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Further Reading: Britton, E., Kindermann, G., Domegan, C., & Carlin, C. (2018). [Blue care: a systematic review of blue space interventions for health and wellbeing](#). *Health Promotion International*. (Open access).

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Read More About: [The NEAR-Health project](#) in the Whitaker Institute for Societal Innovation and Change.

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Blue Care: A systematic review of blue space interventions for health and wellbeing.

Global evidence of disconnect from our natural surroundings is growing as the world's ecosystems increasingly come under threat from human pressures, in particular waterways, coasts and oceans. This in turn poses human health risks and results in the loss of potential health and wellbeing benefits associated with blue spaces i.e. outdoor water environments. Among policy, practice and academia there is increasing interest in the use of blue space in the promotion of human health and wellbeing. As part of a research initiative to qualify how important nature (green and blue spaces) are for human health and wellbeing, the [NEAR-Health](#) project team carried out the first global systematic review of health or wellbeing benefits of therapeutic blue space interventions (BSIs). This review highlights the need to improve our understanding of complex nature-based interventions for health.

Key Findings

Thirty-three studies were included, with a combined total of 2031 participants. Most studies included adults (although not elderly) with multiple disorders, predominantly psychological. Interventions were diverse in study design, setting and activity. The findings emphasise a multi-dimensional view of health, with participants experiencing positive changes to sense of self, health and wellbeing in the short-term. Many of the BSIs resulted in significant positive effects for psycho-social wellbeing, with only 15% of studies considering physical health outcomes. Some interpersonal effects were also evident (e.g. social connection, sense of belonging, interaction with others), along with the connective properties of water environments. The risk of bias was moderate to high for all studies and limits the transferability of the findings. The review identified that duration of an intervention is a knowledge gap in relation to sustained health outcomes. A number of barriers to participation and adverse effects highlight the complexity of blue care design and delivery.

Policy Implications

Blue care has the potential to improve health outcomes for diverse groups, but more research is required. Rigorous pilot interventions, co-designed in collaboration with population groups, professionals, policymakers and researchers, are needed to define clear aims and evaluate outcomes, as well as understand how expectations and individual needs measure against actual outcomes. Nature-based health interventions need to address local contexts to assess the circumstances in which outcomes are achieved. In particular, the cultural component of nature connection and how this might intersect with other determinants of health such as gender, race and ethnicity need further study and consideration in public health policy. In response to the rapidly growing trend for nature-prescribing, findings suggest the need for training to facilitate nature encounters for health across sectors in outdoor public spaces. Our review recommends a systems approach to evaluations, measuring more than 'what' worked well; but also evaluating 'how' and 'why' success or indeed failure happened.