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Research Article

Investigation of the Communication Network Among Mental Health Services: The Case of a Community Mental Health Care Center in Attica

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ABSTRACT

The aim of the present study was to investigate the communication network of a Primary Mental Health Center providing care in an urban area in Attica.

A retrospective descriptive design was used for the purpose of the current study. The study population consisted of all the mental health care recipients of the Center between the years 2011 and 2013. A total of 1.058 records were collected. Descriptive statistics were used to present the data while the chi-square test to examine the correlation between quantitative variables.

Of the recipients recorded, 63.7% contacted the Mental Health Care Center without having previously visited a mental health professional, while 36.3% had already contacted another service or a private mental health professional. Recipients more frequently (36.6%) referred from an outpatient clinic. The majority of the referrals (79.5%) came from services that belong to a different sector from that the Care Center belongs administratively. Most of the recipients (63.2%) stated that there was not interconnection between the two services, 33.1% of them brought an information note at the day of visit and only in 14 recipients an interpersonal communication between the mental health professionals was pointed out.

Interconnection is evident in primary mental health care settings in Greece, even though it was moderate and limited to some of the recipients' referral characteristics. Interconnection and interpersonal interaction between the parties is recognized as an essential and necessary prerequisite to deliver high quality and contextually-appropriate mental health care services.

MeSh Headings/ Keywords: Primary Health Care; Mental health services network; Continuity of care

Introduction

Decentralization of mental health services and a model of community-based treatment is the result of the implementation of the psychiatric reform initiated in Greece over the last decades [1]. The development of an organized network of psychiatric and psychosocial care in Primary Health Care (PHC) has been desirable in health care policy agendas in many countries, as well as in Greece [2,3]. In this model of care, the services for people with mental illnesses are provided by a multidisciplinary community mental health team and constitute a cost-effective method of delivering care [4]. The integration of all these services within the primary health care into a structured cooperation remains a prerequisite to achieve the current trends of psychiatry [5].

The concept of integration remains a key issue in primary health care in Greece with the aim to modernize and improve the care provided. Even though integrated PHC in Greece has not yet established, organizational and structural changes among all the services are required for further development [6]. The interconnection among the mental health services in the primary care settings has been proposed as a contemporary model of integrated care [3]. Moreover, the process of cooperation among the services constitutes an indicator for mental health care services quality assessment [7]. In this context, continuity of care is ensured as an essential service principle in the effective management of mental health disorders. Adair et al., in their study found that continuity of care provided had a positive impact on health outcomes among individuals with severe mental illnesses and efforts to improve continuity should be encouraged [8].

Various cultural factors, the limitations of financial and human resources, the absence of supportive policy regarding mental health and the lack of a robust healthcare delivery system, are among others major determinants that make the integration of mental healthcare services unable [9].

Aim of the study

The aim of the present study was to investigate the communication network (interconnection) of a Primary Mental Health Center providing care in an urban area in Attica through the study of:

- the ways of interconnection (formal or informal),
- the frequency of interconnection, and
- the content and extent of interconnection (type and amount of shared information among primary mental health services).

The research hypothesis of the study was:

- The interconnection among primary mental health services ranges from limited to non-existent.

The conclusions drawn from this case study at a community mental health centre are a starting point to provide future insights related to the integration of all the mental services in PHC system in Greece. Well-designed case studies conducted in the public sector are able to offer general knowledge in relation to attitudes, behaviours, and processes [10].

Methods

Design, sample and setting

A retrospective descriptive design was used for the purpose of the current study. The study was conducted in a Mental Health Care Center (MHCC) in Attica, Greece. The study population consisted of all the mental health care recipients of the Center between the years 2011 and 2013. A total of 1.058 records were collected during the concerning time period. Data collection took place from May 2014 to July 2014. The researcher in a particular form recorded the data from the archives of the first telephone intakes of the mental health care Center. Each record was coded to ensure data confidentiality.

Data collection and analysis

Descriptive statistics were used to present demographic characteristics of the recipients' first contact's characteristics with the MHCC, referral issues and health care characteristics. The chi-square test was used to examine the correlation between quantitative variables. The statistical analysis was performed using the statistical program IBM SPSS for Windows version 21.0 while results were considered statistically significant at $p<0.05$.

Ethical approval

The Scientific Committee of the Hospital that the MHCC belongs administratively approved the study protocol, while further permission was obtained from the Director of the Center. Potential risks for the participants were not mentioned. Anonymity of the recipients of the Day Centre services was ensured. The MHCC was not burdened financially.

Results

Sample's demographic characteristics

Recipients had a mean age of 44.11 years old, ranging from 16 to 93 years old; 64.65% were female and 35.35% male. The majority (44.80%) was unmarried and 39.32% of the sample was married; almost 10.00% were divorced or were living separated. Their educational level was generally low (about two thirds of the sample had secondary education level); 27.41% were educated at technological or university level and only 0.09% of them had postgraduate studies.

First contact's characteristics with the MHCC

As shown in Table 1 of the recipients recorded (n=1.058), 63.7% (n=675) contacted the MHCC without having previously visited a mental health professional, while 36.3% (n=383) of the study population had already contacted another service or a private mental health professional.

Of those who initially visited the MHCC, about half (55.1%) had the responsibility for the decision making, while a recommendation given of relatives/significant others and other health care professionals was 25,3% and 19,6, respectively. More frequently the type of services they received was asking for counseling and supportive services (44%) and for psychiatric evaluation/diagnosis (27.6%). One third of the recipients had informed about the MHCC from other recipients (33%) and 20.3% from the internet (Table 1).

Of the recipients who had previously visited a mental health professional, 46.5% of them asked for services to a psychiatric Department of a General or a Specialized Hospital, while 35% to a private mental health professional (psychiatrist or psychologist). The majority of these recipients (n=362) haven't visited before the Psychiatric Department of the General Hospital that the MHCC belongs administratively and only 21 recipients had (Table 1).

Referral characteristics to the MHCC and Services provided

The referral characteristics to the MHCC and the services provided to the recipients are presented in Table 2 and Table 3.

Recipients more frequently (36.6%) referred from an outpatient clinic and 7.8% from an Emergency Department of a General or Psychiatric Hospital. Moreover, recipients identified references (14.9%) from other primary health care centers and administrative settings. The majority of the referrals (79.5%) came from services that belong to a different sector from that the MHCC belongs administratively. Finally, about one third (30%) of the recipients visited the MHCC without previous reference.

The cause of reference to the MHCC is related to administrative issues (certificates etc) (27.9%) and psychiatric treatment and psychological support (18.5%). 24.5% of recipients stated other causes of referral such as patient's adulthood, economic reasons, second opinion and the sectorization of the mental health services.

Of the recipients (n=383) contacted with the MHCC having previously visited a mental health professional, 63.2% stated that there was not interconnection between the two services, 33.1% of them brought an information note at the day of visit

Table 1: Contact's characteristics with the MHCC.

Recipients contacted with the MHCC without having previously visited a mental health professional (n=675)			
	Frequency (n)	**Percentage (%)**	**Cumulative percentage (%)**
Referral way for the first visit with a mental health professional			
Recommendation of relatives/significant others	171	25,3	25,3
His/Her own decision	372	55,1	80,4
Recommendation of others health care professionals	132	19,6	100,0
Type of received services			
Diagnosis	186	27,6	27,6
Counseling and supportive services	297	44,0	71,6
Grief counseling	34	5,0	76,6
Difficulties in relationships	124	18,4	95,0
Administrative issues (certificates etc.)	34	5,0	100,0
Information services for the MHCC			
Helpline	72	10,7	10,7
Other recipients	223	33,0	43,7
Geographical area	26	3,9	47,6
Municipality services	113	16,7	64,3
Internet	137	20,3	84,6
Other	104	15,4	100,0
Recipients contacted the MHCC having previously visited a mental health professional (n=383)			
	Frequency (n)	**Percentage (%)**	**Cumulative percentage (%)**
Other mental health services that the recipients have visited			
Psychiatric Department of a General Hospital	91	23,8	23,8
Psychiatric Department of a Specialized Hospital	87	22,7	46,5
Private mental health professional (psychiatrist or psychologist)	134	35,0	81,5
Other	71	18,5	100,0
Previously visit to the Psychiatric Department of the General Hospital that the MHCC belongs administratively			
Yes	21	5,5	5,5
No	362	94,5	100,0

Table 2: Referral characteristics to the MHCC.

	Frequency (n)	**Percentage (%)**	**Cumulative percentage (%)**
Source of referral (n=383)			
Recipient's own decision	115	30,0	30,0
Referred from Emergency Department of a General Hospital	21	5,5	35,5
Referred from Outpatient Clinic of a General Hospital	67	17,5	53,0
Referred from Emergency Department a Psychiatric Hospital	9	2,3	55,4
Referred from Outpatient Clinic of a Psychiatric Hospital	73	19,1	74,4
Private mental health professional	25	6,5	80,9
Health professionals of other medical disciplines	16	4,2	85,1
Other	57	14,9	100,0
The service referred was from (n=268)			
Different sector from the MHCC	213	79,5	79,5
The same sector with the MHCC	55	20,5	100,0
Cause of the referral (n=383)			
Diagnosis	14	3,7	3,7
Follow up	26	6,8	10,4
Psychiatric treatment	71	18,5	29,0
Psychological support	71	18,5	47,5
Administrative issues	107	27,9	75,5
Other	94	24,5	100,0
Interconnection between the MHCC and the previous mental health professional (n=383)			
No (None or No Interconnection)	242	63,2	33,2
Referral note	127	33,1	66,3
Interpersonal communication (informal) among the mental health professionals	14	3,7	70,0

Table 3: Services provided to the MHCC.

	Frequency (n)	Percentage (%)	Cumulative percentage (%)
Final diagnosis to the MHCC (n=1058)			
F20-29	69	6,5	6,5
F30-39	21	2,0	8,5
F00-09	28	2,6	11,2
F50-59	3	0,3	11,4
F40-48	754	71,3	82,7
F60-69	49	4,6	87,3
F70-79	25	2,4	89,7
F80-89	82	7,8	97,4
F90-98	27	2,6	100,0
Recommendation for pharmaceutical treatment (n=1058)			
Yes	862	81,5	81,5
No	196	18,5	100,0
Continuity of the cooperation with the MHCC (n=862)			
Yes	534	61,9	61,9
No	328	38,1	100,0

and only in 14 recipients an interpersonal communication between the mental health professionals was pointed out.

According to ICD10 classification, in 71.3% of the recipients the final diagnosis was "anxiety, dissociative, stress-related, somatoform and other nonpsychotic mental disorders" (F40-48) and in more than two thirds (81.5%) a pharmaceutical treatment was recommended. Continuity of the cooperation with the MHCC after the first visit was recorded in 534 recipients (61.9%).

Relationships between the way of MHCC's communication and the recipients' referral characteristics

The way the MHCC communicated with the other services was statistically significantly associated with the source of referral (x2 = 432.28, df = 3, p = 0,000), the final diagnosis (x2 = 128.601, df = 6, p = 0.000) and the cause of referral (x2 = 74.025, df = 5, p = 0.000). Of those recipients who were referred from an outpatient clinic of a Hospital, with the final diagnosis of "anxiety, dissociative, stress-related, somatoform and other nonpsychotic mental disorders" (F40-48) and "other developmental disorders of speech and language" (F80-89), the cause of referral related to administrative issues the communication with the MHCC was mainly based on the information note that the recipients brought at the day of consulting.

Discussion

The present study investigated the communication network (interconnection) among mental health services. This is the first study carried out in Greece investigating the concept of interconnection in primary mental health sector. The study sample came from all the first telephone intakes of the mental health care recipients of a MHCC in Attica, which were recorded the period 2011-2013 based on self-reporting. The period was chosen to reflect current organization changes in health care sector in Greece, as well as changes in patterns and trends in the utilization of community mental health services [11].

In the current study, approximately two thirds of the recipients out of the 1.058 ones stated that it was the first contact with a mental health professional/service. They more frequently were recommended to consult the MHCC by their relatives/ significant others. This result points out the core role they play in the process of decision making in health care which is in line with the results of other studies especially in relation with the care of cancer patients in hospital settings [12,13]. Moreover, in almost one fifth of the recipients the recommendation was given from other health care professionals highlighting the interdisciplinary dimension in the management of mental illness which has also been cited in the literature [4]. Finally, one third of the recipients had received information for the MHCC from other recipients. This finding might be attributable to the presence of an informal network in the delivery of health care services in community which reflects a culture of mutuality and solidarity among the citizens.

Among recipients, who had previously consulted a mental health professional, the majority contacted the MHCC after visiting an Outpatient Department of a public Hospital. This result could suggest that recipients of mental health services oriented to a community-based structure probably due to the accessibility of these services. Peritogiannis et al. indicated that community-oriented programs successfully addressed the mental health needs of patients in remote rural areas. Moreover, one third of these asked for services to the MHCC after consulting a mental health professional privately [1]. A possible explanation is that in a time of economic hardship the selection of publicly funded services is both reasonable and desirable [14].

According to the referral characteristics of the recipients, in the current study the majority of the referrals came from services that didn't belong to the same sector with the MHCC. The availability of mental health services as well as other organizational factors may explain the differences in mental health services use. This finding underlined the poor communication network among the services within the same sector. This is one of the main practical implications of the present study, indicating that the establishment of a communication network in an area could greatly identify the unmet needs for community mental health services and at the same time to the continuity of care for patients with severe mental disorders. Such a communication network should ensure the quality of the care provided. Finally, about one third of the recipients contacted the MHCC without previous referral probably asking for a second opinion. Moreover, it is possible that confidence with the health care professionals has been developed to a greater extent in community-based services.

An important finding in this study was that a communication network among the mental health services was missing and only in one third of these the official/formal way of communication was based on the recipient's own referral note. Moreover, an interpersonal interaction and collaboration among the mental health professionals was identified to a lower extent. This is consistent with our a priori hypothesis that the interconnection among mental health services in primary health care settings

ranges from limited to non-existent. This finding underlines the phenomenon of over-coverage of the mental health services, because in each one the same processes (clinical and administrative) are repeated by the mental health professionals. As a result, that current referral practices pose a large burden on the health care system and the patients as well. The establishment of a communication network among all these services based on new technology informatics, such as the electronic health records, could probably facilitate the interconnection and would be more beneficial for a larger number of recipients [15].

The above findings indicate that the continuity of care provided is not ensured. As a result, an interruption of the cooperation with the MHCC may occur, which was also found in the current study. One possible explanation lies on the failure to provide an individualized care for these recipients. Furthermore, wasting of resources and time as well as shortcomings in the organization of the care provided, which characterize these settings, is another important attribute which should also be taken into account by health policy makers. For the purpose of optimal management of the mental health disorders and better organization of the mental services, epidemiological surveys could provide valuable information regarding the prevalence and associations of these disorders in a geographical area [16,17].

Finally, the source of the referral, the final diagnosis and the cause of referral was found to influence positively the interconnection among the mental health services in the present study. These results suggest that the interconnection might be possible in those primary health care settings and was significantly associated with the use of specific health services.

Limitations

The limitations of the study should also be mentioned as they restrict the generalization of the results. The sample is not representative of the whole population since it is a convenience sample derived only from just one community-based service. A larger randomized sample of recipients from other mental health care settings, as well as not only from urban but also from rural areas would provide more reliable and valid results. In addition, our study focused on self-reporting records and some under-reporting is expected. It could be argued that describing recipients' experiences of interconnection based on mental health professionals' point of view could provide more valid information.

Conclusions

Interconnection is evident in primary mental health care settings in Greece, even though it was moderate and limited to some of the recipients' referral characteristics. Interconnection and interpersonal interaction between the parties is recognized as an essential and necessary prerequisite to deliver high quality and contextually-appropriate mental health care services.

These results highlight the need to implement interconnection among the mental health care services systematically, stimulating changes in care organization and care environment towards a patient-centered philosophy of the provided care.

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