

Introduction

Primary Headache, including **Tension-Type Headache (TTH)**, represents one of the **most common somatic disorders** in children and adolescents with a strong impact on quality of life (Dyb et al, 2015). Several **risk factors** such as **environmental, familiar, and psychological** features, including personality traits, are related to the development of Primary Headache (Mark, 2015; Bellini et al., 2013). **Alexithymia** – a deficit to identify and describe feelings - and **anxiety symptoms** have been **associated with several somatic illnesses**, but there are **some different opinions about this link**. In a recent review (Natalucci et al., 2018), authors found **higher levels of alexithymia in children and adolescents with headache** compared to control groups and differences emerged between migraine and TTH, concluding, however, that further studies are needed. Specifically, in **early adolescents**, studies **investigating the possible link between headache and internalizing symptoms** – such as anxiety (White & Farrell, 2006; Williams et al., 2017) - **or emotional disturbances** – like alexithymia (Gatta et al., 2015) - **are few** and those related to specific subgroups of TTH are even fewer.

Objectives and hypothesis

This cross-sectional pilot study aims at **exploring the role of anxiety and alexithymia in early adolescents with and without TTH**. Following the literature, it is hypothesized that:

- 1) TTH is positively associated with anxiety and alexithymia;
- 2) anxiety and alexithymia predict TTH symptomatology.

Methods

Participants

A sample of **70 early adolescents** (Mage=14.59, SD=1.85; 71% females) was recruited, consisting of a **clinical group (31 with TTH)** enrolled in an Italian Child Neuropsychiatry Clinic and a **comparison group (38 without TTH)** enrolled in schools, matched on gender and age.

Measures

- 1) **Multidimensional Anxiety Scale for Children (MASC;** March et al., 1997), a self-report scale for assessing anxiety in children and adolescents, was used to detect the Total levels of Anxiety, also in its factor of Physical Symptoms, Social Anxiety, Harm Avoidance, and Separation Anxiety;
- 2) **Toronto Alexithymia Scale (TAS-20;** Bagby et al., 1994) a self-report scale was used to detect the Total level of Alexithymia, also in its factor of Difficulty to Identifying and to Describing Feelings and Externally Oriented Thinking.

Results

Potential confounding variables (i.e., sex and age) were considered, but no differences were found in these samples.

- 1) **TTH outcome positively correlated with Harm Avoidance** ($\rho=.68, p<.001$) and **Total Alexithymia** ($\rho=.72, p<.001$);
- 2) In a logistic regression, **Harm Avoidance and Total Alexithymia predicted 69% of the variance in TTH outcome** ($p<.032$).

Discussion and conclusions

Our study supports the hypothesis that **headache, particularly the TTH type, is closely related to difficulties in emotional regulation and anxiety symptoms**, especially avoidance ones. Indeed, harm avoidance and reduced emotional awareness **limit the possibility of mentalizing experiences**, which the literature connects with headache (Natalucci et al., 2019). When **emotions are not discernible**, they can thus **reinforce themselves and result in somatic symptoms** (Gatta et al., 2011). This may be seen as a **maladaptive strategy to cope with internalizing problems and emotions** (Heckman & Holroyd, 2006; Kröner-Herwig & Gassmann, 2012), **decreasing coping strategies** precisely at a crucial developmental stage for the development of increasingly autonomous and internal regulation skills (e.g. Colman et al., 2006; Mathews et al., 2014). A better understanding of the phenomenon and an investigation of moderating or mediating factors in the relationships between these constructs becomes, therefore, essential to **foster early adolescents with this disorder in the acquisition of more adaptive emotion regulation abilities** which, in turn, can lead to an improvement in somatic symptoms.

Main References

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