Creating a Welcoming Environment for Patients with Autism Attending Radiology, with Innovative Waiting Room Design: A Scoping Review

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Abstract

Background: Autism, affecting approximately 1% of the population globally can, in some affected individuals, significantly reduce sensory filtering compared to neurotypical individuals. This can lead, in turn, to heightened and sustained anxiety responses to a range of stimuli, not least bright lights, crowded spaces and loud noises. This paper reports findings of how environmental design in radiology departments impacts upon autistic patients, and how environmental adaptations could be made to help autistic patients manage sensory overstimulation.

Method: A scoping review of autism-specific healthcare design principles was conducted, using peer-revied articles retrieved via a metasearch of key medical databases, and grey literature from trusted sources.

Results: Analysis revealed three primary findings: (a) Environmental modifications based on the Autism ASPECTSS™ Design Index, such as reducing acoustic noise levels to below 40db, have potential for significant anxiety reduction and improvements in comfort and compliance; (b) Targeted adjustments to existing departmental environments, particularly regarding lighting/sound management, can be highly effective in improving patient experience; and (c) Autism-related environmental adaptations may have positive impacts for nonautistic patients, as evidenced by reductions in prescribed pain and psychiatric mediation.

Conclusions: The findings underscore that environmental modifications in radiological settings can significantly impact upon autistic patients' healthcare experience. While departmental design may offer optimal solutions, immediate wins can be achieved through relatively minor adjustments to lighting and sound levels in extant facilities. These observations have practical implications for radiology departments (and healthcare facility managers) seeking to provide more inclusive and effective diagnostic imaging services in the future.

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