

APPENDICES

Appendix A: Primary and secondary outcome measures

	Survey item	Response options
Primary		
outcomes:		
Tobacco use – ever	Have you ever smoked even part of a cigarette? [1]	Yes/No
Tobacco use – recent	Have you smoked a cigarette in the last week? If yes, starting from yesterday please record the number of cigarettes that you smoked on each day of last week[1]	Yes/No 0-99
Alcohol use - ever	Have you ever had a drink of alcohol? E.g. beer, wine or alcopops/pre-mix drinks (do not count sips or tastes)	Yes/No
Alcohol use – recent	Have you had any alcoholic drinks, such as beer, wine or alcopops/pre-mix drinks in the last week? (do not count sips or tastes) If yes, starting from yesterday please record the number of alcoholic drinks that you had on each day of last week[1]	Yes/No 0-99
Alcohol use - ‘risky’	In the last 4 weeks, how many times have you had 5 or more alcoholic drinks in a row? [1]	None/Once/Twice/3-6 times/7 or more times
Secondary		
outcomes:		
Marijuana use	How many times in the last four weeks have you smoked or used marijuana/cannabis (grass, hash, dope, weed, mull, yarndi, ganga, pot, a bong, a joint) [1]	None/Once or twice/3-5 times/6-9 times/10-19 times/20-39 times/40 or more times
Other illicit substance use	How many times in the last four weeks have you used any other illegal drug or pill to get “high”, such as inhalants, hallucinogens (eg LSD, acid, trips), amphetamines (eg. speed, ice), ecstasy, cocaine or heroin?	None/Once or twice/3-5 times/6-9 times/10-19 times/20-39 times/40 or more times
Individual protective factors[2]	Cooperation and communication subscale: 2 items; e.g. “I enjoy working together with other students my age”	1: Never true, 2: True some of the time; 3: True most of the time; 4: True all of the time
	Self-efficacy subscale: 4 items; e.g. “I can do most things if I try”	As above
	Empathy subscale: 3 items; e.g. “I try to understand what other people feel and think”	As above

	Problem solving subscale: 3 items; e.g. “When I need help I find someone to talk with”	As above
	Self-awareness subscale: 3 items; e.g. “I understand why I do what I do”	As above
	Goals and aspirations subscale: 3 items; e.g. “I have goals and plans for the future”	As above
Environmental protective factors[2]	School support subscale: 6 items; e.g. “At my school there is an adult who really cares about me”	As above
	School meaningful participation subscale: 3 items; e.g. “At my school, I help decide things like class activities or rules”	As above
	Peer caring relationships subscale: 3 items; e.g. “I have a friend who helps me when I'm having a hard time”	As above

Appendix B: Multiple imputation results (n=3,115)

Outcome	Intervention v control	
Primary outcomes		
Substance use	OR (95% CI)	<i>P</i>
Tobacco use - ever	1.11 (0.91, 1.35)	.31
Tobacco use - recent	1.20 (0.89, 1.62)	.23
Alcohol use – ever	1.07 (0.89, 1.27)	.48
Alcohol use – recent	1.07 (0.85, 1.34)	.55
Alcohol use – ‘risky’	1.03 (0.82, 1.30)	.81
Secondary outcomes		
Substance use		
Marijuana use	1.12 (0.78, 1.62)	.52
Other illicit substance use	1.27 (0.81, 2.00)	.29

Appendix C: Protective factor subscale results

Outcome	Control group	Intervention	Intervention v control	
	N=844 Mean (SD)	group N=1,261 Mean (SD)	OR (95% CI)	<i>P</i>
Individual protective factor scores				
Cooperation and communication	2.94 (0.68)	2.94 (0.70)	0.01 (-0.08,0.10)	.78
Empathy	3.09 (0.71)	3.09 (0.74)	0.00 (-0.09,0.09)	.97
Goals and aspirations	3.29 (0.67)	3.29 (0.69)	0.00 (-0.10,0.10)	.96
Problem solving	2.73 (0.74)	2.75 (0.73)	0.03 (-0.05,0.11)	.51
Self-awareness	3.02 (0.76)	2.96 (0.75)	-0.05 (-0.13,0.04)	.31
Self-efficacy	3.06 (0.54)	3.03 (0.58)	-0.03 (-0.09,0.04)	.44
Environmental protective factor scores				
School support	2.79 (0.77)	2.79 (0.78)	-0.01 (-0.11,0.08)	.80
Meaningful school participation	2.26 (0.72)	2.23 (0.76)	-0.04 (-0.12,0.05)	.36
Peer caring relationships	3.25 (0.83)	3.25 (0.84)	0.00 (-0.09,0.09)	.99

Appendix D. Examples of strategies that schools implemented to address the intervention strategies

Intervention strategies by Health Promoting Schools domain	Examples of specific programs implemented in intervention schools per strategy
<i>Curriculum, teaching and learning</i>	
1. Age-appropriate lessons (9 hours) on individual protective factors across school subjects	MindMatters;[3] SenseAbility;[5] school-developed curriculum resources (e.g. Student activities within 'Overcoming Adversity' unit and resilience booklets).
2. Non-curriculum programs (9 hours) targeting protective factors	The Resourceful Adolescent Program;[4] SenseAbility;[5] resilience meta-language posters; random acts of kindness week.
3. Additional program targeting protective factors for Aboriginal students	Feeling Deadly Not Shame;[6] engagement with Clontarf;[7] Sista Speak; Bro Speak;[8] Aboriginal yarning groups; Stronger, Smarter program.[9]
<i>Ethos and environment</i>	
4. Rewards and recognition program	Formal acknowledgements of student contribution to the school outside academic and sporting achievements; encouragement of student input in recognition processes; resilience and student empowerment awards.
5. Peer support/peer mentoring programs	Peer mentoring; peer tutoring/support; peer mediation; positive relationship and year group bonding camps; Rock and Water.[10]
6. Anti-bullying programs	Buddy schemes; positive bystander programs; positive peer programs; anti-bullying day (e.g. RUOK Day); cyberbullying programs (e.g. Cyberia[11]); safe and supportive school environment (e.g. Bullying No Way[12]); Project RockIt.[13]
7. Empowerment/leadership programs	Duke of Edinburgh International Awards Youth Program;[14] Positive lifestyles program.[15]
8. Additional empowerment/leadership/mentoring programs for Aboriginal students	Outdoor learning space and Yarn space for Aboriginal students; excursions to Yamuloong Cultural Centre[16] to participate in cultural talks and learn about traditional Aboriginal culture; Dare to Lead Program;[17] Junior AECG.
9. Aboriginal cultural awareness strategies	Aboriginal cultural art project (e.g. Aboriginal mural in school hall); NAIDOC week formal assembly; Connect to Country; display of Acknowledgement of Country.

Partnerships and services

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|---|---|
| 10. Promotion/engagement of local community organisations/groups/clubs in school (e.g. charity organizations) | Focus on increasing quality and sustainability of partnerships, and development of effective communication strategy between schools and external partners (including local churches and sports clubs, Lions and Rotary Clubs, Samaritans, Red Cross). |
| 11. Additional/enhanced consultation activities with Aboriginal community groups | Enhanced consultation activities with Aboriginal Health and Aboriginal parents (e.g. parent-teacher nights held at local Aboriginal Medical Services); Aboriginal Elder and community partnerships. |
| 12. Promotion/engagement of health, community and youth services in the school | Presentations by Black Dog Institute; promotion of Headspace; Beyond Blue; Police liaison officer; Royal Life Saving NSW; the University of Newcastle. |
| 13. Additional/enhanced Aboriginal community organizations promoted or engaged | School presence at local Aboriginal Education Consultative Group (AECG) meetings; engagement with the Polly Farmer Foundation. |
| 14. Referral pathways to health, community and youth services developed and promoted | Schools websites and newsletters promoted links to various school-based services (e.g. School Counselling, Year Advisors, School Chaplain, Aboriginal Student Support); and other health, community and youth services (e.g. Kids Helpline, Headspace). |
| 15. Strategies to increase parental involvement in school (e.g. school events) | Parent mentors; expert seminars for parents and school staff on supporting resilience in young people; parent community groups promoted in newsletter. |
| 16. Information regarding student protective factors provided to parents via school newsletter | Newsletters sent home defining resilience protective factors and how to support such factors at home; provision of information via school website. |
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Appendix E. Intervention versus control group implementation of strategies targeting protective factor in the final year of intervention

Intervention strategies by Health Promoting Schools domain	Outcome definition	Intervention group N=20 % (n/N)	Control group N=12 % (n/N)	P value
<i>Curriculum, teaching and learning</i>				
1. Age-appropriate lessons on individual protective factors across school subjects	≥9hrs classroom resilience instruction across more than 1 KLA (Year 10)*	88.2 (15/17)	54.5 (6/11)	0.08
	≥9hrs classroom resilience instruction across more than 1 KLA (Year 7-10)*	88.2 (15/17)	36.4 (4/11)	0.01
	Head Teachers using any resilience resource in curriculum (including MindMatters and SenseAbility)*	75.3 (67/89)	49.1 (27/55)	0.002
	Head Teachers using MindMatters in curriculum*	42.7 (38/89)	30.9 (17/55)	0.20
	Head Teachers using SenseAbility in curriculum*	13.5 (12/89)	0 (0/55)	0.004
2. Non-curriculum programs targeting protective factors	≥9hrs non-classroom resilience instruction (Year 10)**	87.5 (14/16)	77.8 (7/9)	0.60
	At least one resilience program/resource used outside of curriculum**	88.9 (16/18)	81.8 (9/11)	0.60
	Most used resource: MindMatters**	61.1 (11/18)	18.2 (2/11)	0.05
	Number of programs used (Mean (SD)) (Intervention n=18; control n=11)**	3.1 (1.83)	1.2 (0.87)	0.004
3. Additional program targeting protective factors for Aboriginal students	≥9hrs non-classroom resilience instruction (Year 10 Aboriginal students)***	86.7 (13/15)	100.0 (5/5)	1.0

Ethos and environment

4. Rewards and recognition program	At least one whole school rewards/recognition program****	100 (19/19)	100 (10/10)	1.0
5. Peer support/peer mentoring programs	At least one peer support**** (either peer support or buddy program/peer mentoring across all kids in any Year group)	77.8 (14/18)	90.9 (10/11)	0.62
6. Anti-bullying programs	At least one whole school anti-bullying initiative/program****	100 (19/19)	100 (10/10)	1.0
7. Empowerment/leadership programs	At least one peer leadership training or one program that students were active participants in all levels of planning and decision making across all kids in any Year group****	83.3 (15/18)	100 (11/11)	0.27
8. Additional empowerment/leadership/mentoring programs for Aboriginal students	At least one additional program (peer support, peer leadership, peer mentoring or program that students were active participants in all levels of planning and decision making across) in any Year group for Aboriginal students)***	89.5 (17/19)	70.0 (7/10)	0.31
9. Aboriginal cultural awareness strategies (Examples: Aboriginal cultural art project	At least one cultural awareness strategy for non-Aboriginal students/staff across whole school***	89.5 (17/19)	70.0 (7/10)	0.30

Partnerships and services

10. Promotion/engagement of local community organisations/groups/clubs in school	Partnership ^a with at least 3 community organizations**	33.4 (6/18)	18.2 (2/11)	0.67
11. Additional/enhanced consultation activities with Aboriginal community groups	Consultation in the development/running of Aboriginal cultural awareness strategies for non-Aboriginal staff/students)**	84.2 (16/19)	60.0 (6/10)	0.19

12. Promotion/engagement of health, community and youth services in the school	Partnership ^a with at least one health/community services**	61.1 (11/18)	45.5 (5/11)	0.47
13. Additional/enhanced Aboriginal community organizations promoted or engaged	Partnership ^a with at least one Aboriginal local community organization***	36.8 (7/19)	20.0 (2/10)	0.40
14. Referral pathways to health, community and youth services developed and promoted	Promotion of any health or community services at school**	100 (18/18)	100 (11/11)	1.0
15. Strategies to increase parental involvement in school	Implementation of at least 1 parent engagement strategy**	94.4 (17/18)	100.0 (11/11)	1.0
16. Information regarding student protective factors provided to parents via school newsletter	Provided information to parents at least once a term regarding enhancing student resilience****	64.7 (11/17)	44.4 (4/10)	0.42

*Informants were Head Teachers from 5 Key Learning Areas (KLAs); English, Maths, PDHPE, Science, HSIE. Schools with data from Head Teachers from 2 or more KLAs were included (n=17 intervention; n=11 control);

** Informants were Head Teachers Welfare;

*** Informants were designated Aboriginal contact persons for each school. For strategy 3, 9 respondents were excluded as they were unable to estimate hours;

**** Informants were Deputy Principals;

^aKey informants (Head Teacher Welfare for strategy 10 and 12, and Aboriginal contact person for strategy 13) were asked to nominate up to 5 active partnerships with organisations or services. They were asked whether or not each partnership had a range of characteristics including: a formal agreement on services provided, consistency of the partnership with aims of the School Plan, regular meetings to review and evaluate partnership, service specifically tailored to community needs, multiyear endeavour.

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