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Original Article

Implementation and development of early intervention in psychosis services in Italy: a national survey promoted by the Associazione Italiana Interventi Precoci nelle Psicosi

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Abstract

Aim: This is the first comprehensive, nationwide survey aimed at collecting evidence about the process of implementation and development of early intervention in psychosis (EIP) services (EIPs) in Italy, following the establishment of the pilot program 'Programma 2000' in 1999 and the publishing of the Italian National Guidelines in 2007. This survey covers all the Departments of Mental Health (DMHs) operating in Italy in 2013.

Methods: Using a purpose-designed form to assess EIP implementation, all directors of public mental health services for adults throughout Italy (n = 216) were asked to provide information about the activities of EIP-relevant local services. The initial delivery was followed by a request for a prompt response.

Results: Out of 216 enquired DMHs, 103 provided computable answers to the survey (response rate = 48%). Among responders, 45 (44%) reported the implementation of EIP (one out of five DMHs operating in Italy). About a half of the active EIPs also targeted patients at ultra-high risk of psychosis (n = 27). Strict application of guidelines related to drug prescription was reported in 35% of EIPs. Conversely, 90% provided some kind of structured psychotherapy and psychoeducation. Among EIPs, a minority reported willingness to provide initial assessment/contact at the patient's home.

Conclusion: Albeit slowly, the implementation of EIP is spreading throughout the Italian public network of mental health. There is still a wide variability in the distribution of EIP services across the Italian territory. Further efforts are necessary to stimulate policy endorsement and resource allocation, as well as to support the poorest zones.

Key words: early intervention, early psychosis, psychiatric service, ultra-high risk.

INTRODUCTION

Diagnosis and intervention in psychosis are often delivered some time after the onset of the condition. Current estimates record a delay that may vary from months to years,[1,2] leaving the patient untreated for a long time.[3]

Duration of untreated illness (DUI), and specifically of psychosis (DUP), is related to short- and medium-term outcomes in psychosis, with shorter DUI/DUPs being related to better outcomes.[4–7] As psychoses are top contributors to the global burden of diseases in the world, leaving a psychotic disorder untreated may have heavy consequences in terms of health and quality of life of the affected patients and their families, as well as in terms of costs for the society related to treatment, unemployment and lost opportunities.[8,9] Early detection and intervention in psychosis are therefore advisable to reduce the negative impact of DUI and DUP.[3]

Since the seminal work of McGorry[10] and McGlashan,[11] the paradigm of early intervention in psychosis (EIP) has germinated focused protocols of care that have been implemented in early intervention programmes as well as sometimes in autonomous early intervention services, established within the mental health-care network of a country.[12,13] EIPs were proved to be effective in reducing inpatient care and treatment dropout,[14] and in cutting global costs of treatment.[15,16]

In Italy, the 'reform' law 180, enforced in 1978, produced a substantial change in the architecture of the mental health system.[17] This reorganization resulted in a comprehensive and integrated system of community-based mental health services,[18] an environment that is particularly favourable for the detection and the early enrolment of patients at their first episode of psychosis and of all those in need of treatment among the people showing prodromal signs of psychosis, those defined as at ultra-high risk (UHR) of psychosis. The establishment of the pilot program 'Programma 2000', the first service specifically targeting the early detection and intervention on individuals experiencing their first episode of psychosis, ongoing in Milan since 1999,[19,20] and the publishing of the Italian National Guidelines on 'Early intervention in schizophrenia' in 2007[21,22] have both stimulated the implementation of specific services aimed at the treatment of early psychosis in Italy. However, further information is required about how the nationwide diffusion of early psychosis clinical services is proceeding in Italy.

An investigation based on a randomized 20% sample of Italian mental health centres (MHCs) revealed a limited diffusion of evidence-based protocols of treatment.[23] This investigation found that 30% of MHCs had an active EIP service, with a prevalence in central Italy (45%) and the lowest presence in southern regions and the islands (16%). The same investigation reported that most services adopted a generalist approach centred on ad hoc developed guidelines, rather than on the suggested Italian National Guidelines.[23] Widespread lack of homogeneity was found across geographical areas, principally depending upon access to economic resources.[23]

Another survey, promoted in 2011 by the Italian Association for EIP (Associazione Italiana Interventi Precoci nelle Psicosi – AIPP), including 153 Departments of Mental Health (DMHs) operating in Italy out of 206 active departments at that time, got a 35% response rate ($n = 54$), and found that EIP protocols were implemented in about a half of the surveyed DMHs ($n = 29$; 54% among respondents; 19% among surveyed DMHs).[24] As in the past survey, most centres admitted they did not follow evidence-based care protocols, and only a few (1 out of 10) had active collaboration with child and adolescent psychiatry units.[24]

Following past investigation on the topic, this is the first nationwide investigation concerning the implementation and development of early intervention services addressed to psychosis in Italy, and aimed at drawing a comprehensive picture of the diffusion and organization of EIP services within the Italian national mental health network of care.

METHODS

The study aimed at establishing a census of all Italian public mental health services for adults with an active EIP service. DMHs in Italy are budget-holding services operating autonomously to cater for a defined catchment area, and accepting patients aged 18 and older. Each DMH includes a set of outpatient MHCs, small psychiatric hospital units within general hospitals and semi-residential and residential facilities. A DMH's catchment area varies, on average, between 200 000 and 400 000 inhabitants.

The status of the censed DMHs is related to 2013.

Procedures

The directors of all DMHs were mailed Census forms (see below) and intensively followed up with mail and telephone reminders. The survey was carried out between April and September 2013.

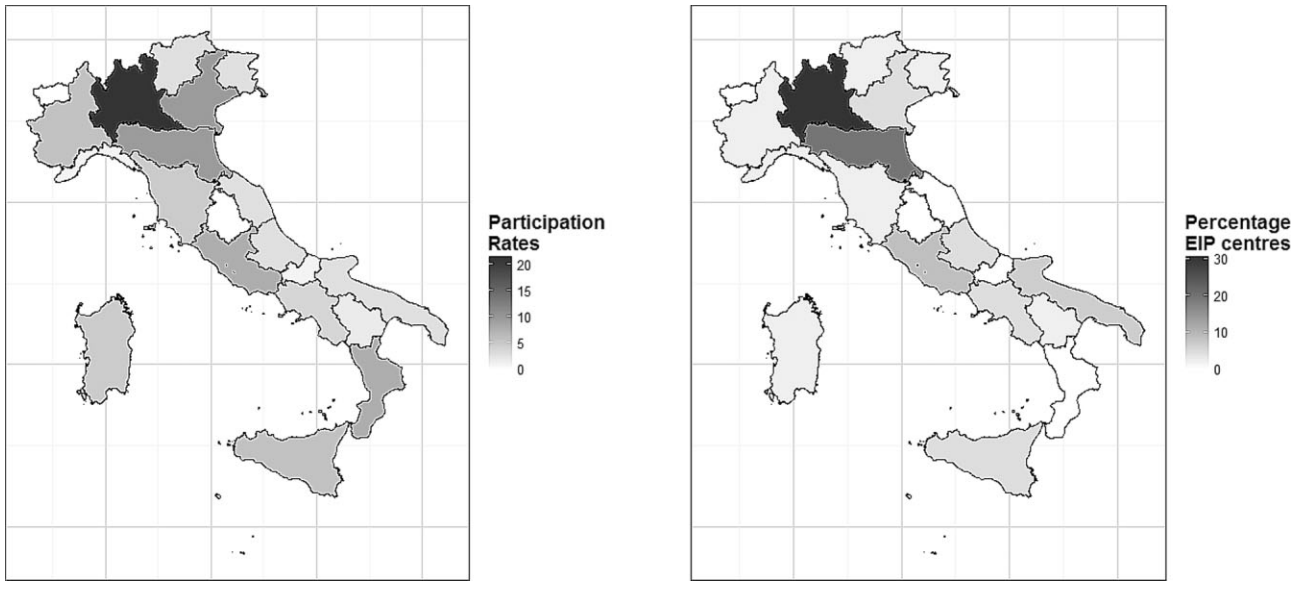
Census form

The Census form is made of three sections (available upon request). The first section collected identifying details and enquired whether or not the DMH had implemented an EIP or was taking steps towards implementing it. The second section contained questions about the organization of the EIPs, when established. The third section included items aimed at collecting data about general structural and functional attributes of the EIPs, such as size of the catchment-area population, total budget, staffing levels, educational activities, and so on.

Analysis

The responses to the survey were entered into an Excel spreadsheet and double-checked for inconsistencies, errors or missing data. Exploratory data

FIGURE 1. Participation rate and distribution of EIP centers by administrative region in Italy.



analysis and descriptive statistics were carried out using the Statistical Package for Social Sciences (SPSS) version 20 and the base statistics and graphical packages running in R (R Core Team).[25] The map of Italy illustrating the distribution of data by geographical area was created with the 'mapIT' package, running in R.[26]

RESULTS

Out of 216 enquired DMHs, 103 provided computable answers to the survey (response rate = 48%). There was a trend for DMHs in northern and central Italy to be more likely to participate to the survey than DMHs in southern Italy (Fig. 1, left).

Among responders, 45 (out of 103; 44%) reported an EIP active in the DMH (one out of five DMHs active in Italy).

Again, there was a trend for DMHs in northern and central Italy to be more likely to report the existence of an active EIP centre than DMHs in southern Italy (Fig. 1, right).

The difference was not statistically significant (Table 1).

General and structural characteristics

Among the 45 active EIP services, 10 EIP centres had an autonomous team dedicated to administering EIP protocols, whereas in the other centres (n = 35) this service was provided by the personnel of the DMH. Most teams had at least one psychiatrist and one psychologist within their staff, whereas the centres without a psychiatrist (n = 3) focused on the treatment of UHR patients. Among other health workers, nurses and health educators were more often included in the team than social workers and rehabilitation therapists (Table 1).

EIP centres in southern Italy had, on average, less personnel than those in northern or central Italy.

With the only exception of 3 centres (7%), staff personnel had received a specialized training. In 32 (71%) centres the training was based on internal seminars, whereas 27 centres (60%) provided ongoing clinical supervision. Again, there was a trend for EIP centres in southern Italy to be less likely to receive appropriate training than those in northern or central Italy.

Guidelines use

All EIP centres reported they used guidelines on early intervention, and in some case more than one guideline was used. In about one-third of EIP centres the used guidelines were not evidence based, but they were ad hoc protocols developed by the team.

Patients' characteristics

Most teams focused on first-episode psychosis (FEP) patients, but one-third of EIP centres also targeted UHR people, with EIP centres in southern Italy being less likely to provide interventions aimed at detecting and treating UHR people (Table 1).

Patients were addressed to the EIP service by psychiatric services in 31% of cases, by general

TABLE 1. General and structural characteristics of publicly founded EIPs in Italy

	Total *N* (%)	North *N* (%)	Centre *N* (%)	South and islands *N* (%)	Statistics
	103 (100)	45 (44)	36 (35)	22 (21)	
Early psychosis services	45 (44)	20 (45)	19 (42)	6 (13)	$\chi^2 = 3.63$, d.f. = 2, $P = 0.16$
	45 (100)	20 (100)	19 (100)	6 (100)	
Autonomous team	10 (22)	5 (25)	4 (21)	1 (17)	$\chi^2 = 0.21$, d.f. = 2, $P = 0.90$
Focused on FEP only	14 (31)	5 (25)	4 (21)	5 (83)	$\chi^2 = 8.89$, d.f. = 4, $P = 0.06$
Including UHR	29 (64)	14 (70)	14 (74)	1 (17)	
Focused on UHR only	2 (4)	1 (5)	1 (5)	0 (0)	
Team composition	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	
Psychiatrists	3.4 (3.6)	2.6 (2.1)	4.7 (4.8)	1.5 (0.7)	$F(2;35) = 1.81$, $P = 0.17$
Psychologists	2.9 (2.5)	2.7 (1.7)	3.4 (3.1)	0.5 (0.7)	$F(2;35) = 1.42$, $P = 0.25$
Rehabilitation therapists	0.6 (1.7)	0.3 (0.7)	1.0 (2.7)	0.0 (0.0)	$F(2;35) = 0.80$, $P = 0.45$
Health educators	1.6 (3.4)	1.5 (1.7)	1.7 (4.9)	2.0 (2.8)	$F(2;35) = 0.03$, $P = 0.96$
Nurses	2.0 (4.2)	1.2 (2.3)	3.4 (5.7)	0.0 (0.0)	F 2;35) = 1.51, $P = 0.23$
Social workers	0.8 (1.4)	0.6 (1.0)	1.2 (1.9)	0.0 (0.0)	$F(2;35) = 0.97$, $P = 0.38$
Other	0.6 (1.6)	0.7 (2.0)	0.2 (0.4)	2.5 (2.1)	$F(2;35) = 2.03$, $P = 0.15$
Missing information	7 (15.5)				
Training	*N* (%)	*N* (%)	*N* (%)	*N* (%)	
None	3 (7)	0 (0)	3 (16)	0 (0)	$\chi^2 = 4.65$, d.f. = 2, $P = 0.09$
Internal seminars	32 (71)	17 (85)	12 (63)	3 (50)	$\chi^2 = 3.41$, d.f. = 2, $P = 0.18$
External seminars	35 (78)	15 (75)	16 (84)	4 (67)	$\chi^2 = 1.83$, d.f. = 2, $P = 0.40$
Clinical supervision	27 (60)	12 (60)	12 (63)	3 (50)	$\chi^2 = 0.55$, d.f. = 2, $P = 0.75$
More than one	19 (42)	10 (50)	8 (42)	1 (17)	$\chi^2 = 2.10$, d.f. = 2, $P = 0.35$
Use of practice guidelines	*N* (%)				
NICE (UK)	10 (22)	3 (15)	5 (26)	2 (34)	$\chi^2 = 2.69$, d.f. = 2, $P = 0.26$
Australian guidelines	4 (8)	2 (10)	1 (5)	1 (17)	$\chi^2 = 1.70$, d.f. = 2, $P = 0.42$
Italian National Guidelines	20 (44)	10 (50)	8 (42)	2 (34)	$\chi^2 = 0.61$, d.f. = 2, $P = 0.74$
Ad hoc guidelines	14 (31)	5 (25)	9 (47)	0 (0)	$\chi^2 = 5.40$, d.f. = 2, $P = 0.06$
Other, unspecified	9 (20)	3 (15)	5 (26)	1 (17)	$\chi^2 = 0.73$, d.f. = 2, $P = 0.69$

practitioners (GPs) in another 31% of cases, and by local child and adolescent psychiatric units in 9% of cases; 29% of cases had accessed the EIP service by themselves.

Among the patients who were under treatment at the time of the survey, three on average (range 2–5) had accessed the service in the latest 3 months, leading to an estimated incidence of 12 patients per year.

There were no statistically significant differences in the 3-month incidence of patients accessing the EIP services by geographical area: northern Italy, mean = 3 (range: 2–5); central Italy, mean = 3 (range: 2–5); southern Italy and islands, mean = 2.5 (range: 2–3); Kruskal–Wallis chi-squared test = 2.00; d.f. = 2; $P = 0.37$.

Full accessibility to the service – with 24 hours/7 days access – was guaranteed by a minority of EIP centres ($n = 6$; 13%), in central Italy mostly ($n = 4$).

Characteristics of the intervention

In two-thirds of cases, patients at their first contact were evaluated by the clinicians of the outpatient setting, but in 55% of cases the first contact with the patient was organized during the patient's first admission, when the patient was still in the hospital. In a limited fraction of cases, the first contact took place at the patient's home (Table 2).

The first contact offers the opportunity to deal with the patient and perform an in-depth assessment. The use of validated assessment scales in this

TABLE 2. Characteristics of the intervention

	Total	North	Centre	South and islands	Statistics
	N (%)	*N* (%)	*N* (%)	*N* (%)	
	45 (100)	20 (100)	19 (100)	6 (100)	
First contact with patients					
Outpatient setting	31 (69)	14 (70)	13 (68)	4 (67)	$\chi^2 = 0.03$, d.f. = 2, $P = 0.98$
Inpatient setting	25 (55)	11 (55)	11 (58)	3 (50)	$\chi^2 = 0.12$, d.f. = 2, $P = 0.94$
At the patient's home	6 (13)	2 (10)	3 (16)	1 (17)	$\chi^2 = 0.35$, d.f. = 2, $P = 0.84$
Use of assessment scales	36 (80)	16 (84)	15 (79)	5 (83)	$\chi^2 = 0.18$, d.f. = 2, $P = 0.91$
Pharmacological guidelines	16 (35)	6 (30)	9 (47)	1 (17)	$\chi^2 = 2.36$, d.f. = 2, $P = 0.31$
Psychotherapy	42 (93)	19 (95)	17 (89)	6 (100)	$\chi^2 = 0.97$, d.f. = 2, $P = 0.61$
Family support	39 (87)	17 (85)	17 (89)	5 (83)	$\chi^2 = 0.23$, d.f. = 2, $P = 0.89$
Psychoeducation	43 (95)	20 (100)	17 (89)	6 (100)	$\chi^2 = 2.86$, d.f. = 2, $P = 0.24$
Group rehabilitation activities	26 (58)	12 (60)	11 (58)	3 (50)	$\chi^2 = 0.19$, d.f. = 2, $P = 0.91$
Past beneficiaries' involvement	14 (31)	7 (35)	5 (26)	2 (33)	$\chi^2 = 0.36$, d.f. = 2, $P = 0.83$
External awareness campaigns					
Aimed at GPs	21 (47)	9 (45)	11 (58)	1 (17)	$\chi^2 = 3.15$, d.f. = 2, $P = 0.21$
Aimed at health workers	31 (69)	16 (80)	12 (63)	3 (50)	$\chi^2 = 2.44$, d.f. = 2, $P = 0.29$
Aimed at the general population	21 (47)	10 (50)	10 (52)	1 (17)	$\chi^2 = 2.53$, d.f. = 2, $P = 0.28$

phase was reported by 80% of EIP centres. The Italian EIP teams usually chose general tools, such as the *Brief Psychiatric Rating Scale* (BPRS) ($n = 15$), the *Positive and Negative Syndrome Scale* (PANSS) ($n = 12$) or the *Minnesota Multiphasic Personality Inventory*-2 (MMPI-2) ($n = 5$), rather than early psychosis screening instruments such as the *Early Recognition Inventory for the retrospective assessment of the onset of schizophrenia* (ERIraos) Checklist ($n = 6$) or the *Comprehensive Assessment of At Risk Mental States* (CAARMS) ($n = 1$). The use of outcome measures such as the *Health of the Nation Outcome Scales* (HoNOS) ($n = 11$) and the *Global Assessment of Functioning* (GAF) ($n = 8$) was less widespread than expected. Specific interviews, such as the *Structured Clinical Interview for DSM-IV Axis I Disorders* (SCID-I) ($n = 5$) or the *Wechsler Adult Intelligence Scale* (WAIS) ($n = 4$), were rarely used in the Italian EIP centres.

Pharmacological therapy was largely used in FEP patients. All centres reported a preference for starting the treatment with a low-dose prescription of atypical antipsychotic medication. Low-dose typical antipsychotic medication was rarely used as the first prescription for FEP patients ($n = 6$; 13%); the same happened with antidepressants ($n = 7$; 15%). The prescription of anti-anxiety agents and mood stabilizers in FEP patients was reported by 14 (31%) and 15 (34%) EIP centres, respectively.

As far as UHR patients were concerned, 25 EIP centres (55%) reported they were likely to provide a low-dose prescription of atypical antipsychotic medication when needed. Low-dose typical antipsychotic medication was rarely used as the first prescription for UHR patients ($n = 2$; 4%); the same happened with mood stabilizers ($n = 8$; 18%). The prescription of antidepressants and anti-anxiety agents for the treatment of UHR patients was much more frequent, and was reported by 13 (30%) and 15 (34%) Italian EIP centres.

Psychotherapeutic interventions were scheduled in 93% of participating EIP centres, with some degree of variability regarding methods and procedures. Dedicated support to the family and related interventions were offered by more than 80% of Italian EIP centres, whereas some form of structured psychoeducation was provided by 95% of them.

Only a half of the centres offered structured rehabilitative programmes, which varied greatly from engagement in sport activities to music therapy or art therapy, problem solving, support in job seeking and computer training.

One-third of the screened EIP centres strived to include past beneficiaries – who had achieved recovery – in the organization of therapeutic projects.

External awareness campaigns

The organization of awareness campaigns on FEP is a core component of the early intervention model. Between 40% and 60% of the Italian EIP centres had active awareness programmes regarding FEP aimed at targets within the catchment area. The main targets were GPs ($n = 21$; 47%) and health workers operating in the same area ($n = 31$; 69%). Some of these campaigns also targeted the general

population, and were often carried out through school initiatives.

DISCUSSION

This is the first comprehensive national survey on early psychosis services in Italy, allowing us to define the diffusion and implementation of EIP services within the Italian national mental health-care network. The participation rate to this study was higher than in past, more limited and partial surveys.[23,24] Overall, about a half of Italian DMHs provided computable answers to the survey. Thus, findings can be considered representative of the current status of services dedicated to early psychosis in Italy, although it cannot be excluded that only the interested DMHs participated in the study.

We were unable to address the topic further because we lacked essential information. There are wide variations across administrative regions in terms of organization of health services, and some very elementary information was not even available (e.g. number of outpatient centres or staff composition). Lack of essential information prevented us from a deeper analysis of the differences between the DMHs that took part in the survey and non-responders, besides a generic distribution of response rates by geographical area.

The reliance of the survey on self-assessment is another limitation that should be taken into account when evaluating the results of this study. We had no possibility of checking whether all patients received the promised psychosocial interventions, nor could we control the quality of interventions or their adherence to evidence-based guidelines. The ascertainment of fidelity to the model is a topic which deserves an investigation of its own.[27,28]

On the basis of the results of this survey, the national diffusion of EIP programmes can be estimated to vary between 20% and 45% (worst and best scenario). EIP services were more likely to be found in northern and central Italy than in southern Italy and the islands, which include the poorest areas of the country. The EIP centres in southern Italy had, on average, less personnel than those in northern or central Italy, clearly a result of fewer resources allocated to these centres by the local health authority, or an investment in residential facilities rather than on preventive interventions.

However, lack of funding or staff is not the only reason for the heterogeneous diffusion of EIP services across the Italian territory. Factors such as real geographic barriers to accessibility, mental health literacy or high complexity of users' needs may have contributed as well.[12,29]

Unlike the reports in international literature,[30] most Italian EIP centres were established with the general staff. This approach is likely to depend on scarcity of funds, and it may compromise any effort aimed at de-stigmatizing the experience of a first episode of psychosis. When there is no independent team, FEP and UHR patients are melted with chronic and often severely disabled patients, and receive the worst impression of their possible future. This clashes with the message of hope that an EIP programme is expected to communicate to its beneficiaries.

Italian EIP centres tend to offer a multimodal package of intervention, including both state-of-the-art pharmacotherapy and psychosocial interventions, with a balanced proposal of psychotherapy, family support and psychoeducation. Nevertheless, evidence-based guidelines were followed à la carte, and psychosocial interventions were often implemented on the basis of outdated models and procedures, more according to the training received by the staff in the past than to the available evidence.

Current Italian psychiatric services often offer the same protocol of care (drug therapy and psychological support) to all patients accessing their services, whatever their age, stage of illness or level of severity or chronicity. There is rarely an attempt to plan a treatment tailored to the patients' needs, and often the only variation concerns the use of drugs on the basis of the diagnosis – often targeting at symptoms: antidepressants for patients with depression, anxiolytics for patients with anxiety, antipsychotics for patients with hallucinations or delusions, and so on. Such an approach is likely to have a poor appeal for young people, who tend to avoid any involvement in the treatment as long as possible. Indeed, Italy records a relatively long delay in the access to specialized public services: patients are often in their late 30s at their first admission to a psychiatric service.[31]

This may be a reason for the apparently low incidence of FEP in the areas with active EIP centres. As a matter of fact, some difference between the expected and the treated incidence of a disorder is a common finding in Italy,[32,33] and it may depend upon the mixed nature of the mental health-care network in Italy, where public and private facilities compete to provide treatment to the people in need.[34]

It has been already stated that, aside from lack of funding, a robust 'cultural resistance of mental health services to change their traditional treatment

approaches' (Ghio *et al.*,[23] p. 346) is delaying the implementation of the EIP model in the Italian context. Most EIP centres surveyed in this study reported to have active awareness campaigns aimed at health workers, GPs and the general population. An awareness campaign aimed at the stakeholders and the political authority that is in charge of deciding regional and national health planning, as well the careers and the continuous education of health workers, is urgent to accelerate the implementation of the EIP services in Italy.

A delay in the implementation of the early intervention model has been observed worldwide. Even Australia, where the revolution of early intervention in psychiatry had its onset, is suffering a slow and variable implementation of the EIP services, with insufficient allocation of funds.[35]

In order to overcome the limited and slow implementation of EIP services in Italy, and with the aim of further promoting the EIP model within the Italian mental health-care network, AIPP has recently approved a document suggesting a strong reorganization of psychiatric services.[36]

The document states that mental health services should be aimed at preventing the poorest course of severe mental disorders, according to the early intervention model.[37,38] The know-how is already available in the form of guidelines,[21,22] results of feasibility studies[38] and national investigations,[39] which have already inspired both local and national political decisions, but are still waiting to be translated into active programmes.[40,41] The document of the AIPP ends with a warmly welcomed strong reorganization of psychiatric services. They are expected to be oriented towards functions (such as prevention, acute onset, medium- and long-term rehabilitation, residential interventions, forensic psychiatry), consistently with a phase model of mental disorders (from vulnerability to prodromes, until first-episode onset, subacute course, and in case – or possibly – chronicity and disability). The old organization of psychiatric services in facilities (MHCs, hospital psychiatric services, adult day-care centres, and so on) is considered outdated, as it is focused on static rather than on dynamic phases.[42,43]

Limited investment in the mental health sector should be addressed to favour the suggested reorganization of psychiatric services. Reallocation of funds from social assistance to diagnosis and treatment in the perspective of early detection and intervention is necessary. The cost containment that is expected from reduced bed occupancy thanks to early intervention[15,16] could be used to pay for the training of dedicated staff.

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