, with explicit attention to how competing needs were negotiated, which recommendations were implemented, and which remained aspirational. This work seeks to contribute to the development of evidence-informed, community-rooted strategies for improving accessibility and wellbeing in higher education.

Methods

Study design

This community-led consultation was structured as a needs assessment aimed at informing the design of a sensory room for neurodiverse individuals in a post-secondary environment. The study followed principles of community-based research (Collins et al., 2018; Wallerstein & Duran, 2010), including shared decision-making, transparency around constraints, reciprocity, and accountability to participants. Rather than treating consultation as extractive, participants were engaged as contributors to design prioritisation and decision-making across multiple stages. All participants were provided with a clear explanation of the study's purpose and process, and informed consent was obtained prior to participation. Participants were compensated for their time at a rate of \$25 per hour and were assured that their participation was voluntary, anonymous, and could be withdrawn at any time.

Participants

A total of 41 individuals participated in the consultation process. This included 33 disabled and/or autistic individuals with lived experience navigating post-secondary environments, and 8 professionals with expertise in sensory room development, including clinicians and educators. All participants had an interest in accessibility, neurodiversity, or inclusive-design practices. Participants self-identified a range of access needs, including sensory sensitivities, autism, ADHD, chronic illness, mobility impairments, anxiety, and cognitive or communication differences. Some participants reported formal diagnoses and registered accommodations, while others did not, reflecting barriers to diagnosis, disclosure, or trust in institutional systems. Several participants used mobility aids (e.g., wheelchairs), which directly informed physical design considerations. We do not claim representativeness. Participants were recruited through disability organisations and community networks, and findings should be interpreted as illustrative rather than generalisable.



Consultation process

The consultation was carried out in two sequential stages. The first stage focused on needs identification through both focus groups and individual semi-structured interviews.

Participants were invited to share their lived experiences as neurodiverse students and to reflect on existing barriers to accessibility within campus environments. The second stage centred on design input, soliciting specific recommendations on the physical features, values, and operational policies that should inform the development of a sensory room. Participants were invited to review synthesised priorities and provide feedback on feasibility, trade-offs, and implementation sequencing. Semi-structured interviews were conducted using open-ended prompts, allowing participants to guide the conversation based on their experiences and priorities. Interviewers took detailed notes throughout, emphasising key themes and suggestions raised by each participant. The collected data were then analysed using thematic grouping, identifying recurring design elements, implementation considerations, and values-based priorities. This iterative process enabled the development of a grounded, participant-informed framework for sensory room design.

Results

From the interviews, five major themes emerged: (a) campus accessibility barriers, (b) reception of sensory rooms, (c) sensory modulation and environmental control, (d) accessibility as a foundational design principle, and (e) navigating access without exclusion. A sixth integrative theme, (f) social and structural role of the space, contextualises the sensory room within broader movements for inclusion, anti-ableism, and community-building. Across themes, participant input directly informed final design choices. Where full implementation was not feasible, decisions were guided by prioritisation criteria: safety, accessibility, feasibility, cost, and shared benefit. These criteria were communicated transparently to participants during consultation.

Campus accessibility barriers

Participants broadly described the university as overstimulating, chaotic, and inaccessible to those with sensory sensitivities. Many voiced frustrations with the lack of quiet, regulated environments on campus, and noted that overstimulation impeded their ability to self-regulate, study, and socially engage. Multiple interviewees shared that the availability of a



sensory room could determine their ability to attend or remain in higher education.

Participants also emphasised that neurodiversity is often invisible, contributing to stigma, dismissal of needs, and inadequate accommodation. Experiences of non-trauma-informed staff, inflexible policies, and environmental unpredictability were frequently cited.

Reception of sensory rooms

All participants expressed strong support for a sensory room and viewed its implementation as a critical step toward addressing accessibility gaps on campus. However, many cautioned against performative inclusion, stressing that the room should not serve as a substitute for broader institutional change. Community consultation and co-creation were identified as essential to ensuring the room's continued relevance.

Sensory modulation and environmental control

Participants emphasised the importance of creating a space that accommodates both upregulating and downregulating needs, referring respectively to activities or environments that help individuals increase alertness and energy when under-stimulated, and those that promote calm and relaxation when overstimulated. Recommended features included interactive sensory panels, bubble lamps, fibre-optic lighting, bean bag chairs, noise-cancelling headphones, and stimulation toys. Items mentioned ten or more times are shown in Table 1.

Table 1. Frequently requested sensory room items (≥10 mentions).

Item	Sensory function
Interactive sensory panels	Tactile engagement
Bean bag chairs	Proprioceptive comfort
Light projectors	Visual modulation
Stimulation toys	Tactile/self-regulation
Noise-cancelling headphones	Auditory modulation
Weighted blankets	Deep-pressure input
Fibre-optic lighting	Visual stimulation
Colouring supplies	Creative outlet
Bubble lamps	Calming visual input
Floor padding	Grounding and safety



Participants preferred soft, warm lighting with dimmable features, and requested zoning or partitions to allow simultaneous use by people with differing sensory needs. Environmental predictability was also essential. Several respondents asked for systems to indicate when others were entering the space, to avoid unexpected sensory disruptions. Participants proposed alcove-like spaces, curtained areas, or movable dividers to enable solitude without isolation. Ceiling projections, glow-in-the-dark elements, and sensory swings were also suggested to support immersive sensory experiences.

Within the final sensory room that was implemented, participant recommendations informed specific design outcomes, including dimmable warm lighting rather than fixed overhead lighting, movable partitions to support zoning, selection of wheelchair-compatible seating, and exclusion of features (e.g., ceiling-mounted swings) deemed unsafe or infeasible given structural constraints. Budget limitations were disclosed to participants, shaping prioritisation toward modular, adaptable features rather than specialised equipment.

Accessibility as a foundational design principle

Accessibility was treated as essential, not an afterthought. Recommendations addressed physical, sensory, cognitive, and communicative inclusion. Participants advocated for push-to-open doors, mounted bins, and seating that supports transfers from wheelchairs. While floor padding was seen as desirable, participants stressed that it must not obstruct mobility.

Cognitive and communicative accessibility included suggestions for braille and icon-based signage, dyslexia-friendly fonts, auditory prompts, and visual aids. Communication cards (e.g., 'Can you pass me a crayon?') were recommended to support low-verbal users or those in distress. Storage systems should accommodate individuals using wheelchairs or those under three feet tall, with handle-free, open-access cubbies for visibility and reachability.

Predictability, routine, and way-finding tools, such as maps, lists of room contents, and 'what to expect' signage, were also prioritised.

While many accessibility features were implemented, some requests (e.g., multiple rooms, fully soundproofed spaces) could not be realised due to space and funding limitations. These were documented as future priorities rather than dismissed.



Navigating access without exclusion

Participants broadly opposed any access model requiring medical documentation or registration with disability services. They emphasised that many neurodiverse individuals lack formal diagnoses or avoid disclosure due to prior discrimination. Instead, a trust-based, non-surveilled approach was preferred. Many supported the use of signage to signal intended use (e.g., 'This space was designed for neurodivergent and disabled students'), alongside community-created usage guidelines. A hybrid access model was favoured: open access with optional booking for specific sub-rooms, such as a dark room.

Some participants proposed an honour-based keypad system, potentially linked to an optional \$1/year membership to increase accountability while maintaining accessibility. However, most emphasised minimising complexity to accommodate users with executive functioning challenges. Surveillance and staff supervision were seen as intrusive.

Social and structural role of the space

Many participants envisioned the sensory room as more than an individual space; they saw it as a community hub. Several respondents expressed interest in hosting weekly club meetings or informal peer gatherings in the space. At the same time, participants warned against reducing the room to a symbolic gesture. They emphasised the need for broader institutional reform addressing accessibility in classrooms, assessment policies, and campus infrastructure. Participants linked the sensory room to larger movements for anti-ableism and disability justice, viewing it as both a starting point and symbol of cultural transformation. For some, the room's presence offered hope that higher education could become a more inclusive, responsive environment for all.

Translation of community input into final design decisions

Participant input directly informed the final sensory room design and procurement decisions. Core priorities that were fully implemented included dimmable warm lighting, modular seating, tactile and visual sensory tools, wheelchair-accessible circulation paths, low-barrier open access without diagnostic requirements, and visual signage to support predictability and way-finding. Design features requiring minimal structural modification and offering shared benefit across users were prioritised for implementation.



Several recommendations were partially implemented due to space, safety, or budget constraints. For example, zoning was achieved through movable partitions rather than fixed architectural divisions, and sound modulation relied on soft furnishings and noise-cancelling devices rather than full soundproofing. Requests for specialised or permanently mounted equipment (e.g., ceiling-mounted sensory swings) were not implemented due to structural and safety considerations. Budgetary constraints and feasibility limits were communicated to participants during the consultation process, and unmet requests were documented as future priorities rather than excluded from consideration.

Overall, the implementation process reflected a balance between participant-identified needs and institutional constraints, with transparent prioritisation guided by safety, accessibility, feasibility, and shared benefit.

Discussion

This community-led consultation emphasises the urgent need for sensory-responsive environments in post-secondary institutions. Participants across diverse roles and identities expressed strong support for the implementation of a sensory room, highlighting not only its functional importance in addressing sensory overload but also its symbolic potential as a tool for inclusion and cultural change.

Sensory needs in post-secondary contexts

Participants described campus environments as loud, unpredictable, and hostile to sensory regulation, a finding aligned with research showing that university settings frequently fail to accommodate sensory processing differences (Black et al., 2022). These environmental stressors disproportionately affect autistic students, who often experience heightened sensitivity to light, sound, and spatial proximity (Van Hees et al., 2015). Such overstimulation contributes to mental fatigue, social withdrawal, and academic disengagement, which are commonly reported outcomes for neurodiverse individuals in higher education (Kim et al., 2023; Sarrett, 2018).

The call for both calming and activating sensory inputs reflects current understanding of sensory modulation, which varies across individuals and contexts. Recommendations such as dimmable lighting, sensory swings, and noise-cancelling features align with best practices in



multi-sensory environment design, which aim to provide self-directed options for both upregulation and downregulation (De Domenico et al., 2024; Unwin et al., 2022). The emphasis on user-controlled environmental features is also consistent with emerging research showing that agency in sensory environments enhances emotional regulation and stress recovery (Otsuka et al., 2025).

Accessibility beyond compliance

A major contribution of this consultation is its broadening of what constitutes accessibility. Participants identified physical, cognitive, and communicative dimensions of inclusion, with recommendations for wheelchair-compatible layouts, braille signage, dyslexia-friendly fonts, and communication aids. These findings reinforce the literature on Universal Design for Learning, which calls for multimodal approaches to accommodate diverse learning and access needs (Hamilton & Petty, 2023). The call for way-finding tools, predictable routines, and reduced sensory unpredictability also reflects trauma-informed design principles, which emphasise control, transparency, and emotional safety (Mallory & Keehn, 2021).

Importantly, participants rejected models that rely on diagnosis or formal registration to access the space. This finding speaks to broader critiques of institutional gatekeeping, in which access to accommodations is contingent upon navigating complex bureaucracies or medical systems (Kim & Crowley, 2021). Instead, interviewees favoured a trust-based model that maximised autonomy and minimised surveillance. This mirrors advocacy in disability studies for care approaches rooted in trust, community accountability, and mutual respect (Cerilli et al., 2025).

Institutional barriers to implementation

Despite strong consensus on the benefits of sensory rooms, their adoption in post-secondary settings remains limited. Participants identified several barriers, including funding constraints, space allocation challenges, and institutional inertia, concerns also noted in the literature (Black et al., 2022; Wilkinson et al., 2023). Lack of staff training and awareness, as well as stigma around disability-related services, further hinder uptake and usage (Barbic et al., 2019). These findings suggest that the implementation of sensory rooms requires more than infrastructure, it demands an institutional shift toward recognising sensory accessibility as a core element of equity and wellbeing.



The inclusion of community members in the design process offers a potential solution to these challenges. Co-creation not only ensures that the room meets real-world needs, but also builds community ownership and sustainability. As noted by participants, ongoing consultation and feedback loops will be critical to preventing tokenism and ensuring that the space evolves with user needs.

Implementation constraints and trade-offs

Although participant priorities strongly shaped the sensory room design, not all needs could be fully met. Constraints included finite space, institutional regulations, safety requirements, and a fixed budget. In response, the project team adopted transparent prioritisation criteria and communicated openly with participants when requests could not be implemented. This approach helped mitigate frustration and reinforced trust, but it also highlights that a single sensory room cannot meet the diversity of sensory needs across a large campus population.

Contributions to the evidence base

Although prior studies have demonstrated the physiological and psychological benefits of sensory rooms in controlled or clinical contexts (Mills et al., 2023; Otsuka et al., 2025; Sona et al., 2019), few have explored how these environments can be implemented and sustained in post-secondary settings. This consultation fills a critical gap by generating a design and operational framework grounded in lived experience and institutional insight. The findings point to specific, actionable features that can be replicated, adapted, or scaled in other educational contexts.

Practical and ethical considerations for institutional adoption

While the findings highlight strong community support for sensory rooms, it is equally important to acknowledge the logistical and ethical complexities institutions face in translating these recommendations into practice. Establishing a sensory room requires not only an ideological commitment to accessibility, but also pragmatic planning around cost, space, and sustainability. Estimates from prior post-secondary and healthcare implementations suggest that sensory room installation can range from modest retrofits costing a few thousand dollars (e.g., soft furnishings, lighting adjustments, soundproofing) to fully equipped multi-sensory environments exceeding \$50,000 CAD when specialised



equipment, adaptive technology, and maintenance are included (Mills et al., 2023; Wilkinson et al., 2023). For large campuses serving thousands of students, maintaining parity of access presents a substantial challenge, particularly when usage is intended to be open and not contingent on a disability designation. Without adequate resources, a single sensory room may quickly become oversubscribed, undermining its intended role as a refuge for regulation and restoration.

Institutions must therefore consider both equitable distribution and expectation management. Parity may require multiple smaller sensory-responsive zones integrated across campus, such as quiet pods, flexible study spaces, and low-stimulation lounges, rather than reliance on a single flagship room. This distributed model can enhance accessibility while mitigating bottlenecks in demand. However, such initiatives inevitably raise questions about funding allocation and prioritisation, particularly within higher education systems already operating under financial constraints. In marketised academic environments, where institutions compete for enrolment and student satisfaction, initiatives framed as 'wellness amenities' risk being perceived either as branding tools or as non-essential expenditures.

Moreover, inclusivity itself can create new ethical dilemmas. While an open-access model avoids the gatekeeping associated with medical verification, it also raises questions of scalability and sustainability. It can be especially difficult for institutions to ensure that spaces remain accessible to those who most need them without instituting exclusionary policies. Clear usage guidelines, peer-led stewardship, and scheduling systems co-designed with disabled and neurodivergent students may help balance openness with fairness. Ultimately, acting ethically in this context requires institutions to recognise sensory accessibility as both a rights-based and resource-based issue.

These practical challenges must also be situated within a broader sociopolitical context. Efforts to enhance accessibility and equity in education are increasingly contested, with equity-oriented initiatives facing political and funding restrictions in several regions. These pressures complicate institutional willingness to invest in inclusion, even when evidence strongly supports its benefits. Universities that have piloted sensory rooms, such as the one in this study, can therefore play a crucial role in modelling transparency, documenting implementation costs and outcomes, and demonstrating the broader cultural and educational value of sensory-responsive design.



Lastly, institutions seeking to replicate this work should adopt iterative consultation, transparent constraint disclosure, and community-led prioritisation frameworks. Rather than aiming for completeness, institutions may benefit from phased implementation with built-in feedback mechanisms.

Limitations

This study has several limitations. Participants were self-selected and not representative of all disabled or neurodivergent students. Budgetary and spatial constraints limited implementation, and findings reflect a single institutional context. Additionally, while community input shaped design decisions, long-term outcomes of the implemented space have not yet been evaluated. While this study draws on literature from Disability Studies, Inclusive Design, Education, and Health Sciences, there remains comparatively limited scholarship within the Learning Development literature that examines the design and implementation of physical learning environments to support disabled and neurodivergent students.

Conclusion and recommendations

This study highlights the substantial need, strong support, and clear, community-driven guidance for implementing sensory rooms in post-secondary institutions. Several participant-identified priorities were fully implemented (e.g., zoning, sensory modulation features, low-barrier access), others were partially implemented (e.g., sound control), and some remain aspirational (e.g., multiple rooms). Participants envisioned a space that is flexible, affirming, and radically inclusive, one that acknowledges sensory regulation not as a luxury, but as a basic condition for learning and thriving. Their vision challenges institutions to expand the boundaries of accessibility beyond compliance and into cultural transformation.

To actualise this vision, universities must prioritise funding, engage stakeholders early and often, and integrate sensory room initiatives into broader accessibility strategies. Future research should build on this work by evaluating sensory room implementation outcomes, exploring long-term usage patterns, and examining impacts on academic success and wellbeing. Sensory rooms alone cannot resolve systemic inaccessibility, but they offer a powerful, tangible step forward, an entry point for post-secondary institutions to demonstrate their commitment to neurodiverse inclusion.



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References

- Barbic, S. P., Chan, N., Rangi, A., Bradley, J., Pattison, R., Brockmeyer, K., Leznoff, S., Smolski, Y., Toor, G., Bray, B., Leon, A., Jenkins, M., & Mathias, S. (2019). Health provider and service-user experiences of sensory modulation rooms in an acute inpatient psychiatry setting. *PLoS ONE*, *14*(11), 1–15. <https://doi.org/10.1371/journal.pone.0225238>
- Black, M. H., McGarry, S., Churchill, L., D'Arcy, E., Dagleish, J., Nash, I., Jones, A., Tse, T. Y., Gibson, J., Bölte, S., & Girdler, S. (2022). Considerations of the built environment for autistic individuals: A review of the literature. *Autism: The International Journal of Research and Practice*, *26*(8), 1904–1915. <https://doi.org/10.1177/13623613221102753>
- Cerilli, C., Zhu, J., Varadaraj, V., Campanile, J., Sweeney, F., Smith, J., Yenokyan, G., & Swenor, B. (2025). Gaps in disability inclusion across universities in the United States. *PLoS ONE*, *20*(1), Article e0317920. <https://doi.org/10.1371/journal.pone.0317920>
- Clince, M., Connolly, L., & Nolan, C. (2016). Comparing and exploring the sensory processing patterns of higher education students with attention deficit hyperactivity disorder and autism spectrum disorder. *The American Journal of Occupational Therapy*, *70*(2), 1–9. <https://doi.org/10.5014/ajot.2016.016816>
- Collins, S. E., Clifasefi, S. L., Stanton, J., Straits, K. J. E., Gil-Kashiwabara, E., Rodriguez Espinosa, P., Nicasio, A. V., Andrasik, M. P., Hawes, S. M., Miller, K. A., Nelson, L. A., Orfaly, V. E., Duran, B. M., & Wallerstein, N. (2018). Community-based participatory research (CBPR): Towards equitable involvement of community in psychology research. *American Psychologist*, *73*(7), 884–898. <https://doi.org/10.1037/amp0000167>
- De Domenico, C., Di Cara, M., Piccolo, A., Settimo, C., Leonardi, S., Giuffrè, G., De Cola, M. C., Cucinotta, F., Tripodi, E., Impallomeni, C., Quartarone, A., & Cucinotta, F. (2024). Exploring the usefulness of a multi-sensory environment on sensory behaviors in children with autism spectrum disorder. *Journal of Clinical Medicine*, *13*(14), Article 4162. <https://doi.org/10.3390/jcm13144162>



- Du, Y., Zou, Z., He, Y., Zhou, Y., & Luo, S. (2022). Beyond blue and green spaces: Identifying and characterizing restorative environments on Sichuan Technology and Business University campus. *International Journal of Environmental Research and Public Health*, 19(20), Article 13500. <https://doi.org/10.3390/ijerph192013500>
- Hamilton, L. G., & Petty, S. (2023). Compassionate pedagogy for neurodiversity in higher education: A conceptual analysis. *Frontiers in Psychology*, 14, Article 1093290. <https://doi.org/10.3389/fpsyg.2023.1093290>
- Horlin, C., Almond, K., Bowen, A., & Robertson, A. (2024). Thriving... or just surviving? Autistic journeys in higher education. *Current Psychiatry Reports*, 26(12), 771–776. <https://doi.org/10.1007/s11920-024-01560-x>
- Kim, S. A., Baczewski, L., Pizzano, M., Kasari, C., & Sturm, A. (2023). Discrimination and harassment experiences of autistic college students and their neurotypical peers: Risk and protective factors. *Journal of Autism and Developmental Disorders*, 53(12), 4521–4534. <https://doi.org/10.1007/s10803-022-05729-2>
- Kim, S. Y., & Crowley, S. (2021). Understanding perceptions and experiences of autistic undergraduate students toward disability support offices of their higher education institutions. *Research in Developmental Disabilities*, 113, Article 103956. <https://doi.org/10.1016/j.ridd.2021.103956>
- Mallory, C., & Keehn, B. (2021). Implications of sensory processing and attentional differences associated with autism in academic settings: An integrative review. *Frontiers in Psychiatry*, 12, Article 695825. <https://doi.org/10.3389/fpsyg.2021.695825>
- Mills, C. J., Tracey, D., Kiddle, R., & Gorkin, R. (2023). Evaluating a virtual reality sensory room for adults with disabilities. *Scientific Reports*, 13(1), Article 495. <https://doi.org/10.1038/s41598-022-26100-6>
- Otsuka, H., Irie, K., Kogata, T., Onitsuka, A., & Inadomi, H. (2025). Effects of sensory room intervention on autonomic function in healthy adults: A pilot randomized controlled trial. *PLoS ONE*, 20(4), Article e0319649. <https://doi.org/10.1371/journal.pone.0319649>
- Santhanam, S. P., & Wilson, K. (2024). A comparison of autistic and non-autistic college students' perceived challenges and engagement in self-advocacy. *American Journal of Speech-Language Pathology*, 33(3), 1471–1484. https://doi.org/10.1044/2024_AJSLP-22-00381



- Sarrett, J. C. (2018). Autism and accommodations in higher education: Insights from the autism community. *Journal of Autism and Developmental Disorders*, 48(3), 679–693. <https://doi.org/10.1007/s10803-017-3353-4>
- Sona, B., Dietl, E., & Steidle, A. (2019). Recovery in sensory-enriched break environments: Integrating vision, sound and scent into simulated indoor and outdoor environments. *Ergonomics*, 62(4), 521–536. <https://doi.org/10.1080/00140139.2018.1491643>
- Unwin, K. L., Powell, G., & Jones, C. R. (2022). The use of multi-sensory environments with autistic children: Exploring the effect of having control of sensory changes. *Autism: The International Journal of Research and Practice*, 26(6), 1379–1394. <https://doi.org/10.1177/13623613211050176>
- Van Hees, V., Moyson, T., & Roeyers, H. (2015). Higher education experiences of students with autism spectrum disorder: Challenges, benefits and support needs. *Journal of Autism and Developmental Disorders*, 45(6), 1673–1688. <https://doi.org/10.1007/s10803-014-2324-2>
- Wallerstein, N., & Duran, B. (2010). Community-based participatory research contributions to intervention research: The intersection of science and practice to improve health equity. *American Journal of Public Health*, 100(1), 40–46. <https://doi.org/10.2105/AJPH.2009.184036>
- Wilkinson, A., Calder, A., Elliott, B., Rodger, R., Mulligan, H., Hale, L., & Perry, M. (2023). Disabled people or their support persons' perceptions of a community-based multi-sensory environment (MSE): A mixed-method study. *International Journal of Environmental Research and Public Health*, 20(19), Article 6805. <https://doi.org/10.3390/ijerph20196805>

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