

Research article

Vaccination coverage of persons using hospital outpatient mental health services at Heraklion, Crete, Greece: A cross-sectional study during pandemic

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ABSTRACT

Persons with mental health disorders are vulnerable, with demanding care needs. This cross-sectional study aimed to report on their vaccination coverage against COVID-19 and common vaccine-preventable diseases. The study was conducted from September to November 2022 at the psychiatric outpatient settings of Venizeleion General Hospital of Heraklion, Crete, Greece, and the Mental Health Center of Heraklion. Information was collected via personal medical interviews and prescription data. The study population included 361 participants, with a mean age of 49.8 ± 14.3 years, 59.0% women. The most common diagnoses were recurrent depressive disorder (24.1%), schizophrenia (22.7%), anxiety disorder (21.3%), and bipolar disorder (15.7%). Vaccination coverage against seasonal influenza for 2020, 2021, and 2022 was 43.2%, 39.8%, and 40.7%, respectively. Pneumococcal vaccination included the conjugate (28.8%) and polysaccharide (7.7%) vaccines. Vaccination against Tetanus, Diphtheria, Pertussis (TDP) accounted for 11.0%, Hepatitis B for 5.8%, and Herpes Zoster for 27.1%. COVID-19 vaccination, with at least one booster dose, reached a high of 73.6%. Patients with severe mental illness, 139 out of 361, were less likely to have contracted COVID-19 (50/139, 35.9%) than those without (108/222, 46.6%), ($p=0.018$). Coverage with polysaccharide vaccine, TDP, and Hepatitis B, was very low. Patients annually vaccinated for influenza in the last three consecutive years were most likely to be fully vaccinated for pneumococcal disease and for COVID-19 (with at least one booster dose). Future research and clinical practice should focus on identifying patients at risk of not receiving preventive services, such as vaccines.

KEYWORDS: COVID-19, influenza, mental illness, pneumococcus, prevention, vaccination.

Introduction

Mental disorders cause an increasing burden on public health and represent an important cause of disability for many patients.¹ It is estimated that one out of five adults experienced a common mental disorder manifestation within the past 12 months.² Women show high-

er rates of mood disorders and anxiety, while regarding geographical distribution, mental disorders are low among countries in Sub-Saharan Africa, and North and Southeast Asia and higher in English-speaking countries.² In Greece, 14% of the general population suffers from clinically evident mental illness, with the most

commonly observed mental disorders being generalized anxiety disorder and depression.³

Persons with mental illness have mortality rates two to three times higher than the general population,⁴ partially explained by the interaction between mental disorders and multiple comorbidities, such as obesity, hypertension, diabetes, cardiovascular, chronic lung, rheumatic, neurological, and gastrointestinal diseases, thyroid disorders, and malignancies.⁵ The effect of comorbidity is more amplified due to an eventually modified immune status, involving the development of low-grade inflammation, commonly described among a series of major depressive disorders, bipolar disorder, and schizophrenia.^{5,6}

Patients with severe mental illness are reported to have higher hospitalization risk and mortality from influenza in comparison to general population groups, independently of comorbidities.⁷ In addition, those with depression, bipolar disorder, anxiety disorder, and schizophrenia have nearly twice the risk of pneumococcal infection and an increased likelihood of disease complications.⁸ The overall burden for public health is estimated to be significant, as mental disorder sufferers concerning vaccination show increased hesitancy⁹ moreover, due to their condition, experience limited access to healthcare services.¹⁰

Regarding hepatitis B, the eventuality of infection among persons with mental illness was found to be even five times higher than those mentally healthy,¹¹ linked to high-risk behaviors, such as substance use and frivolous sexual behavior.¹²

Given the recent COVID-19 pandemic, a meta-analysis targeting individuals with mental illness described a significant risk of infection and mortality from severe COVID-19 disease,¹³ and hence included them in the high-risk groups for prioritization of COVID-19 vaccination.¹⁴

Most relevant studies investigated influenza and COVID-19 vaccine intake. Data on coverage against seasonal influenza have shown some discrepancy, findings that could partially be attributed to the different study designs and sample heterogeneity.⁶ Factors associated with higher vaccination rates against seasonal influenza included private insurance, recommendation by a healthcare professional, and perception of vaccines as an effective preventive measure.¹⁵

Regarding overall vaccine coverage, data from the study of Miles et al., showed that almost half of the participants mentioned vaccination against tetanus, diphtheria, and pertussis, and less than 10% for measles,

mumps, and rubella (MMR), and hepatitis B.¹⁶ The 23-valent polysaccharide vaccine rates against pneumococcus seemed age-dependent, with a frequency of 36.2% for those between 18 and 64 years and just 2.8% for persons older than 65 years.¹⁶

As far as immunization against COVID-19 is concerned, in France, it was found that mental disorder groups, not linked to substance use, were related to higher vaccination rates in comparison to the general population groups.¹⁷ On the contrary, a large study from China reported lower vaccination coverage among persons with a history of mental illness, compared to those of their home or community environment, and also an association between schizophrenia diagnosis and non-vaccination.¹⁸ Similarly, in Israel, a cohort of 125,273 patients with a history of hospitalization to a psychiatry ward, reported low vaccination rates against COVID-19.¹⁹ Previous research has not identified factors like education level, alcohol consumption, substance misuse, gender, chronicity of a mental disorder, and hospitalization history to be associated with vaccination uptake.²⁰

This study aimed to determine vaccine coverage of mental illness sufferers in Heraklion, Crete, according to the National Immunization Program for Adults and according to the recommendations of the National Immunization Committee for vaccination against COVID-19, and finally define influential variables related to vaccination acceptance.

Material and Method

Study design

It is a cross-sectional study, conducted at the Psychiatry Department of Venizeleion General Hospital of Heraklion and the Mental Health Center of Heraklion from September 8th to November 25th, 2022. The study was approved by the Ethics Committee of the Hospital (approval reference: 44979/8-9-2022) and the corresponding committee of the 7th Health Region of Crete (approval reference: 54658/2022). Written informed consent was obtained by each participant. Information about vaccine coverage of individuals with mental illness was collected. A convenience but consecutive sampling technique was used to recruit patients attending their medical appointments. The inclusion criteria were adulthood (18 years old or older), consultation and follow-up by a psychiatrist in the past 6 months, prescription of medication for mental illness, and capacity for written informed consent from the participant. Patients exclusively treated with psychotherapy were excluded.

Data collection

Data were collected via personal interview by an MD researcher, and this information was cross-checked with the online prescription and patients' records whenever primary information was poor. Before the interview, every participant, after being informed about the objective of the study, had given written consent.

The data collected included mental illness diagnosis (ICD 10/date of onset), socio-demographic information, habits (smoking, alcohol misuse, substance use), history of admission to a psychiatry ward, consultation with an internist during the past year, attendance of medical appointments with the help of an escort, route of administration for psychiatric medications, presence of polypharmacy (≥ 5 different medications in total), history of COVID-19 infection, co-morbidities, vaccine coverage for influenza, COVID-19, herpes zoster, hepatitis B, varicella, pneumococcal conjugate vaccine, polysaccharide pneumococcal vaccine, tetanus, diphtheria, and pertussis, and MMR.

Data analysis

The numerical variables were expressed as means (standard deviation). For qualitative variables, statistical significance was determined using the chi-square test (χ^2). Direct comparisons across different groups of physical and psychiatric diagnoses were not feasible due to the sample size. Based on that, analyses were conducted by grouping variables. Influenza vaccination rates for 2022 and vaccination with the 13-valent pneumococcus conjugate vaccine were correlated to age group (≥ 50 years old), time since diagnosis (≥ 5 years), gender, nationality, place of living, insurance capacity, presence of polypharmacy, history of admission to a psychiatry ward, assessment by an internist during the past year, and attendance of medical appointments with the help of an escort. Associations were investigated between influenza vaccination for 2022 and vaccination with the 13-valent conjugate pneumococcal vaccine, between influenza vaccination for the past three years (2020, 2021, and 2022) vaccination with both pneumococcal vaccines (13-valent conjugate and 23-valent polysaccharide), and vaccination with at least one booster dose against COVID-19. Associations were tested between tetanus vaccination and age groups (< 50 years old and ≥ 50 years old), severe mental illness (diagnosis of bipolar disorder or schizophrenia) and COVID-19 infection, COVID-19 vaccination with at least one booster dose, and COVID-19 infection. Odds Ratio was calculated using binary logistic regres-

sion for the evaluation of the various associations. IBM SPSS Statistics 2017 (IBM Corp., Armonk, NY) was used for the statistical analysis. Statistical significance was set at $p \leq 0.05$.

Results

A total of 391 patients were contacted during the study period. For those seeking consultation multiple times, only the first contact was taken into account. Of the 391 patients, 19 denied consent, and 11 did not meet the inclusion criteria, resulting in 361 participants (response rate: 92.3%).

The mean age was 49.8 ± 14.3 years, ranging from 18 to 84 years old. Among the two age groups (< 50 and ≥ 50 years), those ≥ 50 years accounted for 52.6% of the participants. Women were more than men (59.0%), most participants were natives (94.1%), living in the city (80.3%), and insured (73.6%). 27.4% of the participants were primary education graduates, 50.6% had received secondary education, and 21.8% were tertiary education graduates or had a master's degree. Moreover, 28.8% were employed, 26.3% were pensioners, 25.2% were receiving a disability benefit, and 19.6% were unemployed.

The most common diagnoses were recurrent depressive disorder (F33, 24.1%) and schizophrenia (F20, 22.7%), while unspecified non-organic psychosis (F29, 8.9%), depressive episode (F32, 4.7%), and obsessive-compulsive disorder (F42, 2.5%) were observed less commonly. Table 1 summarizes the basic demographic and clinical characteristics of the patients. Regarding the medication intake route, 80.0% was oral, 4.1% intramuscular, and 15.7% both. Also, 36.0% had at least one psychiatric hospital admission.

Concerning co-morbidities, obesity was frequently reported (40.7%), followed by dyslipidemia (38.2%) and hypertension (25.7%). Thyroid disorders, diabetes, and chronic lung disease accounted for 18.2%, 16.3%, and 13.5%, respectively. Nearly one out of ten participants suffered from rheumatic (10.2%) or cardiovascular disease (9.6%).

Polypharmacy (defined as the use of ≥ 5 different medications) was observed in 41.0% of the participants, 63.1% had an internist consultation during the past year, and 28.5% reported attendance to medical appointments with the help of an escort. Concerning the patients' habits, 51.5% were smokers, whilst substance use (3.3%) and alcohol misuse (1.9%) were found at low levels.

Table 1. Basic demographic and clinical characteristics of the study population.

Parameter		n (%)
Gender	Female	213 (59)
	Male	148 (41)
Age	≥50 years old	190 (52.6)
	<50 years old	171 (47.4)
Nationality	Foreigner	21 (5.8)
	Native	340 (94.2)
Place of stay	Country	71 (19.7)
	City	290 (80.3)
Level of education	Primary	99 (27.4)
	Secondary	183 (50.7)
	Tertiary	63 (17.5)
	Master's degree	16 (4.4)
Insurance capacity	Insured	266 (73.7)
	Uninsured	95 (26.3)
Occupational status	Employed	104 (28.8)
	Unemployed	71 (19.7)
	Retired	95 (26.3)
	Disability benefit	91 (25.2)
Diagnosis (ICD-10)	Schizophrenia (F20)	82 (22.7)
	Unspecified psychosis (F29)	32 (8.9)
	Bipolar disorder (F31)	57 (15.8)
	Depressive episode (F32)	17 (4.7)
	Major depressive disorder, recurrent (F33)	87 (24.1)
	Other anxiety disorders (F41)	77 (21.3)
	Obsessive-compulsive disorder (F42)	9 (2.5)

Vaccine coverage

Vaccine coverage for the influenza vaccine in 2020 accounted for 43.2%. Vaccination showed a small downward trend in the last two years, with the percentage being 39.8% for 2021 and 40.7% for 2022. Only one-third of the participants (33.7%) mentioned influenza vaccination for the past three consecutive years. Regarding influenza vaccination for 2022, higher rates were found among people with anxiety disorders (41.5%) and a depressive episode (41.1%), while the lowest rates were reported among patients with schizophrenia (26.8%), bipolar disorder (24.5%), and obsessive-compulsive disorder (22.2%).

Pneumococcus vaccination accounted for 28.8% of the participants with the 13-valent conjugate vaccine and 7.7% with the 23-valent polysaccharide vaccine. If only those with strong recommendations for pneumococcal vaccination were taken into account, the respec-

tive rates were 35.6% and 9.5%. Only 6.9% were fully vaccinated with both pneumococcal vaccines (8.5% of those with proper indication). The highest vaccination rates with the conjugate vaccine were observed among patients with recurrent depressive disorder (49.4%), whilst the lowest rates were recorded among patients with schizophrenia (20.7%), unspecified non-organic psychosis (15.6%), and obsessive-compulsive disorder (11.1%).

In table 2 is seen that vaccination coverage against tetanus, diphtheria, and pertussis, reached 11.0%, whilst for hepatitis B 5.8%. For the vaccine against measles, mumps, and rubella, 57.0% of people born after 1970 mentioned a history of vaccination with two doses. People born after 1990 reported varicella vaccination at 36.1%. Among participants aged ≥60 years, 27.1% mentioned vaccination against herpes zoster.

Finally, most participants had been vaccinated against COVID-19 with the recommended basic scheme and

Table 2. Vaccination coverage (absolute number and percentage) of all patients per vaccine.

Vaccine	Response	n (%)
Influenza vaccine 2020	Yes	156 (43.2)
	No	205 (56.8)
Influenza vaccine 2021	Yes	144 (39.9)
	No	217 (60.1)
Influenza vaccine 2022	Yes	147 (40.7)
	No	214 (59.3)
Pneumococcal conjugate (PCV13)	Yes	104 (28.8)
	No	257 (71.2)
Pneumococcal polysaccharide (PPSV23)	Yes	28 (7.8)
	No	333 (92.2)
Tetanus, diphtheria, pertussis (Td or Tdap/Tdap-IPV)	Yes	40 (11.1)
	No	321 (88.9)
Hepatitis B (HepB)	Yes	21 (5.8)
	No	338 (93.6)
	I don't know	0 (0.0)
	I have been infected	2 (0.6)
Measles, mumps, rubella (MMR), people born after 1970 (total 207)	1 dose	1 (0.5)
	2 doses	118 (57.0)
	I have been infected	51 (24.6)
	I don't know	37 (17.9)
Varicella (VAR), people born after 1990 (total 47)	1 dose	0 (0.0)
	2 doses	17 (36.2)
	I have been infected	16 (34.0)
	I don't know	0 (0.0)
Herpes zoster (HZV), people aged 60 years or older (total 92)	I haven't been infected/vaccinated	14 (29.8)
	Yes	25 (27.2)
	No	67 (72.8)

one booster dose (65.6%). The unvaccinated group accounted for 14.6%, as it is shown in figure 1.

Age (≥ 50 years, $p < 0.001$), nationality (native, $p = 0.011$), insurance coverage, polypharmacy, non-hospitalization to a psychiatry ward, and examination by an internist during the past year ($p < 0.001$) are factors positively associated with influenza vaccination for 2022.

Predictors contributing to the 13-valent conjugate pneumococcal vaccination appear to be age (≥ 50 years, $p < 0.001$), gender (women vs. men, $p = 0.012$), health insurance ($p = 0.006$), intake of ≥ 5 medications ($p < 0.001$), ≥ 5 years since diagnosis ($p = 0.018$), admission to a psychiatry ward in the past ($p = 0.022$), and consultations with an internist during the past year ($p < 0.001$). The various associations are summarized in table 3.

Additionally, a person vaccinated with the 13-valent conjugate vaccine had 14 times the odds of being vacci-

nated against influenza in 2022 (OR=14.07, 95% CI 7.92, 24.97, $p < 0.001$) and participants vaccinated with both pneumococcal vaccines were 17.3 times more likely to be annually vaccinated against influenza within the previous 3 years (OR=17.3, 95% CI 5.06, 59.13, $p < 0.001$). Older age (≥ 50 years) appears to play a role in receipt of tetanus immunization [6.25 times less likely (OR=0.16, 95% CI 0.06, 0.37, $p < 0.001$)]. Persons with severe mental health disorders were 1.68 times less likely to be infected (OR=1.68, 95% CI 0.38, 0.91, $p = 0.018$) by COVID-19. Finally, persons vaccinated with at least one booster dose against COVID-19 were 9.57 times more likely to be annually vaccinated against influenza within the past three consecutive years (OR=9.57, 95% CI 4.27, 21.45, $p < 0.001$), revealing the importance of patient education and 1.82 times less likely to be infected with COVID-19 (OR=0.548, 95% CI 0.34, 0.87, $p = 0.012$), indicating a trend of prevention effectiveness.

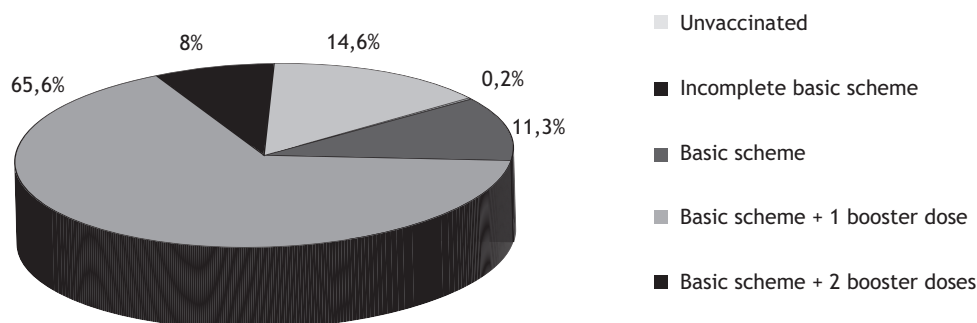


Figure 1. Vaccine coverage against COVID-19 for the participants in total. Participants with a diagnosis of severe mental illness showed similar vaccination rates for each subgroup.

Discussion

The primary goal of this study was to evaluate the vaccine coverage for individuals with mental illness, since limited studies exist on this issue, both in Greece and worldwide. According to our results, depression, and schizophrenia prevail as top-listed diagnoses, a finding also reported elsewhere.¹⁵ Miles et al (2019) explained that depression and anxiety disorders were often reported, possibly due to the criteria of their study, targeting any mental health disorder comorbidity, primary or secondary.¹⁶ Comparing comorbidities, the rates of diabetes, cardiovascular, and chronic liver diseases in the present study were higher than those reported in the literature, while chronic lung and kidney disease occurrence was lower.¹⁶

Vaccination rates against influenza for the past three years were recorded high in the medical files of individuals with mental illness, in contrast to Lorenz et al findings, which study though, dates a decade back.¹⁵ This is pointed out because the extended national influenza vaccine campaigns during the last decade may have led to an increase of vaccination against influenza.²¹ On the other hand, if compared to vaccination coverage among the adult population in Greece, a multicenter nationwide study by Tsiligianni et al reports better vaccination rates of 55%.²² In any case, influenza vaccination is still far below the 75% that ECDC had set for groups with chronic health conditions.²³ In the present study, it was further highlighted a positive influence of variables such as age, nativity, polypharmacy, and non-hospitalization in a psychiatry ward. In addition, participants who were consistent with their annual influenza vaccination were also up-to-date with the rest of the vaccine recommendations.

In our study, the number of patients who received the 13-valent pneumococcal conjugate vaccine was rather low. Concerning the administration of the 23-valent polysaccharide vaccine, the rates of persons aged

18–65 years were found lower and the ones of persons >65 years higher in the present study in comparison with the study of Miles et al, a difference that could be explained by the prompt administration of the vaccine to younger patients due to comorbidities.¹⁶ Tsiligianni et al examined the administration of at least one pneumococcal vaccine among high-risk individuals, and the reported rates were almost identical to ours.²² The low vaccination rates with the 23-valent polysaccharide vaccine in the present study could be attributed to a lack of information about the current vaccine recommendations, as well as consultation by a doctor, other than the one who administered the 13-valent conjugate vaccine.²⁴ Studies have found that pneumococcal vaccine status was positively associated with insurance capacity and annual consultations with the attending physician,^{25,26} while the present study, in addition, underlines the positive role of age, gender, polypharmacy, the time since diagnosis, and non-hospitalization to a psychiatry ward.

Many persons in Crete work in agriculture; hence, they have an increased exposure risk to *Clostridium tetani*.²⁷ Despite that, vaccine coverage against tetanus was quite low, and the finding was aligned with other studies that took place in Greece in 2019 and 2020.^{22,28} The same trend was found when comparing with the studies by Miles et al. and Carney et al.^{16,29} A challenge faced during our survey was the inability of participants to clarify if they had been vaccinated against tetanus or had received anti-tetanus immunoglobulin. This issue was solved after cross-checking with the online prescription information. The younger age group was more frequently vaccinated against tetanus, as those between 19 and 25 years of age were usually prompted by a pediatrician for the booster dose, or there was mandatory immunization at the beginning of the military service.³⁰

Table 3. Association between sociodemographic/clinical parameters and vaccination for influenza (2022) and Pneumococcal Conjugate Vaccine (PCV13).

Parameter	Influenza vaccination (%)	Chi-Square	p-value	PCV13 vaccination (%)	Chi-Square	p-value
Years since diagnosis						
	<5	42/120 (34.16)	2.437	25/120 (20.83)	5.575	0.018*
	≥5	105/241 (43.56)		79/241 (30.29)		
Age						
	<50 years old	39/171 (22.80)	43.190	20/171 (11.69)	46.393	<0.001*
	≥50 years old	108/190 (56.84)		84/190 (44.21)		
Gender						
	Male	53/148 (35.81)	2.505	32/148 (21.62)	6.318	0.012*
	Female	94/213 (44.13)		72/213 (33.80)		
Nationality						
	Native	144/340 (42.35)	6.455	100/340 (29.41)	1.036	0.309
	Foreigner	3/21 (14.28)		4/21 (19.04)		
Place of living						
	City	117/290 (40.34)	0.086	88/290 (30.34)	1.696	0.193
	Countryside	30/71 (42.25)		16/71 (22.53)		
Insurance capacity						
	Insured	125/266 (46.99)	16.474	87/266 (32.70)	7.488	0.006*
	Uninsured	22/95 (23.15)		17/95 (17.89)		
Polypharmacy						
	Yes	92/148 (62.16)	47.775	68/148 (45.94)	35.918	<0.001*
	No	55/213 (25.82)		36/213 (16.90)		
Admission to a psychiatric ward						
	Yes	35/130 (26.92)	16.021	28/130 (21.53)	5.236	0.022*
	No	112/231 (48.48)		76/231 (32.90)		
Assessment by an internist during the past year						
	Yes	140/228 (61.40)	109.676	94/228 (41.22)	46.540	<0.001*
	No	7/133 (5.26)		10/133 (7.51)		
Attendance of medical appointments with an escort						
	Yes	50/103 (48.54)	3.654	34/103 (33.00)	1.240	0.265
	No	97/258 (37.59)		70/258 (27.13)		

* Indicates a statistically significant result

Hepatitis B rates, although similar to the study by Miles et al were found nearly half in comparison to the study by Carney et al which though included a very low number of participants.^{16,29} In comparison to high-risk adults in Greece, the rates of Tsiligianni et al were nearly twofold higher but remained very low.²² Long-term follow-up studies of persons who were vaccinated against hepatitis B as infants had reported an overall 50–70% no detection of anti-HBs 15–30 years later.³¹ Under-vaccination also deserves major attention, as eventual hepatitis B infection can cause significant chronic morbidity, disability, and financial burden.

The patients in this study were more commonly vaccinated with the MMR vaccine in comparison to other studies among the mentally ill population.¹⁶ The same pattern was found for the coverage of the adult Greek population eligible for this vaccine.²² However, it is noteworthy that nearly one out of five participants born after 1970 could not recall or provide documents about their vaccination status. Developing tools like registries and electronic medical records could save physicians' time related to consultation and increase vaccine uptake.³² Low MMR vaccination rates could easily explain measles epidemic outbreaks.³³

The relatively low rates of vaccine coverage against herpes zoster in the present study, although higher than those reported by Tsiligianni et al and Papagiannis et al^{22,28} were lower in comparison to the USA study in 2018.³⁴ This is possibly explained by the fact that this particular vaccine was one of the most recently adopted in Greece, as it became available in 2014, six years later in comparison to the USA.^{35,36}

The so-far-published studies about vaccination against COVID-19 for sufferers of mental disorders examined the administration of the first dose of the vaccine or the completion of the basic recommended scheme.^{17–20,37} In the current study, people with mental disorders presented higher vaccination rates against COVID-19 compared to the general population. The

same observation was shared by Fond et al by excluding substance use disorder sufferers,¹⁷ but it differed from the overall lower rates reported by Arumuham et al and Peritogiannis et al.^{20,37} This could derive from the different study designs and settings. Finally, those who had at least 3 mRNA COVID-19 doses were less likely to be symptomatically infected.³⁸

This was a regional study that involved a clinical sample of patients who were engaged in mental health treatment; hence, no generalization of the results for the whole patient population can be suggested. Many participants had not had a consultation with an internist during the past year, which might underestimate the actual occurrence of comorbidities. Self-reporting biases or uncertainty may also occur. The current study was a cross-sectional one, based on convenience sampling with consecutive data collection. The history of COVID-19 infection did not include asymptomatic carriers of the disease, except for the known cases, due to random testing.

Conclusion

The close collaboration of various healthcare professionals and, more specifically, of psychiatrists with internists or general practitioners could ensure a multidisciplinary approach in the treatment of the vulnerable group of mentally ill people and provide further protection through preventive measures, such as vaccinations. Persons with mental illness seem to be receptive if receiving prompt and trusted information. On the other side, emerging determinants from innovative research for clinical and policy-making decisions, which could allow for modern strategic planning, should be discussed in order to improve healthcare services in terms of digital information processing, complementary competencies, health teams, and investment into more personalized care for groups most in need. Moreover, research findings can open a discussion to motivate awareness towards both directions, mental health care and prevention.

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Ερευνητική εργασία

Εμβολιαστική κάλυψη ατόμων που χρησιμοποιούν υπηρεσίες ψυχικής υγείας εξωτερικού ιατρείου στο Ηράκλειο Κρήτης: Μια συγχρονική μελέτη κατά τη διάρκεια της πανδημίας

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ΠΕΡΙΛΗΨΗ

Τα άτομα με διαταραχές ψυχικής υγείας είναι ευάλωτα και με απαιτητικές ανάγκες φροντίδας. Η παρούσα συγχρονική μελέτη είχε στόχο να μελετήσει την εμβολιαστική τους κάλυψη κατά της COVID-19 και άλλων κοινών ασθενειών που μπορούν να προληφθούν με κάποιο εμβόλιο. Η μελέτη διεξήχθη, από τον Σεπτέμβριο έως τον Νοέμβριο του 2022, στα εξωτερικά ιατρεία της Ψυχιατρικής του Βενιζέλειου Γενικού Νοσοκομείου Ηρακλείου Κρήτης και του Κέντρου Ψυχικής Υγείας Ηρακλείου. Οι πληροφορίες συλλέχθηκαν μέσω προσωπικών ιατρικών συνεντεύξεων και δεδομένων συνταγογράφησης. Το τελικό δείγμα περιλάμβανε 361 συμμετέχοντες, μέσης ηλικίας $49,8 \pm 14,3$ έτη, εκ των οποίων το 59,0% ήταν γυναίκες. Οι συχνότερα καταγεγραμμένες διαγνώσεις ήταν η υποτροπιάζουσα καταθλιπτική διαταραχή (24,1%), η σχιζοφρένεια (22,7%), η αγχώδης διαταραχή (21,3%) και η διπολική διαταραχή (15,7%). Η εμβολιαστική κάλυψη κατά της εποχικής γρίπης για τα έτη 2020, 2021, 2022 ήταν 43,2%, 39,8%, 40,7% αντίστοιχα. Ο εμβολιασμός κατά του πνευμονιόκοκκου περιλάμβανε τα συζευγμένα (28,8%) και πολυσακχαριδικά (7,7%) εμβόλια. Ο εμβολιασμός κατά του τετάνου, της διφθερίτιδας, του κοκκύτη (TDP) αντιπροσώπευε το 11,0%, της ηπατίτιδας Β το 5,8% και του έρπητα ζωστήρα το 27,1%. Ο εμβολιασμός κατά της COVID-19, με τουλάχιστον μία αναμνηστική δόση, ανήλθε στο 73,6%. Οι ασθενείς με μείζονα ψυχική διαταραχή, 139 από τους 361, είχαν λιγότερες πιθανότητες να έχουν προσβληθεί από την COVID-19 (50/139, 35,9%) από εκείνους με μη-μείζονα ψυχική διαταραχή (108/222, 46,6%), ($p=0,018$). Η κάλυψη με πολυσακχαριδικό εμβόλιο, TDP και ηπατίτιδα Β ήταν πολύ χαμηλή. Οι ασθενείς που εμβολιάζονταν ετησίως για τη γρίπη τα τελευταία τρία συνεχόμενα χρόνια, ήταν πιο πιθανό να εμβολιαστούν πλήρως για την πνευμονιοκοκκική νόσο και για την COVID-19 (με τουλάχιστον μία αναμνηστική δόση). Η μελλοντική έρευνα και η κλινική πρακτική θα πρέπει να επικεντρωθούν στον εντοπισμό ασθενών που κινδυνεύουν να μη λάβουν προληπτικές υπηρεσίες, όπως τα εμβόλια.

ΛΕΞΕΙΣ ΕΥΡΕΤΗΡΙΟΥ: COVID-19, γρίπη, ψυχικές διαταραχές, πνευμονιόκοκκος, πρόληψη, εμβολιασμός.