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Australian primary school student's attitudes to changing from traditional school uniforms to sports uniforms and association with student characteristics

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International research indicates that more than half of primary school-aged children in countries such as United States and the United Kingdom are not meeting the recommended guidelines of 30 minutes of moderate to vigorous physical activity (MVPA) during school hours, or spending the recommended 40% of recess/lunch time engaged in MVPA.¹ It has been hypothesised that one of the reasons children, particularly girls, may be less active at school is due to the impracticability of their school uniforms, which may be restricting their movements.² Within Australia, most primary schools require children to wear traditional uniforms – that is, black leather shoes, pants and a shirt for boys and a dress or tunic with socks or stockings for girls – each school day apart from sports day, when they wear a sports uniform consisting of shorts, a t-shirt and sports shoes. A 2012 qualitative study of 54 primary school children from six schools in South Australia found that girls reported that their uniform significantly limited their ability to be active at break time, stating current uniforms “held them back from running” and restricted them from playing specific sports such as basketball.³ The aim of this study was to assess primary school students' attitudes to changing school uniforms from traditional uniforms to sports uniforms only, and the perceived impact this may have on their physical activity levels.

A cross-sectional study was conducted with students in grades 4–6 from 12 Catholic primary schools located in the Hunter region of New South Wales, Australia, who

had consented to participate in a larger school-based healthy eating and physical activity randomised controlled trial (RCT). The data were collected as part of the baseline survey for this RCT from September to October 2017. Schools were eligible to participate regardless of school uniform policies; however, all schools had a uniform policy that only allowed children to wear sports uniform on sports days. All students in grades 4–6 were eligible to participate and were asked to provide active consent via signed parent consent form. Of the 1,534 eligible students, 864 (56%) had consent to participate, of which 832 (96.3%) completed the paper survey. Students were asked about: demographics; attitude to changing uniforms from traditional to sports uniforms; and beliefs about their activity while in sports uniforms. Data analysis was conducted using SAS 9.3 (SAS Institute, Cary, NC). Descriptive statistics were used to characterise the sample, students' preferences for wearing the sports uniform and beliefs about their activity. Student postcode was used to classify geographic location (urban/rural) and socioeconomic status (lower/higher). Mixed effects logistic regression models were performed to examine univariate associations between student characteristics (see Table 1) and their self-reported preference for wearing a sports uniform and perception of being more active in a sports uniform, which adjusted for school level clustering.

Overall, 493 (61.6%) students reported that they would prefer to wear their sports uniform every day; 260 (32.5%) reported that they didn't mind if they wore their sports uniform every day; and 47 (5.9%) said they didn't want to wear their sports uniform every day. Univariate analyses found significant associations between student preference to wear their sports uniform and student gender (males OR 1.43 95%CI 1.03-1.99) and grade level (Grade 5 vs 4 OR 1.49, 95%CI 1.04-2.14; Grade 6 vs 4 OR 2.29, 95%CI 1.54-3.41), see Table 1. Overall 480 (62.1%) students reported that they believed they would be more active at recess/lunch if they wore their sports uniform. There were no statistically significant associations between children who reported they would be more active in their sports uniform and any student characteristics (Table 1).

Despite a large proportion of children indicating that they would prefer to wear their sports uniform instead of their traditional uniform, and a perception by many children that they would be more active during breaks if they were able to do so, all schools had a policy precluding them from wearing sports uniforms on non-sports days. Given the low prevalence of children, particularly girls, meeting physical activity guidelines and the decline in physical activity as children age,⁴ allowing students the opportunity to wear more activity-friendly

Table 1: Associations between student characteristics and their preferences and predicted activity levels related to wearing sports uniforms.

Student characteristics	Would prefer a sports uniform N* = 800			Believe that wearing a sports uniform would make them more active N** = 773		
	n/N (%)	OR (95% CI)	p-value	n/N (%)	OR (95% CI)	p-value
Student Sex			0.02			0.52
Male	250/377 (66.31%)	1.43 (1.03-1.99)		219/358 (61.17%)	0.91 (0.65-1.27)	
Female	243/423 (57.45%)	--		261/415 (62.89%)	--	
Geographic location			0.45			0.12
Rural students	97/173 (56.07%)	--		87/167 (52.10%)	--	
Urban students	396/627 (63.16%)	1.21 (0.54-2.75)		393/606 (64.85%)	1.67 (0.59-4.75)	
Socio-economic status (SES)			0.75			0.72
Lower SES	272/441 (61.68%)	1.06 (0.70-1.61)		261/421 (62.0%)	1.08 (0.68-1.70)	
Higher SES	221/359 (61.56%)	--		219/352 (62.22%)	--	
Grade level (all students)			0.002			0.36
Yr 4	146/278 (52.52%)	--		161/274 (58.76%)	--	
Yr 5	178/287 (62.02%)	1.49 (1.04-2.14)		175/276 (63.41%)	1.23 (0.85-1.78)	
Yr 6	169/235 (71.91%)	2.29 (1.54-3.41)		144/223 (64.57%)	1.28 (0.86-1.91)	

Notes:

* denotes 32 missing

** denotes 59 missing

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uniforms may represent a simple, inexpensive and potentially effective strategy in achieving population-level improvements in children's physical activity. Such suggestions are supported by the student perceptions that they would be more active if they wore sports uniforms reported in this study, and previous research that found girls had higher step counts during breaks when wearing sports uniform.³ Collectively, the findings provide supportive evidence to test an intervention investigating the impact of uniforms on girl's physical activity as part of a rigorous randomised trial. If effective, the intervention could represent a potent public health initiative.

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