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Scientific Research

The Effects of a Community and School Sport-Based Program on Urban Indigenous Adolescents' Life Skills and Physical Activity Levels: The *SCP* Case Study

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Abstract

The primary aim of this study was to investigate the effect of a community and school sport program (*SCP*) on Indigenous adolescents' life skills and physical activity levels within program sessions. A secondary aim was to determine the acceptability of the *SCP.* Participants in the *SCP* (n = 34; 89%) participated in a 10-week case study (age = 13.7 ± 1.16; 58% girls). Systematic observations of *SCP* sessions were conducted to determine physical activity levels and a life skills questionnaire was implemented. Acceptability measures included retention, implementation, attendance rates, and interviews with participants [n = 18] and key stakeholders [n = 6]. Systematic observations indicated that Indigenous students were engaged in MVPA for 58% of lesson time. Participants' life skills remained unchanged (p = 0.93). Interview data showed that Indigenous students and key stakeholders believed the *SCP* was acceptable. This study highlights the need for partnerships between Indigenous community organisations and schools to design sport-based programs to promote Indigenous adolescents' MVPA.

Keywords

School Sport, Physical Education, Indigenous, Life Skills, Comprehensive Physical Activity Programs, Adolescents

1. Introduction

The most educationally disadvantaged group in Australia are Indigenous youth (Indigenous Australians are the

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original inhabitants of the Australian continent and nearby islands and the descendants of these peoples [Aboriginal and Torres Strait Islander people]) [1]. Their educational outcomes are generally lower, and their school attendance and participation rates are poorer than their non-Indigenous peers [2]. Indigenous youth are also underrepresented in Australian universities, where they account for less than 1% of all enrolments at higher educational institutions [3]. Indigenous students' who enter higher education are more likely to experience lower attrition, retention and completion rates than non-Indigenous students. In fact, the attrition rate for first year Indigenous students is estimated to be between 35% to 39% [4], while overall completion rates are less than 50% compared with 72% for non-Indigenous students [5].

The World Health Organization [6] and a number of independent researchers have found that the sport context can provide opportunities to promote youth development through the learning of life skills and educational values that enhance their ability to succeed in future endeavours [7] [8]. Life skills have been defined as physical, behavioural, and cognitive abilities such as problem solving, goal setting, and time management [9]. Life skills enable youth to succeed in the different environments in which they live, including education settings [10]. Through an ethnographic study of one high school soccer team, Holt *et al*., [8] found the following three types of life skills were associated with participation on the team: learning to take initiative, respect, and teamwork/leadership (the latter of which appeared to transfer from sport to other areas of life). However, the authors observed little direct teaching of these life skills. Camire, Trudel and Forneris [11] interviewed high school athletes and found that school sport participation allowed them to develop skills such as communication and self-efficacy, which could be transferred to other life domains. These studies provide some evidence for the potential benefits of school sport, but as Camire' *et al*. [11] suggests, additional research is needed to better understand the particular structures and mechanisms that leads to the acquisition of life skills in school settings.

Only a small number of studies have reported on school-based sport programs that focus on the development of life skills, attitudes and outcomes for Indigenous youth [12] [13]. These studies were successful in terms of developing a small number of life skills, but similar to most of the international studies involving under-served youth; it is acknowledged that sport programs alone are not enough. Teachers/coaches need to provide opportunities for youth to acquire these life skills through sporting activities and a positive and supportive environment that shows transferability to other areas of their life [14].

There is some persuasive evidence to suggest that school-based sport programs can also improve youth concentration and arousal, which might indirectly benefit academic performance [15]. However, it should be noted that the educational benefits claimed by school-based sport programs, and physical education [16], are highly dependent on contextual and pedagogic variables, such as the intellectual quality of and integration of explicit life skill teaching during sessions. Hence, this area needs to be further explored.

School-based sports programs have the opportunity to develop life skills, but also physical activity levels of youth [17], which is associated with a number of health benefits [18]. Unfortunately, the physical activity levels of many children and adolescents are currently insufficient to promote these health benefits [19]-[21], including during physical education and school sport lessons [22] [23]. The proportion of lesson time during which students were engaged in physical activity, at an intensity that was health enhancing (MVPA), was typically less than the 50% target that was proposed by the US Department of Health and Human Services [21] and the UK's Association for Physical Education [24]. As a result, these lessons may provide insufficient MVPA for youth to benefit. This is particularly important for school sport-based programs that target Indigenous youth, as the health status of Indigenous people is considerably lower than that of non-Indigenous populations worldwide [25] [26]. This gap is narrowing in the United States, Canada and New Zealand, but in Australia, the gap in health indicators such as life expectancy continues to widen [27]. A major concern is that the prevalence of Type 2 diabetes is higher and occurs at a younger age for Indigenous youth than non-Indigenous youth with the median age of diagnosis at 13.6 years for Australian Indigenous youth [28].

Researchers, teachers and administrators know little about how different school sport programs promote or impede life skill development and physical activity among youth [29]. In the case of Indigenous youth, current research suggests that the adoption of a strengths-based approach, which focuses on the abilities, knowledge, capacities, skills and cultural resources of participants, is essential in school sport and health promotion programs targeting this group [30]. However, few school-based sport programs which target Indigenous students have been evaluated [31] making it difficult to determine which are most appropriate and effective for improving knowledge and modifying the life skills and physical activity behaviours of Indigenous youth.

The primary aim of this study was to investigate the effect of a community and school sport program (*SCP*) on urban Indigenous adolescents' life skills and physical activity levels within program sessions.

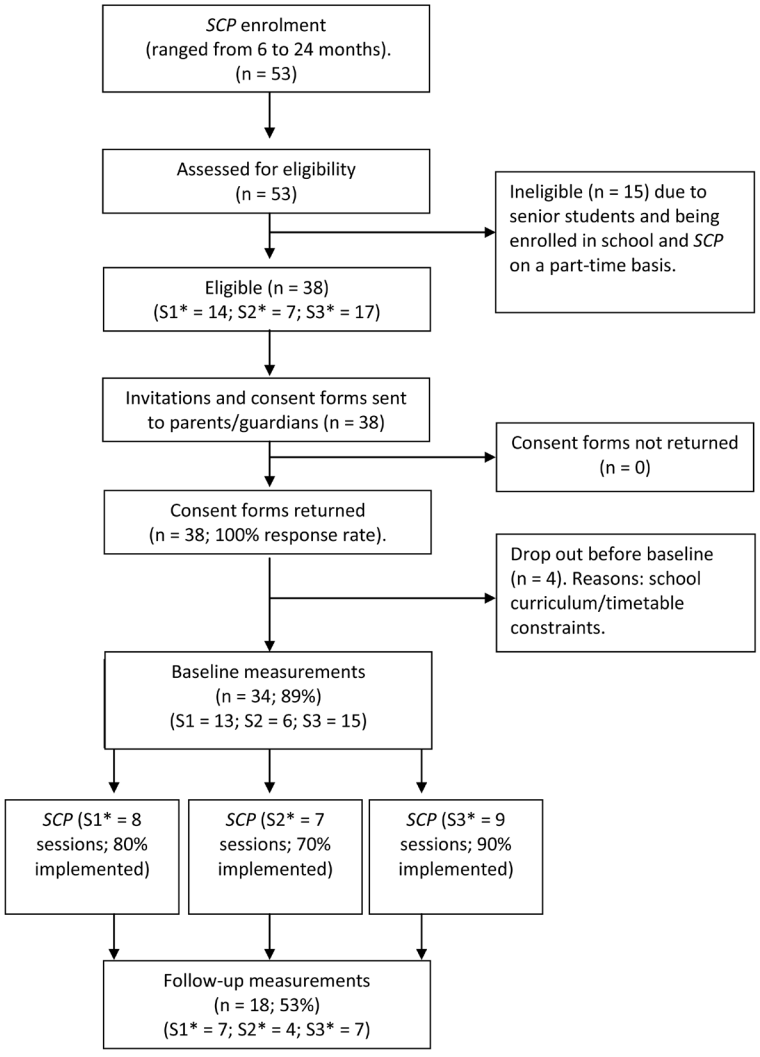
2. Methods

2.1. Participants

This study was a non-randomised pre-post test case study that involved students from years 7 - 10 across three Sydney secondary schools (New South Wales, Australia). Participants who were of Aboriginal or Torres Strait Islander descent were invited to participate in the *SCP* (n = 38). There were no other inclusion or exclusion criteria. Written consent was obtained from all participants. The University's Human Ethics Research Committee and the State Department of Education and Communities approved the study. Participants were 34 students (89%; see **Figure 1** for participant flow and **Table 1** for demographic details) and six key stakeholders (the three school's principals, and the CEO, Education Manager and the Programs Manager of the Indigenous community organisation). The paper follows the guidelines provided by the TREND statement for improving the reporting quality of non-randomised trials [32].

2.2. Intervention

The objective of the *SCP* is to encourage improved educational outcomes for Aboriginal and Torres Strait Islander students (boys and girls) using sport. Such outcomes may include an increase in school attendance,



*S1: School One; S2: School Two; S3: School Three.

Figure 1. Participant flow.

Table 1. Participant demographic information.

Participant characteristics	
Number (n)	34
Age (years; M/SD)	13.7 (1.2)
Gender (%)	58% girls, 42% boys
Aboriginal and Torres Strait Islander descent (%)	100

strengthened engagement with school, improved attitudes to schooling and improved achievement in learning. A recent evaluation of these outcomes found that the *SCP* is meeting these objectives with girls reporting a 11.5% increase and boys reporting a 15.4% increase in attendance since joining the *SCP*, more than 90% reporting a positive attitude towards school, 90% of lower secondary students maintaining or improving literacy levels and 92% maintaining or improving numeracy understanding [33]. Due to the multi-component nature of this community and school sport-based program (with lessons that focus on life skills, physical activity promotion, developing sport skills, cultural understanding and career and workplace knowledge), the Indigenous community organisation who designed the *SCP*, and Indigenous teachers delivering the *SCP*, wanted to determine if outcomes, such as the development of life skills and minimum levels of moderate to vigorous physical activity (MVPA) were being achieved. Using a community-based participatory research approach [34] ensured that this *SCP* evaluation was based on strong collaborations with the Indigenous community organisation and the *SCP* teacher. This addresses one of the main principles of research with Indigenous communities, as set out by the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS), who stress the importance of establishing research partnerships and collaborations *with* Indigenous people to meet *their* needs [35].

The case study was conducted over a period of 10 weeks, with each school having one 120-minute curriculum lesson per week. The lessons were either practical (n = 10) or theoretical (n = 7) and were delivered by an Indigenous teacher (*i.e.*, a qualified teacher employed by the community organisation to implement the program across the three schools) and Indigenous community members or community-based experts in a specific area (e.g., a bank representative, and surfing instructors). Practical lessons (e.g., learning to surf, tennis and gridiron) focused on promoting MVPA and mastery of sport skills to increase self efficacy and develop life skills including communication and team work. Theoretical lessons focused on developing important life skills such as Indigenous cultural knowledge and understanding, practicing cultural skills (e.g., painting), improving awareness of career/vocational pathways, leadership skill development and management of money.

2.3. Measures

Measurements were taken at baseline (October, 2011) and immediately post-case study (December, 2011). Trained independent assessors conducted the measurements following standardised protocols, which also included checking for incorrectly completed questionnaires (*i.e.*, items not filled in) and inviting participants to correct their mistakes or complete missing items.

2.4. Primary Outcomes

The primary outcomes for this research study were to: 1) determine life skill development as a result of participation in the *SCP* sessions; and 2) examine the percentage of *SCP* session time spent participating in MVPA.

The System for Observing Fitness Instruction Time (SOFIT) [36] was used to measure MVPA and instructional time in each session over the 10-week period. In brief, the physical activity levels and session context of four randomly selected participants in each session were coded every 20 seconds throughout the observed sessions on a rotational basis. The activity codes in SOFIT have been calibrated using heart rate monitoring [37] and validated using accelerometers [38]. Observations were conducted by two trained SOFIT observers with an inter-rater agreement of 90% or more on all variables on pre-recorded training DVDs.

The life skills development of the participants were measured using the 24-item Life Skills Questionnaire [39] which assessed eight subscales including education and organisation skills (e.g., time management), personal abilities and beliefs (e.g., self esteem), and social capabilities (e.g., social competence). The Life Effectiveness Questionnaire has been evaluated through fit indices to determine reliability and validity among both genders

and people of all ages. Using the Tucker-Lewis index (TLI) and the relative noncentrality index (RNI), goodness of fit was determined with values greater than 0.96 [39].

2.5. Secondary Outcomes

Secondary outcomes focused on the acceptability of *SCP*, determined by implementation of lessons, participant attendance, and the promotion of the program among key staff (*i.e.*, Indigenous community organisation staff [CEO, Educations Program Manager and Indigenous teacher] and principals at the three schools). These were considered important outcomes, as the Indigenous community organisation wanted to explore whether all key stakeholders and students were satisfied with the *SCP*, and if not construct recommendations for sustainability of the program in the three schools. Three focus group interviews with a random selection of six student participants (n = 18) and one-on-one interviews with key stakeholders were conducted at the completion of the case study. The focus group interviews lasted approximately 30 minutes, while the stakeholder interviews ranged from 15 - 40 minutes.

2.6. Data Analyses

All quantitative data were entered into SPSS (Version 21). Unadjusted means, standard deviations and percentages were calculated for participant physical activity levels, lesson context, life skills and teacher interactions. A series of paired t-tests were conducted to compare the means of the baseline and follow-up life skill measures. However, due to a lack of statistical power and variability in class sizes, the differences within and between individual schools were not analysed.

The qualitative data analysis involved content analysis of stakeholder perceptions from the *SCP* based on guidelines from qualitative methodology texts [40] and previous qualitative studies with adolescents and sport [41]. Information collected during individual and focus group interviews were initially transcribed into Microsoft Word before being examined inductively to allow important conceptual dimensions to emerge from the participant perspective. Important segments of information (comments, quotes) described by participants were labelled with tags that reflected the meaning of the quote. These tags were compared with other important and similar chunks of text to develop broader themes. After linking participant comments that described similar content into themes, key quotes were deductively sorted under the broader headings that matched the aims of the research study including: program benefits and program barriers.

Several steps were taken to ensure credibility in the qualitative data analyses procedures. The three members of the research team with expertise in qualitative research procedures were involved in data analysis and conducted independent analyses for the key staff, student and school principal transcripts. These were followed by collaborative discussions to finalise data coding and the thematic layout of data descriptions [40] [41]. Only minor refinements to codings and groupings were required.

3. Results

3.1. Primary Outcomes

3.1.1. Life Skills

It was hypothesised that at follow-up, the life skills assessed would improve and be significantly different from baseline. There was not a significant difference in the overall life skill measures at baseline (5.58 [1.17]) and follow-up (5.71 [0.87]); $t(17) = 0.085$, $p = 0.93$), suggesting that the *SCP* created few opportunities for students to acquire life skills.

3.1.2. MVPA

It was hypothesised that adequate levels of physical activity in the *SCP* practical sessions (a minimum of 50% of session time spent in MVPA), and promotion of physical activity inside and outside of program time would occur. **Table 2** indicates that, on average, participants were engaged in MVPA for 58% of the *SCP* practical sessions, with the teacher spending the majority of these sessions promoting physical activity within that lesson (53%), compared with promoting physical activity outside (0.2%). Physical activity promotion outside the theoretical lessons was also negligible (0%). Skill development and implementation was a focus with 50% of practical lessons spent on skills and drills and 25% in game play.

Table 2. Unadjusted means and standard deviations (%) for participant activity levels, lesson contexts, promotion of life skills and teacher interactions.

Category	*SCP* program type	
	Sporting based lessons (n = 10)	Indoor lessons (n = 7)
	M (SD)	M (SD)
Student activity (%)		
LPA	42.00 (14.76)	98.57 (2.51)
MVPA	58.00 (14.76)	1.43 (2.51)
Lesson context (%)		
Management	6.40 (4.58)	12.14 (16.80)
Knowledge	5.30 (4.52)	49.71 (45.73)
Fitness	0.70 (2.21)	0.00 (0.00)
Skill practice	50.00 (37.18)	33.43 (40.95)
Game play	24.70 (35.40)	0.00 (0.00)
Other (free play)	12.90 (16.16)	4.86 (10.30)
Teacher interaction (%)		
Promotion of in class PA	52.80 (23.67)	0.14 (0.38)
Promotion of out of class PA	0.20 (0.42)	0.00 (0.00)
No promotion of PA	47.0 (24.06)	99.86 (0.38)

3.2. Secondary Outcomes

3.2.1. Acceptability

Twenty three of the 30 sessions were implemented as planned (77%). Circumstances such as wet weather, exams, excursions and pupil free days resulted in the cancellation of seven sessions. The attendance rate for practical sessions was 33%, with 37% for theoretical sessions. As the evaluation was conducted in the final school term of 2011, attendance was disrupted by other school commitments (e.g., exams, final assessment tasks, presentation days) and absences (e.g., last week of school term). Retention rates, or completion of life skills follow up measures, were also low due to these commitments and absences (53%; see **Table 3**). Overall, the students and key stakeholders suggested that various aspects of the program were acceptable, noting many benefits. A small number of barriers or challenges were also highlighted.

3.2.2. Benefits

The qualitative data analysis revealed that the most acceptable aspects were sport, culture and painting. The students enjoyed sport sessions such as surfing, gridiron and the Gala days (playing different sports against the other two schools) the most, as they appreciated learning new movement skills in a positive and safe environment: *I reckon surfing was fun, as we learnt new skills* (*female student* 3); *the gala days... They were so much fun* (*male student* 5). In one of the schools, cultural orientation and painting sessions were planned and implemented for the first time during the case study. Students thoroughly enjoyed these sessions, and believed these sessions were acceptable as they not only impacted positively on their art skills, but also their understanding of their culture and their sense of identity. As male student 6 indicates, participants related this increased sense of self to enhanced application and effort in the classroom: *I learnt that no matter what culture you are from, you still have the same opportunities if you try hard.*

The stakeholders reported that the *SCP* received good community support from local Indigenous people, the schools and sporting organisations and that all three worked closely together to provide unique opportunities for the participants (e.g., careers days). As a result of the united, multi-layered approach, principals believed that most school staff supported the programs and the students' displayed better behaviour in class. For example,

Table 3. Participant recruitment and retention during the study.

	Total participants in *SCP*	Eligible students (number of consenting participants) N (%)*	Recruitment (number of participants at baseline) N (%)*	Retention (number of participants at follow-up) N (%)*
School 1	25	14 (56)	13 (93)	7 (54)
School 2	8	7 (87)	6 (86)	4 (66)
School 3	20	17 (85)	15 (88)	7 (46)
Total	53	38 (72)	34 (89)	18 (53)

*Percentage of participants at baseline.

Principal 1 stated that: *Attendance at the SCP is linked with the students doing the right thing at school, in terms of showing up regularly, engaging in lessons... and bringing about improved learning outcomes*.

Likewise, the *SCP* community staff agreed with the link between attendance and improved behaviour at school. They associated the improvement to a range of different factors including the variety of sessions, which allowed *exposure to different careers, getting them to think about jobs, finishing school... exposing them to things that may spark an interest, rather than being on welfare* (*SCP staff* 1). Further, the focus on practical and useable life skills (e.g., time management), as well as sport-embedded life skills (e.g., communication), ensured a varied and wide-ranging number of skills to be consolidated, which enhanced confidence and learning in the classroom.

3.2.3. Barriers

Although the majority of students enjoyed sessions that enabled participants to socially interact and develop communication, conflict management and listening skills, the younger students sometimes found it hard to acquire these skills when playing with or against older students. For example, male student 4 claimed that: ... *when you are playing a game, they may tell you* [*older students*], *you can't play certain positions or in certain ways, because you're too little*. Furthermore, the students stated that more variety and choice was important for ensuring different movement and social skills were learnt and to enhance the program's sustainability.

When students were asked about their attendance during Term 4 of the *SCP*, the students noted that they would have preferred to attend the *SCP*, but other subject commitments became a priority due to the timing of the case study. Students reinforced that the *SCP* is embedded in curriculum time, and that they are removed from class to attend *SCP* (which has been established and supported by school staff). However, if they fall behind or have formal classroom learning commitments, their classroom teacher can insist on their attendance in class, rather than sending them to the *SCP*: *Term* 4 *is busy with exams and assessments, so often we weren't allowed to attend the SCP* (*female student* 3). This shows that the students were happy with the *SCP* and only recommended small modifications to increase their motivation and autonomy.

Although the principals and the *SCP* staff suggested that the program was acceptable, the *SCP* staff recognised that some resistance from a small number of school staff and a lack of resources may impact on the future sustainability of the program. For example, the *SCP* staff noted that some teaching staff had low expectations of the students': ... *some of the teachers have preconceived ideas about the students because of past behaviour or cultural reasons and I want to change those ideas... treated like everybody else, not differently* (*SCP staff* 2). This may have also affected student attendance during heavy workload periods. Overall, the findings from the interviews with students and key stakeholders primarily demonstrate that those involved with the *SCP* view it as an acceptable program to engage Indigenous youth in school and MVPA.

4. Discussion

The primary aim of this study was to examine the percentage of *SCP* session time Indigenous youth spent participating in MVPA and developing their life skills. Students participating in *SCP* were engaged in MVPA for 58% of sport-based sessions, with teachers and experts providing many opportunities for participants to acquire and practice sport-related skills (75% lesson time). In terms of physical activity participation during school-based practical sessions, no formal guidelines exist in Australia. However, the US Centres for Disease Control and

Prevention (CDC) [21] and the UK's Association for Physical Education [24] recommend that 50% of physical education class time should engage students in MVPA. Therefore, the *SCP* sessions exceeded this minimum guideline, and was higher than those found in other studies in Australia (30%) [42] and Asia (35%) [43]. The findings were similar to one other Australian school-based study (approximately 55%) [44]. In Dudley and colleagues' [44] study, participant's participation in MVPA declined in physical education from Years 7 to 8 (57% to 52%). The mean age of participants in the *SCP* was 13 - 14 years (equivalent to Years 8 to 9), which suggests that the program's vertical age grouping impeded the decline in MVPA levels usually associated with school-based practical classes.

The majority of the practical sessions were focused on improving students' skill levels through explicit skill instruction and practice (50%) and game play (25%). This is in contrast with Dudley and colleagues' [44] study with their participants spending only 5% of available time in skill instruction and nearly double the time spent in game play (44%). A possible reason is the aims of the two different school programs. The *SCP* offered a range of activities and sports (e.g. surfing and gridiron) that participants had not been exposed to previously. This meant that the sessions were skill drill-oriented and involved explicit instruction to allow participants to acquire a basic level of skill to participate safely. Importantly, the interview data showed that when Indigenous students were learning new activities and sports, they were just as engaged in explicit skill instruction when compared with game play, and enjoyed this context and learning environment. These qualitative results are similar to other Indigenous youth school-based studies. For example, the Australian Football League's Kickstart program [45] and the Deadly Choices Health Education program [46] aimed to deliver positive lifestyle messages to Indigenous youth though the promotion of physical activity in school based programs, with improvements found in the education, attitudes and lifestyle choices of participants, suggesting that school-based programs which provide opportunities for involvement in physical activity have the potential to engage students and promote positive health and lifestyle choices for Indigenous young people. However, it is also important to note that the Deadly Choices program, similar to the *SCP*, focused its physical activities on participation rather than expertise, recognising that not all Indigenous young people engage in or enjoy sports and physical activity [46]. Hence, school-based initiatives should offer a diverse range of opportunities to convey education, physical activity and health messages, based on the assets and strengths of Indigenous young people.

This study also found that the teacher and experts who implemented the theoretical and practical sessions spent time promoting in-class physical activity (53%), but less than 1% encouraging students to be active outside of practical sessions. Whilst this is similar to other studies that have reported teacher interactions and promotion of physical activity in practical sessions [46] [47], if teachers want to encourage lifelong physical activity to promote health, their interactions and explicit promotion of physical activity options within and outside of the classroom needs to be emphasised.

There was no significant difference in life skills at baseline (5.58 [1.17]) and follow up (5.71 [0.87]) ($p = 0.93$) and no significant improvement in any of the eight individual life skills assessed. There may be a number of reasons why there was no change in life skills. First, a range of different experts ran sessions during the case study and may not have been aware of the emphasis on developing Indigenous adolescents' life skills, whilst engaging them in sport, cultural or financial education content. This has been reported in previous studies, where a growing number of high school sport coaches are not teachers within the school system, but are expected to be aware of broader program objectives [48] [49]. Second, intentional instruction and practice of life skills may not have been embedded in theoretical and practical sessions. Previous experimental research has shown that life skills can be taught and learnt in school-based curricular sport programs and extra-curricular sport programs, with a recent review emphasising the need for life skills to be explicitly taught and practiced [50]. Last, the number of participants completing follow-up measures was low and may not be indicative of the life skills taught and learnt.

The results show that the *SCP* was reasonably acceptable. Implementation rates were appropriate and were only affected by external conditions outside of the control of the community organisation, school and teacher/experts. Attendance rates were lower than expected. Not many school-based programs systematically and explicitly report attendance rates, especially those that target minority groups [51], but of those school-based programs that have been reported, the curricular components due to their compulsory nature have higher attendance compared with non-curricular school components (*i.e.*, recess and lunchtimes) [52] [53]. Possible reasons for the lower than expected attendance rates for the *SCP* include: students requested to attend class for assessments, exams and formal learning tasks; absence from school due to sickness and end of school year celebrations; and

involvement in a community cultural demonstration. The semi-voluntary nature meant that attendance rates were similar to other voluntary non-curricular components of school-based interventions.

Retention rates were also similar to other school-based physical activity programs [52]. The *SCP* was delivered in the last school term of 2011, with follow-up measurements scheduled in the last week of the school year. Nearly half of the students did not attend school in the last week and therefore could not complete follow-up measures. Future school-based studies will need to consider the scheduling of measurements to ensure that all students will be present and available.

Despite curricular clashes and poor scheduling of follow-up measurements, interview data showed that Indigenous students and key stakeholders believed the *SCP* was highly acceptable. However, cultural awareness training for the wider school community was noted as an area in which to improve the implementation and support of the *SCP*. Therefore, engaging the Indigenous community in the design, development, implementation and evaluation of intervention programs, specifically those that are school-based, promotes cultural and social relevance and reduces the burden on schools and teachers to sustain such programs.

The major strengths of this study were the recruitment rate, implementation of sessions and the process data that showed the support and the promotion of the *SCP* among key stakeholders. The community based participatory approach, which encouraged the Indigenous community group and student participants to play a major role in the design, implementation and evaluation of the *SCP*, enhanced a number of acceptability factors, but further research is required to consider strategies to improve participant retention and program attendance. As such, the data reported in this paper was largely descriptive and not powered to detect individual differences, but provides formative data for planning a larger scale intervention in the future.

Although this study provides insight into the context of an Indigenous community organisation's school sport-based program on Indigenous adolescents' physical activity and life skills, it is important to recognize that there were a number of limitations to the study. The main limitations were the potential for bias created by the lack of control or comparison group, small sample size, low attendance rates at program sessions, low number of follow-up measures implemented (which made it difficult to determine change in life skills), and the case study approach which lacked empirical generalizability. These made it difficult to infer data on the effect of the school delivery of *SCP*.

5. Implications

Case and pilot studies enhance the likelihood of success of a larger scale RCT and are deemed essential for studies that focus on underserved groups [54]. This case study showed that the *SCP* and teacher/experts were able to provide opportunities for Indigenous adolescents to participate in MVPA for more than 50% of session time. However, they were not able to provide opportunities for Indigenous adolescents to practice and learn life skills, such as goal setting. The community-based participatory research approach was appropriate for most of the acceptability outcomes, but not for participant attendance and retention. Hence, school-based physical activity and life skills intervention studies need to consider strategies (e.g., programs not competing with other curricular subjects and intentional and explicit life skills instruction) to engage Indigenous adolescents for the duration of the program.

6. Conclusion

In conclusion, the case study shows that the community and school sport-based program sessions promote health-enhancing physical activity among Indigenous adolescents. This is an important aspect of the *SCP*, particularly for the potential health benefits. The inclusion of life skills instruction and practice needs to be more explicitly embedded in these sessions for Indigenous adolescents to successfully cope with the complex realities of life, through enhanced goal setting, problem solving, and positive-thinking abilities. Further research is needed to determine if further modifications of the *SCP* have an effect on Indigenous participants' physical activity levels outside of program time and the development of life skills.

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