Schizophrenia and quality of life across Europe: a one-year follow-up in four EU countries

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ABSTRACT

**Background:** This article systematically compares the quality of life of patients with schizophrenia across four European countries: France, Ireland, Portugal and Spain from seven different sites.

**Methods:** A one-year prospective cohort study was carried out. Inclusion criteria for patients were: a clinical life-time diagnosis of schizophrenia according to ICD-10 (F20) diagnostic criteria for research, an age between 18 and 65 years and at least one contact with mental health services in 1993. Data concerning quality of life were recorded in seven sites from four countries: France, Portugal, Ireland and Spain (only at time 1) and were obtained from the 368 patients who answered the quality of life questionnaire; at time 2, only 284 patients were contacted and 219 agreed to take part. Quality of life was measured using the Baker and Intagliata scale at entry and one year after in some of the centres. QOL was compared across centres by domains and according to a global index. QOL was correlated with presence of clinical and social problems, needs for care and interventions provided during the one year follow-up.

**Results:** We did not find any link between gender and QOL. There were some significant differences between centres concerning many items. What is more, these differences were relative: in Lisbon where the lowest level of satisfaction was recorded, people were satisfied with the food but highly dissatisfied with finances, whereas in St Etienne where the highest level of satisfaction was recorded, people were less satisfied with food when they were more satisfied by finances. Globally, satisfaction increased among those respondents who took part in the follow-up (excluding the subjects from Granada)

**Conclusions:** The four countries have different resources and patients live in rather different conditions. However, the main differences as far as their quality of life is concerned very much depend on extra-psychiatric variables, principally marital status and income.
BACKGROUND

This article compares the quality of life of schizophrenic patients in different parts of Europe and relates this to social and clinical characteristics of patients within the different EU psychiatric systems.

Indeed there are large differences between these countries mainly because of diverse historical backgrounds and the different resources made available for the care of patients with severe mental illness. In addition, the deinstitutionalization process has been implemented at various levels for the last 20 years in most European countries. Consequently, the ratio of psychiatric beds per 1000 of population remains high in some countries whereas in others this ratio is low, either because of an effort to decrease it or because of a lack of availability. Moreover, alternatives to long-term hospitalisation such as sheltered housing are diversely developed and in some countries the absence of such resources forces patients to live in their family home. The relationships between in-patient and out-patient care systems and the relationships between the psychiatric system and the primary care system vary substantially; as a result continuity of care is ensured in varying degrees. It is also worth mentioning that social benefits for people suffering from severe psychiatric disorders vary greatly between countries, and are even totally lacking in some EU countries.

The broad impact of this diversity on the lives of the severely and persistently mentally ill and the resulting completion of the needs generated by such illnesses pose a particular challenge in the assessment of services for these persons (1). Relevant outcome domains include psychiatric symptoms, functional status, and access to resources and opportunities, subjective well-being, burden to the family and community safety.

Because of this broad array of relevant outcomes and because of a prevailing concern that outcome assessments should include the patient's perspective, increased attention has been paid over the past decade to the development of patient "quality of life" measurements (2), (3). Assessment of the Quality Of Life (QOL) is therefore emerging as an important criterion of the performance of services (4), (5), (6). QOL approaches occupy, in a sense, an intermediate position between expert-defined assessments of need and client/user-defined
demand. They are planned and used by experts but often collect information about what the respondents value, want and prefer. QOL has become a valued assessment in those branches of medicine dealing with chronic suffering and disability (2) and has been largely applied to mental health patients since it embodies concern for patients as people and not just as cases (3).

A systematic comparison and evaluation of the quality of life of patients and their one-year evolution across EU sites will then bring useful information for planning purpose.
MATERIALS

The patients came from a study designed by a network of researchers and clinicians in 10 centres, in seven countries: France (with centres in Lille, Lyon, La Verrière and Saint Etienne), Germany (Mannheim), Ireland (Dublin), the Netherlands (Groningen), Portugal (Lisbon) and Spain (Granada) with as the main objective to describe and compare the psychiatric care for a group of chronic schizophrenic patients in a circumscribed geographical area in each participating country from Southern, Central and Northern Europe (7). The design of the study was prospective and intended to monitor this process over a period of one year.

This one year prospective cohort study included patients with a clinical life-time diagnosis of schizophrenia according to ICD-10 (F20) Diagnostic Criteria for Research (8) aged between 18 and 65 years old and who had at least one contact with the mental health services during the year before inclusion. The selection of patients was conducted on the basis of the clinical diagnosis which had to be confirmed by the use of a standardized interview schedule for present state, the SCAN (version 1.0), Schedules for Clinical Assessment in Neuropsychiatry (9), which allows for an assessment of life-time representative episodes of schizophrenia. Patients were eligible for the study independently of whether they were receiving in- or out-patient care.

The first assessment took place at inclusion, as soon as possible after random selection from the list and after (in most cases) written informed consent. In total, approximately 1500 patients were in the medical and “active” files in the ten research centres, of which approximately 45% (671) were selected; out of these, 11.3% could not be contacted, or no contact was necessary any more because there were enough respondents, and 13.4% refused to cooperate. About 75% (484) of the selected patients were followed over one year.

Data concerning quality of life were recorded in seven sites from four countries only: France, Portugal, Ireland and Spain (only at time 1) and from the 368 patients who answered the quality of life questionnaire at time 1, 339 answers were obtained; at time 2, only 284 patients were contacted and 219 agreed to take part.
There are many quality of life measures which can be divided into generic and non generic. Since severe disorders are concerned we thought that a specific measure was needed and we selected the Satisfaction with Life Domains Scale (SLDS) (10). This scale has the advantage of being one of the shortest quality of life measures covering a variety of domains whilst allowing for a global score.

The Satisfaction with Life Domains Scale was initially developed to evaluate the impact of the Community Support Program in New York State on the quality of life of chronically mentally ill patients. This scale has been extensively used with severe psychiatric patients in Belgium, Quebec and France. It is a self-report scale administered by a trained interviewer and takes approximately 10 min to administer. Its individual items cover 15 domains of everyday life: satisfaction with housing, neighbourhood, food, clothing, health, people lived with, friends, family, relations with other people, work/day schedule, spare time, leisure time, services and facilities in the area, economic situation, and place lived in now compared with state hospital. Respondents chose for each domain one face from among seven proposed, corresponding to different emotional states. The faces varied from very satisfied and happy to not satisfied at all and sad. These can be summed into a total life satisfaction score.

French translation was available to us and since the questionnaire used faces with expressions ranging from happy to unhappy, by domain, translation into the other languages was easy to implement. The initial version was modified by C. Mercier and P. Corten which added 6 items covering love life and freedom and empowerment aspects. All the centres except the Irish ones used the modified version (19 items); consequently all results will be presented on a 14-item global score for all the centres plus on the 6 added questions excluding Dublin.

For the patients who did not answer some of the items of the quality of life questionnaire, we attributed the value 4 (medium value) to the items in question in order to be able to compute the global score; for individual item comparisons we are producing number of patients by item.
The information concerning sociodemographic variables was collected by the Past History and Sociodemographic Description Schedule (PHSD) which provides information on the level of education, occupational situation, where the patient lives and information on his/her family. Given the variability in educational systems and standards of living across European countries, we had to slightly modify these two instruments in order to harmonise the response scales for educational level, professional training and level of income. (Level of income and existence of a mandatory minimal wage, housing, social benefit based or regular income, variation in the level of attribution of social benefit for schizophrenic patients according to the different national regulations).

The presence of a significant problem in various clinical and social domains was assessed at entry and followed up through the need for care assessment (NFCAS), a standardised procedure created by Brewin (11, 12) designed to improve care planning for such patients, which has been extensively used in various circumstances, Haaster (13), Lesage (14), Wiersma (15).

The interview covers 11 areas of clinical functioning (psychotic symptoms, negative symptoms, side effects of medication, neurotic symptoms, dementia, physical problems, dangerous behaviour, socially embarrassing behaviour, distress, alcohol and drug use) and 11 areas of social functioning (personal hygiene, shopping, getting meals, household chores, use of public transport, use of public amenities, education, occupation, communication, finances and management of own affairs).

The Chi square test was used (Fisher exact test whenever number of cases was below 5). Software was SPSS V11 and epi Info V6.
RESULTS

At inclusion

Table 1 compares the main characteristics of the patients. Beside the percentage of males averaging at 70% and age at first contact (23 years), all remaining characteristics are different. Variations between these characteristics are substantial across centres. Granada, Lisbon, St Etienne and Lille have the highest percentage of young people (35 years or less). On average, 80% of the patients have never been married, but Dublin and Lille have slightly lower percentages. In Lisbon and Granada, close to 100% of the patients live in a private home since there are very few other resources; in the French centres, approximately 13% of the patients live in sheltered accommodation managed by the psychiatric system. Fewer patients receive social benefits in Lisbon, followed by Granada and Dublin. A minority of the patients have regular wages (11% on average). Patients in Dublin, Granada, and Lille have a lower level of education than elsewhere and a few have some university training except in La Verrière and Lyon.

Table 2a presents a comparison between centre at time 1 using the 14-item total and shows marked differences between centres (p = 0.002).

Levels of satisfaction domain by domain vary on average from 5.37 for food to 3.77 for finances. The areas where people are most satisfied are clothing (5.11), housing (5.03), people they live with (5.02); then come family (4.92), neighbourhood (4.83), local services (4.79), relations with others (4.70) and friends (4.59) followed by work or day schedule (4.41), spare time (4.35), health (4.31) and leisure (4.26). If the six newly added items are considered, love life is the domain where people are least satisfied (3.69) and freedom the one where they are most satisfied (4.90), followed by responsibilities (4.65), self confidence (4.41), life in general (4.24) and what other people think of you (4.21).

However, there are some significant differences between centres concerning many items. What is more, these differences are relative: in Lisbon where the lowest level of total satisfaction is recorded, people are satisfied with the food but highly dissatisfied with finances, whereas in St Etienne where the highest level of total satisfaction is recorded, people are less satisfied about food when they are more satisfied by finances (tables 3a and b).
When comparing variations of total quality of life score according to the diverse sociodemographic characteristics for the entire sample at time 1, there are very few differences, and ones only relating to income source (p=0.035): individuals who receive financial assistance from a partner (72.55) or their parents (68.92) are the most satisfied, followed by those who have a salary (67.84); then come those who receive unemployment benefit or social benefit (66.91), followed by those who receive disability benefits for sickness or handicap (65.70), which is the most frequent situation (129/329 cases). The persons least satisfied are those who receive their money for subsistence either from pensions (64.47), extended family or friends (60.73) and the lowest satisfaction is with the other sources of income (57.62).

When individual satisfaction items are compared using various sociodemographic variables few are significant. First, one of these concerns age for satisfaction with finances only: the older respondents (35 years old and more) are more satisfied than their younger counterparts (3.99 versus 3.56). Second, income is also linked to satisfaction in two domains: facilities in the area and finances, those with the highest income being the most satisfied and those who have low income being dissatisfied. Source of income parallels the finding. Table 4 shows that some situations present advantages and disadvantages: those who are helped by their partner, who get a salary or have a sickness or handicap benefit are the most satisfied with finances and facilities in the area. People who are helped by their partner are most satisfied concerning their love life along with those who are helped by their parents. However, unlike the former type, the latter are least satisfied with responsibilities and finances and most satisfied with housing. Those whose income is derived from unemployment benefit or social benefit are most satisfied in terms of their responsibilities just after those who are helped by their partner. Third, being married is linked to better satisfaction with housing, relationship with family and others, leisure, finances and love life; cohabitation without being married is not so good except in terms of both leisure and love life, which are given poor ratings by persons divorced, separated or single. Divorced and separated persons also have lower levels of satisfaction in housing and finances. Fourth, type of housing is linked to satisfaction with friends and opinion of others: those who are homeless claim higher satisfaction about friendship than those living in private house or those in psychiatric facilities either sheltered or semi private and conversely, the lowest level of satisfaction about the opinion of others than the three other groups. Finally, level of education is linked to some items: those who
have had some kind of university training are the least satisfied with housing, love life, level of responsibilities and their life in general when those who have no education or a low level of education are the most satisfied in the same areas.

**Evolution in one year**

Globally, satisfaction increases among those respondents who took part in the follow-up (excluding the subjects from Granada); this increase is presented in table 2b. The highest centre at time 1 (St Etienne) is the only one to show a decline; however Dublin which was second at time 1 shows the highest increase followed by Lyon.

Sociodemographic and environmental variables appear to play a more important role at time 2 than at time 1: with the time passing, their influence on various aspects of quality of life increases.

Women’s global satisfaction increases (+ 5.39) whereas men change only slightly over time (0.92) p=0.028. Respondents who are divorced or separated (+10.8) or cohabiting (+8.28) have the highest increase (p=0.057) and those with the lowest income progress most (+4.58) whereas, in contrast, those with the highest income decline most (-4.33) p=0.046. Globally, the main areas subject to change over time are finance, which gains one point in each centre, and family relationship, which looses more than one point ; all remaining satisfaction areas are slightly increasing except that of love life which decreases.

These evolutions are sometimes different by centres or according to some of the sociodemographic variables.

Satisfaction with health increases over time in all centres, except La Verrière and St Etienne where it declines. Relationship with friends improves slightly, except in Lisbon, relationship with the family deteriorates over time in varying degrees in each centre (the greatest deterioration occurring in La Verrière), and relationship with others improves slightly, except in St Etienne. Leisure improves greatly in La Verrière and in Dublin and deteriorates in St Etienne.
Women are more satisfied than men at time 2 for health and finances. Respondents aged over 35 years are more satisfied at time 2 by their responsibilities. Income level does not appear to have a significant influence except for satisfaction concerning local facilities which is lower than at time 1, excluding persons with the minimum legal wage level; the same group shows better satisfaction concerning the opinion of others and the wealthiest improved in terms of satisfaction about their life in general. Respondents with the lowest level of education show improvement in terms of health satisfaction. Those who live in semi private accommodation experience increased satisfaction concerning their housing, unlike those living in private homes or who are homeless. Satisfaction concerning relations with others change over time: the homeless improve whereas those living in sheltered accommodation deteriorate. Finally, satisfaction regarding relationship with the family deteriorates, especially in the category of the divorced, separated and never-married, however, satisfaction with health is better for those divorced whilst remaining unchanged for the others; global satisfaction with housing slightly increases except for those married or widowed.

At time 1 no variables are found to influence the global satisfaction in a multiple regression analysis using the variables that show significant influences: centre and income level. However, when a multivariate regression is conducted on the variables which have an influence on a one-year evolution of global satisfaction namely: centre, gender, income and marital status, the latter remains significant (0.19) and all other influences disappear.

**Clinical variables**

Concerning the global satisfaction score, patients differ across centres regarding 3 types of symptoms: slowness/under-activity, neurotic symptoms and alcohol problems (see table 5). When the diverse pertinent sociodemographic variables are entered into a variance analysis, these three clinical variables remain significant (slowness was at just 0.06, but neurotic symptoms were at 0.001 and alcohol at 0.004) when all remaining effects disappear, such as: sex, centre, age, marital status and income level. Age/sex interaction is not significant and when country is used instead of centres the findings remain similar.

Factors influencing differences between time 2 and time 1 are rather different: the only symptom which influences the global satisfaction score is dangerous behaviour (0.06) and it is at a level that is only just significant.
DISCUSSION

Most of the differences concerning the various sociodemographic variables appeared at time 2 when some patients had left and one of the centres was missing. Consequently, the differences should be interpreted with caution since the drop-out rate could be due to many reasons linked to the health status of the person. The improvement should then be interpreted with caution.

As with the majority of QOL research in both general and mentally ill populations (16-20), we did not find any link between gender and QOL. This result could also be compared with the Vandiver (21) study on quality of life, gender and schizophrenia in the United States, Canada and Cuba which reported greater quality of life and satisfaction with social relationships for females in Canada, the reverse with the Cuban sample and no difference between genders in the United States. However, our study shows differences by sex in evolution over one year as in the study of individuals with severe mental illness, conducted by Roder-Wanner, Oliver and Priebe (22), which found that QOL predictors differed according to gender and gave support to the existence of gender-specific processes and contexts of subjective evaluation.

We did not find many differences between young and old patients but we did find one concerning finances and which was in favour of the older respondents as in the case with most QOL studies done on the general population and the mentally ill which find that the older the population, the more satisfied they are with their quality of life, particularly in the area of finances (19, 20, 23).

Living conditions, such as living arrangements have been found to impact on the subjective quality of life of individuals with severe mental illness. In all studies, the least restrictive living arrangements were associated with better quality of life (20), (24), (25). In our study, we did not find many differences except in family relations and the perception of the opinion of others but we failed to find any difference in satisfaction regarding freedom or responsibilities.
A study by Fabian (26) showed that, while there was no significant difference between the working and non-working groups on the basis of work status alone, gender appeared to mediate the relationship between employment and quality of life indicators. As predicted, working males were the most satisfied group and non-working males the least satisfied; however, working females expressed less satisfaction across all subjective life domains studied than did non-working females. In our study, those who declared they were working were not more satisfied than those persons who were helped by their spouse or parents but they were more satisfied than pensioners or people living on disability benefits.

Most of the epidemiological research to date has systematically found increased well-being and mental health in people with higher levels of education (21), (27) however, we found completely inverse results which fit in with C. Mercier’s theory about satisfaction and expectation in which the more educated have higher aspirations leading to a greater distance between where they are and where they would like to be and resulting in their feeling more dissatisfied than people with a lower level of education (28).

Finally, according to the evolution over a one-year period marital status appears to be one of the most important variables in terms of satisfaction in many areas, as shown in the work of Salokangas and colleagues (29) which found greater satisfaction in its follow-up among women and married men. The results of Salokangas’s studies strongly emphasise that relations between gender, marital status and QOL to a great extent depend on the study sample and may vary by study area.
CONCLUSION

This study replicates many previous findings, however, its originality stems from the variety of EU countries where the patients were treated; these countries have quite different resources: medical as well as social and the living conditions of patients are very different. However, the main differences as far as their quality of life is concerned depend very much on extra-psychiatric variables, principally marital status and income and not so much on clinical variables.

Concerns of patients are very similar to those of the non patient’s populations and income is a serious concern: finances and relationships with others including love life are the domains where they are the most dissatisfied.

Quality of life integrates many dimensions and this work shows that an improvement in a domain may raise problem in an other: for example, being in sheltered housing increases satisfaction with housing but at the same time seems to deteriorate relationship with others with making no difference in the remaining areas.

Globally, with largely different resources, patients are more satisfied after one year spent under the diverse psychiatric care systems: their satisfaction with finance increases which may indicate some efficiency from psychiatric teams to gather subsides for them. However, satisfying relationships with others including love life are a far more difficult goal to reach for such chronic schizophrenic patients who have great handicap for those domains essential for their own conception of quality of life.
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- *La Verrière:* Dr. Lacalmontie, Ms. Dutrut, Dr. Pecot; 
- *Saint Etienne:* Pr. Pellet, Dr. Bouvy, Ms. Guyon, Ms. Hairwassers, Mr. Jullien, Pr. Lang, Ms. Poyet, Ms. Sert, Mr. Ziegler

**IRELAND:** 
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**PORTUGAL:** 
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REFERENCES


7. **Kovess V, Wiersma D., Caldas de Almeida J.M., Carta M**: Needs for care of patients with schizophrenia in seven european countries: an year follow-up study. Clinical Practice and Epidemiology in Mental Health 2006 (Submitted).


9. **Wing JK, Babor T, Brugha T**: SCAN. Schedules for Clinical Assessment in Neuropsychiatry. *Arch Gen Psychiatry* 1990, 47(6):589-93.


Table 1

Characteristics of patient populations at entry for seven study areas in four countries

<table>
<thead>
<tr>
<th></th>
<th>Lille France</th>
<th>Lyon France</th>
<th>La Verrière France</th>
<th>St Etienne France</th>
<th>Dublin Ireland</th>
<th>Lisbon Portugal</th>
<th>Granada Spain</th>
<th>Average</th>
<th>P</th>
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<tbody>
<tr>
<td>Number of patients</td>
<td>46</td>
<td>44</td>
<td>27</td>
<td>49</td>
<td>64</td>
<td>50</td>
<td>84</td>
<td>364</td>
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<tr>
<td>Male (%)</td>
<td>65</td>
<td>73</td>
<td>63</td>
<td>78</td>
<td>61</td>
<td>82</td>
<td>75</td>
<td>70</td>
<td>NS</td>
</tr>
<tr>
<td>&lt;= 35 years</td>
<td>50</td>
<td>36</td>
<td>37</td>
<td>57</td>
<td>25</td>
<td>56</td>
<td>58</td>
<td>46.7</td>
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</tr>
<tr>
<td>Mean age at 1st contact with services</td>
<td>20 (4.5)</td>
<td>21 (6.8)</td>
<td>24 (4.5)</td>
<td>22 (5.0)</td>
<td>26 (6.7)</td>
<td>23 (6.3)</td>
<td>23 (6.4)</td>
<td>23</td>
<td></td>
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<tr>
<td>In-patient (%)</td>
<td>12</td>
<td>27</td>
<td>22</td>
<td>28</td>
<td>3</td>
<td>0</td>
<td>4</td>
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<tr>
<td>Never married (%)</td>
<td>72.5</td>
<td>83</td>
<td>89</td>
<td>82</td>
<td>67</td>
<td>86</td>
<td>82</td>
<td>80</td>
<td>0.05</td>
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<tr>
<td>Sheltered accommodation * (%)</td>
<td>13</td>
<td>19</td>
<td>11</td>
<td>12</td>
<td>3</td>
<td>0</td>
<td>1.2</td>
<td>5.8</td>
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<td>Private accommodation (%)</td>
<td>78</td>
<td>73</td>
<td>89</td>
<td>86</td>
<td>81</td>
<td>100</td>
<td>99</td>
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<td>Regular wages (%)</td>
<td>9</td>
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<td>4</td>
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<td>16</td>
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<td>On social benefit or pension (%)</td>
<td>73</td>
<td>76</td>
<td>74</td>
<td>83</td>
<td>67</td>
<td>24</td>
<td>65</td>
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</tr>
</tbody>
</table>

* Homeless: 15.6% Dublin, 4 % Saint Etienne, 0% elsewhere
Table 2a
Global score, inter-centre differences at time 1

Table 2b
Global score, inter-centre differences between time 2 and time 1
Table 3a Satisfaction by domain across sites

<table>
<thead>
<tr>
<th>Location</th>
<th>Clothing p=0.038</th>
<th>Food p=0.009</th>
<th>Local Services p=0.002</th>
<th>Friends p=0.000</th>
<th>Leisure p=0.002</th>
<th>Finances p=0.001</th>
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<td>St Etienne</td>
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<tr>
<td>Dublin</td>
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<td>Lisbon</td>
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<tr>
<td>Granada</td>
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</table>
Table 3b Satisfaction in additional domains by sites

<table>
<thead>
<tr>
<th>Site</th>
<th>Responsibilities</th>
<th>Life in General</th>
<th>Love Life</th>
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</thead>
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<td>4.5</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Lyon</td>
<td>4.5</td>
<td>4.5</td>
<td>3.5</td>
</tr>
<tr>
<td>La Verrière</td>
<td>4.0</td>
<td>4.0</td>
<td>3.5</td>
</tr>
<tr>
<td>St Etienne</td>
<td>5.0</td>
<td>5.0</td>
<td>4.0</td>
</tr>
<tr>
<td>Lisbon</td>
<td>4.0</td>
<td>3.5</td>
<td>3.0</td>
</tr>
<tr>
<td>Granada</td>
<td>4.0</td>
<td>3.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Average</td>
<td>4.25</td>
<td>3.8</td>
<td>2.5</td>
</tr>
</tbody>
</table>

- Responsibilities $p=0.007$
- Life in General $p=0.007$
- Love Life $p=0.006$
Table 4 Satisfaction according to source of income

<table>
<thead>
<tr>
<th>Source of Income</th>
<th>Average</th>
<th>Housing p</th>
<th>Services/Facilities p</th>
<th>Financial Situation p</th>
<th>Love Life p</th>
<th>Responsibilities p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Salary</td>
<td>5.5</td>
<td>0.028</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Spouse Assist Financial</td>
<td>5.0</td>
<td></td>
<td>0.013</td>
<td></td>
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<tr>
<td>Parents Assist Financial</td>
<td>5.0</td>
<td></td>
<td></td>
<td>0.002</td>
<td></td>
<td></td>
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<tr>
<td>Family/Friend Assist</td>
<td>4.5</td>
<td></td>
<td></td>
<td></td>
<td>0.024</td>
<td></td>
</tr>
<tr>
<td>Sickness/Handicap Benefit</td>
<td>4.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployment/Social Benefit</td>
<td>4.5</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Legend:
- □ Housing p=0.028
- □ Services/Facilities p=0.013
- □ Financial Situation p=0.002
- □ Love Life p=0.024
- □ Responsibilities p=0.008
### Table 5

Frequency of individual ongoing symptoms at inclusion (%)

<table>
<thead>
<tr>
<th></th>
<th>Lille N=46</th>
<th>Lyon N=44</th>
<th>La Verrière N=27</th>
<th>St Etienne N=50</th>
<th>Dublin N=64</th>
<th>Lisbon N=50</th>
<th>Granada N=81</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychotics symptoms</td>
<td>80.4</td>
<td>93.2</td>
<td>92.6</td>
<td>100.0</td>
<td>68.8</td>
<td>100.0</td>
<td>100.0</td>
<td>0.97</td>
</tr>
<tr>
<td>Slowness/under-activity</td>
<td>37.0</td>
<td>65.9</td>
<td>81.5</td>
<td>68.0</td>
<td>45.3</td>
<td>62.0</td>
<td>71.6</td>
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<tr>
<td>Side effects, dyskinesia</td>
<td>28.3</td>
<td>43.2</td>
<td>51.9</td>
<td>40</td>
<td>26.6</td>
<td>48.0</td>
<td>27.2</td>
<td>0.55</td>
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<tr>
<td>Neurotic symptoms</td>
<td>19.6</td>
<td>43.2</td>
<td>22.2</td>
<td>6.0</td>
<td>9.4</td>
<td>16.0</td>
<td>23.5</td>
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<tr>
<td>Physical symptoms</td>
<td>13.0</td>
<td>31.8</td>
<td>33.3</td>
<td>42.0</td>
<td>6.3</td>
<td>14.0</td>
<td>7.4</td>
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<td>Dangerous behaviour</td>
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<td>29.5</td>
<td>22.2</td>
<td>32.0</td>
<td>15.6</td>
<td>24.0</td>
<td>19.8</td>
<td>0.39</td>
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<tr>
<td>Embarrassing behaviour</td>
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<td>27.3</td>
<td>11.1</td>
<td>12</td>
<td>9.4</td>
<td>40.0</td>
<td>24.7</td>
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<tr>
<td>Distress</td>
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<td>38.6</td>
<td>7.4</td>
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<td>Alcohol</td>
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<td>11.1</td>
<td>10.0</td>
<td>10.9</td>
<td>16.0</td>
<td>21.0</td>
<td>0.01</td>
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<tr>
<td>Drugs</td>
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<td>3.7</td>
<td>4.0</td>
<td>4.7</td>
<td>6.0</td>
<td>7.4</td>
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