

ESRI  
RESEARCH  
BULLETIN  
DECEMBER  
2018

# COASTAL BLUE SPACE AND DEPRESSION IN OLDER ADULTS

SERAPHIM DEMPSEY, MEL T. DEVINE, TOM GILLESPIE, SEÁN LYONS  
AND ANNE NOLAN



# Coastal blue space and depression in older adults<sup>1</sup>

---

Seraphim Dempsey, Mel T. Devine, Tom Gillespie, Seán Lyons and Anne Nolan\*

***ESRI Research Bulletins provide short summaries of work published by ESRI researchers and overviews of thematic areas covered by ESRI programmes of research. Bulletins are designed to be easily accessible to a wide readership.***

## INTRODUCTION

The coastline appeals to people for the many leisure activities available near it and the attractive views it offers. Property prices and rents are higher near the coast and in properties with sea views, providing direct evidence that people value these amenities.<sup>2</sup> But there is also research suggesting that access to “blue space” (being near the coast or having a good view of the sea) can confer specific health benefits. To test this suggestion, this paper examined whether living close to the coastline in Ireland or having a larger view of the sea from one’s residence was associated with lower risk of depression among people aged 50+.

How might blue space assist mental health? Previous research emphasises three possibilities:<sup>3</sup>

- Encouragement of physical activity (e.g. swimming, walking on beaches), which in turn is linked to mental and physical well-being;
- Facilitating increased social interaction, leading to greater sense of belonging and social cohesion; and
- Acting directly as therapeutic or salutogenic (health and well-being promoting) places.

Our study examined how depression risk varied within a large sample of older adults in Ireland, allowing for many factors thought to affect this risk, including coastal proximity and views.

---

<sup>1</sup> This Bulletin summarises the findings from Dempsey, S., Devine, M.T., Gillespie, T., Lyons, S. and Nolan A., 2018, Coastal Blue Space and Depression in Older Adults, *Health and Place* 54, 110-117. This research was supported by the ESRI’s Environment Research Programme, which is funded by the Environmental Protection Agency.

\*Corresponding author: Anne.Nolan@esri.ie.

<sup>2</sup> Gillespie, T., Hynes, S., Lyons, R.C., 2018. Picture or Playground: Valuing Coastal Amenities. Trinity Economic Papers Working Paper No. 0518.

<sup>3</sup> Nutsford, D., Pearson, A.L., Kingham, S. and Reitsma, F., 2016. Residential exposure to visible blue space (but not green space) associated with lower psychological distress in a capital city. *Health and Place* 39, 70-78.

## **DATA AND METHODS**

Our source for information on individuals' risk of depression and a wide range of other socioeconomic characteristics was The Irish Longitudinal Study on Ageing (TILDA), a nationally representative study of people aged 50 and over in Ireland. Depression risk was assessed using the answers to a set of self-reported answers to a well-established set of questions known as the Center for Epidemiological Studies Depression (CES-D) scale. This is used internationally to measure depressive symptoms across populations. The dataset contained other relevant data, including age, gender, marital status, current medication, and a measure of social connectedness.

To relate depression risk to coastal blue space, we used geographical data to construct measures of how close each TILDA respondent's residence was to the coast and what share (if any) the view of the sea represented in the total view from this address.

## **RESULTS**

Living closer to the coast was found to be associated with a lower risk of depression. In addition, those whose residence had the highest share of sea view had lower depression scores. However, when distance to the coast and sea view share are examined together, only the individuals in the highest category for share of coastal views show a significantly lower risk of depression than those with no views. The scale of the association between visual blue space exposure and reduced depression risk is large. By way of comparison, it is commonly understood that depression risk is higher among those on the lowest incomes. Being in the highest coastal view category compared to the lowest shows a similar drop in depression risk to being in the second lowest quintile of income rather than the lowest.

These findings are supportive of the view that the main way in which blue space benefits mental health among the older population is via the visual aspect, rather than proximity. However, the nature of our data means we cannot be certain that blue space is causing a reduction in depression risk: only that the association between them is consistent with the possibility of a beneficial effect. Nevertheless, the association is large in absolute terms. In measuring this association, we have also allowed for many other factors that might be expected to affect depression risk. Further research is needed to establish the line of causation convincingly and to attribute these effects to underlying mechanisms (e.g. unpacking possible associations with mediators such as social engagement, physical activity and stress).

Whitaker Square,  
Sir John Rogerson's Quay,  
Dublin 2  
Telephone **+353 1 863 2000**  
Email **admin@esri.ie**  
Web **www.esri.ie**  
Twitter **@ESRIDublin**