

Early-life protective factors for adolescent self-harm and suicidality

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Australian
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Overview

Background

- Self-harm and suicidality are serious health concerns and can emerge in childhood and adolescence.
 - In Australia, rates of suicidal thoughts and plans doubled among 16-24 year-olds between 2007 and 2022
- Research has focused predominately on risk factors; protective factors have been relatively understudied.
 - Protective factors: social support, sense of belonging

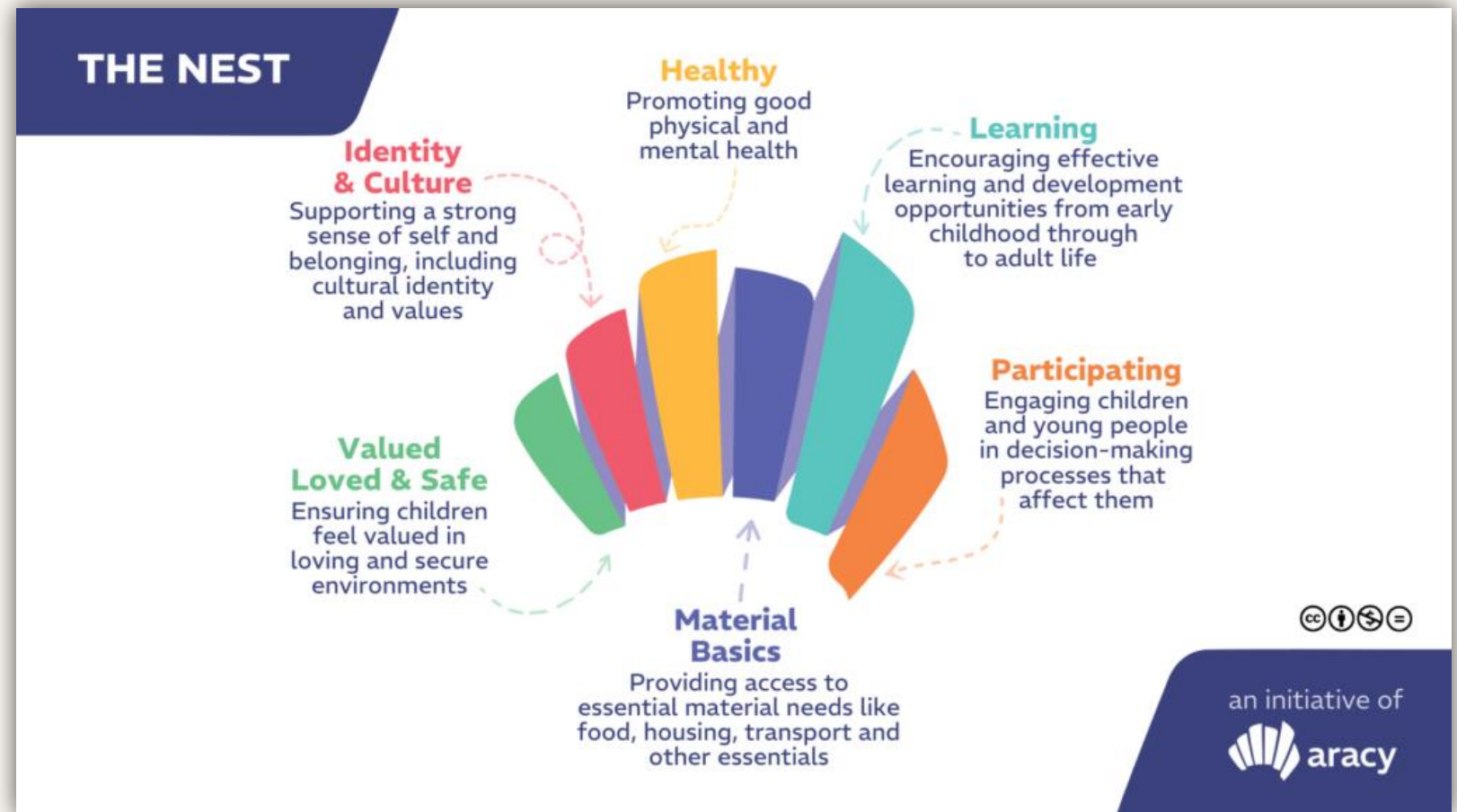
Study aim

- To assess how domains of wellbeing in middle childhood (6-12 years) predict/protect against experiences of suicidality and self-harm in adolescence (14-15 years).



Child wellbeing: the Nest framework

- Developed by ARACY
- An Australian participatory wellbeing framework



aracy.org.au/the-nest-wellbeing-framework

Longitudinal Study of Australian Children (LSAC)

What it is

- A large, longitudinal, nationally representative Australian study of children: family, education, health.
- Conducted every two years since 2004.

What data we used

- Sample: Birth cohort (born in the 12 months before Feb 2004, when LSAC commenced).
- Outcomes: suicide ideation and attempts, self-harm ideation and behaviour at age 14-15 years.
- Predictors: dimensions of wellbeing at multiple time points in childhood. Ages 6-7 through to 12-13 years.



Nest in LSAC

Sollis and Edwards (2022)

- Peer-reviewed paper which operationalised the Nest in LSAC.
- For each of 19 subdomains of the five Nest domains, they developed a measure of whether the wellbeing need was met.
 - Each subdomain an associated indicator variable at each point in time.
 - LSAC data/scale selected to best measure each subdomain for a specific age.
 - Needs met on a domain if met on all subdomains.

E.g. Valued, loved and safe

	Subdomain	Wave 4 (ages 6-7 years)
Valued, Loved and safe	Relationship with parents	Fun with family on weekend (Child)
	Relationship with friends	SDQ peer problems (Parents)
	Safe at home	Hostility between parents (Parents)
	Safe at school	Peers scale (Child)



Analysis

Logistic regressions modelling

- Self-harm ideation; Self-harm behaviour; Suicide ideation; Suicide attempts.
 - Separate models for each of the 4 outcomes, and for each of the 4 predictor waves (ages 6-7, 8-9, 10-11, 12-13).
- **Wellbeing predictors:** binary threshold indicators of each of the 19 subdomains of wellbeing.
 - Separate (higher level) analysis using domains, rather than subdomains as predictors.
- **Controls:** gender, whether lives in urban area.



Models

Age 6-7 years	Age 8-9 years	Age 10-11 years	Age 12-13 years	Age 14-15 years
Valued, loved and safe - Relationship with parents - Relationship with friends - Safe at home - Safe at school	Valued, loved and safe - Relationship with parents - Relationship with friends - Safe at home - Safe at school	Valued, loved and safe - Relationship with parents - Relationship with friends - Safe at home - Safe at school	Valued, loved and safe - Relationship with parents - Relationship with friends - Safe at home - Safe at school	Outcome variables - Self-harm ideation - Self-harm behaviour - Suicide ideation - Suicide attempt
Material basics - Access to basic goods - Shelter - Financial security	Material basics - Access to basic goods - Shelter - Financial security - Access to food and water	Material basics - Access to basic goods - Shelter - Financial security - Access to food and water	Material basics - Access to basic goods - Shelter - Financial security - Access to food and water	
Healthy - Nutrition - Mental Health	Healthy - Nutrition - Mental Health - Good state of mind	Healthy - Nutrition - Mental Health - Good state of mind	Healthy - Nutrition - Mental Health - Good state of mind	
Learning - School attendance - School satisfaction - Learning at home - Learning in the community	Learning - School attendance - School satisfaction - Learning at home - Learning in the community	Learning - School attendance - School satisfaction - Learning at home - Learning in the community	Learning - School attendance - School satisfaction - Learning at home - Learning in the community	
Participating - Network of support - Involvement in the community - Sense of belonging	Participating - Network of support - Involvement in the community - Sense of belonging	Participating - Network of support - Involvement in the community - Sense of belonging - Having a say within the family	Participating - Network of support - Involvement in the community - Sense of belonging - Having a say within the family	



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Results: summary of protective factors

Domains as protective predictors of adolescent outcomes

- Valued, loved and safe at all age groups was protective
- Material basics was more protective at younger ages
- Participating was more protective at older ages

Subdomains as protective predictors of adolescent outcomes

- Self-harm ideation: good state of mind and sense of belonging age 12-13
- Self-harm behaviour: relationships with parents, involvement in community at age 10-11
- Suicide ideation: sense of belonging (age 12-13), school satisfaction (age 10-11)
- Suicide attempt: school safety (age 6-7), school satisfaction (age 10-11)



Implications

A breadth of wellbeing dimensions are relevant to self-harm and suicidality

- Consistent with a social determinants approach to wellbeing

Relative importance of aspects of wellbeing domains changes across childhood

- Timing of interventions therefore matters
 - Lends support to the case for early interventions

Using a wellbeing framework to predict later outcomes

- A life-course perspective: wellbeing is both intrinsically valuable and related to future outcomes



Limitations and caveats

For some subdomains wellbeing needs were almost always met

- E.g. Relationship with parents: 97.9% of children had needs met (average across predictor waves)

Longitudinal but not necessarily causal

- Many factors that likely relate to both child wellbeing and adolescent self-harm & suicidality

Comparing across time

- Measuring wellbeing across ages is challenging
 - definitional changes
 - data availability



References

Our study

Campbell, P.D., Proulx, J.D.E., Sollis, K., Cruwys, T., Calear, A.L., Rathbone, J., Sheanoda, V. & Reynolds, K.J. (2025). Early-life protective factors for adolescent self-harm and suicidality: a longitudinal cohort study in Australia. *Lancet Psychiatry*, 12, 746-757. DOI: [https://doi.org/10.1016/S2215-0366\(25\)00243-3](https://doi.org/10.1016/S2215-0366(25)00243-3)

The Nest wellbeing framework

<https://www.aracy.org.au/the-nest-wellbeing-framework/>

Operationalising Nest in LSAC

Sollis, K. & Edwards, B. (2022). Measuring what matters: drawing on a participatory wellbeing framework and existing data to assess child wellbeing outcomes over time. *Social Indicators Research*, 164: 543-599. DOI: <https://doi.org/10.1007/s11205-022-02960-3>

Nest wellbeing code: <https://dataverse.ada.edu.au/dataset.xhtml?persistentId=doi:10.26193/AJIQSF>



Thanks

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- Dr Jason Proulx
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- Dr Veronica Sheanoda
- Prof. Kate Reynolds
- Dr Emma Knight

Project

- ACT Wellbeing Framework



Appendix



Forest plots

