Gonski Institute for Education

Yudi Gunyi School
Ngaramadhi Space Wraparound Program

Research Report

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1 Background

Academics from UNSW's Special and Inclusive Research Group (SIERG) were engaged by the Gonski Institute of Education to conduct the research project: A Wraparound Approach to 'Whole of Student' Issues: Education, Health, and Community Services. Yudi Gunyi School had an established model of wraparound in the *Ngaramadhi Space* and were interested in having the program evaluated to ensure that it was meeting the outcomes it was designed to meet.

Students with complex support needs are vulnerable youth who experience social marginalisation and social issues, including: (a) mental health issues, (b) cognitive disability, (c) physical disability, (d) behavioural difficulties, (e) family dysfunction often resulting in involvement with out of home care (OOHC) or juvenile justice, (f) social isolation, (g) drug or alcohol misuse, or (h) early disengagement from education (Dowse, Cumming, Strnadová, Lee, & Trofimovs, 2014). As wraparound models of support are designed to address any and all of these needs for each individual student, their application is not reserved solely to students with identified emotional/behavioural disorders, but to any student presenting with the complex support needs listed above.

The NSW Department of Education provides support based on a student's needs rather than a diagnosis or label, and this includes the provision of services for students requiring behavioural support. Data from the Centre for Education Statistics and Evaluation (CESE, 2015) identified that in 2015, 557 students with 'behaviour disorder' were enrolled in support classes and Schools for Specific Purposes (SSPs) and 1,758 students with 'emotional disturbance' were enrolled in support classes and SSPs in the NSW public schools.

1.1 Wraparound

The use of the term "wraparound" originated in the 1970's in the context of service provision to children and young people with identified mental health issues. Wraparound models developed in

response to the commonly fragmented and disjointed response to diagnosis from varied professionals, e.g., medical, doctors, psychiatrists, educationalists, and social workers in the existing "system of care" model (Cavanagh, 2013). Collaborative models such as wraparound have continued to gain attention from practitioners, researchers, and policymakers, particularly in urban areas. because they offer tangible approaches for coordinating and integrating the supports and resources of various community agencies, including schools, child welfare, health and mental health, case management, prevention programming, and after school care (Anderson, 2016). Bruns et al. (2008) developed the ten principles of wrap around to clarify use of the term and guide program design and implementation.

1.2 Ten Principles of the Wraparound Process (Bruns et al., 2008)

1. **Family voice and choice:** The goals and perspectives of the young person, their families and advocates must be a primary consideration.
2. **Team based:** The intervention must be a committed and collaborative effort of a team consisting of family members, professionals, and other stakeholders, and must be available over an extended period of time.
3. **Natural supports:** Where possible a wraparound plan should utilise the natural (informal) support systems available through friends and family, neighbours, school, church and community.
4. **Collaboration:** The development of a wraparound plan of service should be based on a consensus reached through discussion that includes input from all team members.
5. **Community based:** The intent of wraparound service provision should be to support the individual in the least restrictive setting possible; ideally in the home or in out-of-home care and attending mainstream school.
6. **Culturally competent:** Elements of the wraparound process should be designed, planned and delivered in a way that demonstrates "respect for the values, preferences, beliefs, culture and identity of the child/youth and family, and their community" (Bruns et al., 2008, p. 7).

7. **Individualised:** Wraparound services need to be flexibly and innovatively developed for the individual, drawing upon the best empirical evidence available of effective treatment, and on community and professional experience. Both informal and formal (expert) supports may be required.
8. **Strengths-based:** The development of the wraparound plan should focus on strengths, not deficits. Capabilities, knowledge, skills and other assets already present in the individual, the family, team and local community are key.
9. **Unconditional:** There is a commitment by the collaborating team members to pursue the wraparound process to a conclusion where the wraparound is no longer required, although setbacks may potentially necessitate flexibility in approach
10. **Outcome based:** Wraparound plans must identify assessable outcomes and include indicators of progress and success. Ongoing measurement and evaluation allow for the wraparound plan to be modified as necessary.

2 Yudi Gunyi School and Ngaramadhi Space (https://yudigunyi-s.schools.nsw.gov.au)

Yudi Gunyi School caters for students from 10-16 years of age who need additional support with a range of behaviour and mental health needs. The supports equip them and their referring school with skills and strategies to experience success in a mainstream school. The school, in collaboration with Health & Allied Health has developed a new model of care, creating a set of universal teaching skills, collegial support channels and clinical services to improve outcomes for children aged 4-17 and their families. The scope of services and support use an agreed-upon common language to collaborate, is trauma-informed and grounded principles of neuroscience.

At Yudi Gunyi School, a team including psychiatrist, senior psychologist, psychologist, paediatrician, occupational therapist, speech pathologist, social worker, art

therapist, nurse and specialist teachers all work together to develop teaching practices and approaches to wellbeing that are innovative and integrative. This multidisciplinary team is called the *Ngaramadhi Space*. 'Ngaramadhi' means 'active listening' in Dharawal language, the name gifted to the school as a result of ongoing collaboration with the AECG and the Metropolitan Lands Council.

Each member of the *Ngaramadhi Space* is responsible for four key practices & processes:

1. Develop and embed a translational, evidence-informed network between health and education to better impact education and wellbeing outcomes for students.

- educational outcomes in this area include an improvement in the identification of learning difficulties and coordination of approaches to addressing these. Students enjoy accessing the myriad supports offered through NS.

2. In partnership with health, implement a series of context-specific professional learning modules, lesson plans, and additional, specialist in-class support.

Educational outcomes include a high percentage of mainstream school teachers, counsellors, and support staff reporting increased capacity to support students with complex needs in their schools. Student interest in these lessons is also high. Feedback from students is that these same lessons ought to be taught in mainstream schools, as it would benefit all students.

3. Support families with culturally relevant, targeted supports including clinical interventions, family workshops, family therapy and online/face-to-face information sessions.

Educational outcomes include more successful and sustainable transitions for students back to mainstream school environments as a result of parents' capacity to understand and address the complex needs of their family.

4. Use the practices and processes in points 1-3 to develop Yudi Gunyi School as a 'Centre of Expertise', from which mainstream schools can draw from to support their teachers and families and reduce the need for referral of students to special needs settings.

Educational outcomes include neighbouring principals requesting the support of Ngaramadhi Space and Yudi Gunyi School in facilitating professional learning at the Beginning Teacher, Aboriginal Teacher, and Counsellor conferences in 2019. This request is the result of positive feedback from schools who've accessed professional learning and support from Yudi Gunyi School.

The *Ngaramadhi Space* presents an important opportunity to meet education, health and NSW Premier's system priorities. It also offers potential research into collaborative and innovative ways of working together across our communities, in particular its most vulnerable children and families.

3 Research Project

Ethics approval for the study was provided by the researchers' affiliated university and the NSW Department of Education (DoE). Quantitative data was collected in the form of student, parent and teacher scores on the Strengths and Difficulty Questionnaire (SDQ) for 4 – 17 -year olds, the Daily Life Stressors Survey (DLSS), and student suspension records. Qualitative data was collected in the form of interviews with program personnel. A description of the analysis of data and the results follows.

3.1 Quantitative Data

To evaluate the effects of the wraparound intervention, three measures were used: the number of student suspensions before and after involvement in the wraparound program, the Strengths and Difficulty Questionnaire (SDQ) for 4 – 17 year-olds, and the Daily Life Stressors Survey (DLSS).

Materials

Strengths and Difficulty Questionnaire (SDQ) for 4- 17 year olds.

The Strengths and Difficulty Questionnaire is a measure used to screen child mental health problems (Goodman & Goodman, 2009 and the students, parents and the teachers completed this questionnaire. The SDQ consists of 5 scales, emotional problems, conduct problems, hyperactivity, peer problems and prosocial scales. Each of the 5 scales is made up of 5 items. Each item was scored on 3-point Likert scale ranging from Not True (1) to Certainly True (2).

The Emotional Problem scale items (student version) are

1) Often complains of headaches (I get a lot of headaches)
2) Many worries (I worry a lot)
3) Often unhappy, downhearted (I am often unhappy)
4) Nervous or clingy in new situations (I am nervous in new situations)
5) Many fears, easily scared (I have many fears)

The Conduct Problem scale items (student version) are

1) Often has temper tantrums or hot tempers (I get very angry)

2) Generally obedient (I usually do as I am told)
3) Often fights with other children (I fight a lot)
4) Often lies or cheats (I am often accuses of lying or cheating)
5) Steals from home, school of elsewhere (I take things that are non mine)

Hyperactivity scale items (student version) are

1) Restless, overactive (I am restless)
2) Constantly fidgeting or squirming (I am constantly fidgeting)
3) Easily distracted, concentration wanders (I am easily distracted)
4) Thinks things out before acting (I think before I do things)
5) Sees tasks through to the end (I finish the work I am doing)

Peer problems scale items (student version) are

1) Rather solitary, tends to play alone (I am usually on my own)
2) Has at least one good friend (I have one good friend or more)
3) Generally liked by other children (Other people my age generally like me)
4) Picked on or bullied by other children (Other children or young people pick on me)
5) Gets on better with adults than with other children (I get on better with adults than with people my age)

Prosocial scale

1) Considerate of other people's feelings (I try to be nice to other people)
2) Shares readily with other children (I usually share with others)
3) Helpful if someone is hurt (I am helpful is someone is hurt)
4) Kind to younger children (I am kind to younger children)

5) Often volunteers to help others (I often volunteer to help others)

Impact score - Parent report

1. Do the difficulties upset or distress your child?
2. Do the difficulties interfere with your child's everyday home life?
3. Do the difficulties interfere with your child's everyday friendships?
4. Do the difficulties interfere with your child's everyday classroom learning?
5. Do the difficulties interfere with your child's everyday leisure activities?
6. Do the difficulties put a burden on you or the family as a whole?

Impact score - Teacher report

1. Do the difficulties upset or distress the student?
2. Do the difficulties interfere with the student's everyday life with peer relationships?
3. Do the difficulties interfere with the student's everyday life in classroom learning?
4. Do the difficulties put a burden on you or the class as a whole?

Impact score - Student report

1. Do the difficulties upset or distress you?
2. Do the difficulties interfere with your everyday home life?
3. Do the difficulties interfere with your everyday friendships?
4. Do the difficulties interfere with your everyday classroom learning?
5. Do the difficulties interfere with your everyday leisure activities?
6. Do the difficulties make it harder for those around you (family, friends, teachers etc)?

Daily Life Stressors Survey (DLSS)

The Daily Life Stressors Survey (DLSS) is a measure of the level of stress an individual may experience during everyday activities (Kearney, Drabman & Beasley, 1993). The DLSS is a 30-item instrument. Each item was scored on a 5-point Likert scale ranging from not at all (0), a little (1), some (2), a lot (3), and very much (4).

1. It is hard for me to get up in the morning
2. My parents yell at me in the morning
3. It is hard for me to go to school
4. I feel tense or nervous when I walk into class
5. It is hard for me to talk to my friends about important personal things
6. It is hard for me to talk to other people at school
7. My classmates tease me
8. Bigger children try to pick on me or push me around
9. It is important to be a member of the 'in' group
10. I feel uncomfortable at lunchtime
11. I am tired in the afternoon
12. I am tense or nervous when I have to answer a question in class
13. It is hard for me to stay in my seat at school
14. My teacher makes me feel uncomfortable
15. Teachers pick on me
16. It is hard for me to do well in school
17. It is important for me to act the right way
18. It is important for me to a good fighter
19. It is important for me to look nice

20. My feelings get hurt and I often want to cry
21. It is hard for me to come home from school
22. When adults watch me okay sports, they yell at me
23. I get into trouble at home at night
24. I feel tense or nervous at the dinner table
25. It is hard for me to do my homework
26. It is important for me to play sports well
27. I am often sick
28. It is hard for me go out with my friends
29. It is hard for me to get ready for bed
30. I have trouble going to sleep at night

Results

A paired-samples t-test was conducted on each of the scores: the SDQ, the DLSS, and number of suspensions pre- and post-intervention. The mean scores for SDQ and DLSS are shown in Table 1 and Table 2 respectively, and the scores for suspension are shown in Table 3. When the total scores of the parent, teachers and student (self-report) SDQ were examined, a significant difference was only found in the Teacher SDQ total scores, from Time 1 (M = 19.68, SD = 5.30) to Time 2 (M = 13.86, SD = 7.88) $t(21) = 5.26$, $p = .00$ (two-tailed).

Each of the SDQ self, parent, and teacher questionnaires were separately analysed by examining the four separate scales. This method of data analysis was preferred because of the nature of the student samples being identified as being at high risk (see Goodman & Goodman, 2009). The cut-points for the SDQ scores were analysed using the more recently four-fold classification; close to average, slightly raised (/slightly lowered), high (/low) and very high (very low).

3.1.1 SDQ Parents Questionnaire

In the SDQ Parents Questionnaire there was a significant difference found in the Conduct Problem scores in the SDQ Parents Questionnaire, from Time 1 (*M* = 5.00, *SD* = 2.22) and Time 2 (*M* = 3.58, *SD* = 2.47), *t* (11) = 1.81, *p* = .098 (two-tailed). The eta squared statistic (.78) indicated a large effect size (Cohen, 1988). There was no significant difference found in the impact scores, *p* >1. See figure 1 for comparison of mean SDQ scores of Parent completed questionnaire.

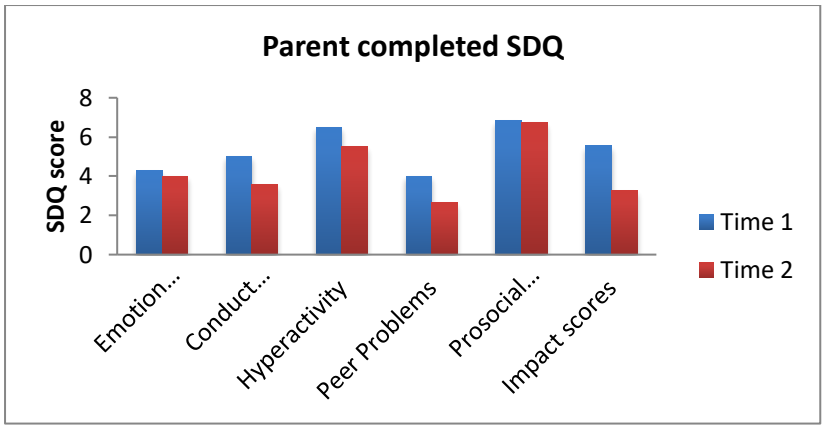

Figure 1. Comparison of mean SDQ scores of Parent completed questionnaire from Time 1 to Time 2.

3.1.2 SDQ Teachers Questionnaire

In the SDQ Teacher Questionnaire, **a significant difference was found in four scales; Conduct Problem Scale, Hyperactivity Scale, Peer Problem Scale, and Prosocial Scale.** The Teacher SDQ Conduct Problem scores significantly decreased from Time 1 (M = 4.66, SD = 2.51) and Time 2 (M = 2.93, SD = 2.87), *t* (28) = 3.59, *p* = .001 (two-tailed). The eta squared statistic (.5) indicated a medium effect size (Cohen, 1988). There was a significant decrease also found in Teacher SDQ Hyperactivity scores, from Time 1 (*M* = 8.46, SD = 1.75) to Time 2 (*M* = 5.50, SD = 2.25), *t* (27) = 7.41, *p* = .000 (two-tailed). The eta squared statistic (.4) indicated a medium effect size. Similarly, there was a significant decrease in Teacher SDQ Peer Problems scores, from Time 1 (M = 3.07, SD = 2.51) to Time 2 (M = 2.36, SD = 2.37), *t* (27) = 2.15, *p* = .041 (two-tailed). The eta

squared statistic (.3) indicated a medium effect size (Cohen, 1988). Conversely there was a significant increase found in the Teacher SDQ prosocial scores, from Time 1 (M = 3.50, SD = 1.60) to Time 2 (M = 4.43, SD = 1.45), *t* (27) = -3.01, *p* = .006 (two-tailed). The eta squared (.31) indicated a medium effect size (Cohen, 1988).

A paired samples t-test was also conducted on the Teacher SDQ impact scores, and this revealed a significant decrease from Time 1 (M = 5.00, SD = 2.30) to Time 2 (M = 2.43, SD = 2.58), *t* (29) = 5.36, *p* = .00 (two-tailed). The eta squared (.5) indicated a medium effect size (Cohen, 1988).

See figure 2 for comparison of mean SDQ scores of Teacher completed questionnaire.

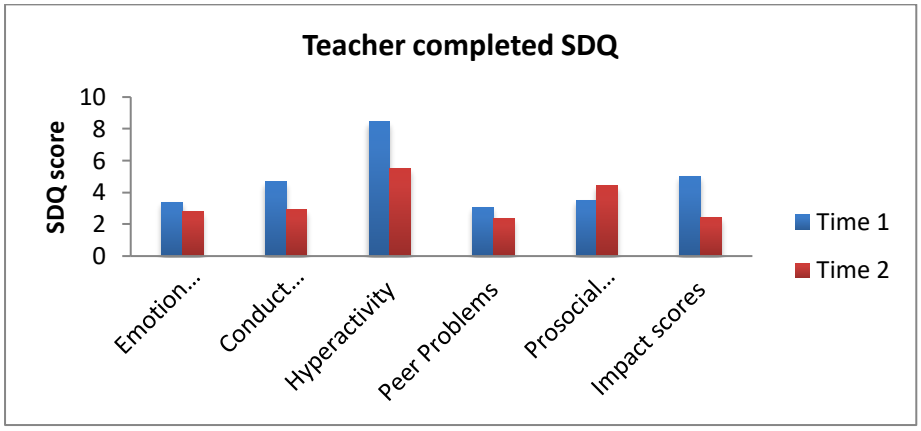

Figure 2. Comparison of mean SDQ scores of Teacher completed questionnaire from Time 1 to Time 2.

3.1.3 SDQ Student Questionnaire

There was no significant difference found in the SDQ Student Questionnaire from Time 1 to Time 2, *p* >1. No significant difference was found in the impact scores from Time 1 to Time 2, *p* >1. See figure 3 for comparison of mean SDQ scores of self completed questionnaire.

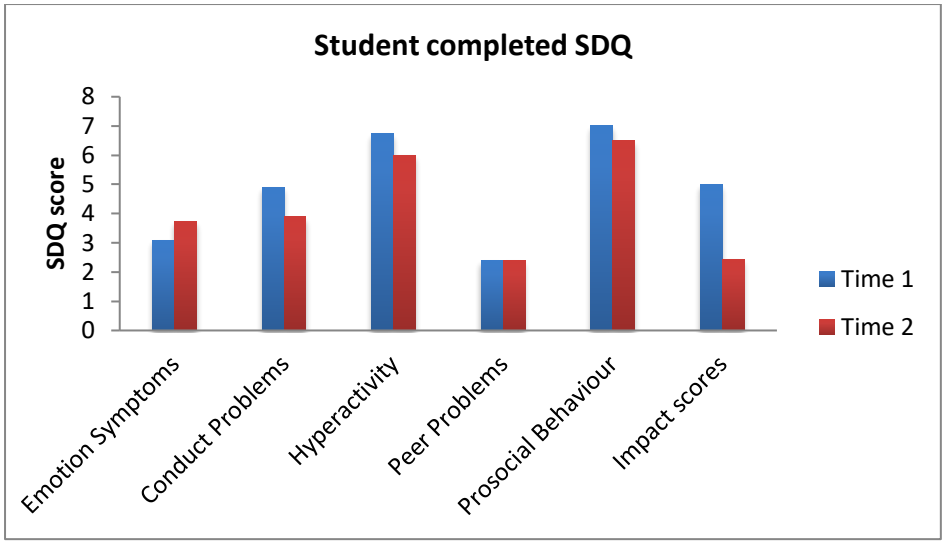

Figure 3. Comparison of mean SDQ scores of Student completed questionnaire from Time 1 to Time 2.

3.1.4 DLSS

There were no significant differences found in the DLSS scores from Time 1 to Time 2, $p > 1$. See Figure 4 for comparison mean DLSS scores from Time 1 to Time 2 for male students and see Figure 5 for comparison mean DLSS scores from Time 1 to Time 2 for female students.d

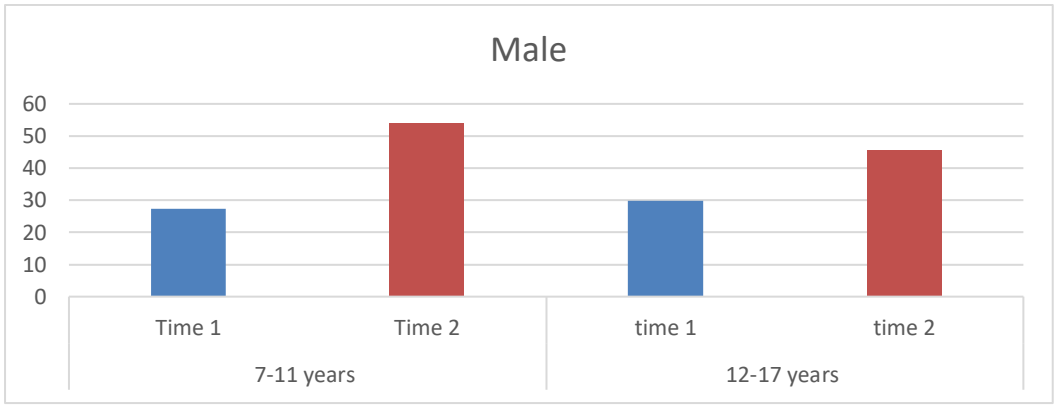

Figure 4. Comparison of mean DLSS scores from Time 1 to Time 2 for male students.

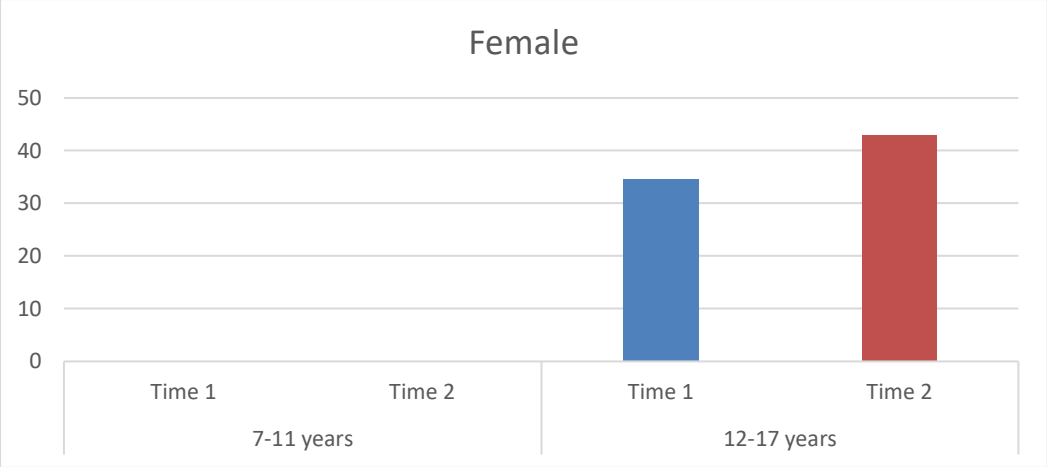

Figure 5. Comparison of mean DLSS scores from Time 1 to Time 2 for female students.

Table 1. Mean scores for the Strengths and Difficulties Questionnaire

Subscale	**Categorising SDQ scores**				**Time 1**	**Time 2**	N	
	Close to average	Slightly raised (/slightly lowered)	High (/Low)	Very High (very low)	M (SD)	M (SD)		
Parent completed SDQ								
Emotional Symptoms	0-3	4	5-6	7-10	4.27 (3.26)	4.00 (3.16)	11	t(10) = .27, *p* = .80
Conduct problems	0-2	3	4-5	6-10	5.00 (2.22)	3.58 (2.47)	12	*t*(11) = 1.81, *p* = .098*
Hyperactivity	0-5	6-7	8	9-10	6.50 (2.65)	5.50 (3.75)	12	t(11) = 1.17, *p* = .27
Peer problems	0-2	3	4	5-10	4.00 (2.49)	2.64 (1.50)	11	t(10) = 1.22, *p* = .25
Total difficulties	0-13	14-16	17-19	20-40	19.90 (7.36)	16.30 (8.21)	10	t(9) = 1.08, *p* = .31
Prosocial behaviour	8-10	7	6	0-5	6.82 (2.27)	6.73 (2.61)	11	t(10) = .15, *p* = .88
Impact scores	0	1	2	3-10	5.55 (2.84)	3.91 (4.04)	11	t(10) = 1.28, *p* = .23

Teacher completed								
SDQ								
Emotional Symptoms	0-3	4	5	6-10	3.38 (1.72)	2.81 (2.06)	26	t(25) = 1.40, *p* = .17
Conduct problems	0-2	3	4	5-10	4.66 (2.51)	2.93 (2.86)	29	t(28) = 3.59, *p* = .001***
Hyperactivity	0-5	6-7	8	9-10	8.46 (1.75)	5.50 (2.25)	28	t(27) = 7.41, *p* = .000***
Peer problems	0-2	3-4	5	6-10	3.07 (2.51)	2.36 (2.36)	28	t(27) = 2.15, *p* = .041**
Total difficulties	0-11	12-15	16-18	19-40	19.68 (5.30)	13.86 (7.88)	22	t(21) = 5.26, *p* = .00***
Prosocial behaviour	6-10	5	4	0-3	3.50 (1.60)	4.43 (1.45)	28	t(27) = -3.01, *p* = .006**
Impact scores	0	1	2	3-10	5.00 (2.30)	2.43 (2.58)	30	t(29) = 5.36, *p* = .000***

Self-completed								
SDQ								
Emotional symptoms	0-4	5	6	7-10	3.09 (2.81)	3.73 (2.45)	11	t(10) = -.81, *p* = .44
Conduct problem	0-3	4	5	6-10	4.89 (1.96)	3.89 (1.54)	9	t(8) = 1.25, *p* = .25
Hyperactivity	0-5	6	7	8-10	6.73 (3.07)	6.00 (2.41)	11	t(10) = .90, *p* = .39
Peer problems	0-2	3	4	5-10	2.40 (2.17)	2.40 (1.78)	10	t(9) = .00, *p* = 1.00
Total difficulties	0-14	15-17	18-19	20-40	18.43 (7.44)	17.57 (4.96)	7	t(6) = .29, *p* = .78
Prosocial	7-10	6	5	0-4	7.00 (1.54)	6.50 (2.32)	12	t(11) = .59, *p* = .57
Impact Scores	0	1	2	3-10	5.00 (4.24)	3.25 (2.75)	4	t(3) = .70, *p* = .53

#Notes: *p* = p-value, **p*>.05, ***p*>.01, ****p*>.001.

Table 2. Mean scores for the Daily Life Stressors Survey

Gender	Age range	N	Time 1	N	Time 2
			M (SD)		M (SD)
Male	7-11 years	5	27.40 (21.76)	1	54.00 (-)
	12-17 years	28	29.89 (15.85)	5	45.60 (20.65)
	Total	33	29.52 (16.49)	6	47.00 (18.78)
Female	7-11 years	-	-	-	-
	12-17 years	8	34.63 (22.71)	1	43.00 (-)
	Total	8	34.63 (22.71)	1	43.00 (-)
Total	7-11 years	5	27.40 (21.76)	1	54.00 (-)
	12-17 years	36	30.94 (17.35)	6	45.17 (18.50)
	Total	41	30.51 (17.66)	7	46.43 (17.21)

3.1.1.5 Suspension

Short- and long-term suspension data were collected at two points of time to examine the effects of the wraparound intervention. Time 1 represents the time prior to commencing the wraparound intervention and time 2 represents the time post of the wraparound intervention. Data analysis did not indicate any significant differences between time 1 and time 2 in short- or long-term suspension results. The mean scores are presented in Table 3. See Figure 5 for comparison of suspension rates.

Table 3. Mean scores for the Short-Term and Long-Term suspension

Suspension	**N**	**Time 1** **M (SD)**	**Time2**	
Short term	17	1.35 (1.27)	1.59 (1.91)	*p* >1
Long term	18	1.89 (1.60)	1.28 (1.45)	*P >1*

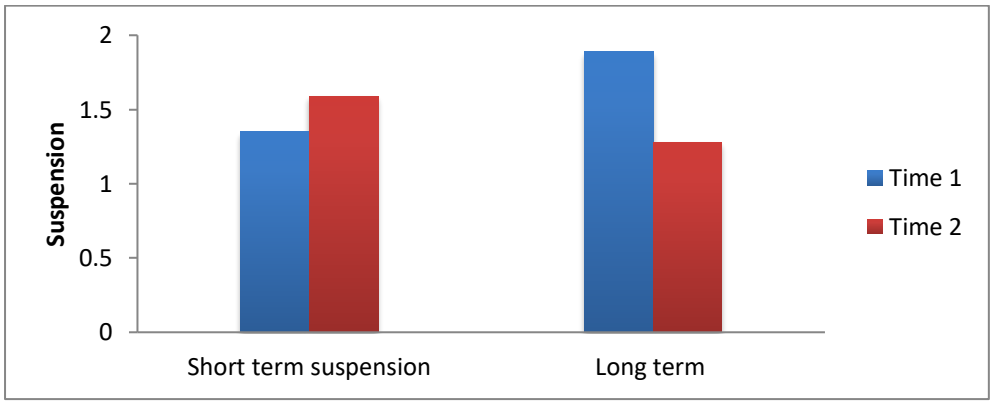

Figure 5. Comparison of mean Suspension rates from Time 1 to Time 2.

Discussion of results

As indicated in the result sections above, there were no significant differences in suspensions or the DLSS. This was most likely due to the small number of students in the sample. Analysis of the SDQ questionnaires produced some significant results, however.

Student completed SDQ questionnaire. There were no significant results found in the student completed SDQ questionnaires. Similar results have been found previously in the literature in studies that involved adolescent students with emotional and behavioural disabilities (Cumming et al., 2008; Gage & Lierheimer, 2012; Ogundele, 2018). This is most likely due to poor self-actualisation and perception being typical characteristics of students with emotional and behavioural disabilities.

Parent completed SDQ questionnaire. In the parent completed SDQ questionnaire there was one significant decrease found with conduct problems. Conduct problems were reported to have decreased from being in the very high category (M = 5.00) to the high conduct category (M = 3.58). This means that participating in the program lowered the amount of conduct problems demonstrated by students, as perceived by their parents. This is significant in that students' conduct problems typically carry over into their outside of school lives, which may put strain on family relationships (Ogundele, 2018).

Teacher completed SDQ questionnaire. In the teacher completed SDQ questionnaire, three behavioural problems were reported to have **significantly decreased** from before and after participating in the wraparound program. First, conduct problems were found to decrease from being very high (M = 4.66) to high (M = 2.93). Second, hyperactivity problems were reported to decrease from high (M = 8.46) to slightly raised (M = 5.50). Third, peer problems were found to decrease from slightly raised (M = 3.07) to average (2.36). Conversely, prosocial scores increased from very low (M = 3.50) to low (M = 4.43).

These results are important, as the goal of the program is to reintegrate students back to their home school. High levels of conduct problems, hyperactivity, and negative peer interactions are typically behaviours that prevent students from attending mainstream schools. It also demonstrates that the Ngaramadhi Space model has thus far been successful in supporting students to decrease these behaviours.

3.2 Qualitative Data Analysis

The school's Principal and the Senior Psychologist Education were interviewed about the program. The researchers developed a semi-structured interview protocol based on a review of literature on wraparound programming. The interview protocol was comprised of 15 questions, seven demographic questions and eight open-ended questions (interview protocols are available upon request from the corresponding author). The interviews lasted an average of 30 minutes. The interviews were audio-recorded with the permission of participants and transcribed verbatim. In line with qualitative research, all transcripts were de-identified, and participants were allocated pseudonyms.

Data Analysis. The first researcher listened to the audio-recorded interviews to confirm the accuracy of the transcripts and corrected a few inconsistencies. The interviews were analysed using content analysis (Elo & Kyngäs, 2008). For the purpose of data analysis, a coding unit was words, sentences or paragraphs "containing aspects related to each other through their content and context" (Graneheim & Lundman, 2004, p. 106). The second researcher then verified the results of the open coding phase for accuracy of coding; carefully reading the open coding results, and any disagreement was resolved through discussion.

The authors then refined and clustered the emerging codes and categories into themes, following the "emergent nature of qualitative research methods" (Hodgetts, et al., 2013, p. 168). The evidence for an established theme was established by triangulation of "memos, codes, frequency of occurrences and interview quotes" (Hodgetts et al., 2013).

3.2.1 Results of Qualitative Analysis

It should be noted that Yudi Gunyi School was one of nine schools that participated in the current study. The following results are the results of the content analysis of interviews conducted at Yudi Gunyi School only. Under the main theme of Wraparound Program, there were 14 subthemes, 36 categories, and 86 codes. A detailed representation of these can be found in Appendix 1. A summary of the qualitative findings is provided below.

It should be noted here that one of the first sub-themes that emerged was *Researching the Model.* This subtheme comprised the Principal's belief that although he was eager to participate in research about the Ngaramadhi Space model, it would be more appropriate to do so from a qualitative perspective. He claimed that the model would struggle from a quantitative data perspective due to its structure (number of students enrolled at one time, the fact that students are part-time in both Yudi Gunyi and their home schools). He felt that a qualitative approach would capture a broader picture:

> But I think the more I speak to people about our programme who are in the research world, the similar feedback I get and I am just excited to tell you a story because I felt really like we did not really get to explain some of the journey. (Principal)

His beliefs were substantiated by the quantitative data analysis reported above, which did not yield information that could be reliably helpful or generalisable.

Neurosequential Model. Both the principal and the psychologist described and discussed the anchor point for the program- the Neurosequential Model in Education (Perry, 2018). The Neurosequential Model in Education (NME) is based on Dr. Bruce Perry's work with children and young people who have experienced trauma and is a classroom-based approach that supports students and school staff in gaining an understanding of how children learn and the reasons for their behaviour. There is a focus on the impact of trauma on a student's ability to function in a classroom. NME is premised on the principle of neurosequential brain development. This knowledge is especially important because this provides educators with a better understanding of brain development that can support them in teaching and caring for students with complex needs (Perry, 2018). The entire team from Ngaramadhi Space are all trained in NME, including the chaplain and paraprofessionals., so everyone works from that shared understanding to work out the most appropriate way to intervene and support the young person.

History of the program. The principal had a "vision based on his previous experience in health where he implemented wraparound." The vision was based on his belief that "the teacher is the game changer; they should not be sending students out of class, as they are the most therapeutic instruments". (Principal) He encountered many barriers, such as difficulty obtaining permission and

funding. “Lots of it was finding loopholes and luck’ NS1 In 2015, they got funding from *Every Student Every School*, and were able to spend 20K on year-long professional development for teachers, speech therapists, occupational therapists, and other staff.

Despite funding and professional development, the school still experienced some problems with continuity/staff transiency. Fortuitously, he established a collaboration with the director of Community Paedatrics. Community Health provided the staff and through further collaboration with YGS teachers, they decided to house Ngaramadhi Space on the school campus. To create the space, they collapsed one class into the others, freeing up a demountable for office space and a sensory room.

Student demographics. The majority of students at Yudi Gunyi School (YGS) are in years 7-10 and are 12-16 years of age. Students are referred to YGS by their home school, but only after the school has exhausted every intervention on their end, and the young person’s behaviour is seriously negatively impacting themselves and others. YGS has 35 students, enrolled in five classes, each with a teacher and TA. The gender makeup is 70% boys, 30% girls. Typically, 35-50% of the students identify as Aboriginal. Two of the five classes are specifically for students with mental health issues, but the other three have many students with undiagnosed/misdiagnosed mental health issues or those who have experienced significant trauma. “It is a school for students with complex trauma, but officially labeled as a school for students with behaviour disorders.” NS1 Students typically attend YGS Monday to Friday for one to two months, then gradually transition back to their home schools until they are back full time or enter adult education, such as TAFE.

Process upon enrolment. In order to provide a clear picture of how the wraparound program at YGS and Ngaramadhi Space works, the Principal explained the steps:

1. Parent accepts offer of enrolment, meets with the principal, tours the school and the Ngaramadhi Space.
2. Principal explains the services they offer to the student and the family (Paeditricians, OT, Speech Therapist etc).
3. Paperwork is filled out, takes about a week to test student and get services organised.

4. Day 1 student is placed in a class that is considered best fit for his or her individual needs (not organised by year).
5. Days 1-5 suite of getting to know you stuff and academic tests, testing for cognitive delays and other disabilities and inform Ngaramadhi space about it.
6. Ngaramadhi space starts wrapping around the family, file summary of the young person (entire history from in utero), with complex families this requires much sensitivity. This can take a couple of hours.
7. Paediatric assessment conducted and shared with parents and team.
8. Access to health data base assists in triangulation with information provided by parents and paediatric assessment.
9. Recommendations used to create individualised support plan.
10. By the 3-4 week, the plan is in place, buy in from parents and student (IEP and health plan).
11. Neurosequential approach begins immediately in the student's classes and assists student to participate in the planning.
12. Student and family access all supports at the school, this avoids queuing for appointments etc.
13. By 4-5 weeks, with the plan in place, student returns to home school 1 day a week, unless the parent feels that this is not appropriate. This is increased over time.

Parent involvement and buy-in. Parent involvement is not a requirement, but most parents are eager to be involved because they see how the program is helping their child (N1). The principal stated, "We are sharing with them on this journey having them involved it really important. It is not a mandatory requirement… whatever level of dysfunction there is, I have not met a parent who doesn't want the absolute best for their child" (N1).

The paediatric assessment is the beginning of parent buy-in, when they discover that the whole family is eligible to access health care services at the school. This is crucial, as, "Some families are really reluctant to go to Community Health and they sit there is the waiting room, or don't manage to get there if it is not really easy or on the public transport line" (NS2). This is a problem in itself, as "In the more traditional health circles, if you fail to attend an appointment, once, twice, God forbid

thrice, you are struck from the eligibility list" (NS1). According to both the principal and the senior psychologist that doesn't happen in the Ngaramadhi Space, instead staff try to figure out why the family isn't engaging. They do Skype visits, home visits, and somehow get the family to buy in over time.

Student involvement and buy-in. According to the principal, the psychoeducational model is a crucial part of student buy-in, as it teaches them what is going on in their brains and increases self-awareness. He explains the culture of the school:

> All staff are honest with the students, and occupational and play-based therapy are apparent in the forms of fidgets, the Ngaramadhi Space swings, and OT games; our OT's come into the classroom and do all that sort of stuff and then I talk to them. So, I think they see it as a whole school thing, not just an add on.

Staff buy-in. Implementing a wraparound program is a change process. The principal went to most resistant teachers and explained that he needed them to point out the problems to inform the implementation of the model- "I think with any change process the people who are most averse to it they can be the biggest help, I need you because I might just carry on with blinkers, this is awesome. I need you pointing out everything that is wrong with it, I need you in my office, bring it on, prove it does not work." On the other hand, he attests that attracting the right people is important, as is providing professional learning for everyone involved. He stated that it is amazing to have teachers who show such a high level of support and level of understanding to help kids it is amazing and they are inspired to work here.

Stakeholder buy-in. The senior psychologist spoke about how buy in from medical staff such as the paediatrician happened because although the families do not go to the appointments outside of school, they have access to their clients at school and "I think from that perspective, access to families and kids has been really positive" (Senior Psychologist). She also discussed the benefits for speech and occupational therapists, such working out of schools eliminates having to pay rent, provides a captive audience, and is a source of referrals.

Enablers. The biggest enabler is the backbone of any wraparound program, an

interdisciplinary approach. Both interviewees felt that the team is stronger as a group, having a shared language, dialogue, and learning and studying together. Getting everyone on the same page as far as the philosophy and approach (Neurosequential approach). Flexibility as a team characteristic was thought to be an enabler (N1). Having Aboriginal elders involved in the school and in Ngaramadhi Space was mentioned by both interviewees as an enabler. The Neurosequential model aided this due to its storytelling and determining students' histories being very culturally appropriate. Having access to the longitudinal data about outcomes from Health was an enabler, as it supported the determination of students' histories. N2 felt that training on how to utilise specialist services was an important enabler for successful wraparound: "I think some professional development on how to establish that kind of therapeutic web and support kids and families by utilising your staff like the school counsellor and social worker is really important". Systemic trends such as the Department of Education's Disability Strategy, that focus on doing things well across systems, are also enablers, as they can provided the necessary funding and resource support (Principal).

Barriers. One of the largest barriers was everyone working in silos, with no shared vision of what needed to happen/be done and with no common language. Another barrier to implementing the program was time, as the team had to undergo a massive amount of professional learning. A related barrier is that qualifying to use clinical tools is complex and difficult. Because of the amount of time and effort required to complete the required training, a lack of continuity/transiency of staff is another barrier that makes continued effective implementation of the program difficult. N2 voiced concern that, "one of the largest barriers is some school counsellors and school psychologists only work one day a week in a school; the current way the school allocation works does not recognise the level of need in the school."

Case management. Although case management was its own sub-theme, it could also sit in both sub-themes, enablers and barriers, as it can be either. It was the opinion of the Principal that in order for the Ngaramadhi Space to be fully effective, a full-time social worker is needed to do case management, as the current model is "not sustainable and is at burnout level". They originally had someone from health taking on this role, but they moved on, and the replacement person was not

interested in doing it. This resulted in "Everyone working beyond their job descriptions just because they wanted to show that the program could work" (Principal). The school counsellor increased her time from 2 days to 3 but found it hard to find time for case management and counselling. The case management part is what is really missing, need a dedicated person. The hope is that the health sector can come up with a person/$/solution, as it needs to be better funded.

Measures of success. The principal feels that working across sectors has improved to the point of being outstanding. Other measures named by both interviewees included: (a) feedback and unwavering support from families, (b) students feeling that all schools should have the program and teach students about how their brains work, (c) teachers are inspired, feel they have support, understanding, and professional development, and perhaps the most telling, (d) "the amount of requests for our staff to go out and team teach and run professional development" (Senior Psychologist). The principal claimed that demand for the last was so great that he was considering hiring extra teachers, "because so many of our teachers are out doing professional learning for other schools, there is just that level of not just interest, but also a level of impact." The principal also emphasised that it was impossible to measure the program's success by measuring students' academic success as the students attend both Yudi Gunyi and their home schools, and their home schools do not have the same model of support.

Perfect world. When asked about what they would like to have in a perfect world, both the principal and the psychologist mentioned funding and all teachers possessing an understanding of neuroscience to guide what they do. There needs to be a team around teachers helping teachers understand this. Mainstream schools need to be resourced to do these things and implement the supports so that students don't need to be referred to YGS. Academically, it does students no good to put the most maladaptive kids together in one classroom. Schools need to be funded differently- a huge shift and involvement from health and allied health. Students need a core group of teachers with the understandings that the teachers at YGS have. This way students could stay at their home school.

4 Evaluation based on the Ten Principles of Wraparound

To further measure the effectiveness of Ngaramadhi Space as a wraparound program, it was

evaluated based on the *Ten Principles of Wraparound*, the accepted standards for wraparound programs (Bruns, et al., 2004).

Table 4. Evaluation of Ngaramadhi Space in regard to the Principles of Wraparound (Bruns et al., 2004)

Principle	**Ngaramadhi Space**
Young person and family voice and choice	Young people and their families are included throughout the planning and implementation of the program. Support is offered to student and all family members. Neurosequential approach educates students on how their brain and emotions work.
A team-based approach	Ngaramadhi Space collaborates with Health and Allied Health, and includes a team comprised of: psychiatrist, senior psychologist, psychologist, paediatrician, occupational therapist, speech pathologist, social worker, art therapist, nurse and specialist teachers.
Natural (informal) supports	There is strong involvement of the Aboriginal elders informing the implementation of Ngaramadhi Space.
Collaboration	Student support plans are based on data collected from the student, family, education and health professionals, as well as records from the Health database.
Community-based intent	Students are supported in gradually transitioning back to their home school with the supports of the Ngaramadhi Space.
Cultural competence	The storytelling nature of the Neurosequential model is culturally responsive, and Aboriginal elders from the community are consulted throughout. Involvement of the student and family ensures individual cultures are respected and responded to appropriately.
Individual design	Each plan is individualised, tailored to the support needs of the individual student and family. Evidence-based practices used in educational, health, and associated supports, such as speech, occupational, and physical therapies.
A focus on strengths	The Neurosequential model is focused on the strengths of the individual and promotes and empowerment and self-determination through knowledge. The support plan is

	designed by the whole team, including the student and family, and is focused on student strengths.
Unconditional commitment	The model is structured on providing supports in a way that assist the student and family in transitioning back to the student's home school and public health care system.
An outcomes-based approach	Plans are reviewed on a regular basis by the team and adjusted as necessary.

Overall, as shown in Table 4, the practices incorporated into the Ngaramadhi Space are in alignment with each of the ten principles of wraparound, suggesting that the program meets the standards of wraparound set out in the literature as evidence based.

Summary and Recommendations

The evaluation of Yudi Gunyi School's Ngaramadhi Space as a wraparound program involved both quantitative and qualitative analysis. As recognised by the principal in an interview, due to the size of the program and the limited amount of time students spend in it, quantitative analysis might not be the best indicator of program effectiveness. However, despite these constraints, parents reported a significant decrease in conduct problems and the teachers reported a significant decrease in conduct problems, hyperactivity, and peer problems, and a significant increase with prosocial behaviours from before and after implementing the wraparound program. The lack of significant results from SDQ self-reports may be explained by the problems with self-concept that are often experienced by adolescents with emotional and behavioural disabilities. As a result, the lack of significant differences from self-reports is common (Gage & Lierheimer, 2012)).

Qualitative data did indeed provide a broader picture of the program and how it is perceived by two of its main stakeholders. While the analysis provided information on the structure of the program, enablers, and measures of its success, several barriers were also identified. The enablers (interdisciplinary approach, flexibility, cultural responsiveness, individualised planning) and barriers (funding, professional resourcing, time, and case management) were consistent with those reported in wraparound literature (Cumming, et al., 2019).

The following recommendations are made to guide the team to further strengthen the program:

1. Explore options to establish a full-time case manager. This has been established in the literature as the most crucial aspect of wraparound effectiveness (Cumming, et al., 2019).
2. In order to continuously evaluate the effectiveness of Ngaramadhi Space, establish measurable desired outcomes (both short-term and longitudinal) and a plan to evaluate them.
    a. Consider social validity as an outcome: i.e., is the program valuable to students and stakeholders? How will you measure this?
3. Future research should involve the researchers at the outset of data collection and include interviews with all stakeholders, including students, parents, and teachers from both settings.
4. Develop a plan for dissemination and professional development. To save on precious resources but to still share the program's great success, perhaps put together a package with videos, literature, and the like.
5. Consider officially becoming a demonstration school for others to come and observe and/or train in.
6. Continue to use the Neurosequential model to support students' self-determination and their ability to correctly self-analyse their development.

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