

# Health-Promoting School in France – Alliance project: a moderated-mediation model by socio-emotional learning

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## BACKGROUND



- Aim** : Making every school a health-promoting school (Who, 2021)
- Strategies** : 1) Strengthen school leadership and practices 2) Ensure access to teacher training and professional learning 3) Allocate resources
- Outcomes** : One is fostered on pupil's socio-emotional competence development

From 2019 to now / 10000 Pupils (8 – 11 years old) / 500 primary teachers / 101 schools / 97 municipalities

## LITERATURE REVIEW

- Psychosocial competencies (PSC'S) or Socio-Emotional Learning (SEL) is a major determinant of **mental health and correlated to academic achievement, school climate, well-being and occupational success (Lamboy, 2022)**
- Some multimodal interventions target the development of PSCs in children and parents and/or teachers, as well as in the wider educational community
- One of the issue is to **measure the level of SEL competencies of pupils** (Portela-Pino & coll., 2024 ; Simar & coll., 2020)
- Previous studies have not clarified the precise mechanisms by which school's capable environment influence children's social-emotional competence (Li & coll., 2023)

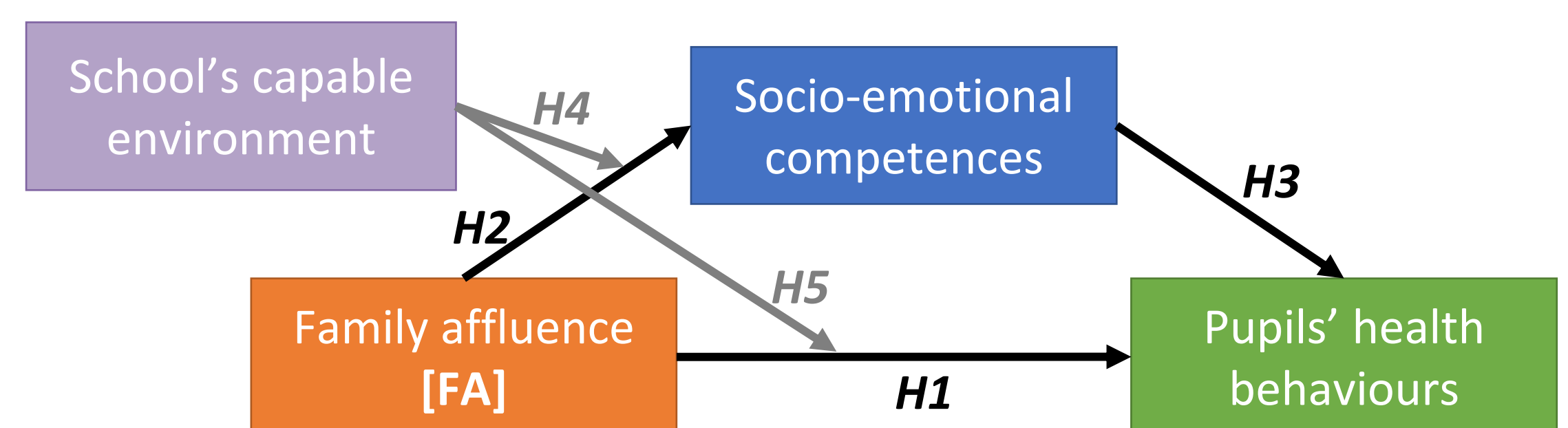
Psychosocial competencies are defined as "a coherent and interrelated set of psychological capacities (cognitive, emotional and social), involving knowledge, intrapsychic processes and specific behaviors, which enable improved empowerment, maintenance of a state of psychological well-being, promotion of optimal individual functioning and develop constructive interactions"(SPF,2025)

What are mechanisms by which school's capable environment influence pupils' socio-emotional competences development and pupils' health behaviours ?

## METHODS

- Quantitative data** collected by questionnaires from 2068 pupils and 76 teachers at the beginning of the project (T3, 2022)
  - Pupils: relationships, violence, health habits, life skills, literacy
  - Teachers: perceptions and practices in health education, characteristics
- 6 dimensions on pupils' health behaviours** identified by PCA: relationships with adults of school [RA], relationships with peers [RP], violence perceived and suffered [V], consumption behaviours x 2 (one relative to screens, junk food and sleep [C1], one for fruits and vegetables, physical activity and oral hygiene [C2]), oral health [OH]
- Family socio-economical level** is measured by Family affluence scale [FA]
- 3 dimensions of PSC** : emotional [EC], social [SC] and cognitive [CC] competencies
- School's capable environment** is measured by School involvement in health promotion

- Correlations** between FA, pupil's health behaviours and PSC
- Mediating effect of PSC** between FA and pupils' health behaviours, measuring direct (H1) and indirect (H2 and H3) effects
- Moderation effect of school's capable environment** on PCS mediation model (H4 and H5)



## RESULTS

For all: \* p<0.05  
(\*) p<0.1

- Family affluence [FA]; Relationships with adults of school [RA]; Relationships with peers [RP]; Violence perceived and suffered [V], Consumptions of screens, junk food and sleep [C1]; Consumptions of fruits and vegetables, physical activity and oral hygiene [C2]; Oral health [OH]; emotional [EC], social [SC] and cognitive [CC] competencies
- For all variables, high values indicate better pupils' health behaviours or better PCS; School involvement in health promotion is a binary(Y/N) variable.

### 1. Correlations between FA, pupils' health behaviours and PSC

	FA	RA	RP	V	C1	C2	OH	EC	SC	CC
1	1									
2	-0.01	1								
3	0,09*	0,45*	1							
4	0,00	0,32*	0,45*	1						
5	0,02	0,19*	0,03	0,18*	1					
6	0,24*	0,15*	0,16*	0,02	0,22*	1				
7	0,02	0,11*	0,18*	0,20*	0,07*	0,07*	1			
8	0,06*	0,37*	0,20*	0,13*	0,19*	0,25*	0,09*	1		
9	0,05*	0,36*	0,28*	0,19*	0,13*	0,24*	0,08*	0,57*	1	
10	0,07*	0,33*	0,20*	0,13*	0,23*	0,26*	0,08*	0,53*	0,42*	1

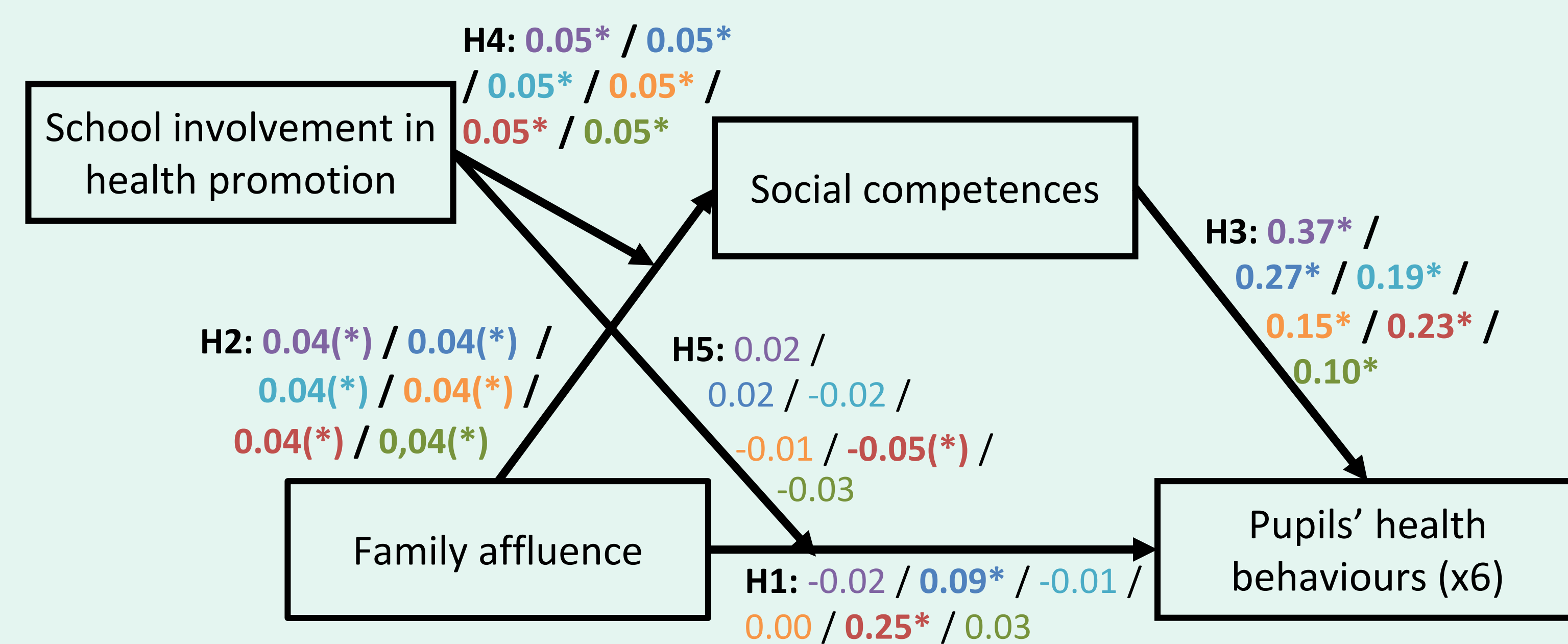
- FA is correlated to RP, C2 and all PSC
- PCS are correlated to all pupil's health behaviours
- All correlations are positive but moderate

### 2. Mediating effect (%) of PSC between FA and pupils' health behaviours

	Emotional competencies		Social competencies		Cognitive competencies	
	Mediation (indirect)	Direct	Mediation (indirect)	Direct	Mediation (indirect)	Direct
FA with						
Relationships with Adults	53% *	47%	54% *	46%	54% *	46%
Relationships with Peers	13% *	87% *	14% *	86% *	15% *	85% *
Violence	56% *	44%	53% *	47%	53% *	47%
Consumptions [C1]	62% *	38%	41% *	59%	89% *	11%
Consumptions [C2]	6% *	94% *	5% *	95% *	7% *	93% *
Oral health	27% *	73%	23% *	77%	29% *	71%

- The 3 PSC have a significant mediating effect for all relations between FA and pupil's health behaviours
- RA, V and C1 are strongly mediated (effect > 50%)
- Direct effects are significant only for RP (87%) and C2 (94%)

### 3. Moderation of school involvement in health promotion on mediation by PSC between FA and pupils' health behaviours



Numbers represent beta coefficients (β) of the model (bootstrap). Each colour represents a pupils' health behaviour (see colours on the top of Results)

- Family affluence [FA] had a trend positive predictive effect on pupils' social competences (H2)
- Social competencies mediate effects between FA and pupils' health behaviours (H2 x H3)
- School's involvement in health promotion moderate the effect of FA on pupils socio-emotional competencies (H4). H2 is significant when school is involved
- School's involvement in health promotion also moderates the effect of FA on relationships with peers [RP] consumptions of fruits and vegetables, physical activity and oral hygiene [C2]
- There is no moderation effect for emotional and cognitive competencies, nevertheless they have a significant mediating role

## CONCLUSION

In this model, (1) FA increases two pupils' health behaviours: relationships with peers [RP] and consumptions of fruits and vegetables, physical activity and oral hygiene [C2] (H1); (2) FA increases all pupils' health behaviours indirectly by improving social competencies (H2); which (3) improve pupils' health behaviours (H3) ; (4) Schools involvement in health promotion increase effects of FAS on social competences (H4) and decrease its effects on pupils' health behaviours [C2] (H5).

The results emphasize the crucial role of school leadership especially the involvement of school in health promotion in the development of pupils' early social-emotional competence. **Therefore, schools should be involved in health promotion to create conditions that promotes the positive development of children's social-emotional competence and directly and/or indirectly positive pupils' health behaviours.**