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The psychosomatic approach in childhood disorders: some psychodynamic and psychotherapeutic issues

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Abstract

Childhood is an age period during which psychosomatic disorders can be studied in more detail, "in statu nascenti". Irrespective of other aetiopathogenic issues, psychological factors play a significant role in predisposing, forming or/and eliciting a psychosomatic disorder through a certain organ.

Although the full pathological process for such a manifestation is not known for every condition, there is evidence of many psychosomatic symptoms in childhood showing the importance of psychodynamic interactions. Some of our studies and those of others show the importance of the mother's personality in forming specific reactions by the child. Many traits of the mother's character are adopted by identification, and even symptom formation, like psychogenic headaches, overeating etc. Extreme suppression or neglect by the mother may bring the same result, like in encopresis. The psychodynamic interplay between mother and daughter may produce problems in sexual identity, e.g. in anorexia. The absence of the mother (we have studied in children of emigrated parents) may lead to a failure to thrive.

Fixation at certain stages (e.g. oral in stuttering) and specific precipitating factors we found present in some studies of ours. Knowledge of particular mechanisms of defense (like regression in enuresis, aggression in vomiting) is imperative for one to be able to proceed and act psychotherapeutically.

Key-words: *Childhood; Psychosomatics; Mother.*

Children express their feelings and conflicts through "body language" much more frequently and in many more ways the adults, who have the advantage of being able to express themselves verbally in a more complete way. Researchers of psychosomatic (ps/s) disorders during childhood, therefore, can have the chance of studying them in their first stages, "in statu nascenti". Pathogenetic questions (especially the issue of "organ choice") arise regarding many ps/s conditions, and in an effort to solve them, even for adult disorders, it is very helpful to look back into childhood.

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Investigators directed their studies towards the personality of the child, the character traits of the parents, the special mechanisms of defense, and in a parallel manner they studied the pathophysiological response of the neurovegetative (n/v) system, the vulnerability of an organ, and nowadays the implication of psychoimmunology in childhood.

The first writers on the subject were psychoanalysts, and it was only natural for them to be influenced by the studies on hysteria and to accept a symbolic meaning of ps/s manifestations. Abraham[1] connected a fixation of libido at the oral and anal stage with certain gastrointestinal conditions. Fenichel[2] accepted a constitutional predisposition and, at the same time, that subconscious fantasies about an organ, its usefulness, its role in a crisis and the possibilities for symbolic expression are determining factors.

Franz Alexander[3], one of the pioneers in ps/s medicine, separated symbolism from the ps/s symptoms and said that these are not a substitute for an emotional expression; they are only accompanying functional manifestations. He contrasted the hysterical (symbolic) somatization, which relieves the patient from anxiety to that in ps/s cases, where symptoms coexist with anxiety. He was also in favour of a "specificity theory" according to which "every emotional experience produces its own ps/s reaction". This was based on Cannon's physiological findings of the Chicago School showing that different bodily changes occur in, say, fear than in rage or grief, and so on. Others, like Kaufman[4], accept the ps/s process as a double one, having first symbolic representations (like in peptic ulcer, those of deprivation) and secondarily n/v changes (e.g. increased secretion of stomach enzymes).

The direct influence of emotions on the n/v and secretory functions was studied experimentally in children. The case of Monica, a little child of 20 months with a congenital atresia of the oesophagus and a stomach fistula, remained classical. G.L. Engel and F. Reichsman measured the acid secretion of the stomach and found it to be statistically lower when the child was under experimental conditions of unpleasure or depression, and significantly higher when in rage. The affective changes correlated to the object relations of the child with certain persons of the staff during the experimental period [5].

Other experimenters, like Lacey and Malmo [6,7], claim that because of a "neurovegetative instability" (which, according to some, may be constitutional) any stress produces the same organ reaction in a particular individual ("autonomic response specificity"). In the past, some spoke about a "physiological infantilism", i.e. that a certain organ stays in a stage of "minor resistance" [8]. But again the question remains whether the vulnerability of an organ does not depend solely on its physical past history (lack of development, illnesses, injuries etc), but on the way it was emotionally invested as well (fear of death from

its injury, invalidism, parental symbolism, etc.).

Regarding the above issues, an experimental research of ours with paediatricians showed that the n/v response depends on the CNS maturation. ln normal children of different age (newborn, babies, infants) a painful stimulus (prick by a needle) was applied and various measurements were then carried out: blood pressure, pulse, temperature, sweating, blood glucose, dilatation of the pupils, tears and intensity of crying. It was found that the reactions were more abrupt and intense the younger the age. In a similar research in children with encephalopathy, their n/v system was found to be more sensitive and unsteady when compared to that of normal children, – overreacting, especially in severe cases [9].

Psychoimmunology is a new promising field which is being recently and intensely investigated in an effort to have better answers for ps/s conditions. Stressors, especially in animal studies, exhibited an inhibitory effect on immunological responses. The mutual relationship between the n/v system and neurohormones, and their action (following a stress) on the immune system results in a marked reduction of lymphocyte proliferation. Stressors like noise, sleep deprivation, death of a spouse and academic examination, were used by researchers in humans; some studies [10,11] showed a decrease of NK (natural killer) cell activity, decreased numbers of T-cells and other immunological reactions.

Stress reduction methods (like relaxation, biofeedback, psychotherapy, music, etc.) were applied with the question of whether they could activate immunological functions. There have been encouraging studies [12,13,14] in which increase of lymphocytes, of B-and T-cells, IgG, IgM, of salivary immunoglobin, etc., were observed.

Personality factors (like loneliness, pessimism, etc.) were also studied in elderly people, widows and others; there was no general correlation, but many subjects exhibited a reduced NK cell activity, lower reaction to PHA, more T-suppressor cells, etc [15]. It would be of interest to see in the future similar studies in special age groups of children, which could elucidate various ps/s issues.

Psychodynamic issues

From a psychodynamic point of view the issue of "organ choice" occupied the interest of investigators very early. Dunbar [16], in the 40s, spoke about a "personality profile" for each ps/s condition (e.g. patients with migraine being insecure, rigid, very conscientious with repressed aggression). Others restricted their search to finding only certain personality traits for each disease (Gressel *et al.*, [17]) and others argued that, in spite of some apparent differences in the behaviour of patients suffering from the same condition, their deeper Ego-Superego structure formed during childhood had many similarities. This view coincides with Alexander' s theory that there is a "nuclear conflict" unique to each disorder.

The effect of particular stressful events as contributing during childhood to a susceptibility for certain illnesses was studied in the 60s[18]; also the specific emotional attitudes, which most writers accept as being established during childhood and determining the way in which a stressful life event will later be received and processed [19]. This view is in agreement with the findings of an investigation of ours[20] on 64 adult depres-sives which showed that there is no correlation between specific types of recent stressful factors (family, health, marital, etc.) and the severity of the somatic symptoms.

Since all psychosomatists for the last 40 years underline the importance of childhood, it was only natural for many of them to investigate the personality and behaviour of the mother. Spitz [21] described the mothers of infants with colics as very anxious and extremely tolerant, those of children suffering from neurodermatitis as insecure with repressed aggression, while in rheumatoid cases the mothers were depressed with guilty feelings. Gerard[22] studied the particular behaviour and caring mode of the mother, her tone of voice, type of holding, lullaby, ways of feeding etc. She argued that according to the mother's behaviour towards the function of an organ of the infant (e.g. frequent diarrhoeas), the pleasant or unpleasant feelings provoked in him could determine the site of future ps/ /s manifestations (e.g. colitis).

The parental interactions have been studied intensely in recent years. Zilikis et al [23] of our Department investigated eczema in infancy and found a distortion of the child's emotional investment of mother and father-image, because of narcissistic and symbiotic needs of the mother. This prevented the infant's individuation and organization of a distinct "body Ego". Repeated separations because of parental fights also contributed to that. Askenazy et al. [24,25] concluded that the separation-individuation process and the Oedipal relationship with the mother play a determinant role in whether an adolescent will become anorectic or bulimic.

The French School (with main exponents Pierre Marty and for children Leon Kreisler) puts emphasis on the holistic approach to ps/s phenomena rejecting any dualism between soma and psyche, and stresses the importance of the psychoaffective development of the child. They consider the mother-child relationship as the prerequisite for the protection of the child against any noxious stimuli. Traumatic events in this relationship will bring disorganization of the psychoaffective development, and with it a defect in the biological defenses, i.e. a ps/s vulne-rability [26,27,28,29].

The French School does not speak about "personality profiles" or symbolism of symptoms, but considers that irrespective of any somatic predisposition, the "ps/s economy" depends to a great extent on the "excitations" that a certain individual has been receiving from the environment; if there is excessive excitation from the mother (instead of the protective

"para-excitation") pathological investments occur (on a preconscious level) with manifestations, like insomnia, headache, colics, spasmodic sobbing and other. Insufficient stimuli deprive the child of a strong ps/s organization and normal communication, with consequent symptomato-logy, like vomiting and other dietary problems.

S. Lebovici, in addition, stresses the importance of discontinuity and distortion of care, in cases of family separation, instability of caregiver, institutionalization, hospitalization, etc.. The notion proposed by Kreisler of the "syndrome of empty behaviour" for children of very early age is interesting; it refers to ps/s cases with preceding events (like repeated infections, retarded growth, serious sleeping or digestive problems) in children who cannot develop individualized attachments and their object relations remain undifferentiated.

An investigation was undertaken by our Department on children of preschool age whose parents had emigrated to Germany and who were left in the homeland with old grandparents [30,31]. Loss of vitality was observed to a statistically significant level compared to controls ($p<0.00\,1$), as well as loss of weight ($p<0.01$), and the whole picture was that of a "failure to thrive". These infants, nevertheless, were saved from an ominous development (like it happens in Spitz's "anaclitic depression") thanks to the grandmother's care and response to their increased need for an embrace ("radar's gaze"), evident in 87%. In fact the grandmother's overprotection was recorded from her excessively frequent and unnecessary visits to doctors ($p<0.001$) for "physical" illness of the infant which was not existent.

Another line of investigation can be carried out through questionnaires of past history in adult ps/s patients. If we take the paradigm of non-organic gastrointestinal conditions, mainly irritable bowel syndrome, we find in the childhood history of adult patients many similar traumatic events. McDonald and Bouchier [32] in a well-documented research described in such patients a statistically higher frequency of separations before the age of five and permanent parental loss before fifteen. Hislop [33] also identified as predisposing factors a history of separations and impaired relationships in childhood, and in addition precipitating recent life stresses. In 69 women with functional bowel disorder, Brook [34] concluded that their condition involved emotional conflicts which became medicalized and had their roots in severe infancy trauma. Sexual abuse in childhood has recently been asso-ciated with medically unexplained gastrointestinal conditions compared to organic ones ($p<0.02$), as well as a prevalence of physical abuse ($p<0.000\,1$) [35,36].

Some authors proposed a "conditioning theory" according to which some individuals had been "conditioned" to produce certain symptoms which they experienced in the past. Christensen and Mortensen[37] reported that one third to one half of

children who had recurrent abdominal pains have similar symptoms when they grow up. In an investigation of our Department on 279 pupils of Primary Schools it was found that there were statistically more ps/s abdominal pains and nightmares in those who had colics during their first trimester of life. It was remarkable that many infants stopped having colicky pains as soon as they were admitted in the Paediatric wards [9]. All authors agree that such babies have "nervous" and inadequate mothers, while the children grow up to be rigid and meticulous with many obsessive traits.

Our experience

The multifactorial nature of the ps/s process can also be shown from many studies of our Department. Predisposing factors, aetiological or precipitating ones, the personality structure of the child and the parents, special mechanisms of defense and symbolisms, – all combine in an effort to serve the psychic economy [9,38].

In encopretic children we found the main personality characteristics to be conformity and submissiveness with a strikingly immature ego organization. Projective techniques revealed an inhibition in expressing aggression (which was unconsciously manifested through soiling). The mothers were restricting and threatening figures and the poor mother-child relations dated since toilet training. There were prominent precipitating factors, mainly separations and abuse.

In a study of 51 children with Psychogenic Hyperkinesis the aggressive drives were obvious, due to a weak Superego and lack of mature Ego mechanisms. The children could not form close emotional bonds, were indifferent and impulsive. The family atmosphere was intense and full of fights, with a cold and inaccessible father, unfit to become a figure for identification. The mother's behaviour was remarkable in that it showed no affection in 79% of the cases with harsh punishments and restrictions (in 51%).

An extensive research of ours in 65 stuttering children indicated both developmental and environmental factors (Ierodiakonou, [39]). Developmental milestones regarding speech were late in two thirds of the cases, while left-handedness and ambidexterity was present in 33 patients. There was a statistically increased incidence of nervous habits around the mouth area and eating problems, with consequent traumatic fights between mother and child. Because of the small age of our patients we had the opportunity of studying the pre-stuttering personality of the children (before being mixed with secondary reactions) and also verified through projective tests and during psychotherapy. The typical case was that of a shy and reserved infant, obedient, polite and sensitive, but basically hostile and unsatisfied. Similar traits and on a neurotic level we found in adult stutterers (with obsessive features and over-compensatory ambitions). The age of onset coincided with new social or school adjustments. A signifi-

cant finding (in 48 out of 65 cases) was a definite traumatic precipitating factor, usually producing a terror reaction. Most parents (47 fathers and 50 mothers) were very anxious or perfectionistic making untimely remarks to the child, thus aggravating the situation.

In Psychogenic Vomiting of adolescent girls under psychotherapy, subconscious difficulties of accepting their female role were uncovered, as well as symbolic denial of their ambivalent attitude towards male sexuality, which they considered aggressive. In a similar way, in other cases of our Department, Oversweating served the psychic economy by preventing contact with the opposite sex which was unconsciously feared.

Another research of ours [38,40] concerned 60 late adolescent girls, students who suffered from non-organic secondary amenorrhoea when they first came from the countryside to city schools. A significantly greater number of these (compared to the control group) were emotionally labile, with tension in their paternal family, and had sexual relations which proved frustrating instead of helpful.

We had ps/s cases in which the choice of organ was determined by a mechanism of defense, e.g. identification in cases of adopted children with Headache, a symptom from which the adoptive mother was also suffering. Symbiotic needs and secondary gains were involved.

From the ps/s conditions described above one can gather that most of the cases in a particular condition have common psychopathological findings; these may concern the personality profile, or the type of precipitating factors, or the mother-child relations and so on. One can assume, therefore, that for every disorder there is one psychopathological route (or more?) which is followed in the pathogenetic process. In the chain: predisposing factors – main aetiological factors – stressors – precipitating conditions – defense mechanisms – psychic economy, some parts have been revealed by modern science, but we are still far from having all the answers and the whole truth.

Psychotherapeutic issues

Psychotherapy of ps/s conditions in children is much more effective than in adults for various reasons: the onset of the symptomatology is usually recent, the intrapsychic conflict is in its first stages (sometimes undifferentiated but ongoing), the family members are alive and present (and not merely representations of the past) and during therapy the non verbal communication is more applicable (play –, art therapy, etc.) [41].

A striking example of the possibilities of psychotherapy is shown in some cases of enuresis in which, as all clinicians know, wetting stops after the first few sessions, or sometimes even after the first diagnosis. The whole procedure, – confrontation of the problem by the child, involvement of the family etc. –, mobilises new interpersonal and intrapsychic processes which help abolish the symptom.

In our encopretic children a negativistic resistance was adopted by the patients at the beginning of psychotherapy, which nevertheless was soon overcome. Hostility towards the mother and siblings was verbally discussed, while also abreaction of aggression through play – – therapy was attained. A more free and assertive behaviour was reported from home together with cessation of encopresis and the parents' attitude changed through counselling [9].

Psychotherapy with stuttering children needs more time and elaborate techniques. An intense insecurity, the child's ambivalent dependence on anxious and perfectionistic parents, the struggle between a forced pseudosocial façade and an inner withdrawal, obstinacy and jealousy at home or sibling rivalry – we found to be areas needing working through. The ultimate goals were for the child to become more extroverted, more free in emotional expression (especially to other children) and generally less orderly, so that he could feel relaxed during his speech [39].

In a similar way our experience shows that more systematic psychoanalytic psychotherapy is needed in cases of adolescent girls with secondary amenorrhoea or anorexia/bulimia, because of problems in sexual identity. Psychogenic vomiting, in contrast, is usually more easily dealt with.

In all ps/s cases work with the family is necessary; sometimes also co-operation with their paediatrician, especially when drugs are simultaneously administered. As already shown by the examples of conditions we described before, such families often have only a vague idea of the actual conflicts behind the child's somatic manifestations, they do not promote the individuation of their offspring, they often overprotect him or have a rigid attitude, while they are not cautious enough not to involve the child in the family fights [42]. The possible secondary gains (not only for the child but also for the rest of the family) must be taken care of during therapy, since somatization may set aside the actual problems.

It may be interesting here to refer to the term "alexithymia", which for many is not indisputable, since it cannot apply to all ps/s cases; e.g. one study of peptic ulcer in adults reported an incidence of only 15-20% of alexithymia. Also, it is accepted that there is a reactive type of alexithymia in individuals who nevertheless regress not only in affect function but in other spheres too[43,44]. In addition, the fact that primarily neurotic patients with emotional empathy manifest ps/s symptoms, shows that alexithymia does not always accompany a ps/s picture. To our experience the same holds true for ps/s children who are in their own way expressive enough for carrying on psychotherapy, and cannot be considered as having inherent alexithymic traits. Paediatric and Child Psychiatric practitioners very well know that many children, even at the age of 3 or 4 years, are verbally very expressive and their emotional interaction

through gestures, running around, play or drawing help the therapist overcome any resistances. For adult cases Krystal [45] recommends similar play techniques in an "affect – maturation" process, preparatory for one to proceed to psychotherapy, and connect the patient's emotions to maternal object representations.

Depending on the age of the patient, the chronicity or not of the condition, the accessibility of the family and the recent precipitating environmental stresses the psychotherapist should proceed with flexibility.

He can decide on the spot how active or passive he must be, if there is a need to behave supportively or not at the beginning and when interpretations can be understood and felt by the child. Timing is very important in all such procedures, so that there is no aggravation of somatic complaints as an expression of resistance. Once such initial obstacles are overcome, psychotherapy of ps/s disorders in children continues in the same way as in any other case.

Resumo

A infância é um período etário durante o qual as pertubrações psicossomáticas podem ser estudadas mais detalhadamente, "in situ nascenti".

Independentemente de outros aspectos etiopatogénicos, os factores psicológicos desempenham um papel significativo na predisposição, formação e/ou indução de uma perturbação psicossomática num determinado órgão.

Apesar do processo patológico completo desta manifestação não ser conhecido para todas as situações, há evidência da importância das interacções psicodinâmicas em sintomas psicossomáticos na infância. Com base nos nossos estudos e em outros, é evidente a importância da personalidade materna na formação de reacções específicas pela criança. Muitos dos traços do carácter da mãe são adoptados por identificação, e mesmo a génese de sintomas, como cefaleias psicogénicas, ingestão alimentar excessiva, etc.. Extrema repressão ou negligência por parte da mãe podem conduzir ao mesmo resultado, como na encoprese. A interacção psicodinâmica entre mãe e filha pode produzir problemas na identidade sexual, p. ex. na anorexia. A ausência da mãe (em filhos de emigrantes por nós estudados) pode conduzir a uma falência no adequado desenvolvimento psíquico.

Fixação em certas fases (p. ex. oral na gaguez) e factores precipitantes específicos foram encontrados em alguns dos nossos estudos. O conhecimento de mecanismos de defesa particulares (como regressão na enurese, agressão no vómito) é imperativo para que se possa proceder e agir psicoterapeuticamente.

Palavras-chave: *Infância; Psicossomática; Figura materna.*

REFERENCES

1. Abraham K. *Selected Papers*, Chap. XII, XVII. Hogarth, London, 1927.
2. Fenichel O. *The psychoanalytic theory of neurosis*. London,Routledge & Ke-gan Paul, 1955.
3. Alexander F. *Psychosomatic Medicine*. N. York, Norton, 1950.

4. Kaufman M. Problems of therapy. In: *The psychosomatic concept in psychoanalysis*, ed. F. Deutsch. N. York, Int. Univ. Press, 1953.
5. Engel GL, Reichsman F, Segal HL. A study of an infant with a gastric fistula. Behavior and the rate of total hydrochloric acid secretion. *Psychosom Med* 1956; 18: 374.
6. Lacey J, Kagan J, Lacey B, Moss H. The visceral level. In: *Expression of the emotions in man*, ed. P. Knapp. N. York, Int. Univ. Press, 1963.
7. Malmo R. Activation: a neurophysiological dimension. *Psychol Rev* 1959; 66: 367-386.
8. Hendrick I. Discussion, in: *The psychosomatic concept in psychoanalysis*, ed. F. Deutsch. N. York, Int. Univ. Press, 1953.
9. Ierodiakonou CS. *Psychological problems of children* (in Greek). Mastorides, Thessaloniki, 1991.
10. Irwin M, Daniels M, Smith TL et al. Impaired natural killer cell activity during bereavement. *Brain, Behavior & Immunity* 1987; 1: 98-104.
11. Kiecolt-Glaser JK, Glaser R. Stress and immune function in humans. In R. Ader, DL Felten & N. Cohen (eds) *Psychoimmunology*. S. Diego, Academic Press, 1991, pp. 849-867.
12. Hall HR, Mumma GH, Longo S, Dixon R. Voluntary immunomodulation-a preliminary study. *Intern J Neuroscience* 1992; 63: 275-285.
13. Wiedenfeld SA, O' Leary A, Bandura A et al: Impact of perceived self-efficacy in coping with stressors on the immune system. *J Personal & Soc Psychology* 1990; 59: 1082-1094.
14. Zachariae R, Kristensen JS, Hokland P et al. Effect of psychological intervention in the form of relaxation and guided imagery on immune function. *Psychother Psychosomatics* 1990; 54: 32-39.
15. Kamen-Siegel L, Rodin J, Seligman ME et al. Explanatory style and cell-mediated immunity in elderly men and women. *Health Psychology* 1991; 10: 229-235.
16. Dunbar F. *Emotions and bodily changes*. Columbia, N. York, 1946.
17. Gressel G, Snobe F, Saslow G et al. Personality factors in arterial hypertension. *JAMA* 1949; 140: 265.
18. Hinkle L, Christenson W, Kane F et al. An investigation of the relation between life experience, personality characteristics and general susceptibility to illness. *Psychosom Med* 1958; 20: 278-295.
19. Graham DT. Psychophysiology and Medicine. *Psychophysiol* 1971; 8: 121-131.
20. Iacovides A, Iordanidis P, Gounaris M, Daffas A, Ierodiakonou CS. Life events and somatization in depressive patients of the Psychiatric Department of a General Hospital. *Abstracts, IX South-East European Conference for Neurology and Psychiatry*, Thessaloniki, 1992, p. 131.
21. Spitz R. The psychogenic diseases in infancy. *Psychoanal Study of the Child* 1951; 6: 255.
22. Gerard M. Genesis of psychosomatic symptoms in infancy. In: *The psychosomatic concept in psychoanalysis*, ed. F. Deutsch. N. York, Int. Univ. Press, 1953.
23. Zilikis N, Asbesti K. Consultative psychotherapy in the management of childhood eczema (in Greek).*Hellenic Allerg & Clin Immunology* 1995; 3: 51--55.
24. Askenazy F, Calza A, Muguel M. Anorexie et boulimie de l' adolescent: A travers l' étude du lien mère-fille. *Neuropsychiatr Enfance Adolesc* 1998; 46: 395-400.
25. Smolak L, Levine MP. Separation-individuation difficulties and the dis-

tinction between bulimia and anorexia nervosa. *Int J Eating Dis* 1993; 14: 33--41.
26. Marty P. *La psychosomatique de l'adult*. Coll. Que sais-je? Paris, PUF, 1990.
27. Marty P. *L' ordre psychosomatique*. Paris, Payot, 1980.
28. Kreisler L. *Psychosomatique de l' enfant*. Coll. Que sais-je? Paris, PUF, 1983.
29. Fain M: Premiers pas en psychosomatique. *Rev Fr Psychosomatique* 1994; 6: 7-11.
30. Kantarakias S, Ierodiakonou CS et al. Psychosomatic and emotional disturbances in infants of emigrant parents. *Mediter J Soc Psychiatr* 1981; 2: 116--122.
31. Ierodiakonou CS. Psychosocial problems and psychosocial factors in Greek life. In: C. Stefanis et al. (eds) *Psychiatry: a world perspective*. Elsevier 1990; 4: 265-270.
32. McDonald AJ, Bouchier IAD. Non-organic gastrointestinal illness: a medical and psychiatric study. *Brit J Psychiatr* 1980; 136: 276-283.
33. Hislop IG. Psychological significance of the irritable colon syndrome. *Gut* 1971; 12: 452-457.
34. Brook A. Bowel distress and emotional conflict. *J Royal Soc Medic* 1991; 84, 39--42.
35. Walker EA, Gelfand AN, Gelfand MD, et al. Psychiatric diagnoses, sexual and physical victimization in patients with irritable bowel syndrome of inflammatory bowel disease. *Psychol Med* 1995; 25: 1259-1267.
36. Drossman DA, Leserman J, Nachman G, et al. Prevalence of abuse among patients referred for functional and organic gastrointestinal disorders. *Gastrenterology* 1990; 98, 346.
37. Christensen MF, Mortensen O. Long term prognosis in children with recurrent abdominal pain. *Arch Dis Childhood* 1975; 50: 110-114.
38. Ierodiakonou CS. Psychosomatic manifestations in the context of Greek culture. *Dynamic Psychother* 1985; 3, 88--94.
39. Ierodiakonou CS. Psychological problems and precipitating factors in the stuttering of children. *Acta Paedopsychiatrica* 1970; 37, 166-174.
40. Ierodiakonou CS. Adolescents' mental health and the Greek family: preventive aspects. *J Adolesc* 1988; 11:11- - 19.
41. Ierodiakonou CS, Ierodiakonou-Benou I. Short-term psychoanalytic psychotherapy with obsessive preadolescents. *Amer J Psychother* 1997; 51: 569-579.
42. Minuchin S, Fisherman C. The psychosomatic family in child psychiatry. *Amer Acad Child Psychiat* 1979; 18: 76.
43. Overbeck G.: How to operationalize alexithymic phenomena. *Psychother Psychosom* 1977; 28: 106-117.
44. Freyberger H. Supportive psychotherapeutic techniques in primary and secondary alexithymia. *Psychother Psychosom* 1977; 28,: 337-342.
45. Krystal H. Psychotherapy with alexithymic patients. In: A. Krakowski & C. Kimball (eds). *Psychosomatic Medicine*. Plenum, N. York, 1983, pp. 689-696.