XV. Epidemiological line of study

1. FOREWORD

- It should be recalled that the screening instrument used (the MINI) only enables **diagnostic estimations** of the main psychiatric disorders. The results presented can however be analysed and compared with those using the same questionnaire or a similar one, with the usual reservations. First an overall analysis is presented, followed by analysis site by site. Then an attempt is made to distinguish certain openings relating to psychosocial consequences of the disorders (perceived inconvenience or distress, sick leave) and to therapeutic recourse. It must be noted that samples are only representative of the site where the survey takes place. Conclusions can be drawn for all the Mauritius, Reunion, Guadeloupean and Comoros zones but not for France or Madagascar.

- *In comparison with the other sites, the prevalence rate of 10.6% found for the Comoros site for respondents with at least one mental disorder can appear low. It can merely be emphasised that the usual precautions need to be applied, as was pointed out in the first part of this report concerning the bias inherent in the survey conditions in this site, the difficulty of the questionnaire as perceived by respondents, translation and cultural adaptation problems, educational characteristics of the population and the characteristics of medical provision in the country. All these factors may well have contributed to distorting the prevalence rates observed. As things stand, it cannot be determined whether or not the figures obtained correspond to a low rate of disorders present and a faithful picture of the state of health of the Comoros population. Further study using simpler screening instruments is required to try to validate this first data. For reasons of coherency and relevance the Comoros site figures are given in brackets.*
- It should be underlined that in following analysis only subjects presenting at least one disorder in the MINI are concerned. Regarding French sites, a more detailed comorbidity analysis will be performed on the second phase survey data (representative national sample of French population)

2. OVERALL ANALYSIS

- From 10.6 to 45.9% of respondents showed at least one disorder from administration of the MINI questionnaire. The lowest percentage is found in the Comoros site and the highest in Antananarivo, while in Mahajanga, the other Madagascar site, the percentage is “only” 30.9% In metropolitan France proportions vary from 23.8% in Pyrénées Orientales site to 36% in Tourcoing site. The two sites presenting extreme values are also the sites in which the greatest number of methodological problems arose in the field. If for reasons of caution these results are set aside, it can be said that overall prevalence of individuals presenting at least one mental disorder at the time of the survey ranges from 22.2% (Mauritius) to 36% (Tourcoing).

For the sites as a whole (except for the Comoros) about one person in three presented a psychiatric disorder at the time of the survey. These results should be set alongside those obtained from the “National Comorbidity Survey” which showed that in 1994 nearly 50% of the general population in the USA showed at least one psychiatric disorder in the course of his/her lifetime, and 30% in the year preceding the survey.

Likewise, WHO survey published in 1995 has showed that 25% of the persons visiting a general practitioner were presenting anxious troubles (and only ¼ were approprietely treated).

TABLE 35 : MINI DETAILED RESULTS FOR EACH SITE – 1 / 3

	At least one disorder		Depressive episode		Depressive episode				Dysthymia		Manic episode					
					Recurrent depressive episode		Major depressive episode				Yes, no detail		Yes, present		Yes, past	
	Nb	%	Nb	%	Nb	%	Nb	%	Nb	%	Nb	%	Nb	%	Nb	%
Comoros	97	10,6%	43	4,7%	8	0,9%	16	1,7%	2	0,2%	1	0,1%	1	0,1%	1	0,1%
Antananarivo	413	45,9%	198	22,0%	68	7,6%	109	12,1%	10	1,1%			5	0,6%	5	0,6%
Mahajanga	278	30,9%	139	15,4%	57	6,3%	94	10,4%	2	0,2%					9	1,0%
Mauritius	200	22,2%	116	12,9%	51	5,7%	63	7,0%	14	1,6%			7	0,8%	1	0,1%
Réunion	272	29,9%	103	11,3%	44	4,8%	61	6,7%	17	1,9%			5	0,6%	9	1,0%
Guadeloupe	270	31,6%	118	13,8%	49	5,7%	70	8,2%	7	0,8%			2	0,2%	3	0,4%
Marseille	313	35,1%	121	13,5%	66	7,4%	74	8,3%	23	2,6%	1	0,1%	3	0,3%	13	1,5%
Pyrénées Orientales	211	23,8%	66	7,5%	26	2,9%	40	4,5%	7	0,8%	2	0,2%			2	0,2%
Nantes	116	28,1%	33	8,0%	17	4,1%	21	5,1%	7	1,7%			2	0,5%	6	1,5%
Sud hauts de Seine	270	30,0%	101	11,2%	54	6,0%	57	6,3%	18	2,0%			1	0,1%	11	1,2%
Vallée de la Lys	298	33,0%	123	13,6%	73	8,1%	87	9,6%	17	1,9%			1	0,1%	12	1,3%
Lille-Hellemmes	182	29,9%	64	10,5%	34	5,6%	44	7,2%	11	1,8%			2	0,2%	6	0,7%
Tourcoing	324	36,0%	109	12,1%	50	5,5%	72	8,0%	21	2,3%			8	0,9%	8	0,9%

Total	3244	34%	1334	12%	597	6%	808	9%	156	2%	4	0%	37	0%	86	1%

TABLE 35 : MINI DETAILED RESULTS FOR EACH SITE– 2 / 3

	Agoraphobia		Panic disorder		Agoraphobia with panic disorder		Social phobia		Obsessive compulsive disorder		Generalised anxiety		Post traumatic stress		Boulimia		Mental anorexia	
	Nb	%	Nb	%	Nb	%	Nb	%	Nb	%	Nb	%	Nb	%	Nb	%	Nb	%
Comores	7	0,8%	15	1,6%	1	0,1%	3	0,3%	1	0,1%	31	3,4%	12	1,3%	2	0,2%		
Antananarivo	53	5,9%	76	8,5%	14	1,6%	53	5,9%	23	2,6%	74	8,2%	34	3,8%	4	0,4%		
Mahajanga	19	2,1%	45	5,0%	2	0,2%	31	3,4%	17	1,9%	34	3,8%	6	0,7%			2	0,2%
Mauritius	13	1,4%	20	2,2%	3	0,3%	14	1,6%	4	0,4%	54	6,0%	10	1,1%	4	0,4%		
Réunion	28	3,1%	37	4,1%	3	0,3%	41	4,5%	6	0,7%	93	10,2%	3	0,3%	1	0,1%		
Guadeloupe	20	2,3%	29	3,4%	4	0,5%	27	3,2%	6	0,7%	95	11,1%	5	0,6%	2	0,2%		
Marseille	25	2,8%	28	3,1%	6	0,7%	40	4,5%	12	1,3%	110	12,3%	3	0,3%	14	1,6%		
Pyrénées Orientales	17	1,9%	24	2,7%	2	0,2%	37	4,2%	3	0,3%	64	7,2%	4	0,5%	2	0,2%		
Nantes	7	1,7%	21	5,1%	3	0,7%	23	5,6%	6	1,5%	34	8,2%			1	0,2%		
Sud hauts de Seine	12	1,3%	28	3,1%	3	0,3%	35	3,9%	9	1,0%	108	12,0%	10	1,1%	6	0,7%		
Vallée de la Lys	28	3,1%	40	4,4%	5	0,6%	42	4,7%	10	1,1%	124	13,7%	1	0,11%	3	0,3%		
Lille-Hellemmes	12	2,0%	33	5,4%	7	1,2%	39	6,4%	11	1,8%	71	11,7%	1	0,16%				
Tourcoing	19	2,1%	39	4,3%	4	0,4%	41	4,6%	7	0,8%	125	13,9%	8	0,9%	7	0,8%	1	0,1%

Total	260	3%	435	5%	57	1%	426	4%	115	1%	1017	11%	97	1%	46	0%	3	0%

TABLE 35 : MINI DETAILED RESULTS FOR EACH SITE– 3 / 3

	Alcohol dependence		Alcohol abuse		Drug dependence		Drug(s) abuse		Clinician diagnosis – psychotic symptoms							
									Present isolated psychotic syndrome		Past isolated psychotic syndrome		Present recurrent psychotic syndrome		Past recurrent psychotic syndrome	
	Nb	%	Nb	%	Nb	%	Nb	%	Nb	%	Nb	%	Nb	%	Nb	%
Comoros											2	0,2%			2	0,2%
Antananarivo	55	6,1%	23	2,6%	6	0,7%	2	0,2%	1	0,1%			1	0,1%	1	0,1%
Mahajanga	49	5,4%	26	2,9%	2	0,2%	1	0,1%			13	1,4%	1	0,1%	3	0,3%
Mauritius	29	3,2%	8	0,9%	3	0,3%	1	0,1%	1	0,1%	8	0,9%	15	1,7%	6	0,7%
Réunion	11	1,2%	16	1,8%	6	0,7%	5	0,6%	1	0,1%	8	0,9%	9	1,0%	2	0,2%
Guadeloupe	12	1,4%	11	1,3%	8	0,9%	4	0,5%	7	0,8%	10	1,2%	22	2,6%	9	1,1%
Marseille	17	1,9%	19	2,1%	18	2,0%	7	0,8%	2	0,2%	3	0,3%	11	1,2%	3	0,3%
Pyrénées Orientales	11	1,2%	20	2,3%	6	0,7%	4	0,5%	2	0,2%	1	0,1%	5	0,6%	2	0,2%
Nantes	6	1,5%	8	1,9%	8	1,9%	9	2,2%			4	1,0%	4	1,0%	2	0,5%
Sud des Hauts de Seine	15	1,7%	13	1,4%	9	1,0%	10	1,1%	2	0,2%	3	0,3%	11	1,2%	8	0,9%
Vallée de la Lys	17	1,9%	16	1,8%	6	0,7%	3	0,3%			1	0,1%	1	0,1%	3	0,3%
Lille-Hellemmes	9	1,48%	16	2,6%	6	1,0%	2	0,3%	1	0,2%	3	0,5%	4	0,7%	4	0,7%
Tourcoing	17	1,9%	19	2,1%	15	1,7%	7	0,8%	3	0,3%	4	0,4%	6	0,7%	6	0,7%

Total	248	3%	195	2%	93	1%	55	1%	20	0%	60	1%	90	1%	51	1%

A. Depressive disorders

- The main disorders noted were first of all **depressive** (major depressive episode (CIM-10 code : F32) isolated or recurrent (CIM-10 code F33), present and/or past, and mood disturbances (CIM-10 code : F34.1)), which show an **overall prevalence** of 13% (1440 individuals) ranging from 7.5% in the Pyrénées orientales to 22% in Antananarivo (Comoreo 4.7%). Of these disorders, on average 6% are recurrent : from 2.9% in the Pyrénées orientales to 7.6% in Antananarivo (Comoros 0.9%).

- The overall prevalence for manic episode (present or past) is 1%.

- The overall prevalence for **major depressive episode is 9%,** ranging from 4.5% in the Pyrénées orientales to 12.1% in Antananrivo (Comoros 1.7%). The range in French sites is 4.5% Pyrénées orientales to 8.3% in Marseille.

- If these figures are compared to those from similar studies, it is seen that the "National Comorbidity Survey" found a prevalence over the preceding 12 months of 10% for a major depressive episode.

- The DEPRES (Depression Research in European Society) study determined prevalence of depression over 6 months using the MINI. In France 22% of respondents (15 000) showed depressive symptoms, 9,1% of which corresponded to major depression, 1,7% to minor depression and 11,6% to depressive symptoms. Major depression shows dominance of females (sex ratio 2/1) but in minor depression the rates are equivalent for the two sexes.

- Also in France, the CREDES published a study on the prevalence and medical referral of depression, and found a prevalence rate of 12% for depressed subjects in the sample of social security contributors (1996-1997), using the same diagnostic instrument (the MINI, self administrated). This study also shows 6,3% of respondents stating they are depressed. By combining the two modes of exploration, a total rate for depressive subjects of 15% is found for the 16+ population (20% in women and 9% in men).

- Further to this, the latest WHO figures show that depression is a frequent health problem world-wide, affecting 340 million people.

- The prevalence data obtained from this survey are therefore coherent with the latest national and international surveys. Even if the representation of depression varies from one culture to another, as was clearly shown in the first part of the survey, depressive symptoms are found whatever the site. It should be emphasised that the highest prevalence is found in Antananarivo, while it is in this very site that the greatest difficulty was experienced by respondents in answering questions on representations of “depression” a term that does not exist in

Malagasy. Hence an individual can present symptoms of depression captured by the MINI and give them a different name according to their culture.

GENDER

- **Depressive episode is more frequent among women** (general gender ratio 1.6 women for 1 man). The gender ratio range is fairly wide from 1.06/1 in Nantes to nearly 3/1 in Guadeloupe (2,8) and in Pyrénées orientales (2,9). In the two latter sites the reasons explaining the gender difference are not the same : in Guadeloupe, in comparison with other sites, the proportion of depressive women is higher. In Pyrénées orientales, the number of depressed men is lower than in other sites. This distribution seems difficult to correlate with cultural variability factors : the gender ratio is identical in Mahajanga and Tourcoing (1.2) and also in Nantes and the Comoros (+/-1).

AGE

- There are several local features in the distribution of depressive episodes according to age, but they are statistically not very significant. Depressive disorders affect all age groups. It should however be noted that in Marseille and the Vallée de la Lys people showing present depressive disorders are proportionally more numerous among the young (18-29 yrs).

MARITAL STATUS

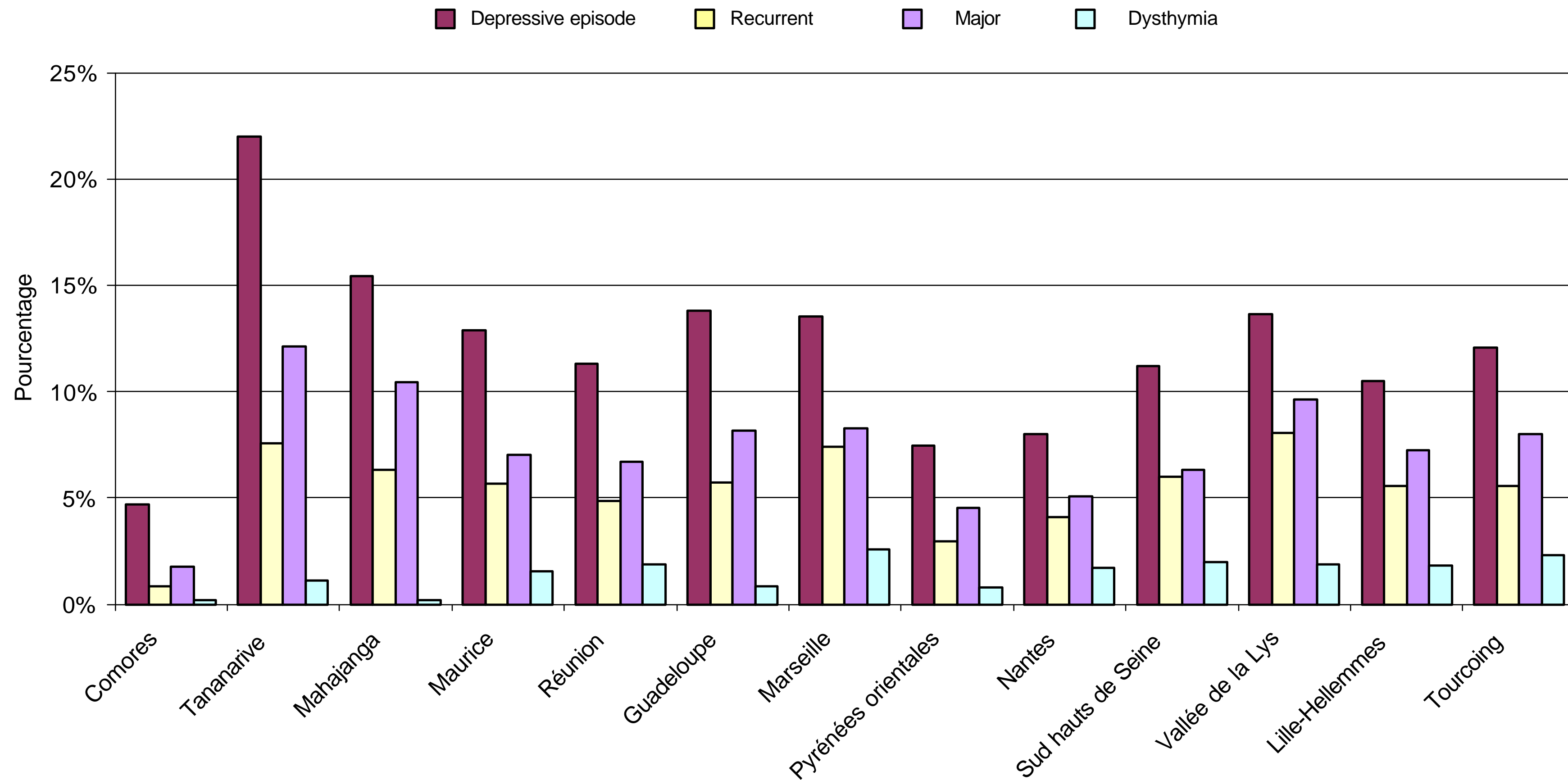
- Whatever the site, separated or divorced subjects show proportionally 2 to 3 times more depressive episodes than those who are married, widowed or single. It can be noted that in Marseille and the Vallée de la Lys, the rate for single persons showing a present depressive episode is higher than in other sites. It can be said that in these two sites young single individuals are more often depressed than the average for their sites. Nevertheless, these results have to be viewed with caution because of low sample numbers in each sites. Thus, numbers of separated or divorced subjects presenting a depressive episode can vary from 4 to 24, while numbers of married subjects presenting a depressive episode vary from 15 to 144.

EMPLOYMENT

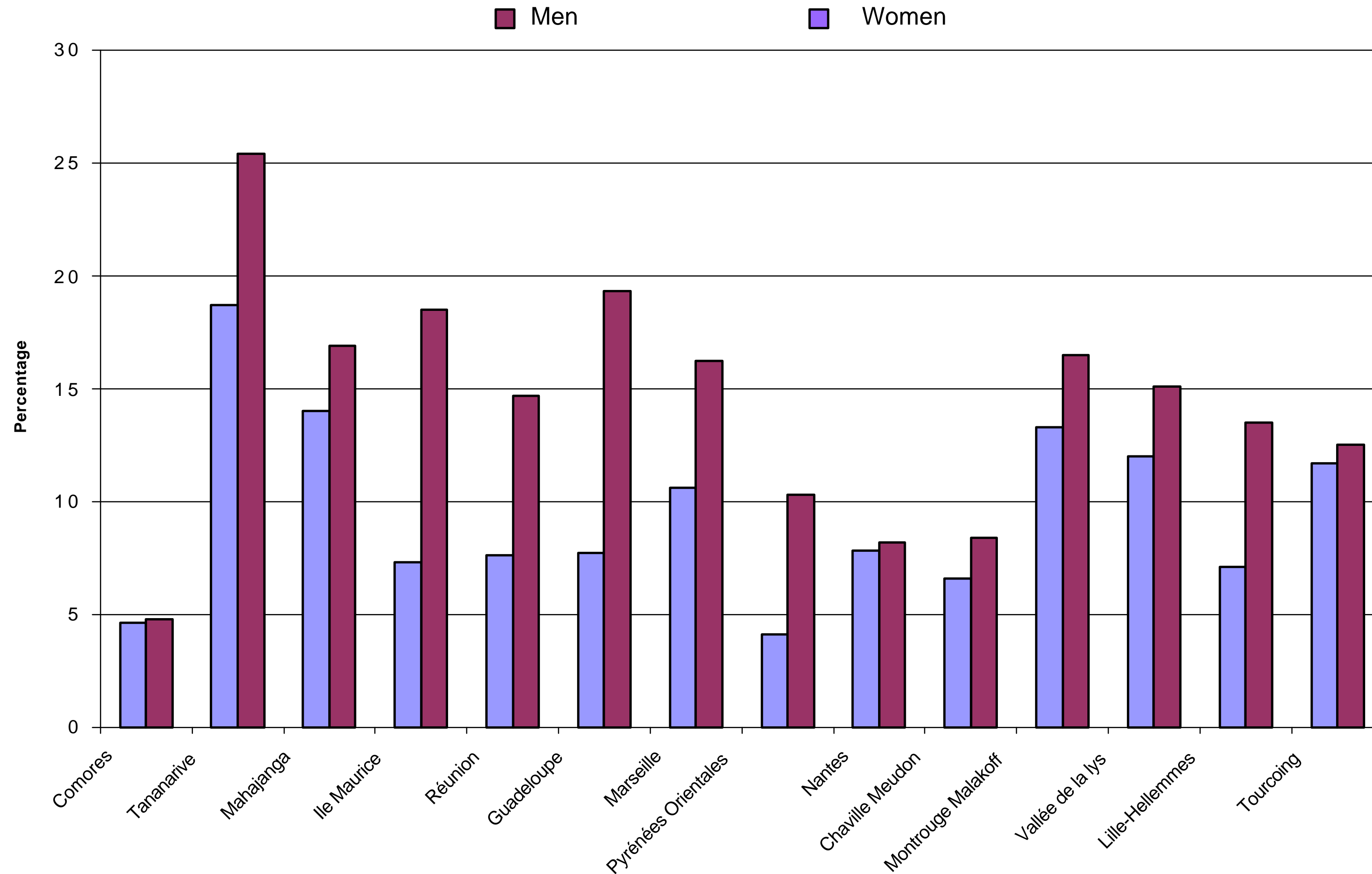
- The analysis of the situation with respect to employment requires considerable caution : the definition of the status varies with age. However it can be noted for all sites that a slightly higher prevalence for depressive disorders is observed for people without employment. It is in Guadeloupe that this prevalence is the most marked. In this site, the prevalence is the same irrespective of age and gender.

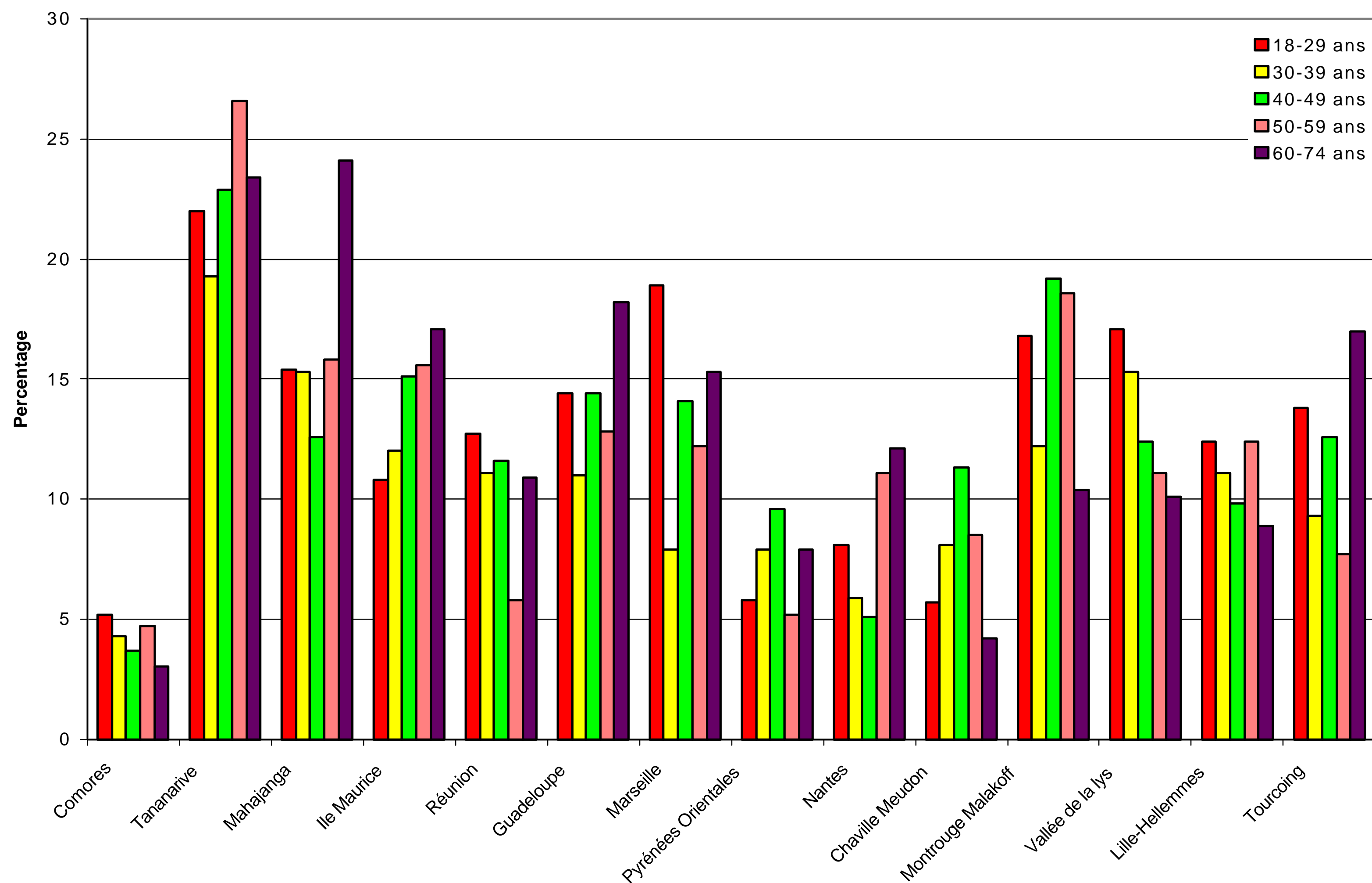
Whatever the site, the other socio-demographic variables (migration, belief, active religious practice) show no significant variations with relation to disorders.

GRAPH 45 : PREVALENCE OF DEPRESSIVE EPISODE (RECURRENT AND/OR MAJOR) AND DYSTHYMIA

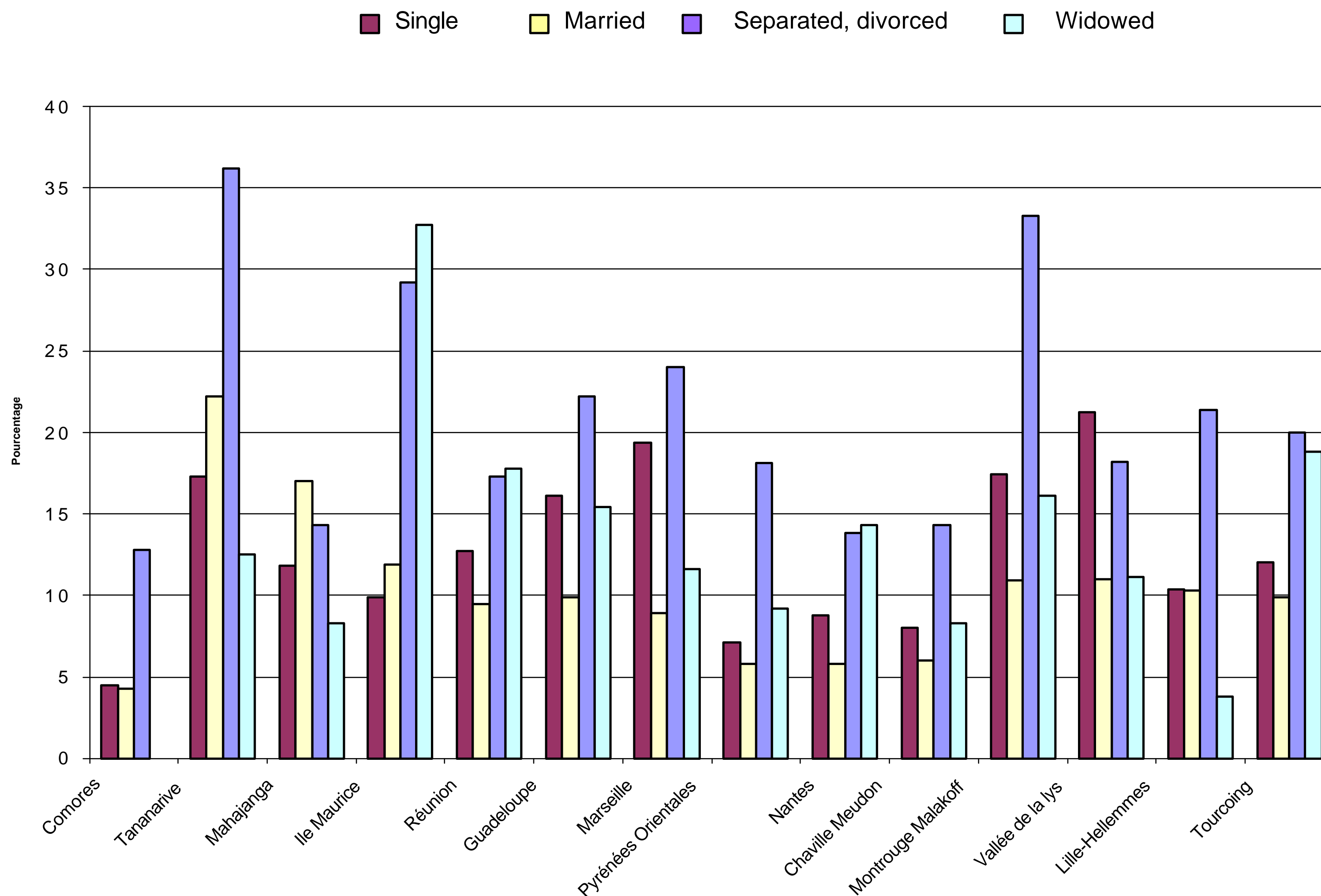


GRAPH 46 : PREVALENCE OF DEPRESSIVE EPISODE ACCORDING TO GENDER




GRAPH 47 : PREVALENCE OF DEPRESSIVE EPISODE ACCORDING TO AGE
Percentage
30
25
20
15
10
5
0
18-29 ans
30-39 ans
40-49 ans
50-59 ans
60-74 ans
Comores
Tananarive
Mahajanga
Ile Maurice
Réunion
Guadeloupe
Marseille
Pyrénées Orientales
Nantes
Chaville Meudon
Montrouge Malakoff
Vallée de la lys
Lille-Hellemmes
Tourcoing

GRAPH 48 : PREVALENCE OF DEPRESSIVE EPISODE ACCORDING MATRIMONIAL STATUS



DEPRESSIVE DISORDERS AND THE CULTURAL ENVIRONMENT

- For a long time depressive illness was considered to be a pathology that was restricted to Western populations, and it was not until the 1960s that psychiatrists began to recognise the condition among non-Westerners[103-104]. However, the clinical manifestation of this disorder is still problematic on account of the difficulty in defining a universal unvarying profile. There are cultures of blame or cultures of shame, depressive affects are somatised or referred to psychology, so that the debate is still open : defining a universal clinical profile for depression is a goal that anthropologists regularly show us to be difficult to achieve.

- **Using an instrument like the MINI to explore prevalence of depressive episodes in general populations in different cultural environments poses the question of what the transcultural validity of psychiatric epidemiology might be.**

- As has been seen, the assessment of prevalence of present depressive episodes in the general population using the MINI shows an estimated prevalence ranging from 4.7% in the Comoros site to 22% in Antananarivo site. Average prevalence is around 12%. Thus the extremes are two sites that are geographically close, and if it is possible to explain these results by possible logistic bias, the question of the validity of the description of the depressive illness on which the MINI rests should also be asked, wherever it is used in a non-Western environment. The use of the sign-symptom to define any psychiatric entity is never culturally neutral.

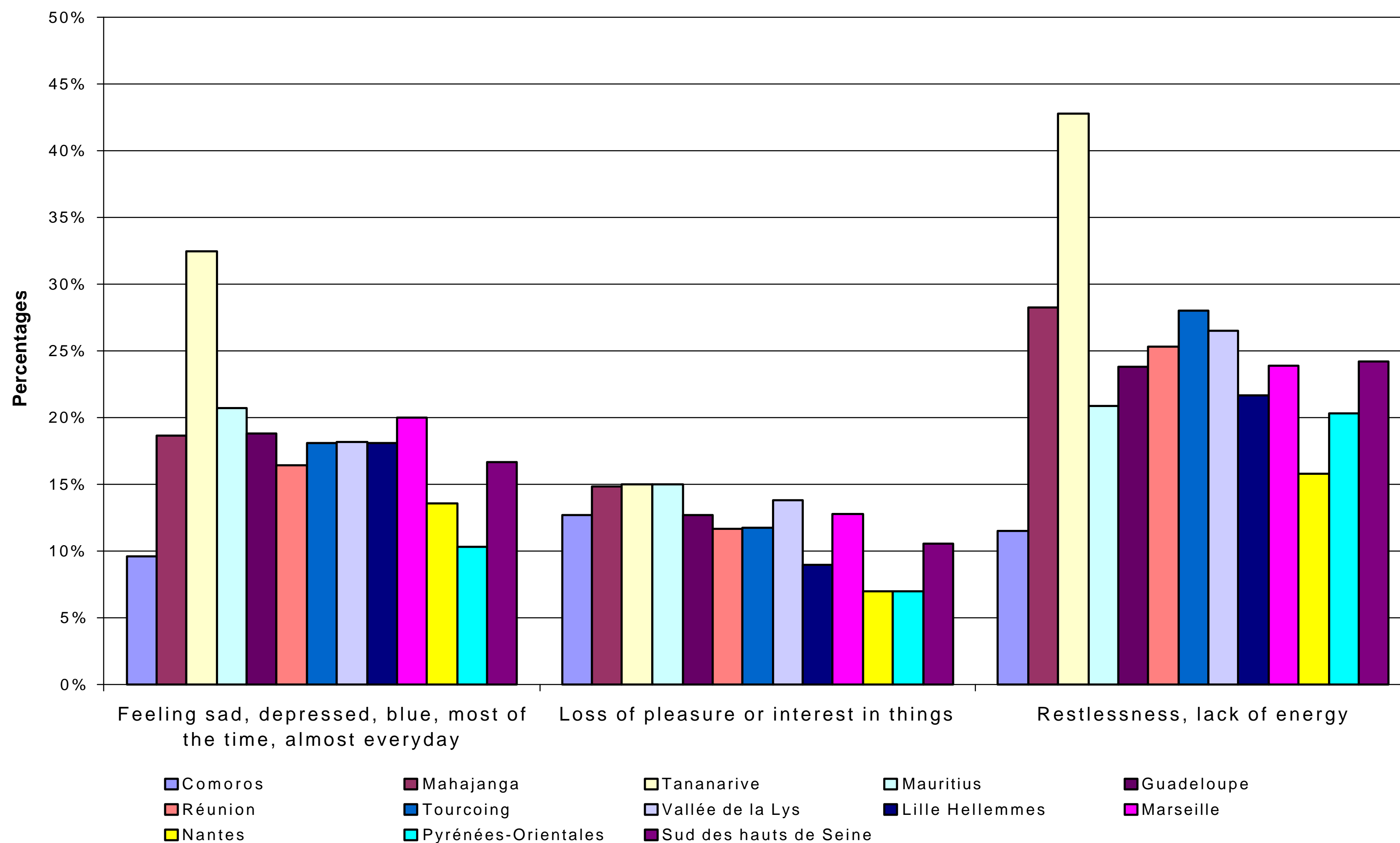
- **The comparative analysis of the results obtained from the MINI, in addition to syndrome prevalence, can be applied to symptoms.**

- **Table 49** is a graphic representation of intersite variations in the prevalence in the general population of the symptoms explored in section A1 of the MINI. These are **depressive mood, anhedonia, abulia, and asthenia**. Results show noticeable disparities between sites.

- **For depressive mood**, this symptom is found for 9.6% in the Comoros site and 32.5% in Antananarivo. For French metropolitan sites extremes are Marseille (20%) and Pyrénées orientales (10.3%).
- Anthropologists emphasise that caution is required with regard to ways in which dysphoric affects are expressed, and to culturally determined constructs of depressive affects. Questioning the general population on feelings of "depression" implies that a semantic equivalent must exist in the language used, while this is not the case in many cultures. The transcultural validity of this item needs to be assessed.

- **Anhedonia and abulia** are found in a more consistent manner among the various sites, ranging from 7% in Pyrénées orientales and Nantes to 15% in Antananarivo and Mauritius. This item is the one that is the least frequently found in the general population, it is also the item for which there is the least variation from one site to another.

GRAPH 49 : PREVALENCE OF FIRST RANK DEPRESSIVE SYMPTOMS IN GENERAL POPULATION



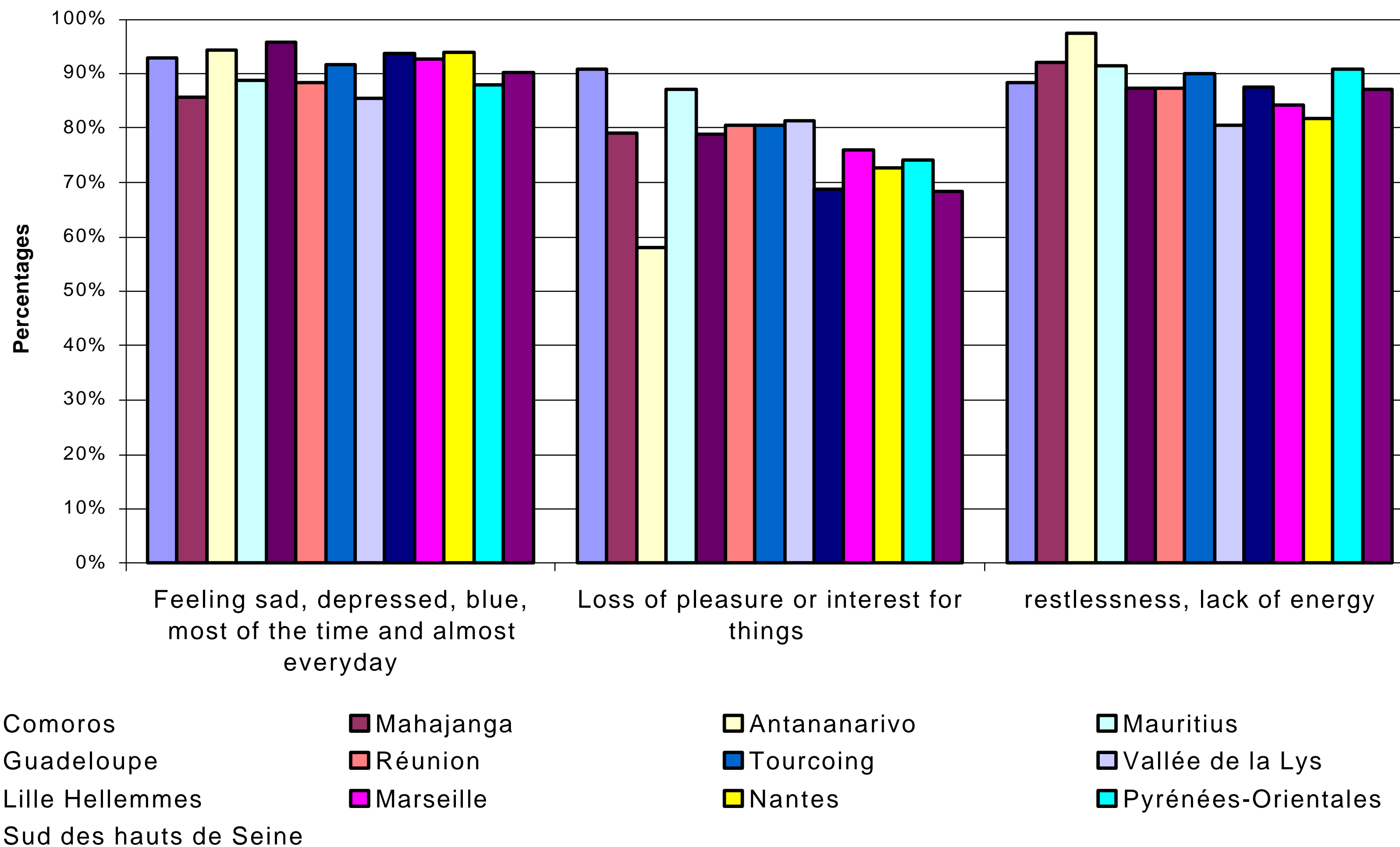
- Asthenia ranges from 11.5% in the Comoros site to 42.8% in Antananarivo. For French metropolitan sites the extremes are Nantes 15.8% and Tourcoing 28%.
- The heterogeneity of results for this symptom raises again the question of cultural validity. What does it mean to be tired and lacking energy in Antananarivo and Nantes ? Is the feeling comparable ? What is the fatigue threshold beyond which it becomes morbid and a medical sign ? These questions call for a complementary approach in collaboration with anthropology to define the meaning of asthenia in different cultural contexts.

- Table 42 shows the prevalence of first rank symptoms in individuals identified by the MINI.
- If the prevalence of these symptoms is fairly heterogeneous from one site to the other generally, here, for "depressive" subjects, there is some homogeneity between sites. Thus, apart from Antananarivo where only 58% of "depressive" subjects present anhedonia, there is little intersite variation for the prevalence of first rank symptoms.

Hence the MINI seems efficient in forming homogeneous groups of individuals for depressive disorders. However, its usefulness for the study of inter-cultural variations in the clinical depressive profile is limited, in the sense that, on account of its design, it excludes individuals whose depression expresses itself via culturally determined symptoms.

- Kleinman[106-107] thus criticised the methodology used in the International Pilot Study of Schizophrenia and the use of the Present State Examination, emphasising that resorting to identical inclusion criteria for all sites, although it had made it possible to form comparable samples of "schizophrenics" with good reliability in the various cultures, at the same time excluded individuals for whom the cultural variations were greater, and it is precisely this study of the epidemiological exclusions that could have enabled the evidencing of the cultural variations in this disorder.

GRAPH 50 : PREVALENCE OF FIRST RANK DEPRESSIVE SYMPTOMS RELATING TO INDIVIDUALS INDENTIFIED BY MINI



- The analysis of prevalence of second rank depressive symptoms in individuals with a present depressive disorder identified by the MINI shows greater inter-site heterogeneity. **Thus the apparent homogeneity of first rank symptoms appears to require weighing against the following variations**.

- **The North-South gradient is again encountered for body weight fluctuation and anorexia**. This item may not have comparable value in sites where the prevalence in the general population of certain somatic pathologies directly linked to weight (parasite infestation, vitamin deficiencies, etc) is characteristic. Organic causes can be suggested to explain inter-site variation.

- The item exploring **depressive loss of self esteem** seems to show it is more widespread in French metropolitan sites. Variation in the place of the individual and the importance of individual situation with reference to the group ("Did you feel inferior to others ?") implies that this dimension should be described in each of the cultures and each site. Variations between "individualistic" and "community" cultures can be taken into account here (see the "group-based self" concept in Madagascar).

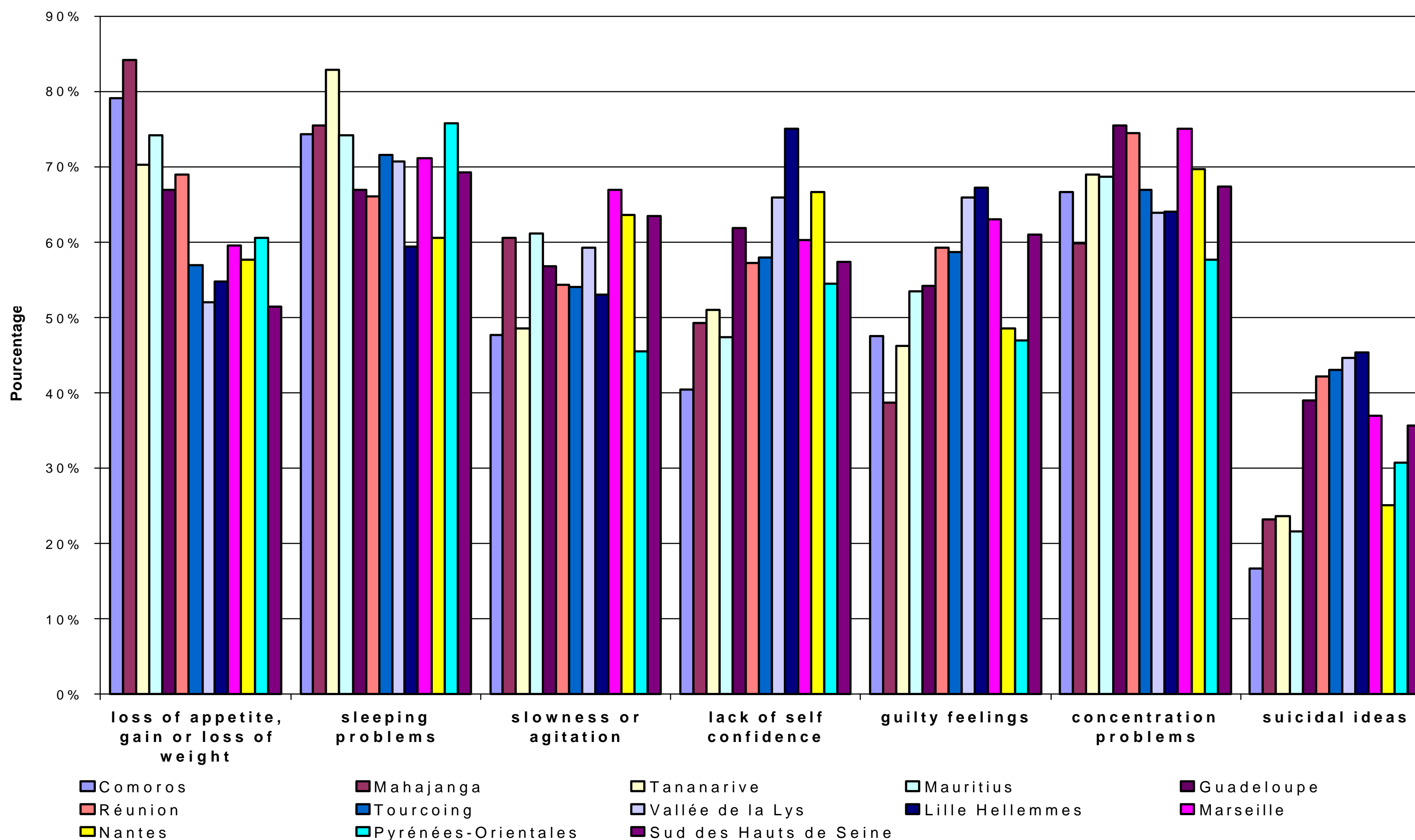
- Classically **guilt and self-accusation** have been described as specific to Western, Judeo-Christian cultures[108]. The results derived from the MINI are not so categorical, and if guilt is found to a lesser degree in Indian Ocean sites, it is even so not absent.

- Likewise, it has often been said that **suicide and suicidal ideas** are not widespread in most of non western cultures. This postulate does not stand the test of reality. In Indian Ocean sites, MINI results confirm a slight prevalence of “sombre ” and suicidal ideas but cannot establish their non-existence in these sites.

- **In view of these results, it appears that the trans-cultural validity of the MINI cannot be categorically stated for the general population, and that if the relative homogeneity of first-rank symptoms is in favour of its ability to form comparable groups of individuals in a reliable manner, inter-site variation for second-rank symptoms does raise the question of its trans-cultural validity.**

- The comparative epidemiological approach of depressive illness in different cultural environments should be backed up by an anthropological approach aiming both to determine the value of symptoms in a given culture, and to define the field of depression in each culture. Without this complementary approach, the risk of adopting an ethnocentric view is considerable, and epidemiological psychiatry would run the risk of being restricted by its own categories.

GRAPH 51 : PREVALENCE OF SECOND RANK DEPRESSIVE SYMPTOMS RELATING TO DEPRESSIVE INDIVIDUALS IDENTIFIED BY THE MINI



B. PRESENT ANXIETY DISORDERS

- **Most frequent disorders are anxiety disorders one with 18,7% global prevalence** (generalised anxiety (F41.1), agoraphobia (F40.0), social phobia (F40.1), obsessive compulsive disorders (F40.2), post traumatic stress disorders (43.1).
- **Generalised anxiety 11% (1017 individuals)**, ranging from 3.8% in Mahajanga to 13.9% in Tourcoing. The prevalence range for French sites is 7.2% for Pyrénées orientales to 13.9% for Tourcoing. (Graph 52)

- **The prevalence of generalised anxiety is higher in women than in men** (gender ratio ranging from 1.5/1 to 2/1 for those sites where the number of instances enabled calculation). These results are in line with classical data in the literature. The distribution cannot be correlated with cultural variability factors : the gender ratio is identical in Madagascar, Mauritius, Guadeloupe, Marseille and Tourcoing (1.9**). The prevalence is the same whatever the age group and whatever the employment status of the individual. Here again, subjects who were divorced or separated presented higher prevalence and those who were married a lower prevalence** (graphs 53 and 54). However, as for depressive disorders, sample sizes are quite small (about 10 separated persons presenting generalised anxiety per site)

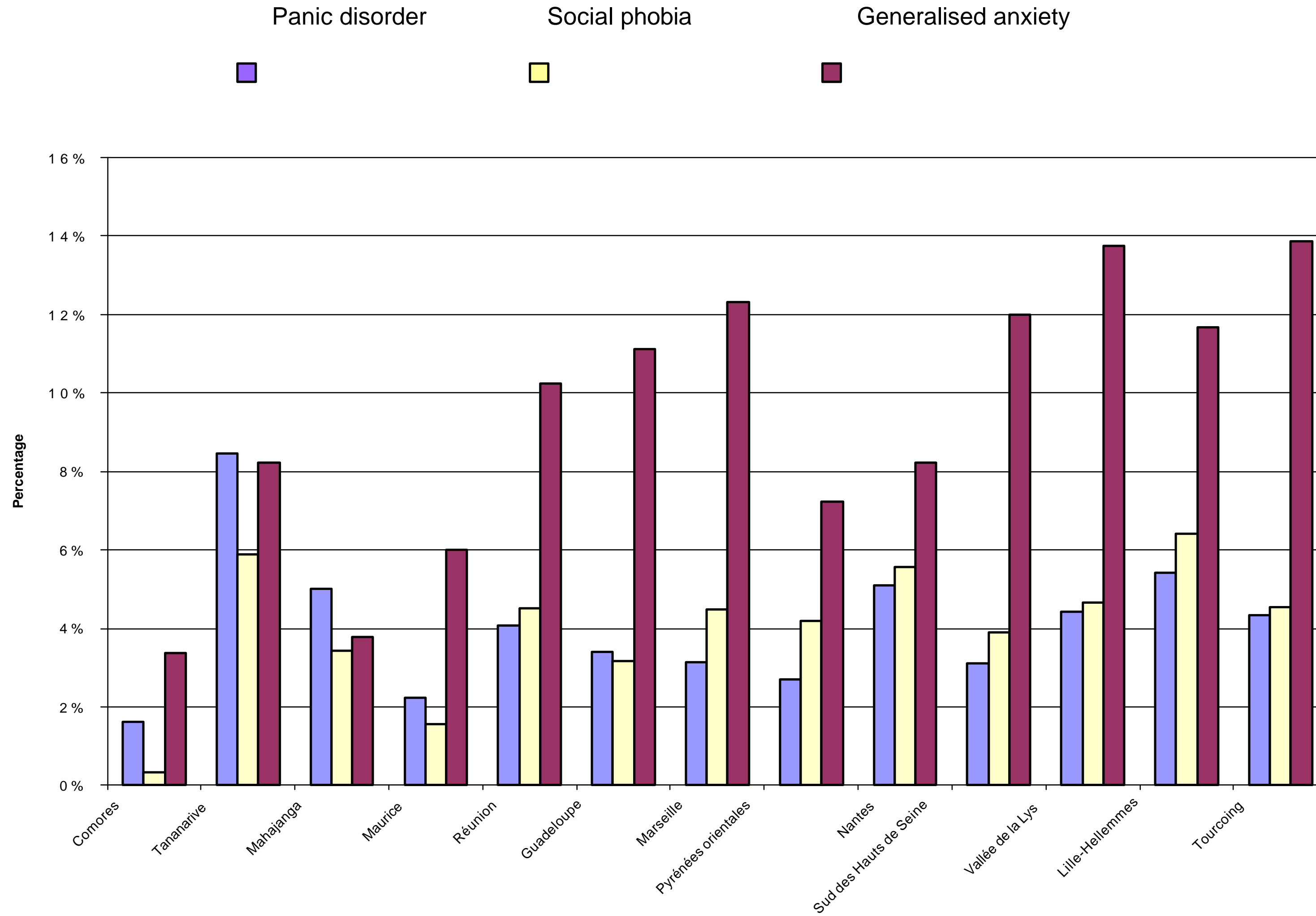
- **Panic disorders 5% (435 individuals),** ranging from 2.2% in Mauritius and 8.5% in Antananarivo. For French sites prevalence ranges from 2.4% in Pyrénées orientales to 5.4% in Lille-Hellemmes.

- **Social phobia prevalence is 4% (426 individuals)**, ranging from 1.6% in Mauritius to 6.4% in Lille-Hellemmes. The range in France is from 1.3% in Hauts de Seine to 3.1% in Marseille.

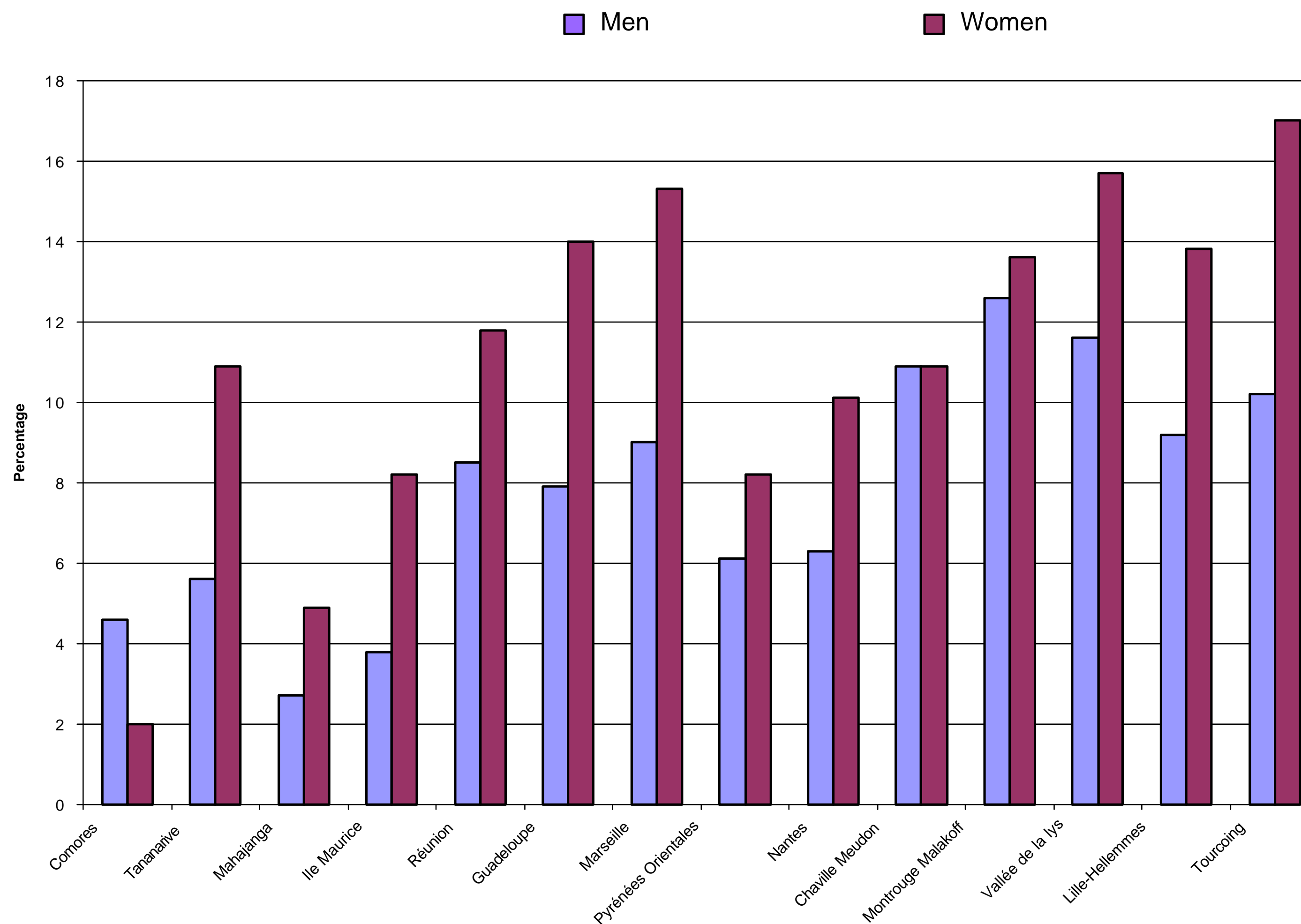
- **Agoraphobia 3% (260 individuals),** from 1.3% in the Hauts de Seine to 5.9% in Mauritius. In French sites the range is 1.3% in Sud des Hauts de Seine to 3.1% in Marseille.

- Other anxiety disorders, post-traumatic stress disorder and obsessive-compulsive disorders present very low prevalence rates (<1%).

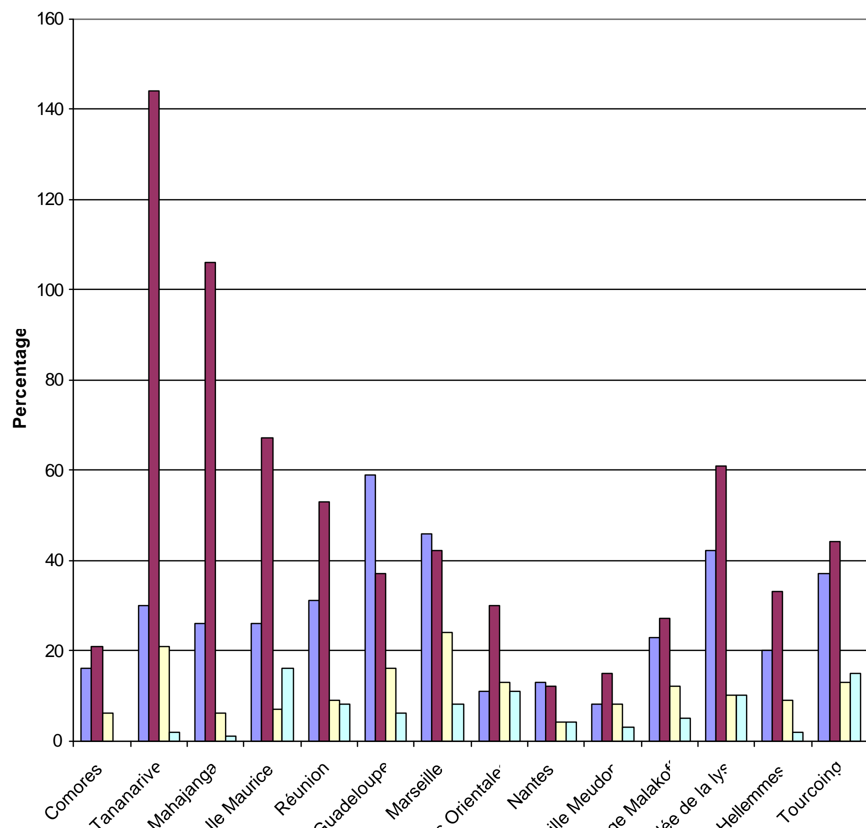
GRAPH 52 : PREVALENCE OF MAJOR ANXIETY DISORDERS ACCORDING TO SITE

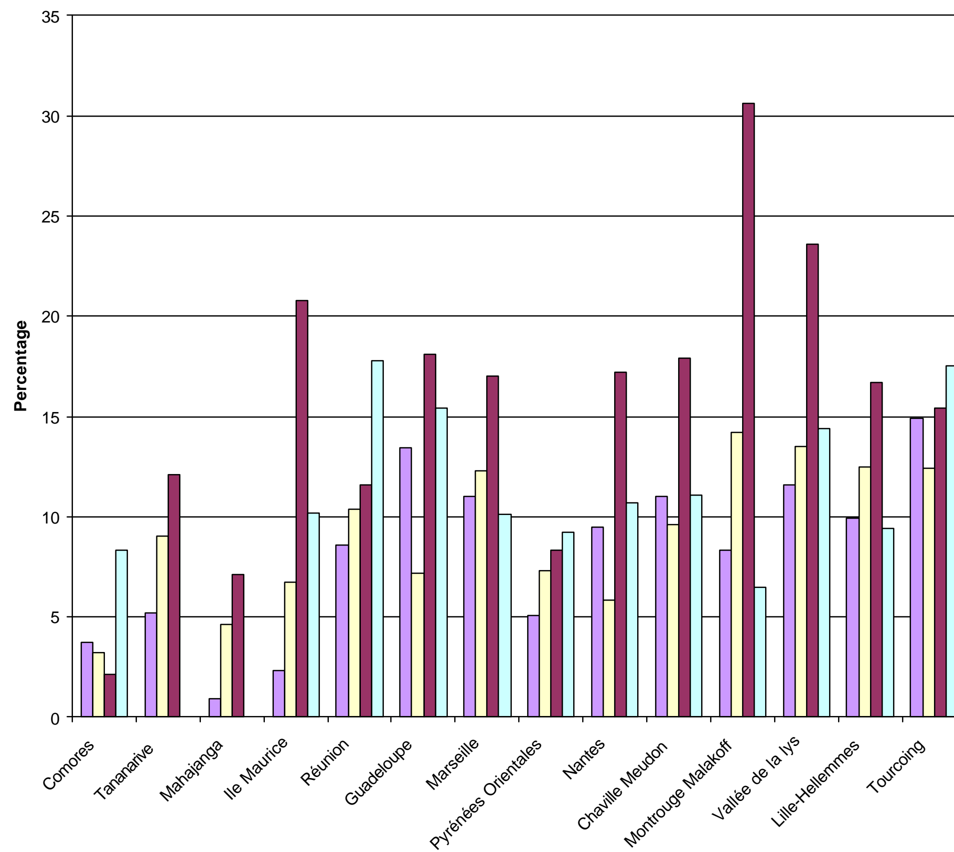


GRAPH 53 : PREVALENCE OF GENERALISED ANXIETY ACCORDING TO SEX



GRAPH 54 : PREVALENCE OF GENERALISED ANXIETY ACCORDING TO MATRIMONIAL STATUS





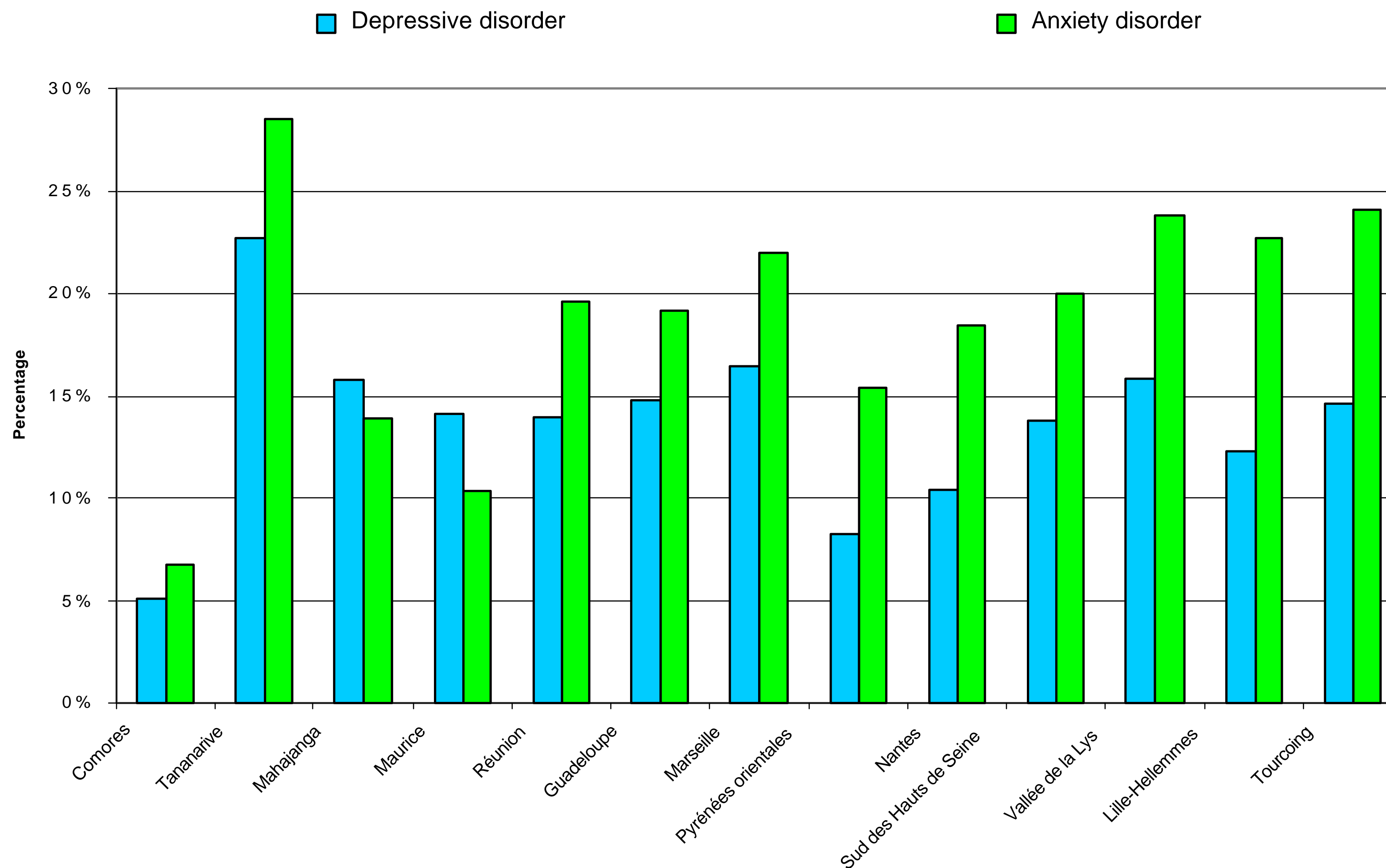
C. DEPRESSION/ANXIETY CO-MORBIDITY

For the sample overall, one third of subjects presenting an anxiety disorder also present a depressive disorder, and half the individuals identified as depressive also present an anxiety disorder. These results are fully comparable with other available epidemiological data [109-110].

Among individuals presenting both depressive and anxiety disorders at the time of the survey :

- 55% have already taken "medication for nervous conditions" (against 6 to 38% in the global sample)
- 24% state that they have had "psychotherapy" (against 0 to 15% in the global sample)
- 40% state they have been treated for "depression" (against 0,7 to 24% in the global sample)
- 45% consider that a "depressive" person can be treated without medication (the same percentage as for the sample overall)

GRAPH 55 : PREVALENCES OF DEPRESSIVE AND ANXIETY DISORDERS



D. DISORDERS RELATED TO ADDICTIVE CONDUCT

- For the detection of disorders related to addictive conduct, the MINI presents the same methodological problems as all the screening instruments of this type. Reliability of responses depends for a large part on the "sincerity" of the respondent at the time of the survey. It is well known that this sincerity can be a conscious or unconscious wish to minimise consumption, and by a feeling of shame associated with this consumption, so that there is genuine difficulty in assessing actual consumption of alcoholic beverages or drugs, and the penalisation or otherwise of the abuse. Further to this, in certain sites, cultural factors compound this difficulty in assessment. For instance, in Madagascar drug abuse carries a very strong social stigma because it can result in behaviours leading to disruption of relationships with elders. It would appear that this is not the case with alcohol, as prevalence figures are very high. In the Comoros site, the weight of a Muslim society with its marked proscriptions certainly plays a part (but how great ?) in the absence of detection of these disorders by the MINI. Consequently, the prevalence figures should be seen as minimum values, which can even so be compared with other data available.

- Disorders related to **alcohol** consumption (abuse or harmful use) show an overall prevalence of 5%, ranging from 2.7% in Guadeloupe to 8.7% in Antananarivo. They are absent in the Comoros results. For French and DOM sites prevalence ranges from 2.7% in Guadeloupe to 5.1% in Lille Hellemmes.

- **Whatever the site, it can be said that pathologies related to alcohol are a male phenomenon.**

- Disorders related to drugs (abuse or harmful use) reach an overall prevalence of 2%, ranging from 0.3% in Mahajanga to 4.1% in Nantes. They are again absent in the Comoros. In France the range is 1% in the Vallée de la Lys to 4.1% in Nantes. They are more frequent in men under the age of 35.

E. OTHER DISORDERS

- Eating disorders were practically never detected by the MINI. It maybe due to their low incidence in general prevalence on the one hand and to the fact that interviewees are 18+. There were three cases of anorexia and very few cases of bulimia except in the Marseille site (1.6%).

F. DISORDERS THAT ARE "PSYCHOTIC IN APPEARANCE"

a. Methodological aspects

- As was emphasised in the first part of this report, the question of the suitability of standardised diagnostic questionnaires for detecting psychotic disorders in a reliable and valid manner has been a recurrent one since the first Anglo-Saxon teams began to take an interest in standardised

diagnostic assessment in psychiatry. Indeed, if reliable standardised assessment of neurotic type disorders is itself a problem, that of psychotic type disorders is almost insoluble.

So as to reduce the bias arising from the design of the instrument and from the use of non-clinical interviewers, a **complementary procedure** was developed for this part of the questionnaire which consisted in the following :

- whatever the relevance of the response, the interviewer systematically noted **a detailed example** given by the respondent in case of positive response to one of the questions in the psychosis section.
- a series of questions complementing the MINI on the psychosocial consequences of disorders and recourse to treatment was asked for any disturbance scored positively.
- using the detailed example, the complementary information and the general feeling of the interviewer with respect to the example noted, a clinician (psychiatrist or psychologist) assessed true and false positives each evening in the presence of the interviewer.

This method was tested in an empirical manner in the course of the pilot phase in sites in the Comoros and Mauritius, and proved to be efficient in reducing the number of false positives (the estimation for psychotic disorders fell from 32% to 5%). A reliability study was then conducted on 106 patients followed up by a psychiatric sector team, thus enabling comparison of the presence of a psychotic disorder (present or lifetime) as assessed by a clinician A and as assessed by an interviewer using the MINI and checked by clinician B in case of positive response (method quoted above). **The kappa coefficients obtained vary for CIM-10 from 0.79 (present isolated psychotic episode) to 0.83 (lifetime psychotic episode), which are excellent results[1].**

Thus precautions were taken to reduce as far as possible systematic error inherent in the type of instrument used and inherent also in the very object of the assessment. However, if it is possible, using this complementary procedure, to check for false positives and the reliability of true positives, nothing protects against false negatives, i.e. a person suffering from psychotic disorders who responds negatively to all the questions in this section.

The analyses set forward here are based on the questions in the section of the MINI headed "psychotic syndromes" :

Have you ever had ideas that those around you consider to be strange or unusual, and that they do not share with you ?
Have you ever had the feeling that someone was spying on you or plotting against you, or that someone was trying to wrong you ?
Have you ever had the feeling that people could read or hear your thoughts, or that you could read or hear the thoughts of others ?
Have you ever had the feeling that someone or something outside could influence or control your thoughts or your acts ?
Have you ever had the feeling that people were talking directly to you through television, the radio or newspapers, or that people you did not know personally were taking a particular interest in you ?
Have you ever had visions or seen things that other people could not see ?
Have you ever heard things that other people could not hear, such as voices ?

[1] We thank for that work : Gladys Mondière, Gérard Tréboutte, Nathalie Bruynooghe, Helen Brice, Christian Porteaux and Drs Hervé Bonnel, Muriel gomez, Isabelle Guesdon, Frédéric Wizla.

If any one of these questions is scored positively and then confirmed by the complementary procedure, the logic of the instrument leads to a "diagnosis" of "psychotic syndrome" (isolated or recurrent, past or present). This is why the phrase "disorders that are psychotic in appearance" is preferred, by way of prudence, to "psychotic syndromes".

b. Analysis of results

- Disorders that are psychotic in appearance ("isolated or recurrent, past or present psychotic syndrome") are identified in about 2% of interviewees, from 0.3% in Antananarivo and 5.7% in Guadeloupe.
- Of the overall population explored by the survey (10 882 individuals) 221 or 2% were identified by the MINI as presenting or having presented a disorder that appeared psychotic : present isolated psychotic syndrome (20 individuals), past isolated syndrome (560 subjects), present recurrent syndrome (90 individuals) and past recurrent syndrome (51 individuals).
- A certain number of crossed sorting procedures were carried out on this specific population to apprehend their representations of psychiatric illness, and the care that these respondents stated was provided. The small numbers involved in each site and for each diagnosis render inter-site and inter-diagnostic comparison non significant.
- These subjects state that if they were not well they would first consult general health professionals (34%) and friends or family (also 34%). Psychiatric professionals would only be resorted to first by 18% of the subjects.
- 53% of these subjects have already been in a psychiatric facility. 54% have already taken medication for nervous conditions as compared with 47% for subjects presenting depressive disorders and 45% for those with anxiety disorders. For 85% of these, the medication was taken for psychological reasons. Among people having taken this type of medication, 17% said they had taken anti-psychotics (as compared with 4% among depressed subjects and 2.5% for those with anxiety disorders), 23% took antidepressants (compared to 28% among depressive subjects and 24% for anxiety disorders), 34% took tranquillisers (compared to 40% for subjects suffering from depression and 45% for those with anxiety disorders).
- Only 4% of these subjects identified by the MINI as presenting or having presented psychotic disorders state they were treated for insanity. 10% said they were treated for mental illness. The subjects concerned in the French metropolitan sites seem more ready to admit they had been treated for a mental pathology. Among people treated for depression, 60% state they were treated by medication and 13% state they have had psychotherapy.
- However when the question is asked without reference to the pathology mentioned by the subject, 29% of individuals identified by the MINI as presenting or having presented psychotic disorders say they have had "psychotherapy".

c. Comments

- It should not be forgotten in the first instance that the population selected is selected by a simple diagnostic instrument, handled by lay interviewers who are not mental health professionals. Even if the complementary procedure makes it possible to re-introduce a part of clinical perception into the analysis, the results obtained must even so be interpreted very cautiously. Reliability, sensitivity and specificity in this type of large-scale administration are not well known as yet.

  - Subsequently, it is important to remember that the small size of the sub-samples concerned for each site does not enable inter-site comparisons. However it would even so appear that the subjects interviewed in French metropolitan sites are more ready to confide that they have been treated for "depression", that they have taken "medication for nervous conditions" and that they have been in a psychiatric facility.

  - If the population explored in metropolitan France is taken on its own, 65% of the subjects presenting or having presented a "psychotic disorder" have already been in a psychiatric facility, 72% have taken medication for a nervous condition, 57% state they have been treated for "depression", and 47% says they have had "psychotherapy". Does this relate to an actual difference in access to care or to lesser reluctance in talking about it ?

  - Whatever the case, what emerges from these figures is that around two thirds of the people concerned by a "psychotic disorder" have had psychiatric treatment in metropolitan France. From the data available, it is not possible to say if this treatment was dispensed by a general health professional, an independent (private) psychiatrist, or a public sector psychiatrist. However, the large proportion of people having been in a psychiatric hospital suggests that the public specialised care sector is strongly positioned on this pathology. The second phase of the survey could perhaps pay attention to this point.

  - And yet, in the face of these large percentages, the intention expressed for first recourse in case of psychological suffering is still the general health practitioner, on an equal footing with family and friends. The mental health professional, in metropolitan France, will only be called upon as a first resort by 20%, barely more than in the population as a whole (18%). This response could point to the importance of primary health care.

4. CONSEQUENCES OF DISORDERS

A. RESERVATIONS AND DETAILS CONCERNING METHODS

- An attempt has been made to describe recourse in terms of help and care as used by people identified by the MINI as suffering from a disorder. Whenever a disorder obtained a positive score in one of the sections in the MINI, a **complementary form** was completed. If several sections in the MINI were scored positively, the interviewer was instructed to ascertain whether the problems were present in the course of the same period or not. In case of disorders occurring simultaneously, only one form was completed, while for disorders occurring at different times a form was completed for each period. This complementary form explores the feeling of being ill, reactions of those close, how troublesome problems were felt to be in everyday life, and relationships at work. This enables systematic investigation of the therapeutic recourse patterns explored in the questions below :

  Did you see anyone about these problems, if so whom did you see ?
  Did you take medication for these problems, if so what medication ?
  Did you use alternative medicine for these problems (homeopathy, acupuncture, sophrology, plants, etc), if so which sort ?
  Did you go to hospital for these problems, if so how many times ?
  Did you use traditional healers for these problems (marabout, witch doctor, healer), if so whom did you see ?
  Were you cared for/cured by a religious figure (priest, m'piandry, church..) if so, who or where ?
  Did you have psychotherapy for these problems, if so with whom (psychiatrist, psychologist) ?
  Did other people help you or advise you, if so who (friend, family, spouse, colleague) ?

- For each of these propositions, in case of positive response, the subject is asked to assess the impact of this assistance/treatment on the problem via the following question : "Following this help (treatment, psychotherapy…) did your problems stop, did they improve, did they stay the same or did they get worse ?" Finally, in case of multiple replies to this series of questions, a final question is asked : "In your opinion, what treatment/help had the most effect ?"

- The results from the complementary forms are not easy to exploit because the numbers concerned are often small, and so the data is not very reliable. Thus, to the series of questions "Did you use alternative medicine for these problems?" it is observed that only 10% of respondents in Madagascar and 5% in the Comoros and Mauritius state that they resort to this. The second and third questions ("If so which one ?", and "Following this…" cannot be interpreted on account of numbers being too small and behaviours atypical.

- **The first results obtained from the complementary forms will be studied as a whole, and once a larger number of sites is involved, more detail will emerge.**

- Few respondents in the Comoros gave answers leading to completion of the complementary forms, thus they have been set aside.

- Likewise, the questions relating to recourse to traditional medicine and religious figures can be studied taking account of the small numbers, but the sub-questions cannot be detailed.

- The final question on the most efficient treatment is also difficult to exploit. Firstly, the question is not exclusive, several propositions are accepted. In addition, a significant number of subjects consider the most efficient treatment to be one they have not in fact received. Finally, in view of the results, the sites appear not to have reacted in the same manner to this question. Thus in the Hauts de Seine site there is always a higher proportion of “yes” responses than in other sites. Hence this question unfortunately cannot be exploited.

- This first set of data will merely be interpreted question by question.

- Different behaviour patterns appear between French metropolitan and DOM sites and the others. The DOM are no longer in an intermediate position between the other sites and metropolitan France.

B. HOW TROUBLESOME DISORDERS ARE FELT TO BE

- These problems appear to have greater impact in work environments in Madagascar and Mauritius than in French sites. Thus**, more than half of the respondents** in these sites state they had been troubled by the problems, and more than one in five had stopped work. It should be recalled that social security systems are not well developed in these countries.

- **In France, about 40% of interviewees with at least one disorder were troubled and about 15% stopped work.**

- People have a “middle” view of how troublesome the problems are in their everyday lives and in their relationships with others. Overall, the former is slightly commoner than the latter.

- The analysis of how troublesome problems are in work and in everyday life shows **that whatever the site depressive disorders genrate the most problems, followed by anxiety disorders and substance abuse**.

Between 55% and 68% of subjects presenting a depressive disorder at the time of the survey sate they are bothered by it.
The fact that people presenting a depressive disorder are troubled by the problem is independent from all socio-demographic variables (gender, age, employment, income) i.e. affect all subjects in the same proportions.

- How troublesome problems are felt to be in relation to actual presence of disorders varies little with age, gender, employment and household income : it appears to be inherent in the pathology rather than in the social environment.

TABLE 49 : PERCENTAGE OF HOW TROUBLESOME DISORDERS ARE FELT TO BE IN WORK AND IN EVERYDAY LIFE

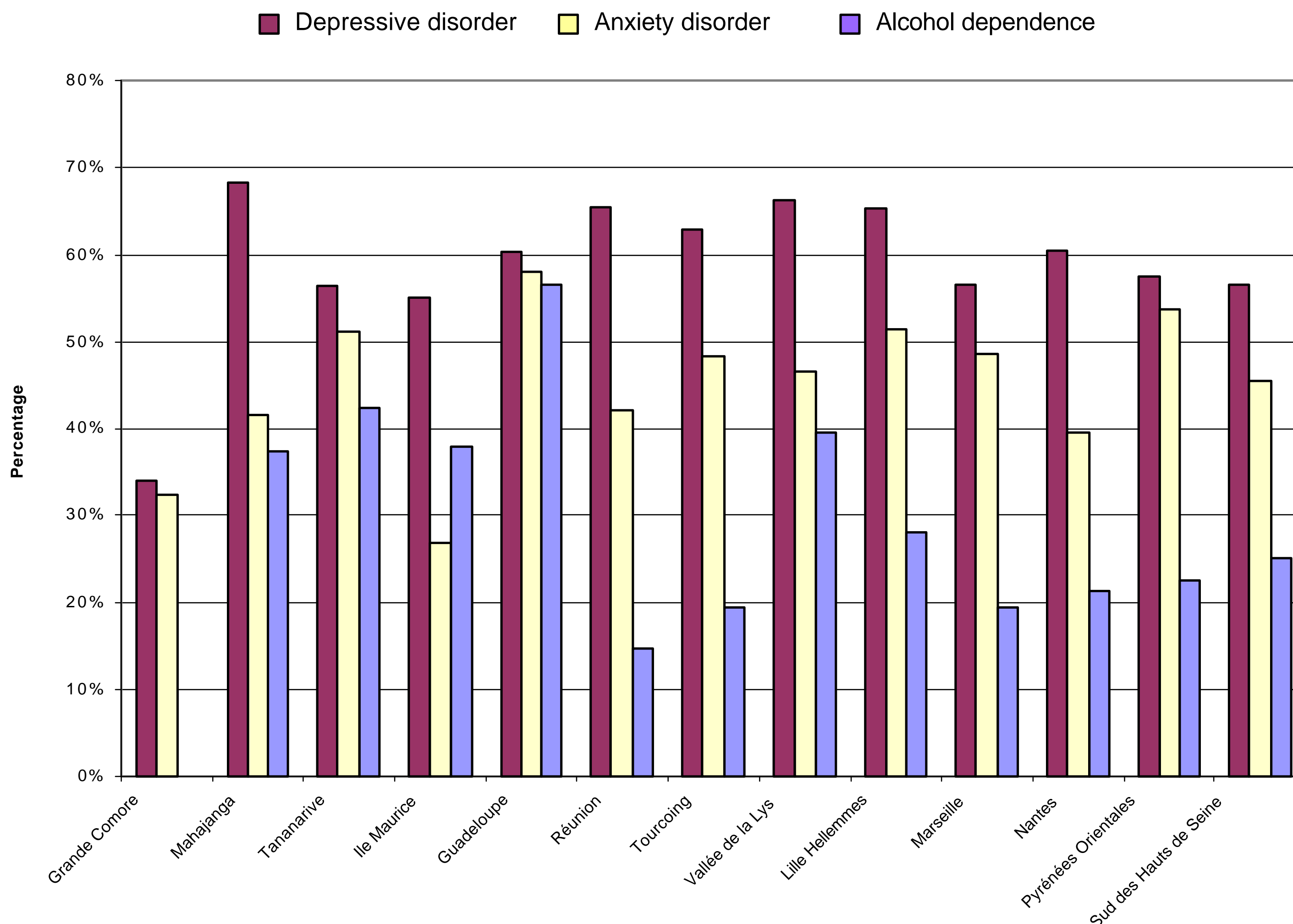
SITES	Depressive disorders	Anxious disorders	Alcohol dependence	Drugs dependence	Psychotic disorders
Comoros	34% *(16)*	32,3% *(20)*	--	--	25% *(1)*
Mahajanga	68,3% *(97)*	41,6% *(52)*	37,3% *(28)*	33,3% *(1)*	29,4% *(5)*
Tananarive	56,4% *(115)*	51,2% *(131)*	42,3% *(33)*	25% *(2)*	--
Mauritius	55,1% *(70)*	26,9% *(25)*	37,8% *(14)*	50% *(2)*	13,3% *(4)*
Guadeloupe	60,3% *(76)*	57,9% *(95)*	56,5% *(13)*	16,7% *(2)*	37,5% *(18)*
Réunion	65,4% *(83)*	42,1% *(75)*	14,8% *(4)*	18,2% *(2)*	10% *(2)*
Tourcoing	62,9% *(83)*	48,4% *(105)*	19,4% *(7)*	27,3% *(6)*	26,3% *(5)*
Vallée de la Lys	66,4% *(95)*	46,5% *(100)*	39,4% *(13)*	22,2% *(2)*	80% *(4)*
Lille Hellemmes	65,3% *(49)*	51,4% *(71)*	28% *(7)*	37,5% *(3)*	50% *(6)*
Marseille	56,5% *(83)*	48,5% *(95)*	19,4% *(7)*	24% *(6)*	21,1% *(4)*
Nantes	60,5% *(26)*	39,5% *(30)*	21,4% *(3)*	11,8% *(2)*	40% *(4)*
Pyrénées Orientales	57,5% *(42)*	53,7% *(73)*	22,6% *(7)*	20% *(2)*	40% *(4)*
Sud des Hauts de Seine	56,5% *(70)*	45,6% *(82)*	25% *(7)*	2 6,3% *(5)*	33,3% *(8)*
TOTAL	**59,9%** ***(905)***	**46,9%** ***(954)***	**32,3%** ***(143)***	**23,6%** ***(35)***	**29,4%** ***(65)***

- **Among subjects with anxiety disorders, 46% also have an associated feeling of hindrance.** This affects young people, those in employment, and those with above average income slightly more.

- **Among subjects with an alcohol-related disorder, 21% have an associated troublesome feeling of hindrance**. This affects women, employed subjects, and the 35-69s a little more than others.

- All these tendencies require checking in the second phase of the survey.

GRAPH 56 : DEPRESSIVE, ANXIETY AND ALCOHOL DISORDERS, ASSOCIATED WITH A FEELING OF HINDRANCE IN EVERYDAY LIFE, WORK OR RELATIONSHIPS WITH OTHERS



C. MODES OF ASSISTANCE AND CARE

- A large majority of respondents did not see anyone for these problems. For those that did, they mainly saw general health professionals and professional in psychiatry.
- The immediate circle (friends, relatives) are frequently consulted in Madagascar and Mauritius, and religious offer is a non-negligeable recourse.
- Few people were hospitalised for these problems
- Few people state they used traditional treatment for these problems. Here we encounter the same phenomenon of under-declaration as was seen in the analysis of representations
- Few people in the French sites stated they had receive care from religious figures

- In Madagascar a little more than 10% state they have resorted to religious type care, and 20% in Mauritius

- More than 10% of respondents presenting disorders via the MINI in French sites and Mauritius state they have followed "psychotherapy" for these problems, except for Pyrénées Orientales and Réunion

- More than half the interviewees were helped and advised by people close to them. This form of assistance is the commonest. It is indeed mainly among family and friends that people got help. Following this assistance, most subjects noted an improvement in their state.

D. MEDICATION AND ALTERNATIVE MEDICINE

- About 30% of subjects presenting at least one disorder took medication for the problem

- It is difficult to study the types of medication, since some site provided very few answers to this question. Thus, in Marseille, there were only 27 responses (multiple response counting several times) while 107 people stated thy had taken "medication for nerves". Likewise the sites of Tourcoing and Mauritius provided few responses to this question. However, in view of results, it can still be concluded that anxiolytics and antidepressors are the most widely-consumed type of medication among respondents.

- After this treatment, a majority of interviewees noted an improvement, as with all other treatments resorted to.

- **About 20% of interviewees in French sites said they had used alternative medicine for their problem.**

- Details on the alternative medicines resorted to appear to show that in Guadeloupe and Réunion people readily resort to plants, and interviewees in French metropolitan sites resort equally to homeopathy, acupuncture, or plants. However the small numbers in each site do not enable conclusions to be drawn. The exploration of other sites is required to confirm this tendency or otherwise.