SUBJECTIVE WELL-BEING, NEUROCOGNITIVE PERFORMANCE, AND PROSOCIAL BEHAVIOURS DURING ADOLESCENCE

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The high prevalence and long-term negative consequences associated with mental health difficulties during adolescence are well known. Thus, more attention and resources are now being devoted from public health systems to the evaluation, detection, and intervention of psychological difficulties and related phenomena (Blanco et al., 2015; Eduardo Fonseca-Pedrero & Debbane, 2017). Furthermore, the study of protective and risk factors, for instance, neurocognitive performance, in order to better understand those individuals at risk for psychological difficulties is recommended (Gur et al., 2014). Moreover, identifying specific neurocognitive factors in young at high risk may allow optimize the prognostic accuracy and the prediction strategies of clinical outcomes (Beck, Himelstein, Bredemeier, Silverstein, & Grant, 2018).

OBJECTIVES: To characterize the neurocognitive phenotype of adolescents at risk for subjective well-being by comparing them with age-gender matched comparison group.

METHOD

The sample was composed of 1509 students, 667 males (44.3%) from 34 educational centers and 98 classrooms. The mean age was 16.5 years (*SD* = 1.36), with age ranging from 14 to 19 years. **The Penn Computerized Neurocognitive Battery (CNB)** (Gur et al., 2010, 2012), the **The Personal Well-being Index-School Version (PWI-SC)** (Cummins & Lau, 2005), and **The Oviedo Infrequency Scale (INF-OV)** (Eduardo Fonseca-Pedrero, Paino-Piñeiro, Lemos-Giráldez, Villazón-García, & Muñiz, 2009) were used in the study.

RESULTS

After the MANOVA and ANOVA were conducted, statistically significant differences were found in Executive Control ($F_{(1,160)} = 7.877, p \leq 0.05, partial \eta^2 = 0.047$) and Complex Cognition ($F_{(1,160)} = 7.997, p \leq 0.05, partial \eta^2 = 0.048$), but not for the other two: Memory ($F_{(1,160)} = 1.139, p \geq 0.05, partial \eta^2 = 0.007$) and Social Cognition ($F_{(1,160)} = 0.018, p \geq 0.05, partial \eta^2 = 0.001$). The effect sizes found were low. Youths at risk for well-being showed a significant decrease in performance accuracy across these neurocognitive domains compared to non-risk.

CONCLUSIONS

The analysis of the accuracy reflected that adolescents at risk for personal well-being had a statistically significant lower performance on Episodic Memory and Social Cognition compared to adolescent without risk. Previous research have shown that individuals with psychological difficulties such as suicide problems have worse scores in task related to memory (Richard-Devantoy, Berlim, & Jollant, 2015) and recognition of emotion and social signals (Jollant et al., 2008; Pan et al., 2013)

Table 2
Accuracy neurocognitive performance scores by group

	Group					
Neurobeavioural Domain	Low Risk		High Risk		<i>p</i>	<i>partial</i> η ²
	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>		
Executive Function	0.645	0.185	0.251	0.185	≥ 0.05	0.014
Episodic Memory	1.242	0.195	0.335	0.195	< 0.001	0.063
Complex Cognition	1.003	0.234	0.152	0.234	≥ 0.05	0.039
Social Cognition	1.897	0.200	-0.016	0.200	< 0.001	0.220

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