

Biophilic urbanism—how rooftop gardening soothes souls

May 17 2017, by Sara Wilkinson And Fiona Orr



St Canice's rooftop garden, where a horticultural therapy program demonstrated its benefits for mental health and wellbeing.

What do an engineer, a building surveyor and a mental health nurse have in common? The answer is a retrofitted rooftop garden. This was a project developed to evaluate the impact of horticultural therapy on the health and wellbeing of people recovering from mental illness.

When engineer Rob Casilick contacted building surveyor and academic



Sara Wilkinson with the news that he had funding to evaluate the GROW horticultural therapy program on the <u>rooftop garden at St</u> <u>Canice's</u>, an inner-city church in Sydney's Kings Cross, she knew this was a great opportunity. She also knew she couldn't evaluate the <u>health</u> effects, so turned to UTS academic and <u>mental health</u> nurse Fiona Orr.

They understood just how broad the potential benefits could be. Approximately one in every five Australians experiences a <u>mental illness</u>. Mental health may be <u>affected by individual or societal factors</u>, including economic disadvantage, poor housing, lack of social support and the level of access to, and use of, health services.

Yet, in our increasingly urbanised, high-density, high-pressure and, some say, increasingly isolated world, there is growing evidence of a salve and a way of mitigating stress, pressure and mental illness. And it's <u>right</u> <u>above our heads</u>. Based on the findings of the GROW study, other rooftop gardens are now being created.

Rooftops are usually unused and unloved spaces. Around <u>34% of all</u> <u>horizontal spaces in our cities</u> are rooftops. Green roofs, retrofit or new build, can help control stormwater run-off, improve air quality, reduce the <u>urban heat island</u> effect, increase biodiversity, improve thermal performance, increase property value and, importantly here, provide amenity space.

How does green space affect well-being?

Where and how we live <u>affects our mental health</u> and wellbeing. The benefits of green spaces include:

- participation in activities that <u>promote social interaction and</u> <u>increase physical exercise</u>;
- reductions in stress and improvements in mood and attention; and



• positive effects on anxiety and mood disorders.

In 1984, Edward Wilson <u>introduced the biophilia hypothesis</u>. This is based on the idea that humans have an innate tendency to seek connection to nature for its calming effects. Literally, biophilia means "love of life or living systems".

The question is: does it exist? And could it be incorporated in the lives of people recovering from mental illness?



The St Canice's rooftop space, pictured at the crowdfunding stage of the project, is now a health-giving garden. Credit: St Canice's/chuffed.org



Where we seeded

St Vincent's Hospital, Sydney, agreed to trial two horticultural therapy programs for people recovering from mental illness. The rooftop space at St Canice's was about 55m² with garden beds containing vegetables, small shrubs, flowering plants and herbs, as well as a small vertical garden for flowers and strawberries. The kitchen of the church used some of the vegetables and herbs grown here to prepare meals for local homeless people.

The GROW horticultural therapy program comprised weekly, two-hour sessions for participants over eight consecutive weeks. A horticultural therapist, supported by a professional gardener, led these sessions.

During two sessions, guest presenters with specialist skills in music and cookery led activities that complemented that week's gardening program.

What grew out of this?

Most of the participants did not have their own garden, so the program provided them with access to a relaxing and beautiful space that enhanced their health and wellbeing. Some of the many <u>benefits they</u> <u>identified</u> included regular connection with others and developing friendships, experiencing enjoyment, and restorative health.

"It's like a little haven, or a little sanctuary to come to every week. You would never imagine something like this up on a roof. It's a beautiful garden ... and there's lots of different plants and they produce oxygen for us. It's just a beautiful place.

Getting to know everyone a bit more each week, it's been brilliant, developing relationships and friendships.



I'm coming here to enjoy myself ... and I walk out with a smile every time I leave this place.

It's central to my recovery and ongoing mental wellness and it should be seen as a fundamental part of the healing process for people with mental illness."

Sowing seeds for the future

The benefits to participants were positive and very apparent. Both researchers experienced positive benefits of participation in the weekly program, too.

Possibly the best outcome is that, based on the evaluation of the two programs, the education liaison officer at St Vincent's Hospital was able to make a case for retrofitting three unused rooftop spaces at the hospital.

The case was supported and the hospital is having designs drawn up for two of the roofs. Before and after the retrofit, Fiona and Sara will be undertaking evaluations of staff, visitors and consumers' experiences of the spaces, as well as the horticultural therapy programs.

A final thought is that this approach is <u>very transferable into other</u> <u>sectors</u> where people experience periodic stress and/or isolation. That would include the corporate sector and high-density residential areas. So think about it, and see if you can go up on the roof too.

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