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Age, Sex, and Marital Status Differences in Minor Psychiatric Morbidity

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ABSTRACT - We have administered the Spanish version of the SCL-90R to 570 subjects (299 women and 271 men) from the general population of Tenerife, Canary Islands. The highest score in both sexes corresponds to Depression, followed by Somatization in women and Obsessive-Compulsive symptoms in men. Women show higher scores than men in those variables which are indicative of subjective suffering (Somatization, Depression, Anxiety, Obsessionality and Phobia), with no difference in those indicating interpersonal difficulties (Interpersonal Sensitivity, Hostility, Paranoid ideation and Psychoticism). The scores for Depression and Somatization increase with age in both sexes, whereas Interpersonal sensitivity, Hostility, Paranoid ideation and Psychoticism tend to decrease. Obsessive-Compulsive symptoms, general anxiety and Phobic anxiety do not show correlation to age. Marital status has strong bearing on psychopathology scores, with separated subjects, followed by widows, ranking higher in most variables. Whereas the total number of positive symptoms shown by our subjects is similar to that registered in the general populations of other European countries and in the U.S.A., the global severity scores are significantly higher. Those results reveal a tendency in our population to rate highly the intensity of the symptoms they present.

Research into psychiatric epidemiology in Spain has undergone a marked development over recent years. The adaptation and elaboration of adequate instruments for screening and diagnosis, as well as the systematic application of high-level methodology in field studies has facilitated an

increasingly structured knowledge of the distribution and prevalence of the main psychiatric disorders (Vazquez-Barquero 1987, Vazquez-Baquero 1986, Seva 1984). Nevertheless, as is true in other countries (Binder et al., 1981), epidemiological research in psychiatry has centred, with

very few exceptions (Vazquez-Barquero 1981), mainly on the most severe psychiatric disorders, such as schizophrenia, major affective disorders and organic brain syndromes. Although clearly useful for the understanding of the natural history of the main psychiatric entities, and obviously needed for the correct planning of mental health services, these studies provide little information about the wide range of mild psychological and psychosomatic problems. Transcultural Research in Psychiatric Epidemiology has recently differentiated between major and minor psychiatric morbidity, depending both on the severity of the symptoms and on the degree of the associated social dysfunction. The characteristics and frequencies of major psychiatric morbidity tend to be more uniform throughout cultures, whereas the characteristic features of minor psychiatric morbidity seem to be more culture-specific (Cheng 1989, Kleinman 1987, King 1978, Murphy 1982, Draguns 1980, Mezzich 1980, Gonzalez de Rivera 1973, Warnes 1975).

The so-called minor disorders, however vague, diffuse, and difficult to fit into current psychiatric classifications, represent an important proportion of the general psychiatric morbidity (Cheng 1989, Shepherd 1989). Increasing interest in the study of what has come to be called "Minor Psychiatric Disorders" (Binder et al., 1981) or "Minor Psychiatric Morbidity" (Cheng 1989) has arisen. During the last few years, particularly from the field of Transcultural Psychiatry. The distinction between both types of disorder is casting new light on interesting controversies in Social and Transcultural Psychiatry, such as those related to the "emic-etic dilemma" or extreme views on the influence of cultural factors in psychiatric epidemiology. As it turns out, cultural influence seems greater

on minor psychiatric morbidity, while the Major Disorders show much less transcultural variability (Kleinman 1987, King 1978, Murphy 1982, Berry 1969). In previous work we relate this characteristic intercultural variability to the specific patterns of subjective discomfort and illness behaviour characteristic of each culture. It is obvious that the external expressions of psychic suffering vary greatly from culture to culture, and that symptoms considered as pathological in one place are mere discomforts in another. We have formulated, as a general rule, that the greater the severity of the disorder the more widely it would be recognized as pathological, and the need for professional help more easily accepted. In other terms, the degree of cultural tolerance to psychic suffering decreases proportionally to its severity, as does the ability of the individual to conceal or modulate his external manifestations. Conversely, minor disorders may be disregarded in some cultures and overvalued in others, and the greater individual freedom for symptom expression when suffering is low will enhance his capacity to comply with cultural sanctions and expectations (Gonzalez de Rivera et al., 1990).

Determining the characteristics, frequencies and profiles of psychiatric and psychosomatic disorders and subjective discomforts among the population of the Canary Islands is the major goal of the Epidemiological Studies Programme being developed by the Department of Psychiatry of the University of La Laguna. Subjects requesting medical assistance, whether on their own initiative or at the request of relatives, display a particular self-selecting illness behaviour, and undergo diagnostic and therapeutic procedures which can modify their symptoms. Therefore, we decided to random-select the subjects for

this study from those in the general population not subjected to specific treatment, in order to avoid the inevitable bias in the psychopathological studies of clinical populations (Gonzalez de Rivera 1980, Morera 1984, Garcia-Estrada et al., 1984).

Method

Subject selection

Tenerife is the largest of the Canary Islands, with a surface area of 2,057 km² and a population of 638,000, according to 1981 census figures. With the aim of obtaining a representative sample from the general population, we first established the characteristic age, sex and residence strata of the adult General Population (18 and older). By a method of stratified random selection, we singled out 0,1% of overall population, or 638 subjects. (Gracia-Marco 1986) Where a selected subject was unavailable, refused to be interviewed, was undergoing psychiatric treatment, or could not complete the interview for some other reason, we attempted to replace him with another subject of similar characteristics, although this did not always prove to be possible. Out of the total selected population, 570 subjects completed the survey satisfactorily, thus constituting the sample on which the present study is based. As regards distribution according to sexes, 271 subjects, 47,5%, were male, and 299, 52,5%, female. The mean age of the sample was 38,6, with a range of 18-74 years.

Instruments

The measuring instrument selected is Derogatis Symptoms Check List (SCL-90r). The SCL and its closely related revi-

sed version, the SCL-90R, had wide international use in similar studies (Binder 1981, Hamilton 1987, Roskin 1983, Guimon, 1983). The "Symptom Check List 90" (SCL-90) is a self-administered questionnaire developed and modified by Leonard Derogatis (Derogatis 1973, Derogatis 1975, Derogatis 1983). The Spanish version of the modified American instrument (SCL-90-R) has been developed by our group with the assistance of the original author (Gonzalez de Rivera et al.). The SCL-90 R questions the subject about the presence and intensity of 90 common psychiatric and psychosomatic symptoms, which are classified into 9 dimensions or symptomatic areas. Each symptom can be graded on a scale ranging from "0" (non-existent) to "4" (maximum intensity). The instrument thus reflects the number and intensity of symptoms present. The 9 symptomatic dimensions (Somatization, Obsessiveness, Interpersonal-sensitivity, Depression, Anxiety, Hostility, Phobia, Paranoidism and Psychoticism) constitute an appropriate and conceptually coherent way of grouping the occurring symptoms, and allow the quality and intensity of psychopathology to be measured. Even though the SCL-90 was not set out to be a diagnostic test, and lacks therefore discriminatory cut-off points between normal and pathological states, it does show characteristic profiles for the different nosological entities (Steer 1983). The sum of the total values for each symptomatic dimension allows to calculate the "global severity index" (G.S.I.), which seems to be the general index more closely related to the severity of the occurring psychopathological process (Derogatis 1983, Angst 1984). Other global measures calculated from the instrument are the "Positive Symptom Total" (P.S.T.) or total number of symptoms the patient reports as positive, regardless of their intensity, and the "Posi-

tive Symptoms Distress Index" (P.S.D.I.) or mean intensity of reported positive symptoms.

Procedure

All the interviews were carried out by post-graduate students directly trained and supervised by the main research team. Carefully standardized information about the goals of the study and the response technique was given to each interviewed subject. This extreme is particularly important, in view of our previous studies showing that small variations in the presentation of a questionnaire can substantially modify the response pattern (Gonzalez de Rivera et al., 1987). The basic principle of self-administered questionnaires, namely, the subject's responsibility in the selection of answers and the absence of interference caused by the examiner's subjectivity (Hamilton 1987) was also carefully preserved. Following collection of data, statistical analysis was carried out with the help of the Sigma Statistical package for IBM-PC (Moreau et al., 1988).

Results

The scoring of the questionnaires was carried out in accordance with the usual procedure (Derogatis 1983). The scores obtained by our subjects in the Global Symptom Index and in the symptom dimensions are shown in Tables I and II. As illustrated in fig. 1, the symptomatic area with the highest scores among our population is Depression (D), followed, although not closely, by Obsessionality (O) and Somatization (S). Levels of Anxiety do

not appear to be so significant, compared with the rest of the symptom dimensions.

When we consider this data by sex (Table II), Depression still prevails for both sexes. The relation Obsessionality-Somatization appears reversed, with a tendency towards higher Somatization in females (0.67 vs. 0.62, non statistically significant) and clear higher Obsessionality in males (0.54 vs. 0.38 $p < 0.01$). In the overall comparison between sexes (fig. 2) females present clear higher values ($t = 3.95$, $p < 0.01$) in the global severity index (GSI), confirming many observations suggesting higher incidence of psychopathology in, females (Dohrenwend 1988, Weissman 1977, Jenkins 1985). Nevertheless, when analysing these differences in terms of symptom dimensions, statistically significant differences between sexes persists only for somatization ($t = 6.77$, $p < 0.01$), obsessionality ($r = 1.92$, $p < 0.05$), depression ($t = 5.37$, $p < 0.01$), anxiety ($t = 3.79$, $p < 0.01$) and phobia ($t = 3.98$, $p < 0.01$). There is a lack of appreciable dif-

Table I

SCL-90 Scores in the General Population Canard Islands

	(N = 570)	
	Mean	sd
SOMAT	0.54	0.54
OBS-COMPUL	0.58	0.50
INTER-SENS	0.43	0.42
DEPRESSION	0.70	0.54
ANXIETY	0.49	0.51
HOSTILITY	0.43	0.51
PH-ANXIETY	0.24	0.34
PARANOID	0.44	0.48
PSYCHOT	0.21	0.29
G.S.I.	0.45	0.33

* $p < 0.05$

** $p < 0.001$

Table II
Sex Distribution of SCL-90 Scores

	Men (n = 271)				Women (n = 299)	
	Mean	s.d.	Mean	s.d.	Values	Signif.
SOMATI	0.38	0.42	0.67	0.60	6.77	**
OBS-COMPUL	0.54	0.45	0.62	0.54	1.92	
INTER-SENS	0.39	0.38	0.46	0.45	1.75	NO
DEPRESSION	0.58	0.44	0.81	0.59	5.37	**
ANXIETY	0.42	0.38	0.57	0.53	3.79	**
HOSTILITY	0.40	0.47	0.45	0.54	1.23	NO
PH-ANXIETY	0.18	0.25	0.29	0.40	3.98	**
PARANOID	0.45	0.47	0.44	0.49	0.25	NO
PSYCHOT	0.20	0.27	0.22	0.31	0.91	NO
G.S.I.	0.39	0.28	0.50	0.36	3.95	**

*p < 0.05

**p < 0.001

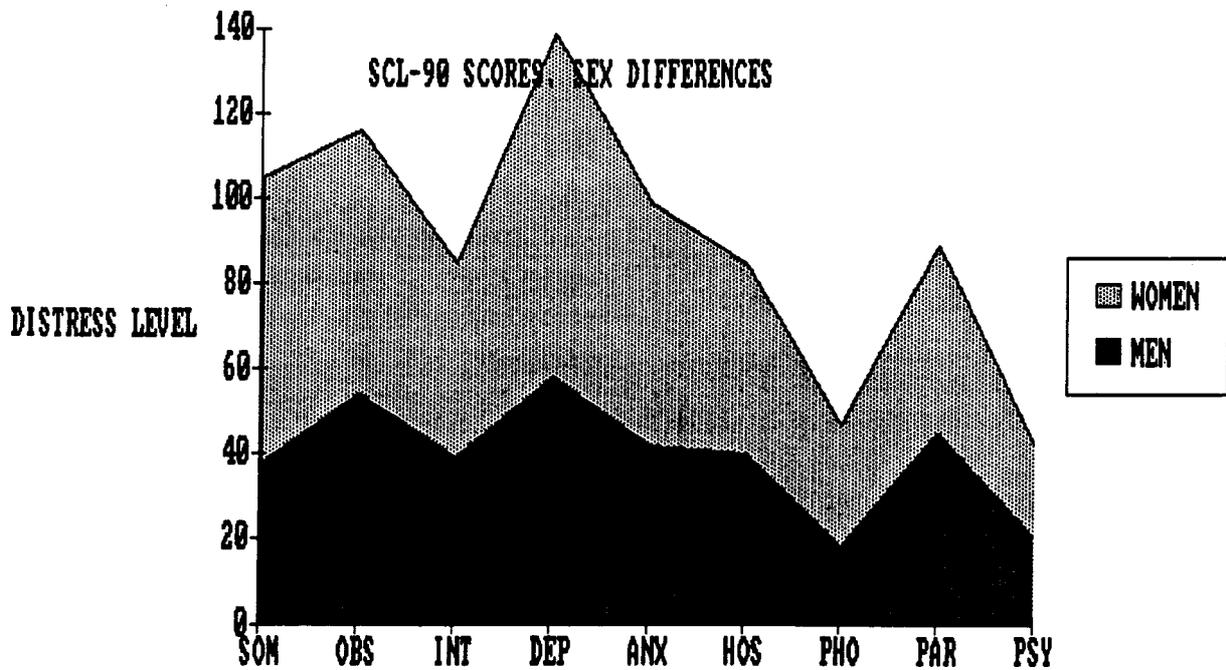


Figure I

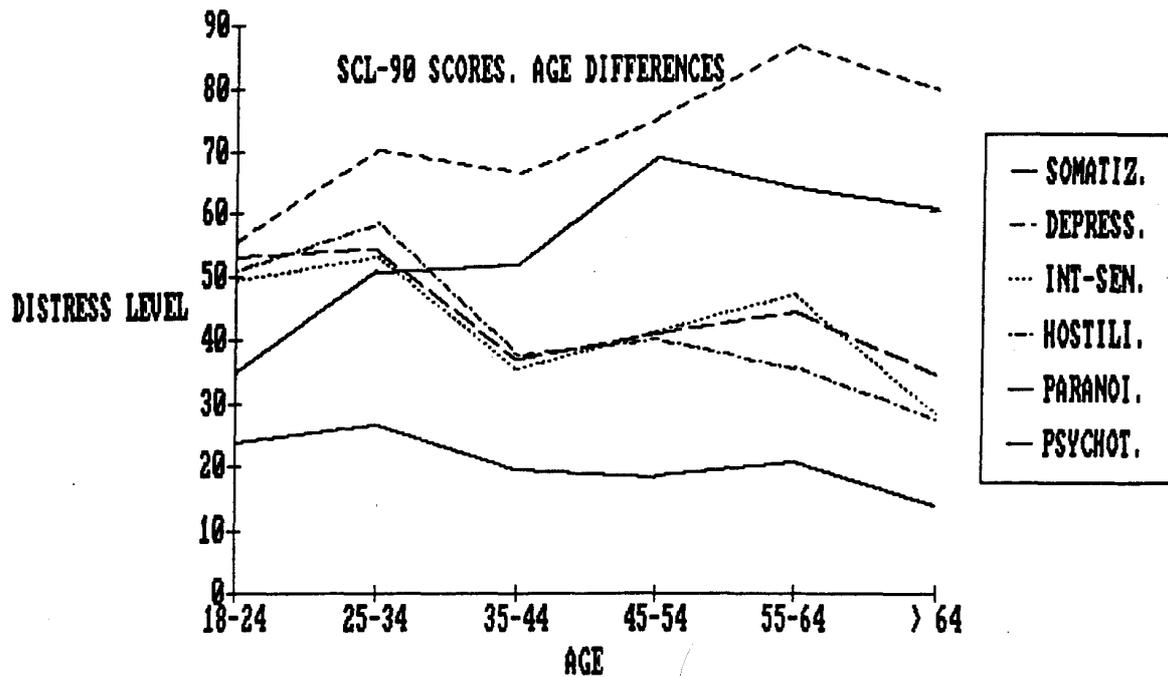


Figure 2

ferences in the dimensions of Interpersonal hypersensitivity, hostility, paranoid ideation and psychoticism. Our findings may be interpreted in the sense that sex differences are limited to areas of subjective suffering, probably stemming from disorders of a neurotic or psychosomatic nature, and are not present in the symptom dimensions reflecting nature, and are not present in the symptom dimensions reflecting disorders in interpersonal relationships, which are probably linked to psychotic or personality disorders.

In order to study the relationship between age and symptom dimensions, we have calculated the Pearson's correlation coefficients for the GSI and each symptom dimension scores with age. The results are shown in Table III. Although there is no correlation between the global symptom index and age, several symptom dimensions show significant correlations, in some cases positive and in others negative. So-

matization and depression appear to increase with age, whereas Interpersonal sensitivity, hostility, paranoid ideation and psychoticism decrease. The graphic representation of these relationships is shown in fig. 3. On the other hand, we do not find

Table III
SCL-90 Scores Correlation With age

	(N = 570) Cor. Coef.	Signif.
SOMATI	0.1785	
OBS-COMPUL	-0.0118	NO
INTER-SENS	-0.1268	
DEPRESSION	0.1603	
ANXIETY	-0.0098	NO
HOSTILITY	-0.1701	
PH-ANXIETY	0.0831	NO
PARANOID	-0.1192	
PSYCHOT	-0.1104	
G.S.I.	-0.0084	NO

* $p < 0.05$

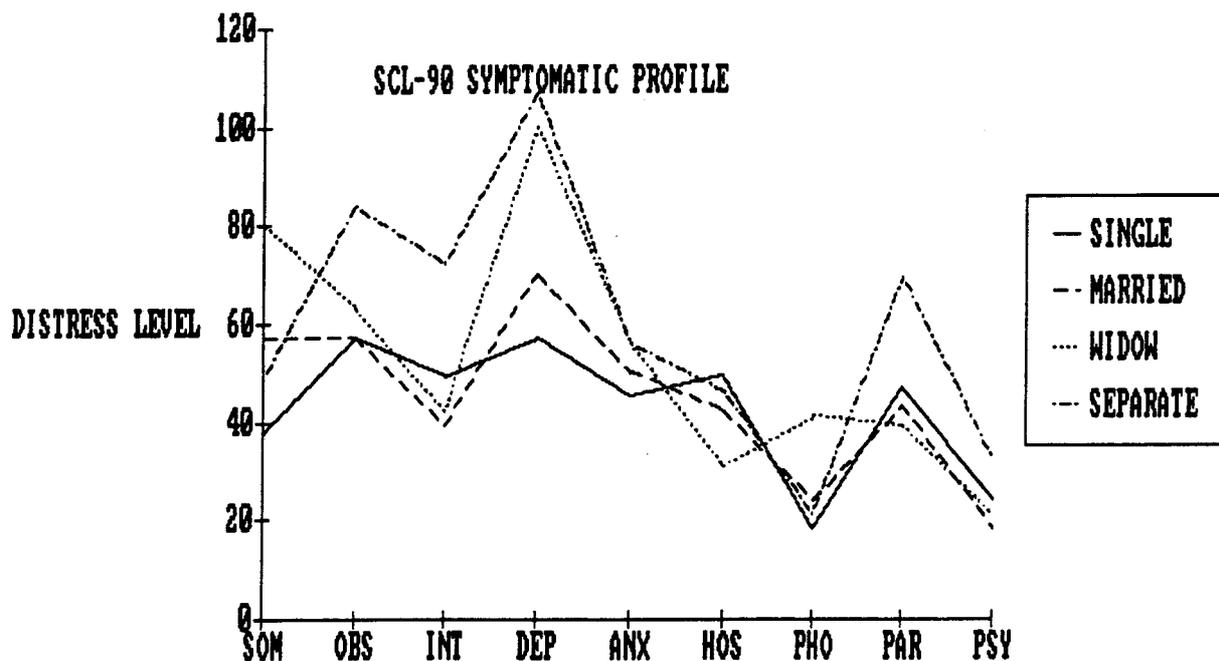


Figure 3

any significant correlation between age and the scores for obsessiveness, anxiety and phobia. In view of those results, the absence of a relationship between age and the Global Severity Index (GSI) can be easily interpreted as the result of a compensatory effect between opposite sign age-related symptom dimensions.

Our findings on Psychopathology scores related to Marital Status are particularly remarkable (see Table IV), and seem to corroborate previous studies by Gove (Gove 1971, Gove et al., 1973). Widows and separated subjects present a very similar Global Severity Index, which are clearly higher than those found for single and married subjects. When we consider the symptom dimensions, the differences appear to be most significant for depression, and, in the case of widows, also for somatization. Those results do not change when we apply age-correction. The mean age of separated subjects (47.3), is close to that of ma-

ried subjects. Widows, whose mean age is 62.5, continue to show significantly higher levels for depression and somatization than married and single subjects, even after applying age correction. Interestingly, the levels of depression and somatization appear to be higher for married people, compared to single subjects ($p < 0.05$). However, these differences between single (mean age = 28.6) and married subjects (mean age = 42.9) disappear when the results are corrected for the age-effect. Widows also present lower levels of hostility and higher levels of phobic anxiety when compared with the rest of the groups, although they do not present significant differences in general anxiety scores. Separated subjects are a particularly interesting group. To start with, they represent a very low number in our sample ($n = 15$) which we explain by the combination of two factors: first, the tendency shown by our population to form new couples after separation or divorce, in

Table IV
Marital Status and SCL-90R Scores

	Single n=154		Married n=349		Widows n=52		Separated n=15	
	Mean	s.d.	Mean	s.d.	Mean	s.d.	Mean	s.d.
S.	0.38	0.46	0.57	0.54	0.80	0.69	0.49	0.58
O.C.	0.57	0.52	0.57	0.48	0.63	0.55	0.84	0.52
I.S.	0.49	0.44	0.39	0.40	0.42	0.42	0.72	0.51
D.	0.57	0.53	0.70	0.51	1.00	0.57	1.07	0.61
A.	0.45	0.42	0.50	0.48	0.56	0.51	0.56	0.49
H.	0.49	0.53	0.42	0.50	0.31	0.46	0.46	0.57
Ph.	0.18	0.28	0.24	0.35	0.41	0.44	0.21	0.18
P.1.	0.47	0.49	0.43	0.47	0.39	0.54	0.69	0.45
PSY.	0.24	0.32	0.18	0.27	0.21	0.27	0.32	0.33
GSI.	0.43	0.33	0.44	0.33	0.52	0.37	0.59	0.29

a relatively short period of time, and, second, our definition of "marriage" as "a couple formed by individuals of different sex living together in a stable manner", without considering the degree of legal recognition of the relationship. Therefore, within our sample, the term "separated" should be understood as "unable or reluctant to form a new couple" more than designing a particular legal status. This might explain the high levels of paranoia and interpersonal hypersensitivity shown by this group. The very high scores reached by this group in obsessive-compulsive symptoms are more difficult to interpret, unless we accept that the symptoms making up this dimension relate with other factors which hinder the development of stable relationships.

The mean PST or total number of positively answered questions in the SCL-90, is 25 for the whole sample. Females present more symptoms than males, 29 vs. 21, and in addition show greater PSDI, that is, tend to ascribe greater intensity to their symptoms. A detailed analysis of the frequencies and patterns of each one of the 90

symptoms, is presented in a separate work (Gonzalez de Rivera et al., 1990).

Discussion and conclusions

Our version of the 90-Symptoms Questionnaire is easily administered and well understood by the general population. Comparison of our results with American subjects, reported elsewhere (Gonzalez de Rivera et al.) show a slightly higher global symptom index in our population, as also happens when comparisons are drawn with studies in Israel (Roskin et al., 1983) and in Getxo (Guimon et al., 1983). One must keep in mind that "general population" does not mean "normal subjects", in spite of the precaution we took in excluding from our study subjects clearly disturbed and/or subjected to psychiatric treatment. We should recall that the prevalence of neurosis in the European general population ranges from 6.2 to 16.6%, depending on the area and the methodologies applied, and that in Spain it may reach 11.5%, according to data obtained in a rural zone in Navarra (Vazquez-Barquero 1981). At pre-

sent, we cannot specify whether the data obtained from our population reflects a relatively high prevalence of neurotic pathology or a peculiar cultural pattern in the identification and evaluation of subjective symptoms. On this last point, we must bear in mind that some personality features, such as the tendency towards extroversion and emotionality, facilitate the achieving of higher scores on any type of scale (Hamilton 1987, Paykel et al., 1973). On the other hand, one of our previous studies on stress has shown a clear tendency by the general population of Tenerife to evaluate the stressful potential of life events much higher than other populations (Gonzalez de Rivera et al., 1983). This may lead us to suspect that the same tendencies may be operating in the subjective evaluation of the intensity of the symptoms registered by the SCL90R. The higher scores attained by females in the global index and in several specific indices might also be interpreted in the same light. Although Binder (1981), who has applied a very similar methodology in Switzerland, supports the hypothesis that the higher scores reflect a real prevalence of psychopathology in females, the fact that in our study the differences are to be found precisely in those areas most likely to be influenced by emotionality and hysterical trends, allows for the a reasonable doubt to be maintained. Moreover, the differences related to sex are present at all age levels, irrespective of marital status.

As regards the increase in depression and somatization with age, the findings corroborate other studies showing higher mean age in depressive subjects. These studies also reveal a modifying effect of age on the expression of depressive symptoms, with a trend to increasing presentation of depressive equivalents of a somatic nature (Kalton 1984, Matthew et al., 1981).

Marriage seems to exert a certain, albeit minimal, protective effect, which becomes somewhat more evident when age adjustment is applied. When the marriage relationship is broken off, as occurs in widowed and separated subjects, a dramatic increase in subjective distress is apparent, when the adequate corrections for the age intergroup differences are applied. Separated people, who show dramatic increases in the indices of depression, as do widows, present an additional excess in factors which possibly have a distorting effect on the development of relationships, such as paranoid ideation, psychoticism and interpersonal sensitivity.

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