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Attachment styles and headache

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Abstract The internal working model on attachment dimensions changes with significant emotional experiences. The purpose of this study was to evaluate if and how the internal working models correlate with primary headaches. Attachment dimensions of subjects suffering from primary headaches were studied. One hundred and fourteen subjects [68 with migraine, 23 with tension-type headache (according to ICHD-I criteria), 23 with chronic daily headache (according to Silberstein's criteria)], were studied and compared with a control group of 57 subjects (matched in sex, age

and social level) not suffering from any primary headache. Attachment dimensions were investigated using the Adult Attachment Questionnaire (AAQ) and the Attachment Style Questionnaire (ASQ). Headache sufferers seem to be characterised by attachment styles of the “insecure” type. In particular they seem to feel extremely ill at ease if there is an expectation of reduction of interpersonal distance.

Key words Attachment styles • Migraine • Tension-type headache • Chronic daily headache • Internal working model

Introduction

According to Bowlby's [1] attachment theory, experiences with attachment figures give rise to representational or “working models” that guide behaviour, affect and perception in relationships. Attachment styles or “attachment behaviours” may be defined as pre-programmed schemes, which appear and develop with the aim of permitting closeness (*propinquity*) and contact with the mother figure and therefore, biologically speaking, they increase the probability of surviving and reproducing.

In the same way, maternal sensibility to the child's signals and her ability to decode the behavioural signals is pre-

programmed. This system is based on the processing of information which comes from the external environment. The proximity to the mother figure and the exploration of the surrounding environment are the two poles of the system.

Behavioural and emotional schemes of attachment, though being the result of a natural selection and therefore pre-programmed, may be considered as answers which emerge when in the single human being the attachment system is activated.

These models, to a certain extent based on specific innate capacities, will be modified and organised through environmental influences and will result in more complex and hierarchically organised systems, made up of tactics and strategies.

Through the attachment relationships developed, the child learns models of relationship, which will be activated, in the course of life, every time it will be necessary to reach the closest possible proximity with the attachment figure.

These mental models will be strong and not easily changed.

Ainsworth [2, 3] elaborated the so-called "Strange Situation Procedure" (SSP) consisting of a 20-min session, during which the child undergoes a series of growing tension's episodes regarding separations and reunions with the mother. The aim of this procedure is to highlight individual differences when the child is forced to separate from a "secure base".

Three patterns of attachment have been initially identified through the SSP:

- "secure" pattern;
- "insecure-avoidant" pattern;
- "insecure-anxiety/ambivalence" pattern.

A fourth pattern, "insecure-disorganised disoriented", has been subsequently identified and developed by Main et al. [4–8].

The different attachment patterns result most probably from different interaction modalities between mother figure and child and they are not the mere reflection of the child character or instinct.

Bowlby thought that personality development is essentially a question of environmental influence: relationships are primary, with respect to instinct or genetic factors.

The different styles of attachment are the results of different interactive modalities and they do not reflect the temperament or instinct of the child. Ainsworth found out that the attachment style at two years of age strongly correlates with the relationship with the mother figure in the 12 preceding months. The behavioural models at the reunion phase in the Strange Situation are considered to represent the differences in the internal representation of the attachment relationship of the child with a particular caregiver. It is essential, at this point, to underline the fact that the internal representations, and not the different children, are classified in the attachment paradigm.

What is important to develop a sense of the integration of the self is the maternal attunement with the child.

Different patterns of attachment styles have been hypothesised also for adolescent and adult patients. These patterns have been evaluated following two different traditions of research: the first is based on the Adult Attachment Interview [9]; the other is based on the self-report [10] and is referred to the second tradition, with its limits and merits [11].

The relationship between attachment and pain [12, 13] has already been analysed.

Pain perception might change in relation with the presence of particular attachment styles: in some of them the

so-called psyche-soma fusion might be lacking, therefore leading to a reduced capacity for the person to mentalise and "read" their states of mind. This could alter the modalities of the expression of pain [14]. Might this fact in some way affect the course of particularly painful and chronic illnesses and among them headache, whose typical expression is pain?

Contemporary research is giving more and more importance to the association between psychosomatic disturbances and a lack in the internal working models, which may be the expression of an existing difficulty in the "mother-child" dyadic system regarding the regulation of the child well-being or uneasiness statuses, which render the psyche-soma fusion a problem.

The aim of this article is to evaluate the attachment styles in headache patients, to find out if and how the internal working models are associated with primary headache.

Subjects and methods

A group of 114 subjects (78 females and 36 males, age range 18–70 years, mean age \pm SD: 39.74 \pm 14.70 years), referred to the Headache Centre of the University of Turin, were studied. According to the IHCD-I [15] criteria, 68 of them were suffering from migraine (23 males and 45 females, mean age \pm SD: 36.87 \pm 12.48 years), 23 were suffering from tension-type headache (mean age \pm SD: 41.70 \pm 14.70 years) and the remaining 23 were suffering from chronic daily headache (CDH) according to Silberstein's [16] criteria (5 males and 18 females, mean age \pm SD: 46.26 \pm 18.43 years).

Attachment styles were evaluated with:

- The Adult Attachment Questionnaire (AAQ) of Hazan and Shaver [17]. The AAQ measures attachment orientations through self-inclusion in one of the three patterns: avoidant, secure, ambivalent/resistant.
- The Attachment Style Questionnaire (ASQ) of Feeney et al. [18]. This questionnaire asks participants to rate aspects of themselves and others on a 6-point Likert scale. It asks, by implication, about relationships in general rather than romantic or close relationships. It yields five subscales: confidence, discomfort with closeness, relationships as secondary, need for approval and preoccupation with relationships.

These instruments are able to show the internal representations of the interpersonal distance, which come out when the subjects are requested to describe themselves.

We used the first version of the Hazan and Shaver instrument in order to have at our disposal a pattern classification of the subjects and to be able to compare it afterwards with the dimensional one given by the ASQ. In particular, we think that the patient who classifies himself, following the AAQ, in one of the insecure attachment style patterns (avoidant or ambivalent) intends to emphatically declare his being strongly ill at ease in the field of interpersonal relationships [19].

Fifty-seven subjects (30 females and 27 males, age range 19–63 years, mean age \pm SD: 36.63 \pm 11.72 years), matched with the study group for sex, age, social status, educational level and place of birth, not suffering from headache (maximum allowed 2–3 episodes per year) represented the control group.

The data were statistically analysed using chi-square test, *t*-test for independent sample and ANOVA univariate.

Results

The AAQ evidenced in the headache group a statistically significant ($p < 0.01$) higher percentage of subjects with an “insecure” attachment style (38.6%) compared to the control group (15.8%).

In particular, in the headache group 25.4% showed an “insecure/avoidant” pattern and 13.2% an “insecure/anxious” one, while these were shown respectively in 10.5% and 5.3% of the control group.

The most interesting data in the ASQ are represented by the mean scores of the scale of relationships as secondary (of the ASQ) showing meaningful differences between the sample (17.28) and the control group (14.25) ($p < 0.05$).

No significant differences have been found comparing the differences in age and sex or between the different

types of headache. This lack of significant differences concerns both the AAQ category (chi-square) and ASQ scores (unpaired *t*-test – ANOVA).

Conclusions

This research has shown that there is a relationship between the attachment styles in adult patients and the possibility of the development of a form of headache. Headache sufferers seem to be characterised by “insecure” internal working models. In particular, it seems that they are extremely ill at ease when there is the expectation of a reduction of interpersonal distances.

However, caution is required here because of the methodological problems of the self-report questionnaires for assessing the adolescent and adult attachment styles [20].

If the results obtained are confirmed by studies conducted on a greater number of cases and, most of all, following the newly written IHS criteria, these findings could indicate that there is some other hypothesis, apart from those that tend to explain the differences on the basis of the frequency of pain.

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