



Original Article

Secondary school teachers and mental health competence: Italy–United Kingdom comparison

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Abstract

Aim: The aim of this study was to evaluate the differences between teachers' knowledge about early psychosis among three different Italian cities and a UK sample.

Methods: The sample consisted of 556 secondary school teachers from three different cities in Italy (Milan, Rome and Lamezia Terme) and London (UK). The research was based on the Knowledge and Experience of Social Emotional Difficulties Among Young People Questionnaire. The Italian version of the questionnaire was used in Italy.

Results: Overall, 67.6% of English teachers, 58.5% of Milan's teachers, 41.8% of Rome's teachers and 33.3%

of Lamezia Terme's teachers were able to recognize psychotic symptoms from a case vignette. Logistic regression analysis showed that 'city' was the only independent variable significantly related to the correct/wrong answer about diagnosis.

Conclusions: We found statistically significant differences between the three Italian samples and the UK sample regarding teachers' knowledge about first signs of psychosis. English teachers showed a better knowledge than Italian teachers in general. Teachers from Milan, where a specific early detection program was established in 2000, seemed to be more familiar with early signs of psychosis than teachers in the other two Italian towns.

Key words: adolescents, early onset psychosis, prevention, teachers.

INTRODUCTION

'Mental health literacy' was defined in the late 1990s as 'knowledge and beliefs about mental disorders which aid their recognition, management or prevention'.¹ Several authors investigated mental health literacy among different populations, including young people.²⁻⁵ Poor mental health literacy and negative attitudes towards mental illness may act as a barrier to young people seeking help and receiving treatment. It is well-known that the onset of psychotic disorders is often during adolescence and early adulthood^{6,7}; many studies have shown that adolescent onset psychosis may be more insidious and might have a worse prognosis than adult onset psychosis.^{8,9} Early onset psychosis could also be related to a longer duration of untreated psychosis (DUP) than adult onset psychosis^{6,10} and could lead to more severe cognitive deficits,^{11,12} higher risk of suicide and more severe depressive symptoms.¹³ A longer DUP is related to a worse long-term outcome in adults¹⁴⁻¹⁹ and adolescents.^{20,21}

Evidence has shown that schizophrenia is not a progressively deteriorating disease,²² and many strategies to enhance early detection of first-episode psychosis – in order to reduce DUP and to improve outcome – have been evaluated. Early intervention programmes include information campaigns focused on the improvement of gatekeepers' knowledge (particularly school teachers and general practitioners) about psychosis.²³⁻³²

In the Treatment and Intervention in Psychosis Project^{20,22,26} (Norway) and the Early Psychosis Intervention Programme Project (Singapore),³³ gatekeepers' information campaigns have resulted in a significant reduction in DUP. However, other findings did not show a clear effectiveness of education campaigns in early detection.^{33,34}

Worldwide, there are few initiatives for early detection of students at risk for psychosis in schools and universities.³⁵ There is also a paucity of information campaigns regarding mental health/illness targeting non-health professionals, such as school teachers, counsellors, housing or employment service staff.²⁵

Nevertheless, several studies have confirmed the key role of teachers in detecting early psychosis in junior and senior high school students.³⁶⁻³⁸ Enhancing teachers' knowledge about mental health disorders was found to be an important prevention strategy.^{39,40}

Our research group has already investigated secondary school teachers' knowledge about psychosis in Central Italy.³⁸

The aim of the present study was to evaluate differences between teachers' knowledge about early

psychosis among three Italian regions and a UK sample.

MATERIALS AND METHODS

Participants and settings

Each school was contacted by email. We contacted all schools within every catchment area selected, which accounted for 75 schools. Among those that accepted to participate (26), we selected four high schools for each catchment area.

The research protocol was explained in detail, and all teachers participated voluntarily. Questionnaires were administered during breaks from lessons to avoid disturbing teaching activities.

The sample consisted of 556 secondary school teachers from different cities within Italy and England: Milan (Mi; Lombardia, North Italy), where an early intervention service has been active since 2000; Rome (Rm; Lazio, Central Italy), where the schools are located in a health district where an adolescent mental health service, which provides a school counselling service, has been active since 1992 (ASL RM1 (ex E)); Lamezia Terme (LT; Calabria, South Italy), where both an early intervention and adolescent mental health service are lacking; and London (Ld; UK), where an early intervention service is well-established. Italian secondary schools included in this survey were selected between different types of high schools (technical institutes, classical and scientific high schools, vocational schools and education/pedagogical high schools).

In England, the survey was conducted among three secondary schools and a pupil referral unit in South Islington, North London, which is part of Camden and Islington Early Intervention Service catchment area.

The teachers involved in the study had not carried out any specific training on psychosis.

Five hundred out of 556 teachers involved in the study agreed to fill out the questionnaire; 153 questionnaires were completed in Mi, 87 in LT, 130 in Rm and 130 in Ld. Questionnaires where part A was not filled in were excluded. The teachers involved were not selected by inclusion criteria. This study was given ethical approval by the local research and ethics committee and conforms to the provision of the Declaration of Helsinki. Permissions were also obtained from the head teachers of the schools involved.

Questionnaire content

The research was based on the Knowledge and Experience of Social Emotional Difficulties Among Young People Questionnaire.^{36–41} The Italian version of the questionnaire was already used in a previous study.³⁸ The translation followed a two-step process according to the 'back translation method'; first, a native Italian speaker translated the questionnaire from English to Italian, then a native English speaker back-translated the Italian version into English. A bilingual researcher further verified the accuracy of the translation.

The questionnaire is divided into several sections:

- Section A contains a short-case vignette describing the behavioural and mental health changes of an adolescent with early psychosis. He shows social withdrawal, school functioning impairment, mood lability and unusual thought content. He believes that there are people who can read and influence the thoughts of others. He also hears hallucinatory voices telling him what to do. He is very anguished, agitated and terrified by the idea that someone wants to harm him.

This section deliberately avoids mentioning the term 'psychosis' to assess to what extent the person completing the questionnaire is aware of what type of disease or problem the pupil is suffering from.

After the participants completed section A, they were asked to complete sections B, C, D and E.

- Section B discloses that the adolescent is suffering from psychosis and describes the signs and symptoms of this disease. Therefore, it can only be filled out after section A has been completed. This section is followed by questions about the possible aetiology of psychosis, sources of help available for this disease and treatments, prognosis and factors that may indicate that hospitalization is not needed for patients with this disease.
- Section C contains questions about the teachers' knowledge and experiences with young people suffering from mental health problems. It evaluates the teachers' opinions about the role of schools in helping adolescents at risk for psychosis. This section also investigates whether the participants met students with similar problems in the past and which kind of help they offered.
- Section D provides a space for any suggestions or advice the participants may have for mental health specialists. This section assesses the teachers' opinions about information campaigns on signs and symptoms of psychosis and their willingness to increase knowledge about psychosis.

- Section E contains teacher socio-demographic informations (sex, age, years in current post, ethnic background, etc.).

Data analysis

Answer frequency to questionnaire items was reported in percentages. Chi-squared test was used to evaluate differences between answers.

Logistic regression analysis was performed to evaluate which variable could influence the dependent variable. Diagnoses chosen by the teachers were divided in two groups: the correct diagnostic group (psychosis and schizophrenia) and wrong diagnostic group (depression, adolescent adjustment disorder, cry for help, drug problem, family or relationship problems). Logistic regression was run to identify which independent variables (teacher's age, teacher's sex, city where the teacher was working and teaching years in current position) may influence the answers (dependent variable) about diagnosis.

We used a backward and forward procedure, testing for predictive variables to be included or excluded in the model.

A value of $\alpha = 0.05$ has been used for the rejection of the null hypothesis. Only answers with frequency percentages $>5\%$ were considered in the analyses. All analytical procedures were performed using Statistical Package for the Social Sciences, Version 16 (SPSS Inc., Chicago, IL, USA).

RESULTS

Overall, 52% of the teachers from all cities correctly answered 'psychosis' or 'schizophrenia' after reading the case vignette in section A; a different distribution of answers in all cities was found. Among the total sample, 67.6% of the teachers from Ld, 58.5% of the teachers from Mi and 41.8% of the teachers from Rm, answered 'psychosis' or 'schizophrenia' whereas only 33.3% of the teachers from LT gave this answer. Among all Italian cities, 'psychosis' was the most common answer, whereas in Ld, the most common answer was 'schizophrenia'. Among the teachers from LT, 15.4% answered 'adolescent adjustment disorder'. The same answer was indicated by 12.9% of the teachers from Mi and 10.9% of the teachers from Rm but only by 1.9% of the English teachers. Regarding the answer 'cry for help', a similar trend was noted (Table 1).

Regarding the question, 'Could the changes in the person described in the case vignette be a result of schizophrenia?', a quarter of the Italian teachers

Teachers and mental health competence

TABLE 1. What the teachers identified as the main problem in the vignette

	Italian teachers									English teachers			Total	
	Milan			Lamezia Terme			Rome			London			N	%
	N	%	SR	N	%	SR	N	%	SR	N	%	SR		
Psychosis	51	36.4	1.44	21	26.9	-0.46	27	24.5	-1.01	30	28.6	-0.23	129	29.8
Schizophrenia	31	22.1	-0.01	5	6.4	-2.96	19	17.3	-1.09	41	39.0	3.67	96	22.2
Depression	17	12.1	-0.68	15	19.2	1.15	11	10.0	-1.20	19	18.1	1.02	62	14.3
Adolescent adjustment disorder	18	12.9	1.00	12	15.4	1.45	12	10.9	0.25	2	1.9	-2.65	44	10.2
Cry for help	12	8.6	-0.17	8	10.3	0.37	14	12.7	1.30	5	4.8	-1.45	39	9.0
Drug problem	10	7.1	-0.39	10	12.8	1.47	8	7.3	-0.30	7	6.7	-0.51	35	8.1
Family or relationship problems	1	0.7	-2.68	7	9.0	0.87	19	17.3	4.46	1	1.0	-2.22	28	6.5

$\chi^2_{18} = 80.57$; $P < 0.0001$; warning: At least one cell had an expected value less than five. SR, standardized residual for the chi-square.

answered, 'do not know', whereas only 8.7% of the English teachers indicated this answer.

We regressed 'correct/wrong diagnosis' as a dependent variable in a multinomial logistic regression analysis. 'Cities' was the only variable independently associated to the answers about diagnosis (Table 2).

The majority of the teachers reported that the onset of psychosis occurs between 14 and 17 years of age (46.3%), whereas 18–29 years was indicated as a second possibility (26.7%).

When asked to express an opinion regarding the possible aetiology of psychosis, 25.3% of the teachers answered 'brain disorder' (Table 3).

We found a significant difference between the Italian and English teachers regarding the main source of help for someone experiencing a first episode of psychosis ($P < 0.0001$). Most of the English teachers indicated general practitioners (GPs) as a possible source of help (40.5%), whereas the Italian teachers indicated psychiatrists.

Most of the English teachers (56.7%) chose psychotherapy as the most suitable treatment, 37.1% chose pharmacological therapy and 6.2% chose family or relationship therapy or admission to hospital. The

majority of the Italian teachers indicated psychotherapy as the best treatment (Table 4).

The teachers had a relatively good knowledge about the insidious course of psychosis without treatment; the majority of the teachers answered that the problem will probably get worse and worse without treatment (Mi 68.6%, LT 59.0%, Rm 71.1%, Ld 59.0%). The teachers correctly described the course of a psychotic disease when properly treated. Most of the Italian teachers answered that psychosis will probably disappear, but may return later (Mi 57.0%, LT 59.0%, Rm 64.0%), whereas the majority of the English teachers answered that the problem will probably get better, but never entirely vanish (Ld 46.0%).

The majority of the English teachers considered the school's role in helping students with a first-episode psychosis as relevant, although they indicated that the responsibility of intervention would be of a teacher with a specific role (60.2%).

Among the Italian participants, 38.7% of the teachers from Mi said that it was not their role to help students with a first-episode psychosis, whereas 36.0% said that it was their role, and 25.2% said that it was the

TABLE 2. Logistic regression model after subset selection

Parameter	Regression		Wald Z-value ($\beta = 0$)	Wald prob level	Odd ratio Exp (B)	CI (95%)
	Coefficient (B or beta)	Standard error				
B0: intercept	0.5411	0.2014	2.6870	0.0072	1.7180	0.1464; 0.9359
B1: (cities = 2)	-1.2343	0.3135	-3.9380	0.0001	0.2910	-1.8487; -0.6199
B2: (cities = 3)	-0.7788	0.2902	-2.6840	0.0073	0.4590	-1.3475; -0.2101
B3: (cities = 4)	0.3971	0.3433	1.1570	0.2474	1.4876	-0.2757; 1.0700

Per cent correctly classified = 63.6%.

Cities = 1, Milan; 2, Lamezia Terme; 3, Rome; 4: London.

Estimated logistic regression model(s).

Model for diagnosis (psychosis and schizophrenia) = $5411 - 1.2343 * (\text{cities} = 2) - 0.7788 * (\text{cities} = 3) + 0.3971 * (\text{cities} = 4)$.

TABLE 3. Teachers' ratings for possible aetiology of psychosis

	Italian teachers									English teachers			Total	
	Milan			Lamezia Terme			Rome			London			N	%
	N	%	SR	N	%	SR	N	%	SR	N	%	SR		
Disorder of the brain	24	19.7	-1.24	11	14.1	-1.97	27	25.2	-0.02	41	41.0	3.12	103	25.3
Vulnerable personality	21	17.2	-0.06	20	25.6	-2.26	22	20.6	0.77	8	8.0	1.73	71	17.4
Growing up in a dysfunctional family or in an orphanage	22	18.0	1.03	17	21.8	1.69	18	16.8	0.63	2	2.0	-3.28	59	14.5
Genetic vulnerability	17	13.9	1.05	4	5.1	-1.53	10	9.3	-0.46	13	13.0	0.67	44	10.8
Misuse of drugs or medications	11	9.0	0.06	9	11.5	0.80	12	11.2	0.82	4	4.0	-1.63	36	8.8
Inner conflict	18	14.8	2.45	2	2.6	-1.77	8	7.5	-0.31	6	6.0	-0.81	34	8.4
Loveless or excessively strict upbringing	7	5.7	-0.92	9	11.5	1.06	10	9.3	0.45	7	7.0	-0.39	33	8.1
Smoking cannabis frequently from young age	2	1.6	-2.14	6	7.7	0.36	0	0.0	-2.66	19	19.0	4.80	27	6.6

$\chi^2_{21} = 94.07$; $P < 0.0001$; warning: At least one cell had an expected value less than five.
SR, standardized residual for the chi-square.

TABLE 4. Teachers' ratings of preference with regard to types of treatment for psychosis

	Italian teachers									English teachers			Total	
	Milan			Lamezia Terme			Rome			London			N	%
	N	%	SR	N	%	SR	N	%	SR	N	%	SR		
Talking treatments e.g. psychotherapy	102	73.4	0.40	57	71.3	0.08	92	78.0	0.96	55	56.7	-1.62	306	70.5
Medication for mental health problems	22	15.8	-0.60	9	11.3	-1.42	11	9.3	-2.22	36	37.1	4.45	78	18.0
Help with family and relationship problems	15	10.8	-0.25	14	17.5	1.58	15	12.7	0.38	6	6.2	-1.55	50	11.5

$\chi^2_6 = 35.86$; $P < 0.0001$.
SR, standardized residual for the chi-square.

role of a colleague. Among other participants, 50.4% of the teachers from Rm and 36.8% of the teachers from LT considered helping students as their role.

Possible interventions of teachers who suspected that one of their students was developing psychosis were also investigated. Most of the teachers would contact someone else within school (Mi 42.3%, LT 42.3%, Rm 48.6%, Ld 58.5%). The English teachers would contact the head of the year (teacher who is in charge of student's support; 12.3%), child protection (7.7%), pastoral officer (6.9%) or learning mentor (6.2%). The Italian teachers indicated the school counsellor as first interlocutor (Mi 70.9%, LT 69.8%, Rm 76.3%).

The majority of the teachers among the whole sample showed a willingness to learn more about early detection of psychosis (Mi 59.9%, LT 77.0%, Rm 75.6%, Ld 69.7%).

DISCUSSION

This research highlighted many differences between three Italian regions, as well as between the Italian

and English teachers regarding teachers' knowledge about psychosis. Sixty-seven per cent of the English teachers correctly identified the disease described in the questionnaire as psychosis, whereas the Italian teachers showed a lower competence regarding the early identification of psychosis. A previous study conducted in Rm already showed a lack of Italian teachers' knowledge regarding early signs and symptoms of psychotic disorders.³⁸ Logistic regression analysis confirmed these findings; 'city' was the only variable independently associated to the correct/wrong answers about diagnosis. Notably, the teachers from Mi identified early psychosis at a similar rate to that of the teachers from Ld. This finding may be related to the positive effects of Programma 2000, an early intervention program established in Mi 16 years ago. Early intervention services in Rm and in other Italian regions are developing very quickly,⁴² but they are not as well-established as Programma 2000. Although an adolescent service and school counselling services have been present within the RM1 (ex E) health district since 1992, the RM1 (ex E) teachers' knowledge about psychosis is not high.

Teachers and mental health competence

An English study³⁹ emphasized the importance of teachers' competence about mental health; they may recognize early signs of ongoing psychological disease among their pupils and be part of the psychosis prevention process. Programmes to promote teachers' mental health literacy result in earlier and more adequate referrals of pupils to mental health services.^{40,43,44} Moreover, information campaigns have been conducted on a widespread basis throughout the UK for many years.^{45,46} Our findings confirmed the efficacy of information campaigns; the teachers from Mi, where there were information campaigns, were more familiar with early signs of psychosis. On the other hand, the teachers from other cities showed a lack of basic knowledge about psychosis, and some answers revealed an underestimation of signs and symptoms of the disease; around 11–15% of the Italian teachers (vs. 1.9% of the English teachers) indicated 'adolescent distress' as a possible diagnosis. When asked if schizophrenia could be the diagnosis of the adolescent described in the vignette, around one quarter of the Italian teachers answered: 'do not know' (vs. 8.7% of the English teachers).

Aside from lack of knowledge about psychiatric disease, our results also indicated an unwillingness to use terms such as schizophrenia, suggesting a stigmatizing attitude towards severe mental illness. Diagnosis such as schizophrenia or psychosis has always been considered very stigmatizing and associated with a bad outcome.^{47,48} In the UK, many information campaigns against mental health stigma have been conducted, and this may explain the differences between the two samples.³³ Compared with other studies, our results revealed a high level of unfamiliarity with the term 'schizophrenia' among the Italian teachers; a Canadian study reported significantly higher knowledge of the term schizophrenia (76%)⁵ among the general population, and an Italian study carried out on high school students shows a reasonable knowledge of mental disorders, especially schizophrenia.¹

Only the teachers from LT chose first 'having a vulnerable personality' as an explanation for the symptoms described in the case vignette. This answer confirmed a tendency to underestimate severe manifestations of psychosis and emphasized the role of environment and negative life events on its development. In fact, 21.8% of the teachers from LT (vs. 2% of the English teachers) answered that 'growing up in a dysfunctional family or in an orphanage' may be the aetiology of psychosis. This answer is in line with the multi-factorial psychosis aetiology hypothesis: genetic–epigenetic factors and early environmental factors (neglect, pathological

family style, hostility, intrusiveness of the family) increase the risk of developing psychosis.^{49,50} Recent studies, which demonstrated a shared pathway of genetic variations and environmental events (such as childhood adversity) in psychiatric disorders, suggest that psychosis may not be a genetic illness.⁵¹

A significant difference between the Italian and UK sample about the GPs' role in mental healthcare emerged. The majority of the English teachers identified GPs as a possible source of help, whereas the Italian teachers indicated mostly psychiatrists. This difference may reflect the lack of collaboration between GPs and mental health professionals in Italy, especially regarding early intervention programmes. It is well known that the GPs' role as gatekeepers for help-seeking patients at risk for psychosis is fundamental.^{52,53} Many studies showed that educational interventions dedicated to GPs about signs and symptoms of young people with first episode psychosis can contribute to reducing DUP and to improving outcomes.^{14,54–57}

Another remarkable Italy–UK difference is related to the role of local counseling service workers. Most of the Italian teachers indicated the school counselors as the first interlocutor when a student showed signs of possible psychosis, suggesting their importance within the school organization. In particular, school counsellors in Rm (Roma 1 (ex E)) are mental health professionals who also work in the local adolescents' mental health service; a strong collaboration between teachers and counsellors may improve the teachers' knowledge about adolescents' healthcare.

Mental health literacy is a cornerstone to improve help seeking by young people, parents and teachers. In accordance with previous studies, our data show a poor knowledge of psychosis/schizophrenia in those areas where there is a deficit in early intervention programs.³

The strengths of this study were the high number of participants and the detailed descriptions of teachers' mental health competence within different Italian regions. However, some limitations emerged. One of the main limitations was the heterogeneity of the sample: the teachers have different ages and work in different schools (this implies a different kind of educational level and of psycho-pedagogical approach). Another limitation was the lack of data regarding the level of mental health competence of the teachers from Mi before the constitution of Programma 2000 and before the widespread prevalence of schools' counselling services within the ASL RM1 (ex E) health district in Rm.

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