

A Multicenter Investigation of Consultation-Liaison Psychiatry in Italy

Costanzo Gala, M.D., Marco Rigatelli, M.D., Claudio De Bertolini, M.D., Gianpiero Rupolo, M.D., Filippo Gabrielli, M.D., Luigi Grassi, M.D., on behalf of the Italian C-L Group*

Abstract: *In order to evaluate the extent and quality of consultation-liaison (C-L) activity in Italy, a multicenter investigation was conducted in 17 general hospitals. All of the hospitalized patients referred to C-L psychiatry during a 1-year period were assessed by means of a specific instrument (Patient Registration Form, PRF-SF). Of 518,212 patients, 4182 were referred to C-L services (referral rate = 0.72%). Typical consultations were for female patients (60.1%), admitted to medical wards (71.5%), aged 55–75 years. Most interventions were carried out within 2 days; a minority (22%) were urgent requests. Gastrointestinal and cardiovascular disorders, and unexplained medical symptoms were the most frequent ICD-9 somatic diagnoses at admission. One-third of the patients were not informed of having been referred to C-L and half of them had a lifetime history of psychiatric disturbances. Most frequent ICD-10 psychiatric diagnoses were neurotic, stress-related, and somatoform syndromes (33.1%), affective syndromes (19.4%), and organic mental syndromes (10.7%). Two-thirds of the patients were given only one consultation whereas the remainder received two to four follow-up visits. The rate of transfer to psychiatric wards was low (2.1%). Psychopharmacological treatment was suggested in 65% of cases, and 75.5% of the patients were referred to community psychiatric care at*

discharge. The implications of the findings are discussed.
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Introduction

Over the past 15 years there has been an increasing development of Consultation-Liaison (C-L) psychiatry in several countries, particularly in the USA, the UK, and the Netherlands [1], although the institution of comprehensive C-L services within general hospitals remains the exception rather than the rule [2]. In Italy, despite the innovations determined by the Italian psychiatric reform (Law 180, 1978) in community psychiatry [3] and the development of psychiatric units in general hospitals [4], a specific interest in C-L psychiatry has been slow to develop. In most regions of Italy, consultation is still limited to the 24-hour psychiatric service provided in Emergency Departments by psychiatrists working in psychiatric wards within the general hospitals (or by community psychiatrists, where no psychiatric ward is available in the hospital itself) and/or evaluation, on a consultative basis, of acute psychiatric or behavioral problems of hospitalized medically ill patients. However, a few specific and integrated C-L services were established during the early 80s in university-based hospitals (e.g., Milan, Modena, Padua) [4–6] on the basis of which, in subsequent years, other centers in the country implemented C-L services (e.g., Naples and Ferrara).

In order to provide a clearer picture of the C-L situation in Italy, a project was developed by the Italian C-L Group under the auspices of the Italian Society of Consultation Psychiatry and Medical

Servizio di Psicologia Clinica, IRCCS, Ospedale Maggiore, Milano, Italy (C.G.); Dipartimento di Patologia Neuropsicosensoriale, Sezione di Psichiatria, Università di Modena; Modena, Italy (M.R.); Dipartimento di Scienze Neurologiche e Psichiatriche, Sezione di Psichiatria, Università di Padova, Padova, Italy (C. DeB., G.R.); Dipartimento di Scienze Psichiatriche, Università di Genova, Genova, Italy (F.G.); Dipartimento di Discipline della Comunicazione e Comportamento, Sezione di Psichiatria, Università di Ferrara, Ferrara, Italy (L.G.)

* The following persons participated as local coordinators of the Italian C-L Group: Tamburro GA, M.D., Dotti D, M.D., Olmi N., M.D., Benvenuti P, M.D., Maglaviti BL, M.D., Moritti AR, M.D., Borri P, M.D., Casolari L, M.D., Celani T, M.D., Nardini M, M.D., Rizzoli P, M.D., Piccinini M, M.D., Vender S, M.D.

Clinica Psichiatrica Università di Ferrara, Ferrara, Italy.

Address reprint requests to: Dr. Luigi Grassi, Clinica Psichiatrica Università di Ferrara, Corso Giovecca 203-44100 Ferrara, Italy.

Psychology. The study, which is the first multicenter investigation in Italy, had the twofold aim of evaluating the characteristics and type of C-L activity in Italy and developing training and research protocols to be used throughout the country. The purpose of this report was to analyze the general data from the Italian Multicenter Study.

Methods

Study Design

The study was conducted on a nationwide level, involving 12 provinces (6 in the north of Italy, 3 in central Italy, and 3 in southern Italy), for a total of 17 hospitals (19,804 beds in all) and 17 corresponding psychiatric consultation services.¹ All of the patients admitted to the hospitals and referred to psychiatry during a period of 12 consecutive months, between 1993 and 1994, were assessed using an abridged version of the Patient Registration Form (PRF-SF) [7,8], with the necessary alterations according to the Italian cultural context and health service. The instrument consists of 60 items in five main areas: 1) patient's data (e.g., sociodemographic data, psychiatric history, patient's health care status before admission); 2) hospitalization data (e.g., date of admission and discharge, ward, lag-time of request); 3) consultation data (e.g., primary reasons for referral, psychiatric diagnosis at consultation); 4) intervention (e.g., psychological intervention, pharmacological intervention, transfer); and 5) outcome (e.g., formulation of postdischarge plan, death of patient). ICD-9 was used to assess the somatic diagnosis, and the psychiatric diagnosis was assessed according to the WHO ICD-10 system [10].

In accordance with the European study [7,10], all the assessors underwent a reliability test which consisted of completing the PRF-SF and giving an ICD-10 psychiatric diagnosis for 13 precoded vignette cases which were sent and evaluated by the main center (Milan). Eighty-five out of 87 consultants fulfilled the reliability criteria (average $\kappa \geq 0.70$) and took part in the study (participation rate 97%).

¹ Participating hospitals (and relative number of consultations) were Carpi (42), Ferrara (682), Genoa (338), Milan (334), Modena (744), Padua (484), Pavia (280), Sassuolo (61), and Vignola (79) in Northern Italy; Florence (75), Perugia (134), and Siena (39) in Central Italy; Bari (346), Naples (198), and Sessa Aurunca (140) in Southern Italy.

Statistical Analysis

Statistical procedures included descriptive statistics, assessment of response distribution (frequency counts), and cross-tabulation. Differences between groups were tested by the Student's *t*-test and Chi-square test, when appropriate. Statistical significance was set at a level of 5%. Analyses were conducted using the SPSS-PC package [11].

Results

Sociodemographic and Clinical Characteristics of the Sample

During the study period, 518,212 patients were admitted to the participating hospitals. For 4182 of them a psychiatric consultation was requested (rate = 0.72%). Ninety-three percent of the consultations were for inpatients ($N = 3925$) and 6.15% ($N = 257$) for day-hospital patients.

Sociodemographic and clinical data are presented in Table 1. There were 1699 men (39.9%) and 2511 women (60.1%), with a mean age of 50.82 ± 18.77 years (range 18–84); 17.5% of the patients were aged 65–74, 16.7% were 55–64, 15.8% were 45–54, and 15% were 35–44. Half of the sample ($N = 2125$; 50.8%) were married, 27.2% ($N = 1137$) had never been married, 15% ($N = 629$) were widowed, and 6% ($N = 250$) were divorced/separated. One-third of the patients were retired ($N = 1490$; 35.6%), 28.6% employed ($N = 1195$), 13.5% were housewives ($N = 563$), and 8.4% ($N = 352$) were unemployed. Education status was as follows: 1436 (34.3%) had received less than 8 years of education, 1541 (36.8%) had received 8 years, 665 (15.9%) had received 13 years, and 150 (3.6%) had received 18 years.

The most frequent provisional ICD-9 somatic diagnoses at admission were gastrointestinal diseases (13.4%), cardiovascular diseases (13.2%), general physical symptoms (12.5%), metabolic-endocrine disorders (6.7%), self-poisoning (5.5%), cancer (4.6%), and infectious diseases (4.3%) (Table 1). Patients were referred to medical wards (internal medicine and specialty medicine) in 71.5% of cases and to surgical wards (general surgery and specialty surgery) in the remaining 28.5% (Table 1).

Characteristics of Psychiatric Requests and Consultations

Table 2 shows the primary reasons for referral. Current psychiatric symptoms was the most fre-

Table 1. Sociodemographic and hospitalization data of the patients

Sex	
Male	1,699 (39.9%)
Female	2,511 (60.1%)
Age (in years)	50.82 ± 18.77 (Range: 18–84)
Education	
<8 years	1,436 (34.3%)
8 years	1,541 (36.8%)
13 years	665 (15.9%)
18 years	150 (3.6%)
No information	354 (8.4%)
Marital status	
Never married	1,137 (27.2%)
Separated/divorced	250 (6%)
Married	2,125 (50.8%)
Widowed	629 (15%)
Occupation	
Employed	1,195 (28.6%)
Unemployed	352 (8.4%)
Disability pension	184 (4.4%)
Housewives	563 (13.5%)
Retired	1,490 (35.6%)
Students	154 (3.7%)
Unknown	116 (2.7%)
ICD-9 diagnosis at admission	
Gastrointestinal	562 (13.4%)
Cardiovascular	554 (13.2%)
Endocrine-Metabolic	282 (6.7%)
Neurological	197 (4.7%)
Cancer	192 (4.6%)
Infectious	182 (4.3%)
Respiratory	144 (3.4%)
Genitourinary	138 (3.3%)
Skin	135 (3.2%)
Musculoskeletal	110 (2.6%)
Injury	165 (3.9%)
Self-poisoning	231 (5.5%)
General symptoms	524 (12.5%)
Blood	40 (0.9%)
Sense organ	84 (2%)
Other	349 (8.3%)
Deferred somatic diagnosis	293 (7%)

quent (63.9%), followed by unexplained physical symptoms (9.3%), suicide attempts/suicide risk (5.9%), psychoactive substance abuse (4.7%), coping/compliance problems (4.4%), and psychiatric history (3.1%).

Two-thirds of the patients (2975; 71.1%) were informed that they had been referred to the C-L service and 28.9% ($N = 1207$) received no information concerning psychiatric consultation requests.

Table 2. Consultation data

Primary reason for referral	
Current psychiatric symptoms	2675 (63.9%)
Unexplained physical symptoms	390 (9.3%)
Suicide attempt/suicide risk	249 (5.9%)
Substance abuse	198 (4.7%)
Compliance/coping problems	187 (4.4%)
Psychiatric history	130 (3.1%)
Request from the patient	58 (1.4%)
Other	298 (7%)
Urgency	
Routine	3111 (74.4%)
Today	760 (18.1%)
Within 1 hour	170 (4%)
Unknown	141 (3.3%)
Lag-time1	5.17 ± 9.95 days
Lag-time2	1.54 ± 2.28 days

With regard to the time lapse before consultation, as requested by the consultee, most requests were “routine” consultations (consultations to be performed within 48 hours) ($N = 3$; 74.4%). There were 930 (22.1%) urgent consultations, of which 170 (4%) were within 1 hour and 760 (18.1%) on the same day.

The mean time between patient’s admission and referral (Lag-time1) was 5.17 ± 9.95 days and the mean time between referral and consultation (Lag-time2) was 1.54 ± 2.28 days. Same day consultations (35.1%) were carried out and 41.9% within the following 2 days (28.4% within the following 24 hours and 13.5% within the following 48 hours). Over half of the referred patients (54.2%, $N = 2267$ patients) had never had psychiatric contacts in the 5 years prior to the current hospital admission. Of the remaining subjects who had had psychiatric assistance, 12.4% ($N = 513$) had been followed by community psychiatric services, 16.9% ($N = 714$) by private professionals including psychologists ($N = 219$), and 9.1% ($N = 379$) by their GPs. Previous admission to psychiatric units was reported by 7.4% ($N = 309$) subjects. At the time of admission, 41.3% of the patients ($N = 1727$) were taking psychotropic medication, usually combinations of drugs such as benzodiazepines ($N = 1064$), antidepressants ($N = 517$), and neuroleptics ($N = 469$).

Psychosocial Problems and Psychiatric Diagnosis

Current psychosocial problems were registered in 72.4% of the cases ($N = 3030$): specifically prob-

Table 3. Psychiatric history and ICD-10 psychiatric diagnosis

Psychiatric history			
Previous psychiatric contacts			
Yes			2,267 (54.2%)
No			1,915 (45.8%)
Current psychosocial problems			
Yes			3,030 (72.4%)
No			1,152 (27.6%)
ICD-10 diagnosis		At 1st consultation	At discharge
No diagnosis		502 (12%)	577 (14%)
Deferred		199 (5%)	71 (1.7%)
Psychiatric diagnosis		3481 (83%)	3460 (84.2%)
Organic mental disorders		449 (10.7%)	318 (7.7%)
Mental and behavioral disorders due to psychoactive substance abuse		264 (6.3%)	259 (6.3%)
Schizophrenia, schizotypal, and delusional disorders		234 (5.6%)	247 (6.1%)
Affective syndromes		810 (19.4%)	817 (19.8%)
Major depression (single/recurrent)		647 (15.5%)	654 (15.9%)
Persistent mood disorders		129 (3.1%)	125 (3.1%)
Other depressive syndromes		34 (0.8%)	11 (0.2%)
Neurotic, stress-related, somatoform		1387 (33.1%)	1389 (33.8%)
Phobic anxiety disorders		8 (0.2%)	8 (0.1%)
Other anxiety disorders		519 (12.4%)	516 (12.5%)
Obsessive-compulsive		32 (0.8%)	35 (0.8%)
Reaction to severe stress/Adjustment		601 (14.4%)	588 (14.3%)
Dissociative		19 (0.5%)	21 (0.5%)
Somatoform		199 (4.8%)	209 (5.1%)
Other		5 (0.1%)	17 (0.4%)
Behavioral syndromes associated with physiological/physical factors		82 (2%)	86 (2%)
Personality disorders		225 (5.4%)	235 (5.7%)
Other		30 (0.8%)	30 (0.7%)

lems due to the particular phases of life or other life circumstances ($N = 1071$), specified family problems ($N = 545$), social problems ($N = 362$), parent-child problems ($N = 299$), marital problems ($N = 267$), problems stemming from medical illness/treatment ($N = 205$), occupational problems ($N = 154$), and other problems ($N = 127$) (Table 3).

In 83% of cases, an ICD-10 diagnosis was made by consultants (Table 3), in 5% diagnosis was deferred, and in 12% no psychiatric diagnosis was made. A diagnosis of neurotic, stress-related, and somatoform syndromes (F40-48) was made in 33% of the patients ($N = 1387$), including adjustment disorders (F43) (14.4%), anxiety disorders (F40-41) (12.4%), and somatoform disorders (F45) (4.8%). Affective syndromes (F30-39) were diagnosed in 19.4% of patients ($N = 810$), including

single or recurrent episodes of major depression (15.5%) and persistent depression (3.1%). Organic mental syndromes (F00-09) were found in 10.7% ($N = 449$) and another 6.3% ($N = 264$) were given a primary diagnosis of mental and behavioral disorders due to the use psychoactive substances (F10-19). Schizophrenia, schizotypal, and delusional disorders (F20-29) were reported in 5.6%; personality disorder in 5.4% ($N = 225$); and in 2% ($N = 82$), a diagnosis of behavioral syndromes associated with physiological disturbances and physical factors (F50-59). Fifteen percent of the referred population were given an additional ICD-10 diagnosis, mainly personality disorders (35.5%), disorders due to use of psychoactive substances (16.9%), neurotic, stress-related, and somatoform disorders (16.2%), and affective syndromes (10.3%). A similar distribution of primary

Table 4. Psychiatric intervention and outcome

Psychiatric intervention	
Psychotropic medication prescribed	2732 (65%)
Nonspecific psychological intervention	3051 (73%)
Transfer to psychiatric units	88 (2.1%)
Number of consultations	
1.52 ± 1.56 (range 1–50)	
Psychiatric aftercare recommendations	
No	1461 (35.6%)
Yes	2646 (74.4%)
Outpatient Mental Health service	1123 (27.3%)
Outpatient C-L service	553 (13.4%)
GPs	545 (13.2%)
Other (e.g., private psy)	425 (10.3%)

and secondary diagnoses was found at discharge from the hospital (Table 3).

Psychiatric Intervention and Outcome

Table 4 shows characteristics of psychiatric intervention and outcome. Biological and/or psychological diagnostic procedures were recommended in 14.7% of cases ($N = 614$). Most patients were prescribed psychotropic drugs ($N = 2732$, 65%), particularly combinations of benzodiazepines + antidepressants ($N = 536$), benzodiazepines + neuroleptics ($N = 240$), and benzodiazepines + antidepressants + neuroleptics ($N = 109$). Psychological intervention (psychological support) was carried out in 73% of the consultations ($N = 3051$). In most cases psychological intervention was aimed at the patient and less frequently at the staff ($N = 501$, 16.4%) and the family (15.1%, $N = 462$).

Most patients ($N = 2898$; 69.3%) were seen only once and the remaining 30.7% ($N = 1284$) had follow-up visits after the first consultation contact (1 follow-up visit = 14%, 2–4 visits = 8.7%, >4 visits = 1.9%). The mean number of consultations was 1.52 ± 1.56 (range 1–50). The total time dedicated to each patient was 65.28 ± 63.07 minutes, with about half of the consultations (41.9%) lasting 30–60 minutes and one-fifth (21.6%) lasting 60–120. The average hospital stay was 15.38 ± 18.01 days, with 43.9% of the patients staying 1–10 days and 37.9% staying 11–20 days. Eighty-eight patients (2.1%) were transferred to psychiatric units. At discharge, 74.4% patients ($N = 2646$) were recommended for further psychiatric care through community psychiatric services (27.3%), C-L outpatient service (13.4%), their own GPs (13.2%), and other

services (10.3%). A small percentage of patients ($N = 75$; 1.8%) died before discharge.

Discussion

This is the first comprehensive study of C-L psychiatry in Italy. The results presented here make it possible to clarify a number of aspects of C-L within Italian general hospitals and to compare the Italian data with findings of other European countries and the USA. The results reveal that only a small percentage (0.7%) of the patients admitted to general hospitals were referred to C-L services. Although if this figure is lower than the 1.5%–3% rate reported in other C-L studies [12,13], it is comparable with the findings of other investigations [14]. Some differences were found according to the centers, with percentages ranging from 0.1% (e.g., Naples, Florence) to 1.9%–2% (e.g., Ferrara and Modena). This result can be attributed to the differences in organization of the centers participating in this study and it confirms the difficulty in comparing C-L activity in different countries and cultures [15].

In agreement with the C-L literature [12,13], most subjects were admitted to medical wards, and only a minority of requests came from surgical wards. Likewise, the time elapsed between admission and referral (Lag-time1) was comparable to data reported by other authors [16,17], with a mean of less than 1 week.

Regarding the specific characteristics of referred patients, most were married, between 45 and 65 years old, of a low educational level, and female. About 33% were retired and 16% were unemployed or disabled. Over 50% had had previous emotional disorders needing psychiatric attention. These results are in line with most recent European reports [18,19] and seem to indicate that C-L services are frequently offered to the most vulnerable segments of the general population; the elderly, those belonging to a socioeconomic low class, or patients with previous psychiatric disturbances.

It is interesting to note that in spite of improvements in communication between doctors and patients, one-third of the patients were not informed that they were being referred to a C-L service. Apart from situations (e.g., delirium or other severe organic mental syndromes) in which information is difficult or impossible to impart, this is still a large percentage and suggests that psychiatry continues to be considered a “special” discipline, an attitude that may explain the patients’ concern or refusal to

discuss psychiatric referral and/or intervention even during consultation.

Psychiatric diagnoses according to ICD-10 were comparable with those found in other studies [12,13,18]. Affective disorders were diagnosed in about one-third of the patients, confirming the high prevalence of these disturbances in the general hospital [19] and the need for close attention to an accurate diagnosis and adequate treatment of depression in physically ill patients [20,21]. In line with other reports, adjustment disorders were also frequently diagnosed among referred patients (14% prevalence in our sample) [22,23]. Despite the common tendency to minimize the clinical significance of Adjustment Disorders, recent research has shown that this is an important and time-consuming diagnostic category in C-L psychiatry practice [24]. Organic mental syndromes, especially delirium, were diagnosed in about 10% of referred patients. This low prevalence indicates the need for more appropriate evaluations of these disorders in the general hospital [25,26].

Certain groups of diagnoses were less frequent in the Italian study than in other investigations, however. For example, a primary diagnosis of mental and behavioral disorders due to the use of psychoactive substances (F10-19) was infrequent (7%) in this population compared with the 30% prevalence rate found by some authors [27,28], although it is comparable with the results obtained by others (e.g., 5.4%) [29]. This may be due to the fact that specific psychiatric services for individuals with these disorders were set up after the psychiatric reform in Italy and therefore such patients are usually referred to these services rather than to C-L.

A strong need for improvement in the quality of C-L is made evident by some results: less than two-thirds of the consultations (60.3%) were performed on the day following the request; this is lower than reported in the ECLW study in which 80.1% of consultations had been carried out by the following day. It is possible that the presence of even a small number of day-hospital patients may have influenced this result. In fact, all the day-hospital consultations were planned consultations, that is, consultations carried out a number of days (usually 3–7 days) after the request, upon agreement between the patient and the consultant. Furthermore, the percentage of emergency consultations was extremely low: only 4% of requests concerned situations requiring immediate intervention. This is considerably less than the 23% of emergency consultations reported in other studies [30].

However, the fact that this study excluded the analysis of consultations performed in the Emergency Room may account for this result.

Only a minority of patients received further consultations after the first contact. Again, this percentage is smaller than that shown in other studies which report that 58% of patients are given more than three consultations, with an average of 2.5 consultations per patient [31].

Interesting differences were also shown on C-L intervention. Consultants performed or recommended psychological tests in a minority of cases (2%), whereas other studies indicate the use of psychological testing in 10% of consultations [32]. Psychological counseling was offered to about two-thirds of the referred cases (63%). Since the characteristics of psychological intervention (psychological support vs psychotherapy) were not specifically investigated, no comparison is possible with other studies indicating a 10% rate of structured psychotherapy in C-L activity [12,33]. Psychotropic drugs were frequently used in psychiatric consultations. Drugs were prescribed at least once for about two-thirds of the patients. These data are in line with other Italian studies [5], although they are higher than those reported in other European studies in which psychopharmacological drugs were prescribed for 30% of the patients [12]. Above all, the difference concerns the prescription of antidepressants which was more frequent in Italy than in other countries (41% vs 10%), and there were similar trends in the prescription of anxiolytics and neuroleptics [7].

Only a minority of the patients were transferred to psychiatric units (2.1%), a much smaller percentage than reported in other European studies (12%) [7,12]. This may be due to the frequent tendency in Italy to treat psychiatric cases within the medical wards, transferring only patients with acute mental illnesses to the psychiatric units.² A large percentage of patients were recommended for follow-up after discharge. An interesting result is that about 20% were referred to C-L outpatient services, thus permitting continuity of care both inside and outside the hospital. A large percentage of patients were also referred to their primary care physician for further psychiatric or psychological assistance, indicating the important

² One of the major provisions of the Italian psychiatric law (and following amendments, Law 833 1980) is that psychiatric inpatient units, not larger than 15 beds (1 bed per 10,000 inhabitants), are to be established in General Hospitals, to which acute patients requiring hospitalization (voluntary or involuntary) are to be admitted.

role of primary care in mental health and the need for close cooperation between psychiatry and general medicine in Italy [34–36].

The data presented here confirm that C-L varies from one European country to the next, with significant differences determined in part by mental health organization settings and in part by the specific characteristics of the patients [37]. Since C-L services are about to be set up in several Italian regions, more attention must be devoted to the epidemiological characteristics of C-L activity in order to standardize and ameliorate the clinical services provided.

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