

Fifth EUSPR Conference, 16-18 October 2014, Palma de Majorca, Spain



**Diario della salute, a school-based program aiming to promote well-being among Italian adolescents:  
a cluster non-randomised controlled study**

R. Molinar<sup>1-2</sup>, E. Allara<sup>1-3</sup>, F. Faggiano<sup>1</sup>, L. Marinaro<sup>4</sup>, F. Beccaria<sup>2</sup>, A. Ermacora<sup>2</sup>

<sup>1</sup> Department of Translational Medicine, Università del Piemonte Orientale, Novara, Italy

<sup>2</sup> Eclectica, Torino, Italy

<sup>3</sup> School of Hygiene and Public Health, University of Turin, Torino, Italy

<sup>4</sup> ASL CN2, Alba, Italy

contact: roberta.molinar@med.unipmn.it

**The program – [www.diariodellasalute.it](http://www.diariodellasalute.it)**

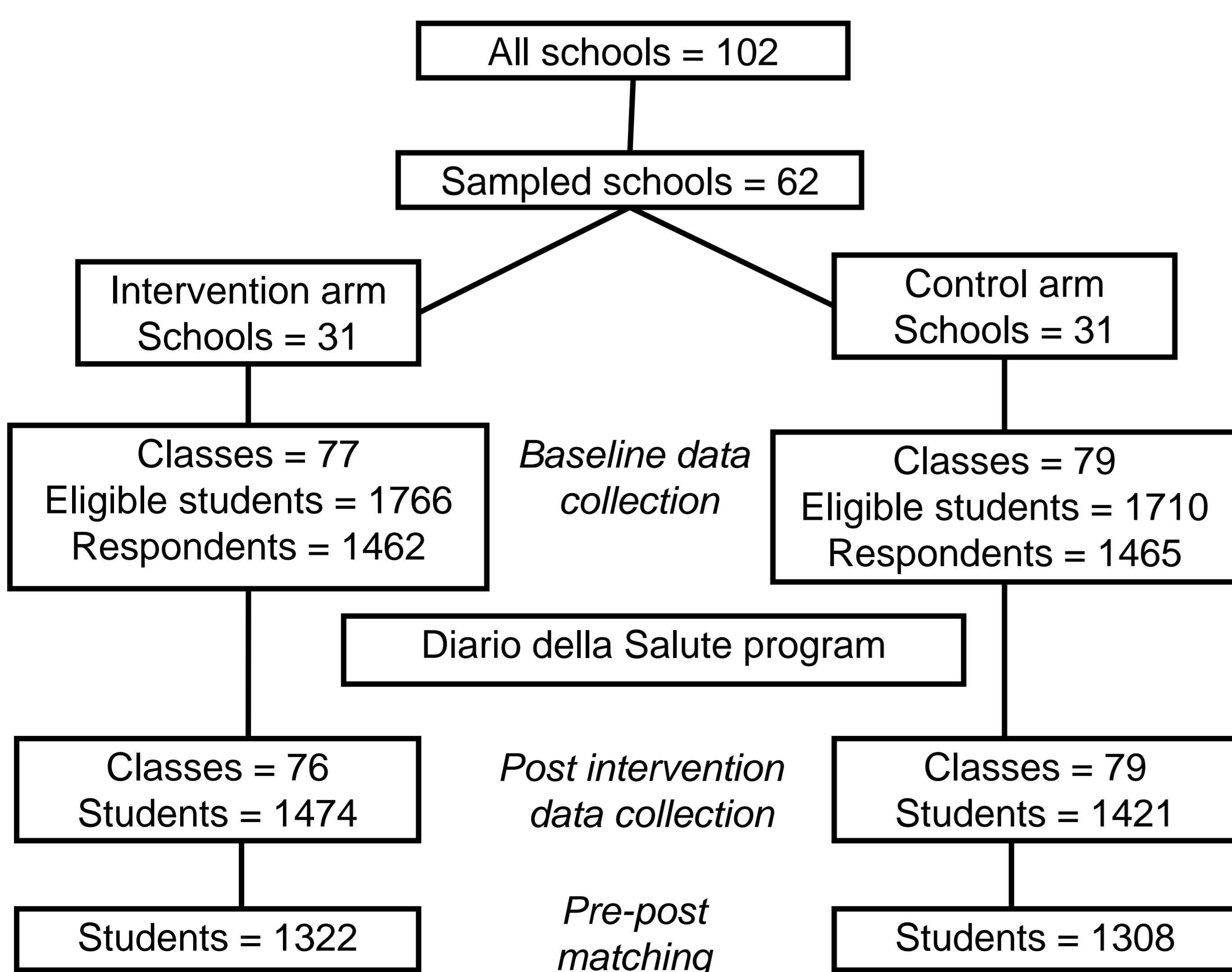
Diario della Salute is a school-based intervention for promoting well-being and health among 12-13 old children. It is composed by:

- classroom-based intervention delivered by trained teachers (two-hours 5 interactive and highly-standardised units aimed to develop students' social and emotional skills + manual for teachers),
- a booklet for students telling the story of four same age students facing challenges and developmental tasks of pre-adolescence,
- a booklet for parents telling the experience of two parents with teenage children dealing with common issues related to parent-child communication and relationships.

**The evaluation study**

The objective of the study was to assess the short-term effects of the program on subjective well-being, physical and verbal aggression, smoking, alcohol intoxication, diet, and physical activity. The study was approved by the local Ethics Committee and registered on [www.clinicaltrials.gov](http://www.clinicaltrials.gov) (reference number: NCT01720199). A cluster non-randomized study with two arms was conducted in middle schools in five different sites across Italy between January and May 2013. All questionnaires were anonymous and identified by a self-generated code used to link the baseline and follow-up survey. Parents were informed about the purpose and methodology of the study and were asked for their consent to allow students' participation.

**The flow chart of the study**



**The baseline sample**

	Intervention	Control	p-value
<b>Age (mean)</b>			
	12.10	12.09	0.784
<b>Gender (%)</b>			
Males	644 (48.9)	663 (51.0)	0.265
Females	674 (51.1)	636 (49.0)	
<b>Socio economic status (%)</b>			
High	472 (43.9)	510 (45.5)	0.443
Low	603 (56.1)	610 (54.5)	
<b>Nationality (%)</b>			
Italian	1253 (95.0)	1250 (95.6)	0.436
Non Italian	66 (5.0)	57 (4.1)	

**The results**

	Pre (%)		Post (%)		Odds ratio (95%CI)
	Int n=1322	Ctr n=1308	Int n=1322	Ctr n=1308	
<b>Somatic symptoms: non specific pain</b>					
Never	24.7	24.3	25.6	29.1	1.24 ** (1.05 to 1.46)
1-2 times per month	45.9	47.9	44.1	45.0	
1+ times per week	28.3	26.1	29.6	24.9	
<b>Somatic symptoms: dizziness</b>					
Never	56.1	54.5	55.6	57.3	1.05 (0.85 to 1.30)
1-2 times per week	27.2	27.4	27.2	26.8	
<b>Psychological symptoms: low morale</b>					
Never	42.6	46.0	33.9	40.4	1.30 ** (1.10 to 1.52)
1-2 times per month	26.0	25.2	28.8	27.4	
1+ times per week	28.6	25.3	36.1	31.2	
<b>Psychological symptoms: irritability</b>					
Never	28.4	32.3	22.0	28.1	1.32 *** (1.13 to 1.55)
1-2 times per month	30.9	28.2	31.6	32.0	
1+ times per week	38.5	36.2	45.2	38.8	
<b>Psychological symptoms: difficulty falling asleep</b>					
Never	60.5	60.9	59.1	58.6	1.04 (0.87 to 1.24)
1-2 times per month	18.9	16.5	19.8	21.9	
1+ times per week	18.3	19.3	20.0	18.3	

There was no evidence of program effect on smoking, alcohol intoxication, diet, physical activity and verbal and physical aggression.

**Discussion and conclusion**

An increased perception of psychosomatic symptoms in the intervention group may be suggestive of increased emotional competence (i.e. ability to recognize one's own emotions and feelings), a factor positively associated with well-being over the course of life. The absence of effects on unhealthy and risky behaviours may be related to the low prevalence of such behaviours in a non at risk 12-13 years old population, the short-term follow-up, the lack of implementation fidelity and the minor number of units focused on such behaviours compared to well-being. The program is currently under revision.