

Unaffordable home heating increases risk of severe mental distress

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Summary

The cost-of-living crisis is placing more people at risk of being unable to afford to heat their homes.

We know living in cold housing contributes to many negative physical health outcomes. There is increasing evidence that being unable to keep warm at home also has negative mental health impacts.

If we don't put in place further economic support and policies to protect vulnerable energy consumers so that everyone is able to live in warm dry housing, we risk worsening mental health outcomes for our population.

Cold housing is a significant public health issue in many countries.¹⁻³ Cold housing and energy poverty (also known as energy hardship in Aotearoa⁴), are caused by factors such as poor building quality, energy and electricity costs and availability, occupant needs, and household income.

Cold housing is linked to poor physical health. But we are now seeing more evidence that it can have a negative impact on mental health as well.

What does the latest research say?

A new study from the UK⁶ finds a clear link between transitioning into a situation of energy poverty, where people find themselves unable to adequately heat their homes, and increased risk of severe mental distress.

The researchers, Amy Clair and Emma Baker from the University of Adelaide, used data from the UK Household Longitudinal survey to track mental distress — including depression and anxiety — across 40,000 households over time. The researchers focused on people who had at one point said they were able to heat their home adequately but then later said that was no longer the case.

I wrote a commentary on the study for the journal *Evidence Based Nursing* in which I highlight the most important finding: “becoming unable to keep the home adequately warm between survey waves was associated with statistically significant increases in the odds of reporting severe mental distress”.⁵

For people with good mental health initially, the odds of reporting severe mental distress after becoming unable to keep the home adequately warm almost doubled. When people were already experiencing mental health distress initially, the odds of severe mental health distress were more than tripled when they became unable to heat their homes.⁵

What does the other available evidence say?

The new research aligns with previous studies in this area. Research using longitudinal survey data from Australia has shown that being in energy poverty lowers subjective wellbeing or life satisfaction.⁷ Another UK study also found a link between energy poverty and lower life satisfaction.⁸

Another Australian study using methods similar to the UK study outlined above also shows that when peoples circumstances change and they are no longer able to afford heating their homes, their mental health declines.⁹

What can we learn from this research in Aotearoa?

In Aotearoa, those who are most at risk of energy poverty include Māori and Pasifika peoples, older people, households with children and especially single parent households, tertiary students and disabled persons.¹⁰⁻¹⁵ In the last measurement before COVID-19 (using 2018-2019 data), 134,000 households or 7.6% of households in Aotearoa reported that they could not afford to keep their homes adequately warm.⁴ It has likely gotten worse. People have spent much more time at home during colder months due to COVID-19 lockdowns and necessary preventative health measures. At the same time, as in other countries, the cost of living has rapidly increased and domestic energy prices have continued to rise.

The Winter Energy Payment policy is designed to help households in Aotearoa receiving the government superannuation and some other welfare packages to keep warm during winter. But necessary changes to increase support in response to the COVID-19 pandemic have made it difficult to assess the impact of the policy.¹⁶

In a study measuring bedroom temperatures across Aotearoa overnight 84% were below 18°C,¹⁷ the minimum healthy indoor temperature recommended by the World Health Organization.¹ Another study showed that the cost to heat a child's bedroom in Wellington during a winter month (NZ\$58) would use around 46% of the Winter Energy Payment.¹¹ These studies indicate that the Winter Energy Payment, while useful, may need to be better targeted towards those most at risk (eg. households with children, disabled people, low-income households) and the payment level increased, to achieve the goal of keeping people warm at home in winter.

We know that even relatively simple interventions that make small improvements in housing quality so that people can keep warm at home have positive effects on social, health, and economic wellbeing. Take for example the extremely successful cross-government Healthy Homes Initiative programme that aims to create warmer, drier, healthier homes for eligible families. Evaluation of the programme shows that the Healthy Homes Initiatives have reduced hospitalisations by almost 20%, as well as increasing school attendance and employment among people living in these households.¹⁸

Energy poverty and cold housing contribute to preventable negative health and mental health outcomes. Current increases in the cost of living and energy prices present a significant mental health risk, and the economic burden of energy poverty and cold housing are likely to have been underestimated.^{5,19}

We need to prevent these negative mental health impacts for people who have become unable to afford to keep their homes warm this winter due to the rising cost of living. We urgently need to put in place further support for increasing home energy efficiency, building quality and household incomes over winter, as well as strengthening protections for vulnerable energy consumers.⁵

Helping people stay warm at home keeps them well.

What is new in this briefing?

- New evidence using population survey data from the UK and Australia finds a consistent link between living in cold housing and increased mental health risks;
- Becoming unable to afford enough heating to keep warm at home almost doubles the odds of reporting severe mental distress;
- For those already experiencing mental health distress, the odds of severe mental distress more than tripled when they became unable to heat their homes.

Implications for public health

- Supporting people to live in warm housing during a period of increasing living and energy costs in Aotearoa (and in many other countries) will avoid social, economic, and mental health harm;
- Continued improvement to housing quality and stronger tenancy and energy consumer protections are urgently needed in Aotearoa to ensure everyone has access to warm, dry, healthy housing;
- Further research is needed to quantify the effects of cold housing on mental health in Aotearoa and understand the pathways between cold housing and mental health distress.

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References

1. World Health Organization. WHO Housing and Health Guidelines. Geneva: World Health Organization 2018.
2. O’Sullivan KC. Health Impacts of Energy Poverty and Cold Indoor Temperature. In: Nriagu J, ed. Elsevier Encyclopedia of Environmental Health. 2nd ed: Elsevier 2019:436-43.
3. Hernández D. Understanding ‘energy insecurity’ and why it matters to health. *Social Science & Medicine* 2016;167:1-10. doi: <https://doi.org/10.1016/j.socscimed.2016.08.029>
4. Ministry of Business Innovation and Employment. Defining Energy Hardship: A discussion document on defining and measuring energy wellbeing and hardship in Aotearoa. Wellington: New Zealand Government, 2021.
5. O’Sullivan KC. Becoming unable to afford adequate home heating is associated with increased risk of severe mental distress. *Evidence Based Nursing* 2023;ebnurs-2022-103668. doi: 10.1136/ebnurs-2022-103668
6. Clair A, Baker E. Cold homes and mental health harm: Evidence from the UK Household Longitudinal Study. *Social Science & Medicine* 2022;314:115461. doi: <https://doi.org/10.1016/j.socscimed.2022.115461>

7. Awaworyi Churchill S, Smyth R, Farrell L. Fuel poverty and subjective wellbeing. *Energy Economics* 2020;86:104650. doi: <https://doi.org/10.1016/j.eneco.2019.104650>
8. Davillas A, Burlinson A, Liu H-H. Getting warmer: Fuel poverty, objective and subjective health and well-being. *Energy Economics* 2022;106:105794. doi: <https://doi.org/10.1016/j.eneco.2021.105794>
9. Bentley R, Daniel L, Li Y, et al. The effect of energy poverty on mental health, cardiovascular disease and respiratory health: a longitudinal analysis. *The Lancet Regional Health - Western Pacific* 2023:1-13. doi: <https://doi.org/10.1016/j.lanwpc.2023.100734>
10. Harris Clark IK, Chun S, O'Sullivan KC, et al. Energy Poverty among Tertiary Students in Aotearoa New Zealand. *Energies* 2022;15(1):76.
11. Shorter C, Crane J, Barnes P, et al. The cost of achieving healthy temperatures in children's bedrooms: Evidence from New Zealand. *Energy Policy* 2022;164:112861. doi: <https://doi.org/10.1016/j.enpol.2022.112861>
12. Teariki MA, Tiatia R, O'Sullivan K, et al. Beyond home: Exploring energy poverty among youth in four diverse Pacific island states. *Energy Research & Social Science* 2020;70:101638. doi: <https://doi.org/10.1016/j.erss.2020.101638>
13. O'Sullivan KC, Howden-Chapman P, Sim D, et al. Cool? Young people investigate living in cold housing and fuel poverty. A mixed methods action research study. *SSM - Population Health* 2017;3:66-74. doi: <https://doi.org/10.1016/j.ssmph.2016.12.006>
14. O'Sullivan KC, Stanley J, Fougere G, et al. Heating practices and self-disconnection among electricity prepayment meter consumers in New Zealand: A follow-up survey. *Utilities Policy* 2016;41:139-47. doi: <https://doi.org/10.1016/j.jup.2016.07.002>
15. O'Sullivan KC, Howden-Chapman PL, Fougere GM, et al. Empowered? Examining self-disconnection in a postal survey of electricity prepayment meter consumers in New Zealand. *Energy Policy* 2013;52:277-87. doi: <http://dx.doi.org/10.1016/j.enpol.2012.09.020>
16. Hyslop DR, Riggs L, Maré DC. Motu Working Paper 22-09: The impact of the 2018 Families Package Winter Energy Payment policy. In: Motu, ed. Motu Working Papers. Wellington: Motu, 2022:1-66.
17. Plagmann M. Mould, occupants and house condition. Build. Wellington: BRANZ, 2019:58-59.
18. Pierse N, Johnson E, Riggs L, et al. Healthy Homes Initiative: Three year outcomes evaluation. Wellington: Te Whatu Ora Health New Zealand, 2022.
19. Arias D, Saxena S, Verguet S. Quantifying the global burden of mental disorders and their economic value. *eClinicalMedicine* 2022;54 doi: 10.1016/j.eclinm.2022.101675

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