

# **Failure of the school project: the role of social, material, behavioural, physical and mental resources among multi-cultural students**

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## Background & objectives

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- Youth situation requires social-material-behavioral-mental resources to realize school achievement and social participation  
(*Stecker, Med Educ 2004; Baumann et al., BMC Psychiatry 2011*).
- These are lacking or altered for many adolescents.
- With increasing migration into/within an already culturally diverse EU, school is a multi-cultural setting.
- The roles of social-material-behavioral-mental resources may be exacerbated among European and non-European immigrants, compared with Frenchs.

### Objectives:

- To study the associations between nationality (European and non-European immigrant students vs. French counterparts) and:
    - repeating a school-year,
    - low-summer-term school performance (<10/20),
    - and quitting-school thinking at 16 years.
- and the roles in explaining these associations of socioeconomic, health related, behavioural, and violence factors.

# Population

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- Students from three middle-school from the Nancy urban area (410,000 inhabitants, Capital of Lorraine region (2.34 millions inhabitants in north-eastern France) :
  - 63 classes, 1666 subjects
  - Participation rate: 94%
  - Sample retained for analysis: 1559 subjects
- Self-administered questionnaire measuring socioeconomic, health related, behavioural, and violence factors.
- Study approved by the regional education authority and the national review board.

# social, material, behavioural, physical and mental resources

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Socioeconomic characteristics: sex, age, family structure, parental education, father's occupation, and family income:

- Family structure
  - Intact
  - Reconstructed
  - Parents divorced/separated
  - Single parent
  - Others
- Family income:
  - Comfortable
  - Well off
  - Earning just enough
  - Coping but with difficulties
  - Getting into debt
- Father's occupation:
  - Manager & professional
  - Craftsman, tradesman, head of firm
  - Intermediate professional
  - Clerk
  - Manual worker
  - Other actives
  - Unemployed/inactive

# social, material, behavioural, physical and mental resources

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- WHOQoL measuring:

*(Skevington et al., Qual Life Res 2004).*

- General health (1 item)
- Physical health (7 items)
- Psychological health (6 items)
- Social relationships (3 items)
- Environment (8 items)

*Score defined as the sum of items - range: 0 to 100 (best value)*

*Cutoff value used: <25th percentile value*

# Unhealthy behaviours, violence, suicidal ideation, and social supports

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- Unhealthy behaviours:
  - Last-month use (*None=1, 1-5 times=2, 6+=3*):
    - Tobacco
    - Alcohol
    - Cannabis use
    - Hard drugs
  - Lack of regular sports/physical activities (last-year, at school & elsewhere)
- Victim of violence (lifetime),
- Victim of sexual abuse (lifetime),
- Involvement in violence (lifetime),
- Suicidal ideation (lifetime).

## Statistical analysis

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The data were analyzed using logistic models. Three models were used to assess the associations between school difficulties and nationality:

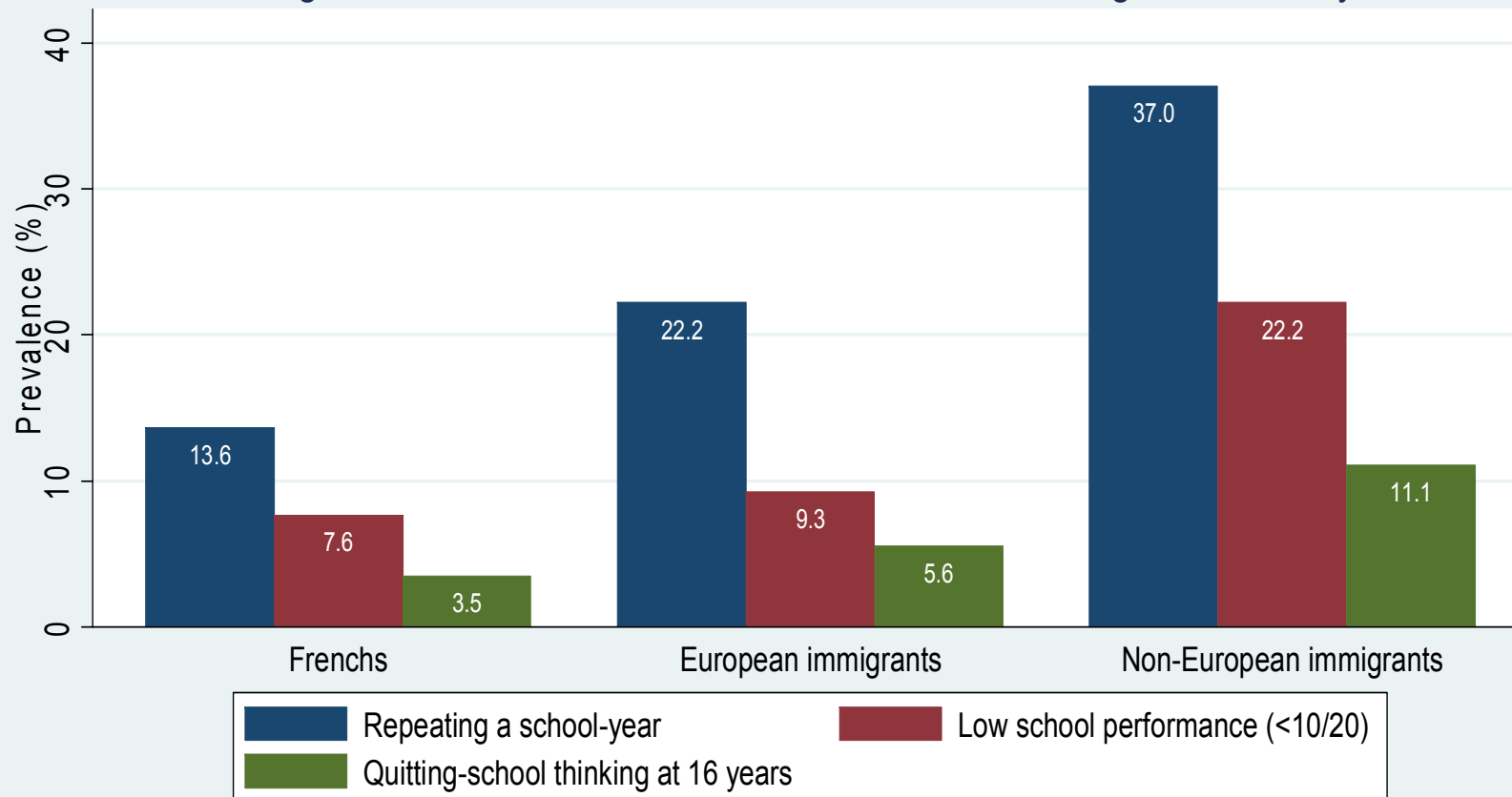
- Model 1: Computed the odds ratios adjusted for gender and age (OR<sub>ga</sub>)
- Model 2: with further adjustment for socioeconomic characteristics (OR<sub>2</sub>)
  - Model 3: With further adjustment for health related, behavioural, and violence factors (OR<sub>3</sub>)

Contribution (%) = Reduction in OR computed with the following formula:

$(OR_{ga} - OR_i) / (OR_{ga} - 1)$  (calculated for OR<sub>ga</sub> significant only).

# Results

Figure 1. Prevalence of school difficulties according to nationality



The differences were significant with  $p < 0.001$  for repeating a school-year and low school performance, and with  $p = 0.014$  for quitting-school thinking



# Results

**Table 1. Associations between nationality and socioeconomic factors: % or mean (SD)**

	French	European immigrants	Non-European immigrants	p-value
<b>Number of subjects</b>	1,451	54	54	
<b>Boys</b>	50.0	44.4	51.8	NS
<b>Age : Mean (SD) (yr)</b>	13.0 (1.3)	12.8 (1.1)	13.4 (1.7)	NS
<b>Family structure</b>				<0.01
<b>Intact</b>	63.8	57.4	46.3	
<b>Reconstructed</b>	14.5	25.9	13.0	
<b>Parents divorced or separated</b>	10.2	9.3	13.0	
<b>Single parent</b>	6.3	5.6	13.0	
<b>Others</b>	5.2	1.8	14.8	
<b>Father's occupation</b>				<0.001
<b>Managers and professionals</b>	29.1	18.5	13.0	
<b>Craftsmen, tradesmen, and firm heads</b>	19.9	24.1	22.2	
<b>Intermediate professionals</b>	10.4	3.7	5.6	
<b>Service workers/clerks</b>	9.2	5.6	13.0	
<b>Manual workers</b>	17.0	29.6	20.4	
<b>Other occupations</b>	7.5	9.3	3.7	
<b>Inactive people</b>	6.9	9.3	22.2	
<b>Insufficient income</b>	16.9	25.9	31.5	<0.01

# Results

**Table 2. Associations between nationality and unhealthy behaviours: %**

	<b>French</b>	<b>European immigrants</b>	<b>Non-European immigrants</b>	<b>p-value</b>
<b>Unhealthy behaviours</b>				
<i>Last-30-day substance use</i>				
<b>Tobacco</b>	10.5	16.7	24.1	<0.01
<b>Alcohol</b>	35.6	31.5	29.6	NS
<b>Cannabis</b>	5.1	9.3	14.8	<0.01
<b>Other illicit drugs</b>	2.3	7.4	11.1	<0.001
<i>Age at initiation for users: Mean (SD) (yr)</i>				
<b>Tobacco</b>	12.1 (2.0)	11.6 (1.6)	10.8 (2.9)	<0.05
<b>Alcohol</b>	10.7 (2.2)	10.6 (2.3)	10.1 (3.0)	NS
<b>Cannabis</b>	12.9 (1.7)	12.8 (1.3)	10.7 (3.7)	<0.01
<b>Other illicit drugs</b>	12.4 (2.6)	12.7 (1.6)	11.0 (3.5)	NS
<i>Lack regular sports/physical activity</i>	11.4	14.8	16.7	NS

# Results

**Table 3. Associations between nationality and health related factors and violences: %**

	French	European immigrants	Non-European immigrants	p-value
<b>WHOQoL-Brèf (&lt;25<sup>th</sup> percentile value)</b>				
<b>Physical</b>	21.7	35.2	50.0	<0.001
<b>Psychological</b>	26.1	35.2	42.6	<0.01
<b>Social relationships</b>	25.6	25.9	53.7	<0.001
<b>Environment</b>	23.6	37.0	53.7	<0.001
<b>Violences</b>				
<b>Victim of violence</b>	21.7	35.2	50.0	<0.001
<b>Victim of sexual abuse</b>	26.1	35.2	42.6	<0.01
<b>Involvement in violence</b>	25.6	25.9	53.7	<0.001
<b>Suicidal ideation</b>	23.6	37.0	53.7	<0.001

# Results

**Table 4. Reliability of WHOQoL- Bref**

	<i>Mean (SD)</i>	<i>Range</i>	<i>Minimum</i>	<i>Maximum</i>	<i>α r</i>
<b>Physical health</b>	76,3 (15,5) 0,81	0-100	0	5.2	0,72
<b>Psychological health</b>	62,8 (19,3) 0,82	0-100	0.2	1.3	0,70
<b>Social relationships</b>	78,0 (21,1) 0,78	0-100	1.0	29.1	0,62
<b>Environment</b>	75,4 (17,8) 0,83	0-100	0.3	9,2	0,78
<b>Global score <sup>a</sup></b>	73,1 (14,9)	0-100	0	0.3	0,89

*α*: Cronbach  $\alpha$  for each domain

*r*: Pearson correlation coefficient between each domain and the global score

<sup>a</sup> For all items of the 4 domains together.

# Results

**Table 5. Associations between nationality and school absenteeism: %**

	French	European immigrants	Non-European immigrants	p-value
<b>School absenteeism</b>				
<b>Heath problems</b>	79.1	79.6	74.1	NS
<b>Vacation</b>	5.3	7.4	13.0	<0.05
<b>Family problems</b>	9.0	20.4	14.8	<0.01
<b>Skipping school</b>	5.6	11.1	22.2	<0.001
<b>Others</b>	11.8	6.3	27.8	<0.01
<i>Number of days during the school year</i>				<0.01
<b>0</b>	11.6	7.4	5.6	
<b>1-7</b>	70.7	61.1	64.8	
<b>8-14</b>	12.3	18.5	14.8	
<b>&gt; 14</b>	5.4	13.0	14.9	
<b>School absenteeism</b>				
<b>Heath problems</b>	79.1	79.6	74.1	NS
<b>Vacation</b>	5.3	7.4	13.0	<0.05
<b>Family problems</b>	9.0	20.4	14.8	<0.01
<b>Skipping school</b>	5.6	11.1	22.2	<0.001
<b>Others</b>	11.8	6.3	27.8	<0.01

# Findings

**Table 6. Associations between school difficulties and nationality, and contributions of socioeconomic factors: odds ratio and 95% CI**

	<i>European Immigrants</i>			<i>Non-European Immigrants</i>		
			<i>%</i>			<i>%</i>
<b>Gender-age adjusted odds ratios (OR<sub>ga</sub>)</b>						
Repeating a school-year	<b>2,44**</b>	1,22-4,91	100	<b>3,29***</b>	1,71-6,33	100
Low-school-performance	1,34	0,52-3,45	—	<b>3,02**</b>	1,52-6,02	100
Quitting-school-thinking	1,75	0,52-5,88	—	<b>3,42**</b>	1,38-8,48	100
<b>With further adjustment for socioeconomic factors</b>						
Repeating a school-year	<b>2,20*</b>	1,07-4,53	<b>17</b>	<b>2,41*</b>	1,20-4,85	<b>38</b>
Low-school-performance	1,08	0,41-2,87	—	<b>2,21*</b>	1,06-4,62	<b>40</b>
Quitting-school-thinking	1,70	0,49-5,87	—	<b>2,49</b>	0,95-6,49	<b>38</b>

\* $p < 0,05$ , \*\* $p < 0,01$ , \*\*\* $p < 0,001$ .

%: Contribution of socioeconomic factors for significant OR<sub>ga</sub>.

# Findings

**Table 7. Associations between school difficulties and nationality, and contributions of health related, unhealthy behavioural, and violence factors: odds ratio and 95% CI**

	<i>European Immigrants</i>			<i>Non-European Immigrants</i>		
			<i>%</i>			<i>%</i>
<b>With further adjustment for health related, behavioural, and violence factors</b>						
<b>Repeating a school-year</b>	<b>1,82</b>	<b>0,86-3,85</b>	<b>43</b>	<b>1,80</b>	<b>0,87-3,73</b>	<b>65</b>
<b>Low-school-performance</b>	<b>0,80</b>	<b>0,29-2,20</b>	—	<b>1,55</b>	<b>0,68-3,53</b>	<b>73</b>
<b>Quitting-school-thinking</b>	<b>1,51</b>	<b>0,41-5,52</b>	—	<b>1,41</b>	<b>0,44-4,55</b>	<b>83</b>

*%: Contribution of covariates*

# Conclusion

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- Immigrant students have substantially higher school difficulties depending on their origin:
  - European immigrants: Repeating a school-year
  - Non-European immigrants: Repeating a school-year, low-school-performance, Quitting-school-thinking
- Contributions of socioeconomic factors:
  - European immigrants: 17%
  - Non-European immigrants: 38-40%
- Contributions of health related, behavioral, and violence factors:
  - European immigrants: 43%
  - Non-European immigrants: 65% to 83%



# Conclusion

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Public policy for improving school achievement

should focus on:

- improvement of environment, living conditions, well-being,
  - monitoring physical and mental health and unhealthy behaviours,
  - services to reduce school difficulties.
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- Re-engaging disconnected students requires interventions to promote the positive perception of learning and learning environment, motivation, and benefit in later life.