CHAPTER - II
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Earliest to make the systematic study of psychosomatic diseases using the concepts of extraversion-introversion and neuroticism was Sainsbury (1960) who found that the psychosomatic individuals were more introverted than the normal individuals.

Acid - Peptic disease and Personality :

Alexander (1934) was the first person to investigate the role of psychological factors in patients suffering with peptic ulcer disease. He and his colleagues found that peptic ulcers as well as non-specific gastric symptoms developed more frequently in particular personality types

Alexander (1950) found that there was a wish to be dependent and to be cared for in the patients with acid-peptic disease This wish clashed with their pride and aspiration for independence and accomplishment. As a result of these opposing tendencies internal conflict arose. He observed that many of the patients overtly seemed to be aggressive, ambitious and confident. Though they did not like to accept help and assumed too many responsibilities, yet, on a deeper level they wished to have a sheltered existence

Alvarez (1932) in his research on the causal factors of peptic ulcer found that the typical patient was an efficient, active businessman who is often of the go-getter type.

Hartman (1932) found that the peptic ulcer type of person feels compelled to overcome every obstacle He observed that unambitious apathetic, stoic men never had ulcers.

Magni, et al (1986) found that the psychosomatic personality structure was distinct from neurotic or psychotic patterns.

Dutta (1978) conducted a study to understand the basic personality structure of the individuals with specific reference to introversion-extraversion and neurotic dimensions of personality. In his study the sample comprised of fifty peptic-ulcer patients along with a control group of twenty five normal persons. They were taken from the S.M H S Medical college hospital, Srinagar, India. The results revealed that acid-peptic disease patients have a significantly higher neuroticism and introversion scores on the Maudsley Personality Inventory as compared to normal individuals. That means, peptic ulcer cases are associated with higher than normal levels of neurotic symptoms and they are significantly more neurotic and introverted than the general population They also expressed the symptoms of anxiety, irritability, obsessionality and frequent blurring of vision. Similarly, Mittelman, et al, (1942) and Appel, et al, (1950) found neurotic symptoms in most of the cases of acid-peptic disease. Byrene (1975) in a study found indirect evidence of high neuroticism in peptic ulcer patients.

Christodoulm (1977) compared seventeen girls and eight boys aged six to sixteen years suffering from primary peptic ulcer with the matched group of controls. He found that the frequency of introverted personalities was greater in peptic ulcer patients than in controls

Sreedar (1976) studied groups of peptic ulcer, irritable bowel syndrome, hypertension and bronchial asthma patients, comparing them with patients suffering from neuroses and physical illness. He found patients of peptic ulcer, bronchial asthma to be introverted and neurotic.

Hamilton (1950) found that patients of duodenal ulcer cases showed a lot of anxiety and other neurotic traits

Shanmugam (1979) also conducted a study to verify the relation between extraversion-introversion and neuroticism factors in bronchial asthma, peptic ulcer and ischemic heart patients. His samples consisted of thirty - six males and thirteen females in the age range of seventeen to sixty years. He found that those patients suffering from peptic ulcer were more extraverted than control groups The control group comprised of forty three males and six females in the age group of nineteen to sixty years.

Keltikangas – Jarvinen (1987) conducted research that has linked the prevalance of Type-A behavior in patients of Irritable Bowel Syndrome.

Acid-Peptic disease and Psycho-Physiology :

Wolf and Wolff (1943) attributed the findings of hypermia, hypermotility and hypersecretion in patients with permanent gastric fistula to hostile feelings which the patients were unable to explain.

Engel (1980) observed that psychological factors are influenced by somatic factors These psychological factors define the social circumstances that prove stressful and activate organic process and ulcer formation.

Weiner, et al, (1975) examined 120 gastric acid hypersecretors and hyposecretors among 2073 draftees who underwent 16 weeks of basic training The selected draftees were subjected to extensive physical, psychological as well as radiological studies. They concluded that it was possible to classify a majority of hypersecretors and hyposecretors on the basis of their psychological profile.

Gundry, et al, (1967) found that anxiety symptoms are associated with a significant release of catecholamines and gastric acid, both of which can exacerbate the symptoms of peptic ulcer disease

Acid-Peptic Disease, Anxiety and Depression : The Relationship

Magni, et al (1986) observed that patients with peptic ulcer disease tend to be more anxious and depressed.

Feldman, Walker, Green, and their colleagues (1986) conducted a case controlled study of forty-nine men with peptic ulcer. They found that hypochondriasis, depression, dependency, and lowered ego strength differentiated the patients from controls.

Various researches have been conducted to understand the role of bio - psychological interactions in peptic ulcer disease. Gundry et al (1967) found that among the duodenal ulcer patients two subgroups could be identified.

(1) Ulcer patients with low acid output who tend to be depressed, and

(2) Patients with high acid levels who tend to be anxious. This finding has also been confirmed by other studies (Magni, Di Mario, Rizzardo, et. al, 1986).

Cox, et al (1946) found that peptic ulcer cases had underlying anxiety neurosis as a major contributory factor In almost all his cases he found that anxiety preceeded epigastric symptoms.

Cathcart (1946) analysed the admission in a Canadian army hospital and found that peptic ulcer and anxiety neurosis ran parallel with each other.

Gainsborough and Slater (1946) found that peptic ulcer cases did always have a proneness to anxiety, irritability, obsessionality and hypochondriasis.

According to Clause (1988) the relationship between anxiety disorders and peptic ulcer disease has not been adequately studies in spite of the common clinical perception that anxiety and stress contribute to ulcer formation.

Bockus, et al, (1928) studied fifty cases of mucous colitis, but did not say how they were selected. Their method of psychological assessment was not specified except that "an incidence of certain nervous phenomena" They concluded that 46% of these cases had depression.

Acid-Peptic disease and Alexithymia :

Wolcott, Wellis and Robertson (1981) have conducted researches wherein gastrin levels have been correlated with factors such as expressively, strivings for independence and achievement.

Paulley, and Pelser (1981) observed that patients of peptic ulcer disease are frequently preoccupied with their somatic complaints and have a compromised ability to express emotions (alexithymia).

Weiner (1959) developed his theory of the pathogenesis of ulcer. He pointed out that the capacity for self-expression is reduced in ulcer patients They tend to swallow their troubles.

Nemiah and Sifneos (1970) observed that the alexithymic individual's prone to psychosomatic disorders had emotional rigidity and a tendency to introversion. Such people had some discomfort with their overt wishes to be independent and had a covert need to be passive. However, "alexithymia" does not explain the target organ or disease in general or acid peptic disease in particular

Acid-peptic disease and Adjustment :

Nasiry and Piper (1983) found that chronic stress associated with status incongruity and lower educational or socioeconomic status increase the risk of peptic ulcer disease in men.

Alexander (1968) who was a pioneer in advocating the specificity theory, emphasized the role of specific unresolved conflicts in the patient of acid-peptic disease According to him, the unconscious dependency feelings activate autonomic nervous system involving the stomach which remains in a state of alertness It behaves as if it is ready to receive food

Walker, et al, (1988) fund that depression best discriminated ulcer patients from controls They had conducted their study on stress and coping in forty nine men with peptic ulcer disease and fifty two controls.

Acid-Peptic Disease : Prevalence

The incidence of acid-peptic disease in men seems to increase with the progress of civilization 10% of all adult males in the U.S suffer or have suffered from Ulcer. The primitive societies tend to differ. Ulcer is infrequent among Malayans but frequent among the more civilized Chinese of Sumantra and Java (Garma Angel, 1958).

Studies related to irritable bowel syndrome :

Irritable bowel syndrome and psychophysiology :

Irritable Bowel syndrome is the result of altered intestinal motor function The most consistent changes in colonic motility in patients with Irritable Bowel Syndrome were first described by Almy T P in the late 1940's after a series of classical investigations. In these studies he demonstrated that patients with the spastic colon variant had marked increase in motility (Almy, et al, 1947, 1949, 1950)

Chaudhary and Truelove (1961) observed that patients with the painless diarrhea variant (in Irritable Bowel Syndrome) had markedly decreased sigmoid motility.

The association of psychological factors with mucous colitis comparing it to diarrhea was first reported by Da Costa (1871) He found that irregular nervous manifestations of hysterial type were very common in patients of mucous colitis.

Irritable Bowel Syndrome and Personality :

Hurst (1919), White (1905) and Bockus, et al (1928) found that mucous

colitis patients tended to be neurotic, neurasthenic and hypochondriacal or to have marked emotional instability. However, their method of psychological assessment were not always specified.

White and Jones (1940) conducted a research on sixty patients with mucous colitis (now termed as Irritable Bowel Syndrome) and concluded that it was a somatic response to tension. They observed that nearly fifty percent of the patients displayed a rigid type of thinking similar to that seen in obsessive compulsive states. The tension states most conducive to the onset of symptoms involved feelings of anxiety, resentment and guilt.

Palmer, Crisp, Stonehill, et al (1974) reported that Irritable Bowel Syndrome patients as a group were more psychoneurotic as determined by psychometric testing when compared to the normal control group individuals.

Sreedar (1976) reported patients of irritable bowel syndrome to be introverted and neurotic.

Dinan, et al (1991) observed that the patient's influences can play a major role in how symptoms are reported and whether medical treatment is sought. These patients are described as more neurotic, introverted and anxious

Latimer (1983) reported that no specific personality type exists for irritable bowel syndrome patients. On the other hand Ryan, et al (1984) suggested that irritable bowel syndrome patients do not have an inherent personality abnormality but have a quantitative departure from psycho-physiological reactions of healthy persons in times of stress

Arun Priti, et al (1993) conducted a study on thirty patients with irritable bowel syndrome. This study was conducted at the S M S Medical college, Jaipur. These patients were evaluated for personality profiles and psychiatric morbidity. The findings revealed that in comparison with normal controls, these patients were more neurotic, had higher incidence of anxiety neurosis and alcoholism.

Irritable Bowel Syndrome and Depression :

Hislop, I G. (1971) conducted a study on sixty seven patients suffering from irritable bowel syndrome. The sample comprised of forty seven females and twenty males. He found a high association between irritable Bowel Syndrome and subjective depression.

Rose, Troughton, et al (1986) attempted to study the link between depression and Irritable Bowel Syndrome. They administered the Beck Depression Inventory to one hundred and ten patients suffering from irritable bowel syndrome. They found that 64% of the depressed patients were diagnosed as suffering from functional disorder on the basis of history and appropriate investigations. The commonest symptoms were altered bowel habits with abdominal pain without alternation of bowel function. Together, these complaints were more common in the depressed patients while organic disorders were more common in non-depressed groups.

Young, Alpers, et al (1976) conducted a study on twenty nine patients with irritable bowel syndrome and thirty three controls They found that patients with irritable bowel syndrome have a high prevalence of psychiatric illness. The psychiatric symptoms usually preceded the onset of Irritable Bowel Syndrome

Symptoms. They observed that 72% of the irritable Bowel Syndrome Patients had psychiatric illness, with depression and hysteria as the most prevalent symptoms

Heffernon and Lippincott (1966) have reported that psychotic depression may be masked by the irritable colon syndrome.

Dorfman (1967) has suggested that spastic colon may be a symptom of depression. Stengel (1965) regarded psychogenic pain in Irritable Bowel Syndrome as a concomitant symptom of an affective disorder.

Wilson and Nashold (1970) reported that although depression is the commonest affective disorder associated with psychogenic pain, patients may in some instances have a primary complaint of pain

Svedlund, et al (1985) reported neurasthenic syndrome and depression in 86% and 70% of the irritable bowel syndrome patients. These were attributed to the emotional tension and gastrointestinal reactivity to psychosocial stress often seen in such patients

Irritable Bowel Syndrome and Anxiety :

Esler and Goulston (1973) observed greater degrees of anxiety levels and neuroticism based on psychometric testing that correlated with elevated urinary epinephrine levels in the diarrhea group as compared to the spastic constipation or control groups

Arun Priti, et al (1993) found that in comparison to the normal individuals, the patients suffering from irritable bowel syndrome showed more

anxiety and had a higher incidence of anxiety neurosis.

Singh et al (1991) also reported anxiety state in 24% of the irritable bowel syndrome patients.

Stengel (1965) and Spear (1967) reported that anxiety was an important factor in the production of psychogenic pain in patients with irritable bowel syndrome.

Svedlund, et al (1985) have reported that anxiety symptoms including autonomic disturbances, muscular tension, inner tension and agitation were present in almost all their patients suffering from irritable bowel syndrome

Although a large proportion of patients suffering from irritable bowel syndrome have elevated scores on psychometric inventories, no pattern of psychological symptoms is unique to the patients.

White head, et al (1988) conducted research comparing non-patients having symptoms of functional bowel disorder with non-patients having irritable bowel syndrome and with asymptomatic control group. They found that the patients with irritable bowel syndrome had elevated scores on a variety of scales, including somatization, depression, anxiety, interpersonal sensitivity and hostility.

Similar findings have been reported by Wise, Copper and Ahmed (1982) and by Whitehead, et al (1980).

A large proportion of the general population has the irritable bowel syndrome but does not report it. Welch, et al (1985) conducted a study on

twenty six patients with irritable bowel syndrome (Reporters) and forty one normal individuals (Non-reporters) They found that psychological assessments revealed that out patients with irritable bowel syndrome and non-reporters were psychologically similar. However, both the groups showed more controls. Anxiety, depression, obsessive compulsion and interpersonal sensitivity were similar in both groups with the syndrome and the normal controls

Agarwal, Tandon, et al (1993) found that the prevalence of definite neurotic disorder in irritable bowel syndrome patients did not have elevated levels of anxiety or depression. There was no evidence of significantly abnormal illness behavior

Irritable Bowel Syndrome and Adjustment :

In a study conducted by Almy, et al, (1949) two separate symptom patterns were found in the patients of irritable bowel syndrome. These patterns reflected the patient's current mood states. These two symptom patterns could co-exist in the same patient who may give a history of diarrhea and constipation In patients with a clinical history of abdominal pain and constipation, the patients seemed to be tense and determined to solve their problems. The mood state was thereby interpreted to be their coping behavior. In contrast to this group, those patients who gave a history of painless diarrhea were more passive and soft-spoken, were frequently anxious and maintained an underlying sense of personal inadequacy in dealing with problems. The mood state hence was interpreted to be that of "giving up" and so these patients were thought to be less adaptive.

Alexander (1950), in his analysis of patients with the irritable bowel syndrome, described underlying psychodynamic conflicts relating to giving-up and receiving and the control of aggression.

Holmes and Rahe (1967, 1973) by using both prospective and retrospective studies with their Social Readjustment Scale, have given data on the role of life changes in the onset of illness in all individuals with irritable bowel syndrome. Various studies have indicated that the patients of irritable bowel syndrome had more stressful life events. These cause problems in the process of adjustment. Such life-events include among men worries about one's career and about their family among women (Chaudhary and Truelove, 1962)

Hill and Blendis (1967) reported that one of the main psychological stressor specifically associated with the development of irritable bowel syndrome was the loss of a parent during childhood. It was a major precipitating factor in 33% of the patients.

Hislop (1979) found that 31% of the patients with irritable bowel syndrome had lost a parent through death, divorce or separation before the age of fifteen and 61% of the patients had unsatisfactory relationships with their parents Other factors observed for an emotionally disturbed childhood were poor family relationships, server illness in a close relative, surgery, marital disharmony, injury, pregnancy and migration from a close family.

Irritable Bowel Syndrome : Prevalence

From an epidemological perspective, the ratio of irritable bowel syndrome between females and males is 2:1. However, in countries like India where the men consult doctors more often, the ratio is reversed (Pimparkar, 1970). Young, et al, (1976) found a female – male ratio of 4:1.

Hislop (1971) found the irritable bowel syndrome to be more common in women than men, the sex ratio being 4 : 1.

Arun Priti, et al (1993) reported that irritable bowel syndrome was more common among young, urban males and sedentary workers

Welch, et al (1985) in a study of psychneurotic symptomatology of reporters and non-reporters of irritable bowel syndrome, suggested that the preponderance of women referred to outpatient clinics may reflect sociological factors rather than severity of disease.

Studies Related to Alexithymia :

Sifneos (1967) made clinical observations on some patients suffering from various psychosomatic disorders. He found that contrary to neurotic patients, alexithymic individuals had no appropriate words to describe their feelings. They showed a paucity of fantasy life, tendency to describe endlessly symptoms or details surrounding a casual event, rather than the feelings which one would have anticipated to be aroused. These individuals tended to rush into action, cry copiously, assume rigid postures and had difficulty in communicating with people.

Sifneos, (1973) on the basis of a questionnaire detected prevalence of alexithymic characteristics in many (but not all) patients who were suffering from such diseases as peptic ulcer, asthma, ulcerative colitis, hypertension, neurodermatitis, thyrotoxicosis and rheumatoid arthritis

Alexander (1950) and his collaborators attempted to formulate psychodynamic constellations involving specific conflicts which underlied these medical illnesses. They emphasized that the psychosomatic symptoms were not symbolic of unconscious elaborations, but resulted from autonomic hyperactivity which could not be expressed in a normal way. They concluded that psychosomatic symptoms were a normal physiological concomitant of emotions.

Overbeck (1977) reported the presence of alexithymia in ulcer patients. Flannery (1977) found that the psychosomatic patients had difficulty in describing the experiences felt by their bodies

Shipko (1982) and Smith (1983) refuted the presence of alexithymia to a greater degree in psychosomatic patients when compared with other medically sick patients.

Ketikangas-Jarvinen (1985) studied the presence of alexithymia in psychosomatic patients by trying to control sample bias, lack of specificity of diagnosis, effect of testing situation and significance of sex and social class She found that alexithymia was present to a statically significant degree in patients with severe psychosomatic illness

Mac Lean (1949) observed that many psychosomatic patients show an apparent inability to verbalize feelings He proposed that instead of being

relayed to the neo-cortex and finding expression in the symbolic use of words, distressing emotions find immediate expression through autonomic pathways and are translated into a kind of "organ language".

Ruesch (1948) observed similar disturbance of verbal and symbolic expression in psychosomatic patients. His patients were dependency oriented, had childlike ways of thinking, were unimaginative, used direct physical action or bodily channels for emotional expression and showed excessive degree of social conformity.

French psychoanalysts Marty and de M' Uzan (1963) reported that many of their psychosomatic and other medically ill patients were unable to produce fantasies and during interviews the content of the patients associations were mundane, unimaginative and tied to reality.,

Sifneos (1970) began to investigate systematically the communicative style of psychosomatic patients. The results of their studies and those of subsequent investigators (Shands, 1975, Von Rad, et al, 1977) confirmed that contradictory to psychoneurotic patients, many patients with psychosomatic diseases have a marked difficulty describing subjective feelings and a communicative style characterized by a preoccupation with minute details of external events and by a paucity or absence of drive related fantasies

Several other clinicians for example Brown and Betley (1971), Mc Dougall (1974), Jackson (1977) studied the overadaptive social behavior in psychosomatic patients and were struck by an apparent psychological normality which Jackson designated "pseudonormality".

Alexithymic individuals are unable to label their feelings and to use them as signals of inner conflict or of responses to external situations They tend to focus on the physical symptom of emotional arousal and on other normal bodily sensations, which they often amplify and misinterpret as signs of physical disease. (Barsky and Klerman, 1983).

A study of alexithymic individuals in a different culture was carried out by Sriram (1986) at Banglore. He translated the Toronto Alexithymia Scale into Kannada an Indian dialect and administered it to a normal population. This version of the scale had adequate internal consistency and good test-retest reliability over a three months period. He later examined thirty patients with psychogenic pain disorder and a matched controlled group He used the Beth Israel Hospital Inventory and the Kannada version of Toronto Alexithymia Scale He found higher alexithymia scores in pain patients He concluded that although the clinical manifestation of alexithymia are influenced by cultural factors the disturbance can be said to exist across cultures.

Pandey, et al (1996) developed a Hindi version of Toronto Alexithymia scale and demonstrated its test-retest reliability and internal consistency reliability. They also show its factorial validity with a non-clinical sample of adults in India

Psychosomatic investigators in Japan have also distinguished between alexithymia and neurotic types of patients, despite the emotional reserve characteristics of people in that culture. (Nakagawa and Nakai, et al, 1979).

Rief Winfried, et al, (1996) conducted a study on psychosomatic patients using the revised version of Toronto Alexithymia scale TAS-R. They found

significant association between TAS alexithymia and the number of somatoform symptoms The factor-1 of the Toronto Alexithymia Scale (ability to describe feelings to others) correlated significantly with the use of negative emotional words. Thus, TAS alexithymics do not use less, but more emotional words, especially words describing negative feelings.

Martin and Pihl (1985), in their Astress-alexithymia hypothesis, also advocated a causal relationship between alexithymia and psychosomatic illnesses. According to this hypothesis, alexithymics Alack the affective awareness which would permit identification of a particular situation as stressful, and therefore experience stressful events longer and more frequently than non-alexithymics Although the mechanism discussed by Martin and Pihl (i.e., lack of emotion modification) differs from that in the discharge theory (i e , conservation of energy), the effect of stress on alexithymics is similar in the two views. Both suggest increased or excessive sympathetic activity.

Krystal (1979) has described an impaired capacity for empathy in the alexithymic individuals. These individuals have difficulty in recognising and using their own feelings as signals to themselves. He attributed alexithymia to an arrest in the development of affect following infantile psychotrauma or to a regression in the affective-cognitive function after catastrophic trauma in adult life

McDonald & Prkachin (1990) suggested that alexithymics may also show a deficit in spontaneous facial expressions of negative affect though their posed facial expressions appear normal.

Lane, et al. (1996) found that alexithymics differed from controls in their affective self-descriptions, Wehmer et al. (1995) found no differences in positivity ratings in response to slides but did find that lower scores on two TAS factors correlated with a lower percentage of emotional words given in response to emotionally evocative scenes.

Dion, K. (1996) explored gender and ethnolinguistic correlates of alexithymia on a large, ethnically heterogeneous sample of university students in Toronto, Canada He used the Toronto Alexithymia Scale (TAS-20). Results revealed that men scored higher in externally oriented thinking factor than women. Non-native English speakers scored higher on the overall TAS-20 as well as on the difficulty identifying feelings factor, than native speakers. Chinese language speakers scored consistently higher than native English and native European language speakers on the overall TAS-20 and its three factors. These ethnolinguistic differences reflect social cultural influences making Chinese individuals likely to be less psychologically minded and more somatically oriented vis-a-vis their emotions than those from western, ethnocultural traditions.

McDougall (1982) and Taylor (1977) have described how some alexithymic patients make extensive use of projective identification to discharge unbearable mental states into others.

Haviland, et al, (1988) and Fisch (1989) conducted studies which reveal that there is some association between alexithymic characteristics and symptoms of depression.

Freyberger (1977) distinguished two forms of alexithymia, viz, primary alexithymia which is innate and which predisposes to various psychosomatic disorders and secondary alexithymia, which is acquried and serves a defensive function.

Chaturvedi, et al, (1984) reported that recognized psychiatric illnesses like anxiety, hysteria, neurotic depression, and other illness were found in only 18.75 % of the alexithymic individuals.

Rabavilas (1987) found that alexithymia among anxiety patients was associated with more spontaneous skin conductance fluctuations, greater skin conductance response to and slower skin conductance recovery after hearing a novel tone

Lumley, et al, (1996) reported that alexithymia is linked with physical symptoms like pain and psychological symptoms like depression.

Berenbaum and James (1994) suggested that problematic social experience may give rise to alexithymia. They found that feeling emotionally unsafe in one's family of origin was associated with alexithymia in young adulthood.

Maestripieri, et al, (1992) reported that conflict included behavior patterns like displacement activities. These behavior patterns consist of movements that are focused on one's own body or of the faculty of handling of objects These displacement activities reflect increased arousal and appear in situations characterized by tension, anxiety and motivational ambience.

Smith (1983) found that although initially observed in patients with classical psychosomatic diseases, alexithymic characteristics are not present in all psychosomatic patients and are sometimes found in patients with other kinds of medical illnesses

Blanchard, et al, (1982) have suggested that alexithymic characteristics are more common in males than in females.

Feiguine, et al, (1982) have found an association between alexithymia and increasing age.

Pierloot and Vinck (1977), Borens, et al, (1977), Lesser, et al,(1979) and Smith (1983) have related alexithymia to lower intelligence and lower socio-economic status.

Taylor (1984, 1986) on the basis of psychoanalytic observations and neurobiological findings suggested that both developmental experiences and neurophysiological factors play a role in the etiology of alexithymia.

Kauhanen, et al, (1992) observed that alexithymia is associated with emotional comprehension and expression deficits. In their study the scores on Toronto Alexithymia Scale pointed out deficits in identifying and communicating feelings These scores correlated negatively with perceived support and positively with symptoms and illness. Externally oriented thinking had a small, negative correlation with perceived support. The conclusion of their study was that although the affective deficits were related to health problems, perceived support only a minimal relationship with health. It generally did not mediate the relationship between alexithymia and health problems.