

Is health literacy higher among adolescents from more affluent families?

Does social capital matter in this association?

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BACKGROUND: Health literacy could be described as an introduction to life in a good health. Especially young people should have the opportunity to gain knowledge about either health or risk behaviours because they have crucial impact on their future. That's why it's important to understand which determinants influence level of adolescents' health literacy.

OBJECTIVE: The main research question was to understand if living in areas with a high level of deprivation protects young people from lowering their HLSCA levels compared to their peers from affluent regions.

MATERIAL AND METHODS: The survey conducted in the 2018 as part of the HBSC study involved 5648 Polish students, including 47.3% boys, aged 13-17 years. Adolescents' subjective (self-reported) health literacy was measured with a brief 10-item Health Literacy for School-Aged Children (HLSAC) instrument (IJERPH, Paakkari et al. 2020). HLSAC was developed as a set of competencies to promote and sustain health, and to identify the factors that affect health (index ranges 10-40, mean 30.64 ± 4.55). As independent variables were used: gender, age group, social capital of the neighbourhood (SCN), subjective assessment of the socioeconomic status of the neighbourhood (SESN), family affluence (FAS). The mean HLSAC indexes was compared using nonparametric Kruskal-Wallis test. Moreover, General Linear Model (GLM) with 2-way interactions was estimated.



RESULTS:

RESULTS: The average HLSAC index increases either when the FAS improves, reaching higher values in subsequent FAS groups, however the difference is not significant ($\chi^2(2)=4.731$; $p=0.094$). Significant differences was found in case of both measures of neighbourhood characteristics (Table 1-2). The HLSAL mean values increased with the improvement of the SCN ($\chi^2(2)=98.004$; $p<0.001$), as well as the SESN ($\chi^2(2)=62.690$; $p<0.001$). Based on the estimated GLM model, the significant impact of the all main effects (gender, age, FAS, SESN, SCN) on HLSCA was confirmed. Given the effect of FAS interactions with neighbourhood variables, significant interaction was found only for FAS and SESN ($p=0.004$), (Fig.1). No interaction of FAS with the SCN was demonstrated ($p=0.378$). In addition, interaction at the tendency of significance between neighbourhood variables was found ($p=0.053$), (Fig. 2).

Table 1. Health literacy of adolescents increases along with the social capital of the neighbourhood

SCN	Mean	N	SD
low	29.94	849	4.85
average	30.47	3683	4.34
high	31.85	1013	4.72
total	30.64	5545	4.53

$p=0.000$

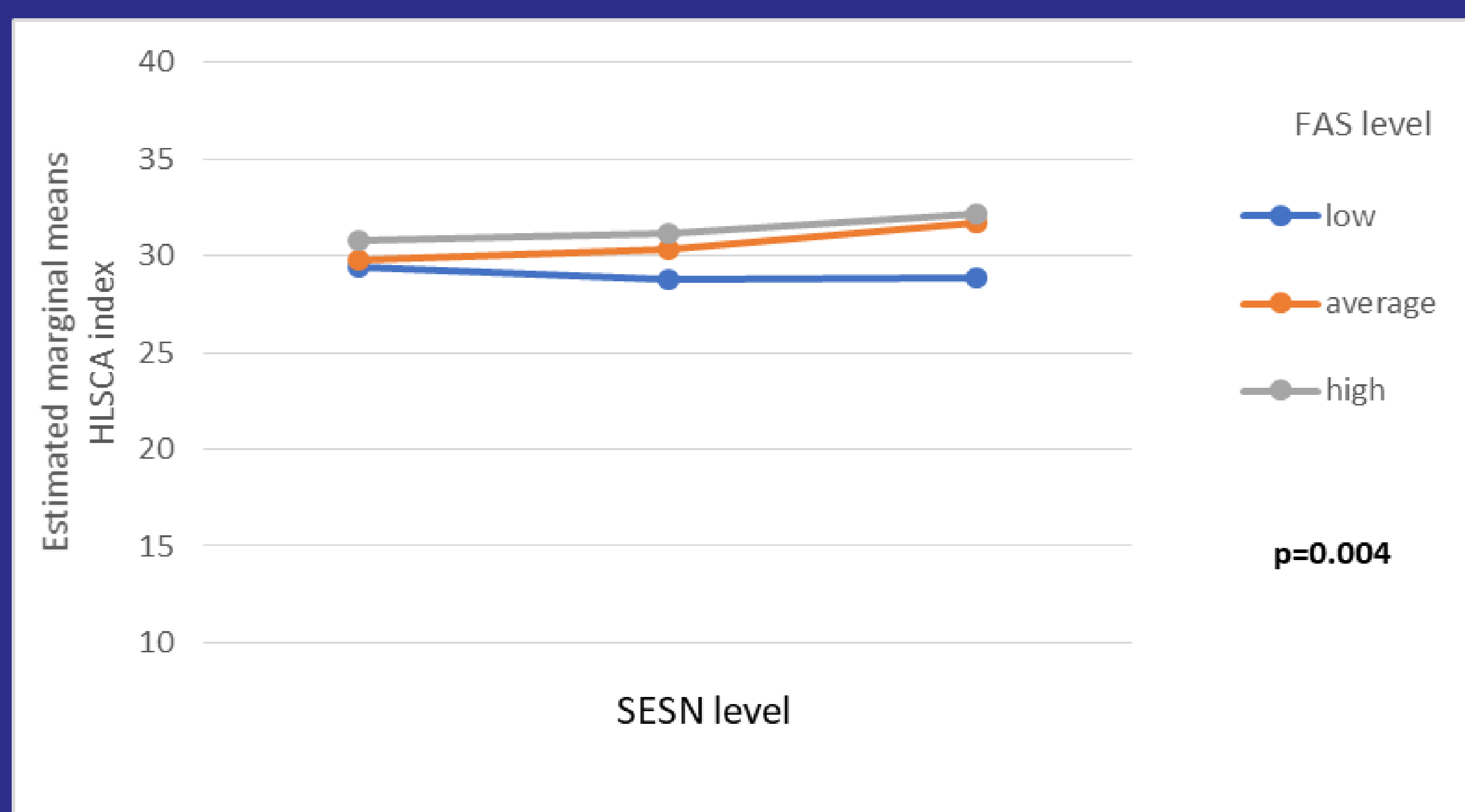


Figure 1. Marginal means of the HLSCA index depending on FAS and SESN

Table 2. Health literacy of adolescents increases along with the neighbourhood wealth

SESN	Mean	N	SD
low	29.26	319	5.53
average	30.52	4086	4.29
high	31.43	1195	4.89
total	30.64	5600	4.53

$p=0.000$



Figure 2. Marginal means of the HLSCA index depending on SESN and SCN

CONCLUSION: The differences between poor and rich families are blurred in the case of affluent neighbourhoods, corrected for other factors.

In poor areas, social capital has a weak impact on HLSCA. The highest level of HLSCA is found in young people from areas of higher socioeconomic status and high social capital. Moreover, with high social capital, the differences between average and rich regions are blurred. While developing programmes focusing on adolescents' health competences improvement the meaning of the social capital and affluence of the neighbourhood should be taken into account.