Social Capital at School and Health-risk Behaviors among Adolescents

Minoru Takakura

School of Health Sciences, University of the Ryukyus

Social Capital and Well-being in Okinawa and Japan from the Perspectives of the Life Course

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Background

▸ Since health-risk behaviors such as tobacco and alcohol use are often established during youth, preventative interventions at an early stage are needed.

▸ To develop effective intervention programs, understanding the determinants of health-risk behaviors is important.

▸ In recent years, particular interests in public health are the effects of social determinants of health and health-related behaviors.

▸ This study focuses on social capital as a potential social determinant of health-risk behaviors.

Background

▸ Although different definitions of social capital have been proposed, most of them generally define it as "resources composed of or derived from trust, and/or norms, and/or networks, which facilitate collective actions" (Inaba 2013).

▸ Social capital includes structural components such as network and social participation, and cognitive components such as trust and norms. These components are treated both as an individual attribute and/or a group attribute.

▸ Several systematic reviews have suggested that higher individual-level social capital with both cognitive and structural components has mostly positive associations with good health outcomes. However, associations between contextual-level social capital and health outcomes were inconclusive (Kim et al. 2008; De Silva et al. 2005; Lindström 2008).

Why social capital research in school?

- School as a well-defined entity
    - Students spend most of their daytime hours at school.
    - Schools is the main place where students interact with their friends and teachers, and this may be important for students' social support systems.
    - Schools also can be a particularly important context for setting norms and values that may affect students' health and health-related behaviors.
- School is plausibly an important place to generate social capital for students.
- Although investigations of social capital and youth health have been increasing, few studies have used school as a reference area unit to examine social capital for students.

The purpose of this study

▸ To examine <u>the effects of cognitive social capital at both the individual and school level on health-risk behaviors</u>, such as cigarette and alcohol use, by measuring aggregate student responses to generalized trust (i.e., social trust) in Japanese high school students.

Data

▸ We conducted a cross-sectional survey in 2008, using a self-administered anonymous questionnaire to obtain a wide range of health, sociodemographic, and psychosocial information from students.

▸ The study sample consisted of 3,248 students in grades 10 through 12 (aged 15-18 years) enrolled in 29 public high schools selected from across Okinawa, with a probability proportional to the number of schools.

Measures

▸ Health-risk behaviors (adapted Youth Risk Behavior Survey)

   ▸ Current cigarette use (students who smoked cigarettes at least one day in the past month before the survey)

   ▸ Current alcohol use (students who consumed an alcoholic beverage at least one day in the past month before the survey)

▸ <u>Cognitive social capital at the individual level</u> was measured by a generalized trust question.

   ▸ "Generally speaking, would you say most people can be trusted?"

   ▸ "Yes" and "It depends" responses as *high trust* and "No" as *low trust.*

▸ <u>Cognitive social capital at the contextual level</u> was measured by aggregated school-level individual responses.

   ▸ We calculated the proportion of students in each school who responded *high trust.*
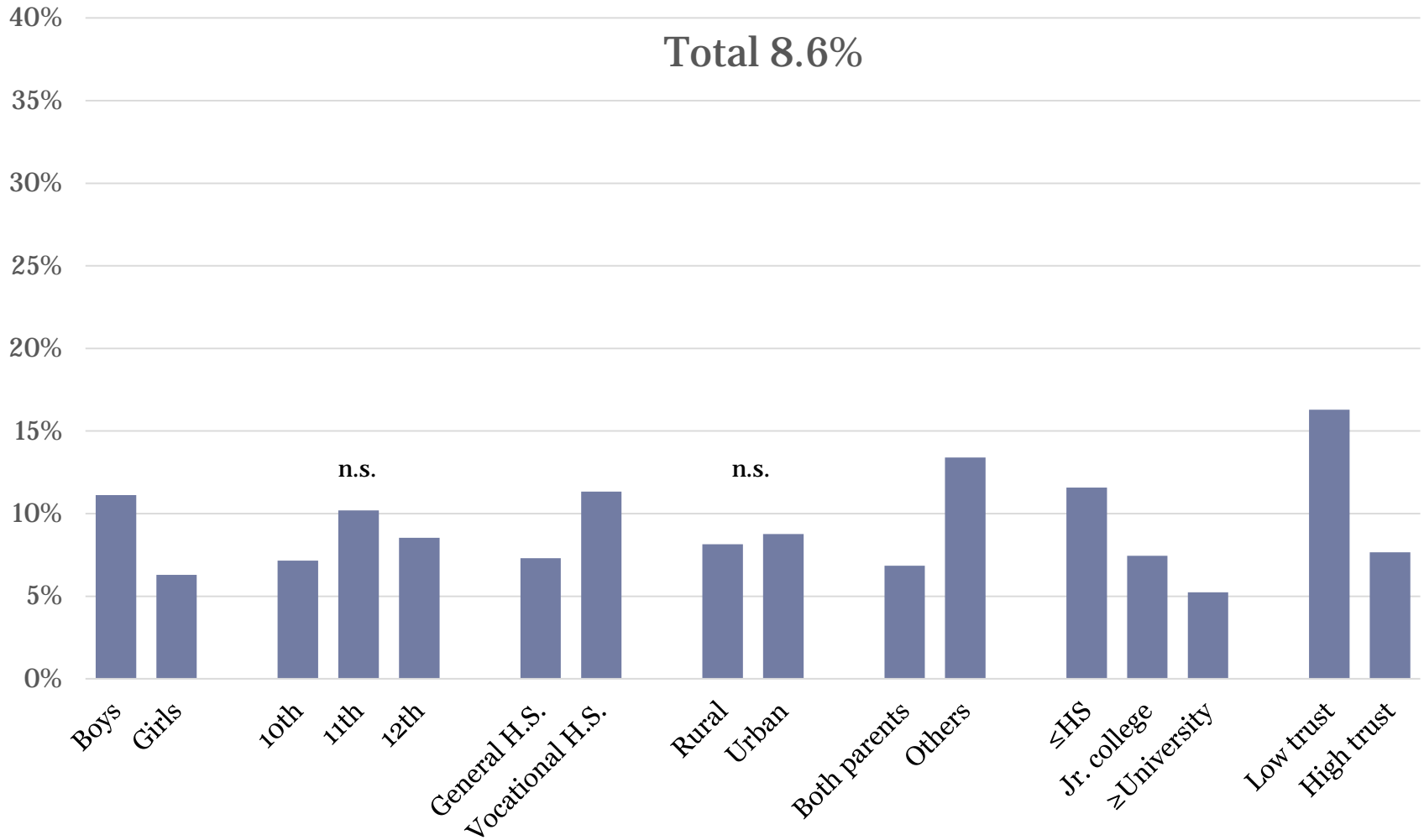
- Covariates
  - Several sociodemographic factors shown to be potential confounders served as control variables.
    - Grade, school type (general or vocational), school location (urban or rural), family structure (living with both parents or other), parent's educational level, and municipal unemployment rate (neighborhood-level socioeconomic status).
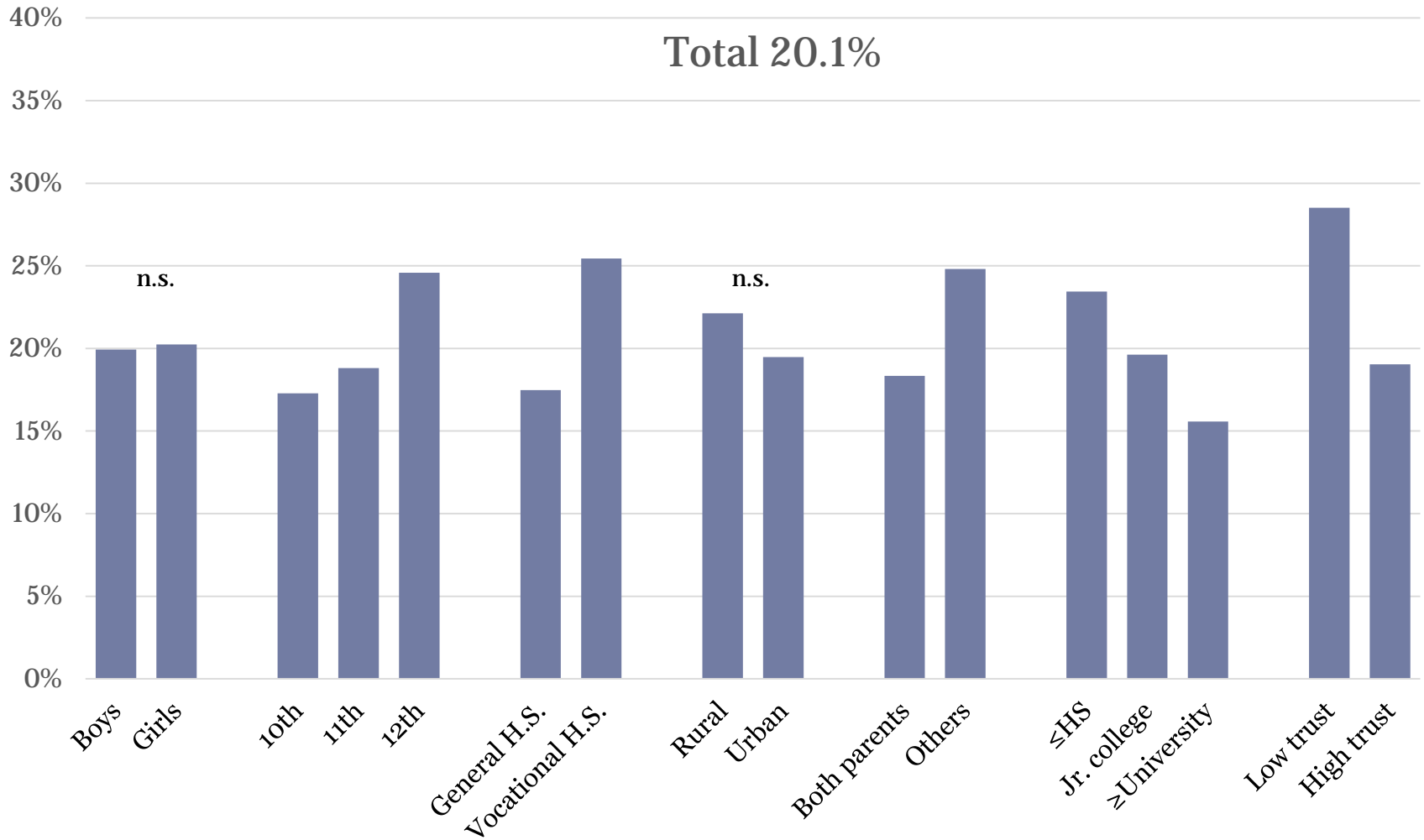- Data analysis
  - Due to the hierarchical nature of the data, a multilevel logistic regression model was performed, separately by gender.
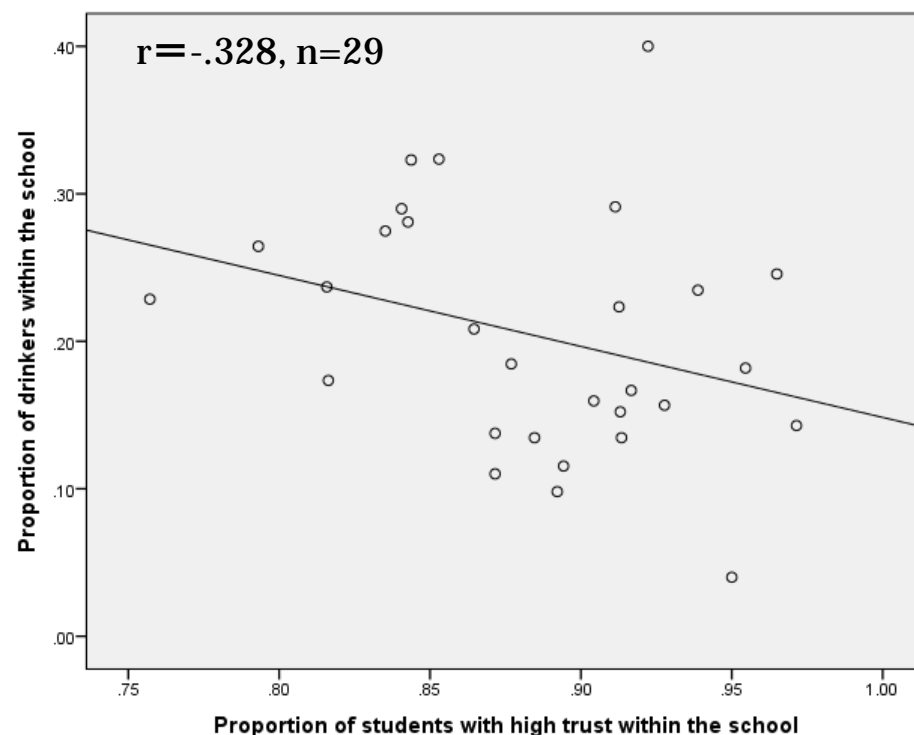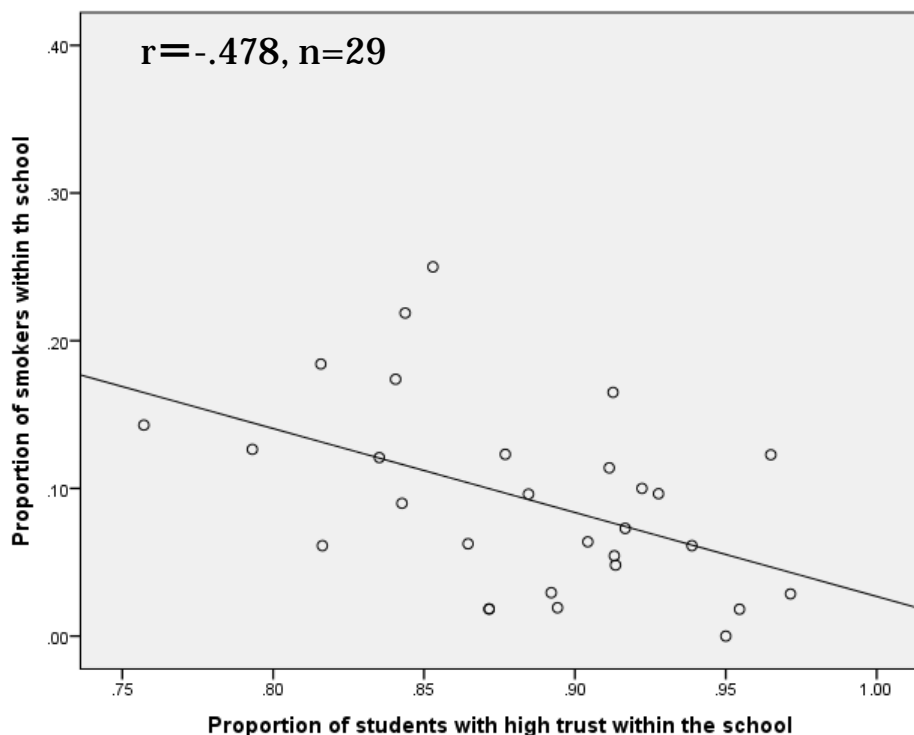
Prevalence of <u>current cigarette use</u> by sociodemographic variable

Total 8.6%

Chart showing prevalence of current cigarette use (%) by sociodemographic variable:
- Boys: ~11%
- Girls: ~6.3%
- 10th: ~7% (n.s.)
- 11th: ~10.2%
- 12th: ~8.5%
- General H.S.: ~7.2%
- Vocational H.S.: ~11.3%
- Rural: ~8% (n.s.)
- Urban: ~8.7%
- Both parents: ~6.8%
- Others: ~13.3%
- ≤HS: ~11.5%
- Jr. college: ~7.4%
- ≥University: ~5.2%
- Low trust: ~16.2%
- High trust: ~7.6%

Prevalence of <u>current alcohol use</u> by sociodemographic variable

Total 20.1%

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Ecological relations between cognitive social capital and current cigarette and alcohol at the school level

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Associations of <u>individual-</u> and contextual-level social capital with <u>current cigarette use</u>

School level

Low social capital (X_1)

Covariates (X_2)
Unemployment rate of neighborhood

Individual level

Low social capital (x_1) $\xrightarrow{\text{OR=2.0}}$ Current cigarette use (y)

Covariates ($x_{2..n}$)
Grade, school type, school location,
family structure, parental education level

Associations of <u>individual-</u> and contextual-level social capital with <u>current alcohol use</u>

School level

Low social capital (X_1)

Covariates (X_2)
Unemployment rate of neighborhood

Individual level

Low social capital (x_1) $\xrightarrow{\text{OR=1.5}}$ Current alcohol use (y)

Covariates ($x_{2..n}$)
Grade, school type, school location, family structure, parental education level

Students with low trust could not receive social support, and would be more likely to adopt unhealthy coping behaviors.

Associations of individual- and <u>contextual-level</u> social capital with <u>current cigarette use</u>

School level

Low social capital (X_1)

Covariates (X_2)
Unemployment rate of neighborhood

Holding constant a student's own level of social trust, students attending schools where students overall tend to trust in other people are less likely to smoke, but this association was not statistically significant.

OR=1.3 [n.s.]
Contextual effects **?**

Individual level

Low social capital (x_1)   OR=2.0 →   Current cigarette use (y)

Covariates ($x_{2..n}$)
Grade, school type, school location,
family structure, parental education level

Associations of individual- and <u>contextual-level</u> social capital with <u>current alcohol use</u>

School level

Low social capital (X_1)

Covariates (X_2)
Unemployment rate of neighborhood

Adolescent drinking is more tolerated in Japanese society. If drinking alcohol can be regarded as being socially acceptable, the contextual effects of social capital at school on adolescent drinking via norm regulation and other social controls may be attenuated.

OR=1.1 [n.s.]
Contextual effects ✕

Individual level

Low social capital (x_1)

OR=1.5 → Current alcohol use (y)

Covariates ($x_{2..n}$)
Grade, school type, school location, family structure, parental education level

Conclusion

▸ This study demonstrated the individual effect of social trust on the levels of cigarette and alcohol use among Japanese high school students.

▸ This study suggests a contextual effect of social trust at school level on levels of cigarette use, but the association is inconclusive because it did not reach statistical significance.

▸ There was also no association between contextual-level trust and alcohol use.

▸ This study expands the research on social capital and health in neighborhoods to schools, and provides important implications for school health promotion strategies. Our findings suggest that high levels of cognitive social capital at schools are crucial when implementing school-based smoking prevention interventions.

Thank you for your attention