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Introduction:
To evaluate a large cohort of pediatric patients with syncope and to assess the psychopathological profile in patients with neurocardiogenic syncope (NCS), compared with healthy sample.

Methods:
A total number of 242 patients with syncope or pre-syncope (median age 12.3 years) were evaluated with our two-step diagnostic protocol. The Head-Up Tilt Test (HUTT) and a psychological assessment were performed in patients with suspected NCS with the aim to reveal a possible correlation between syncopal events and psychopathological characteristics. Of the 126 patients underwent HUTT and evaluated by our psychologist, 92 completed the psychological tests and the results were compared with a normative group.

Results:
Compared with normative group, patients with syncope reported worse (p< .001) scores to syndrome scales of anxiety problems, of the depressive withdrawal problems and of thought problems. Also two of three broad problems scales, the internalizing and the total problem scales had significantly higher scores compared with sample. During a medium-term follow-up, no syncope recurrences were observed; this was associated with somatic and thought problems improvement, along with marked improvement in family functioning.

Conclusions:
Patients with NCS had 2.0-fold higher rate of clinically significant somatic complaints and thought problems, identifying as a sort of psychopathological profile in these patients. Our findings call for additional investigation on the possible pathophysiologic association between somatic complaints, thought problems and the reflex mechanism that produces syncope. Furthermore, future clinical studies are necessary to plan an interventional strategy and optimize management.