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Diagnosing and Treating Depression and Anxiety in Patients with Cardiovascular Disorders and Diabetes Mellitus in Primary Healthcare: Is Training of Physicians Enough for Improvement?

Диагностика и лечение депрессивных и тревожных расстройств у пациентов с сердечно-сосудистыми заболеваниями и сахарным диабетом в условиях первичной медицинской сети: улучшит ли ситуацию обучение врачей?

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Original research

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ABSTRACT

INTRODUCTION: Common mental disorders — anxiety and depression — are prevalent among patients with cardiovascular disease (CVD) and diabetes mellitus type 2 (DM) and can negatively influence treatment outcomes and healthcare expenses. Despite the importance of management of depression and anxiety in primary care facilities, the diagnostics and treatment of these disorders remain insufficient in the Russian Federation.

AIM: To explore whether the rates of referrals to psychiatrists and indicated pharmacological treatment received due to depression or anxiety among patients with CVD and DM will significantly change in primary healthcare facilities after the training of primary care physicians (PCPhs) to deal with comorbid depression and anxiety (including the algorithm for referral to a psychiatrist).

METHODS: Patients in primary care outpatient settings with diagnoses of CVD and DM passed screening on anxiety and depression using the Hospital Anxiety and Depression Scale (HADS), and information about the indicated treatment for anxiety or depression was collected when present (Sample 1: *n*=400). The educational programme for PCPhs on the diagnostics of anxiety and depression was then performed, and PCPhs were instructed to refer patients with

HADS >7 to a psychiatrist. After the training, the second sample was collected (Sample 2: *n*=178) using the same assessments as for Sample 1. The independent expert (psychiatrist) evaluated whether the patients had received the indicated pharmacological treatment according to the screening criteria used in the study for anxiety and depression for both samples.

RESULTS: The proportions of patients with borderline abnormal and abnormal HADS scores (>7) were 365 (91.2%) and 164 (92.1%) in Sample 1 and Sample 2, respectively. In Sample 1, among patients with HADS >7, 119 (29.8%) received psychopharmacological treatment, but in only 46 (38.7%) cases was it indicated in compliance with the screening criteria. In Sample 2, among patients with HADS >7, 59 (33.1%) received psychopharmacological treatment, and in only 14 (23.7%) cases was it indicated in compliance with the screening criteria. The differences in the indicated pharmacological treatment were not statistically significant, and no one from Sample 2 with HADS >7 met a psychiatrist through PCPh referral.

CONCLUSIONS: Anxiety and depression are prevalent in patients with CVD and DM treated in primary care facilities, but these patients may not be receiving the indicated pharmacological treatment. Barriers to referral and the use of psychiatric consultation exist despite the focused training of PCPhs and the straightforward referral protocol provided.

АННОТАЦИЯ

ВВЕДЕНИЕ: Тревога и депрессия, являясь распространенными психическими расстройствами, широко представлены среди пациентов с сердечно-сосудистыми заболеваниями (ССЗ) и сахарным диабетом 2 типа (СД), они негативно влияют на результаты лечения и приводят к повышенным затратам со стороны системы здравоохранения. Несмотря на важность диагностики и лечения тревожных и депрессивных расстройств на уровне первичного звена медицинской помощи, в Российской Федерации эта проблема до сих пор не решена.

ЦЕЛЬ: Исследовать, изменится ли количество направлений к психиатру и число случаев корректного лечения депрессивных и тревожных расстройств у пациентов первичной медицинской сети с ССЗ и СД после обучения врачей поликлиник ведению пациентов с коморбидными депрессивными и тревожными расстройствами (включая алгоритм направления к психиатру).

МЕТОДЫ: На первом этапе исследования пациентам с ССЗ и СД, проходящим лечение в поликлинике, проводили скрининг на выявление тревоги и депрессии при помощи Госпитальной Шкалы Тревоги и Депрессии (HADS). Если пациент принимал психофармакотерапию, название лекарства и его доза заносились в карту исследования. Всего было обследовано 400 человек. На втором этапе врачи поликлиники проходили образовательную программу по диагностике тревожно-депрессивных расстройств, в рамках которой они были проинструктированы, что все пациенты с баллами по шкале HADS >7 должны направляться к психиатру. После обучения на третьем этапе исследования была набрана вторая выборка пациентов (*n*=178) с использованием такого же протокола, как и на первом этапе. Независимым экспертом (психиатром) оценивалась адекватность психофармакотерапии у пациентов обеих выборок по результатам скрининга тревоги и депрессии в соответствии с критериями, разработанными для данного исследования.

РЕЗУЛЬТАТЫ: Доля пациентов с уровнем тревоги и/или депрессии выше нормального по шкале HADS (>7) составляла 365 (91,2%) в первой выборке и 164 (92,1%) во второй выборке. В первой выборке среди пациентов с HADS >7 119 (29,8%) человек получали психофармакотерапию, но только у 46 (38,7%) она соответствовала результатам скрининга. Во второй выборке среди пациентов HADS >7 59 (33,1%) человек получали психофармакотерапию, но только у 14 (23,7%) она соответствовала результатам скрининга. Разница между

выборками по этим показателям не достигала статистической значимости, ни один пациент из второй выборки не был направлен к психиатру.

ЗАКЛЮЧЕНИЕ: Тревога и депрессия часто встречаются у пациентов с ССЗ и СД, обращающихся за лечением в поликлинику, но при этом пациенты не получают адекватную психофармакотерапию. Несмотря на проведение целенаправленного обучения и предоставления врачам поликлиник протокола направления пациентов к психиатру, существуют барьеры осуществления таких направлений и получения пациентами консультаций психиатра.

Keywords: *depression; anxiety; primary care; mental-health education; Russia*
Ключевые слова: *депрессия; тревога; первичная помощь; образование; психическое здоровье; Россия*

INTRODUCTION

High rates of anxiety- and depression-related disorders are well-known healthcare problems of our time. The lifetime prevalence of depression in the population is 10–15%, and is among the top three disorders leading to disability.[1] The lifetime prevalence of anxiety disorders in the population is up to 33%, with anxiety-related disorders associated with high levels of impairment and excessive healthcare utilization.[2] Among physical diseases, cardiovascular disease (CVD) and diabetes mellitus type 2 (DM) remain major healthcare concerns worldwide.[3,4]

Thus, depression, anxiety, CVD, and DM are among most prevalent health problems, and their co-occurrence can make the situation even worse. Undiagnosed depression increases the risk of mortality and cardiovascular events in patients with CVD[5-7] along with a higher rate of health resource utilization;[5] the same is true in patients with DM.[8] Furthermore, CVD and DM are risk factors for depression.[5,9,10] Anxiety is associated with poor metabolic outcomes and increased medical complications in DM,[11] and with adverse cardiovascular outcomes — including death — in CVD.[12] Therefore, diagnostics and treatments of anxiety and depression are an important healthcare task, especially in cases of comorbidity.

Interaction between general practitioners and mentalhealth professionals, and building an integrated primary care model, is acknowledged as being important to healthcare systems.[13-15] Based on the evidence of a high prevalence of mental disorders on the one hand, and their insufficient diagnostics and treatment on the other, the WHO launched the Mental Health Gap Action Programme (mhGAP)[16] in 2008 with the aim of bridging the treatment gap for people with mentalhealth problems by facilitating early detection and treatment of mental disorders. This programme is actively ongoing worldwide, with the education of medical professionals and non-medical staff considered one of the more essential steps within it.[17,18]

In Russia, the algorithm for diagnostics and multi-professional management of non-psychotic mental disorders in primary care settings was developed within the Federal targeted programme, the "Prevention and management of socially significant diseases (2007–2012)", in 2010.[19] Important factors that should be considered in building integrated care in Russia form the legislative and financial aspects of healthcare. Psychiatry and general medicine have different financing models, and there is a legislation barrier — Mental Health Law prevents non-psychiatrists from treating any mental health disorders themselves.[20,21]

The model of ongoing interaction between psychiatrists and primary care physicians (PCPhs), including the continuous education and guidance of PCPhs in dealing with patients with mentalhealth problems, was suggested and studied[22] within the above Federal programme. The model required the presence of psychiatrists in primary care settings that was not, however, further implemented in routine medical practice.[20]

According to recent data, anxiety and depression are diagnosed 25–70 times less frequently in Russia than in other countries.[23] Thus, the problem of insufficient care for patients with common mental disorders remains unsolved. To that end, timely diagnostics of mental disorders in primary care settings and referral to a psychiatrist for treatment may increase care provision to people with depression and anxiety.

The aim of this study was to explore whether the baseline rates of referrals to psychiatrists and the indicated pharmacological treatment (complying with the screening criteria) received due to depression or anxiety among patients with CVD and DM will significantly change in the primary healthcare facility after the training of PCPhs to deal with comorbid depression and anxiety (including the algorithm for referral to a psychiatrist).

METHODS

The present study was performed through two cross-sectional assessments (each on a different sample of patients) conducted before and after the PCPhs' training.

Study population

The study subjects were the consecutive patients seen by PCPhs who met the selection criteria below.

Inclusion criteria

- Adults of both sexes, 40–64 years old.
- Admitted to outpatient department to be examined by a primary care physician.
- Having one or more of the following diagnoses according to ICD-10:
  - ◊ I10 Essential (primary) hypertension
  - ◊ I11 Hypertensive heart disease
  - ◊ I12 Hypertensive renal disease
  - ◊ I13 Hypertensive heart and renal disease
  - ◊ I15 Secondary hypertension
  - ◊ I20 Angina pectoris
  - ◊ I21 Acute myocardial infarction
  - ◊ I22 Subsequent myocardial infarction
  - ◊ I23 Certain current complications following acute myocardial infarction
  - ◊ I24 Other acute ischaemic heart diseases
  - ◊ I25 Chronic ischaemic heart disease
  - ◊ E11 Type 2 diabetes mellitus.

Instruments

Data collection

All the patients consecutively visiting PCPhs who met the inclusion criteria were evaluated for the purposes of this study. Information on sex, age, and prescribed pharmacological treatment for anxiety and/or depression was collected and entered in an electronic Case Report Form (e-CRF). Patients were asked whether they used psychopharmacotherapy and, if so, the generic name and dose of the medication was also entered in e-CRF according to the patients' self-report. This information was related to any psychopharmacological treatment being prescribed to the patient (not only through the referral by PCPh to a psychiatrist in this study). The use of psychosocial interventions (such as psychotherapy) was not evaluated in this study.

Hospital Anxiety and Depression Scale

Additionally, patients completed the Hospital Anxiety and Depression Scale (HADS)[24] in an application developed for portable devices (tablets) specially for this study. HADS is a self-report questionnaire designed to screen for anxiety and depression in primary care settings. It consists of seven questions about anxiety and seven questions about depression symptoms during the two weeks prior to completing the questionnaire. Each question has four possible answers that reflect different severities of symptoms, if present, where the minimum score of 0 means no symptoms, and the maximum score of 3 indicates pronounced symptoms. The scores for anxiety and depression are calculated separately, therefore providing the two scores reflecting the levels of anxiety (HADS-A) and depression (HADS-D). The following cut-off scores are recommended: a score of 0–7 indicates normal levels of depression anxiety; a score of 8–10 indicates borderline abnormal levels of depression anxiety; and a score of >10 indicates abnormal levels of depression anxiety.

Evaluation of psychopharmacological treatment received by patients

Patient data (from e-CRF) was assessed by an independent expert (psychiatrist). The expert completed the treatment evaluation form in the e-CRF by marking "yes" if the treatment complied with the following criteria (and "no" if this was not the case):

HADS-A and/or HADS-D <8, absence of antidepressant/anti-anxiety medication — YES

HADS-A and/or HADS-D 8–10, absence of antidepressant/anti-anxiety medication — YES

HADS-A and/or HADS-D >10, antidepressant prescribed — YES

HADS-A >10 tranquilizers prescribed — YES

**The off-label use of phenobarbital was noted in some of the patients in the sample, and this was marked with "NO"*

The indicated evaluation criteria were based on the World Federation of Societies of Biological Psychiatry Guidelines for Biological Treatment of Unipolar Depressive Disorders.[25] It was assumed that patients with HADS <8 did not have anxiety or depressive disorder, and therefore that pharmacological treatment would not be needed. Patients with HADS-A in the range of 8–10 may have mild anxiety that, pharmacologically speaking, could be straightforwardly managed by tranquilizers. Patients with HADS-D in the range of 8–10 may have mild depression that would not otherwise need pharmacological treatment. For HADS >10, it was assumed that patients have anxiety or depressive disorder that requires pharmacological treatment. The prescription of herbs was included as a pharmacological treatment, but was not relevant for the treatment indication criteria mentioned above, since it is not included in the treatment guidelines[25] (except for the St. John's Wort, which would be relevant but was not present in the treatment of the study participants).

Study stages and procedures

The stages and procedures of the study are presented in Figure 1.

Stage 1 — 1st Data Collection (6.08.2020–8.10.2020)

Sample 1 was recruited as consecutive patients who met the mentioned inclusion criteria. They completed the HADS, and their e-CRF data was collected as described above. The indicated pharmacological treatment for depression or anxiety was entered in the patient's record, if present. All referrals to other specialists were performed as usual (based on the PCPh's clinical evaluation).

Stage 2 — training of PCPhs and changing the pattern of clinical care

After analysing the data obtained at Stage 1, Stage 2 of the study was initiated. PCPhs who assessed the patients in Stage 1 passed the training on clinical diagnostics of anxiety and depression, including the instruction to use HADS as a screening tool to detect patients who needed further evaluation for depression and anxiety. A new referral model for patients with abnormal HADS scores was proposed. PCPhs were instructed to refer patients with anxiety (HADS-A) and/or depression (HADS-D) score >7 to a psychiatrist in the local mental health dispensary (specialized outpatient mental facility). Referrals could be performed either by advice to visit a psychiatrist or by prescription for a psychiatric consultation on the referral blank, depending on the local referral procedures in the primary care facility.

In the training module, the results of Stage 1 were presented to the PCPhs to make them aware of the level of anxiety and depression among their patients. Training included information about the diagnostic criteria of anxiety and depressive disorders, and evidence of the

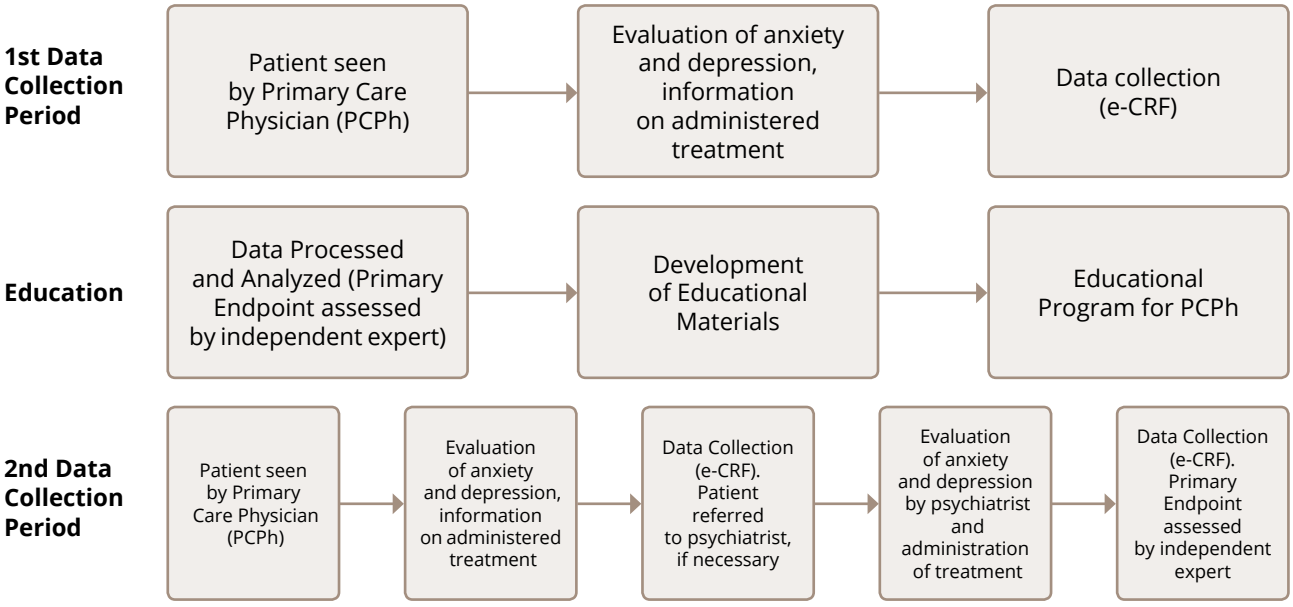

Figure 1. Study procedure chart.

advantages of treatment for patients with abnormal levels of anxiety and depression, both for their mental state and for the successful treatment of CVD and DM. Training included basic communication strategies while speaking about mental health with the patient and motivation technics that could be used in the discussion of the need to treat mental disorders and visit psychiatrists. These were intended to help the PCPhs to start dialogues with their patients about mental health and to encourage them to make appropriate referrals to psychiatrists.

Training was performed in the form of a three-hour lecture that was supplied with an educational video on how to diagnose mental health problems in a primary care setting and on the communication skills needed to discuss these issues with the patient. Motivational techniques for referral to psychiatrics were provided in the video lesson, whilst the referral algorithm was also discussed during the lecture.

Stage 3 — 2nd Data Collection (27.01.2021–18.04.2021)

Sample 2 was recruited by the PCPhs involved in Stage 1 and Stage 2 from consecutive patients meeting the inclusion criteria. All information was assessed as per Stage 1.

Setting

The Consultative Diagnostic Polyclinic #121 of the Moscow Healthcare Department.

Participants

During the first data collection period, the data on 400 patients was collected (Sample 1), whilst during the second data collection period, data was collected on 178 patients (Sample 2).

The associated sample characteristics are presented in Table 1.

Statistical analysis

Descriptive statistics were used for data analysis. Continuous data were presented according to mean, standard deviation, median, and range. Discrete data were presented with absolute and relative frequencies (percentage). The equivalence of the two proportions was tested via a two-sided z-test, whilst differences in frequencies between two groups were tested via a two-sided χ^2-test using standard R language libraries at a significance level of 95%.

Ethical approval

The study was approved by the Independent Interdisciplinary Ethics Committee on Ethical Review for Clinical Studies (protocol No. 05, 13.03.2020). All patients signed an informed consent form before participation in the study.

RESULTS

Patients who screened positive (>7) on any or both of the HADS scales were comparably represented

Table 1. Patients' demography and HADS scores in the study samples

	Sample 1	Sample 2
n	400	178
male	112 (28.0%)	37 (20.8%)
female	288 (72.0%)	141 (79.2%)
age (Mean (SD; SE))	55.8 (5.7; 0.3)	55.6 (6.2; 0.5)
HADS-D Scores		
0–7 scores — normal	84 (21.0%)	39 (21.9%)
8–10 scores — borderline abnormal	206 (51.5%)	88 (49.4%)
11–21 scores — abnormal	110 (27.5%)	51 (28.7%)
HADS-A Scores		
0–7 scores — normal	196 (49.0%)	53 (29.8%)
8–10 scores — borderline abnormal	142 (35.5%)	61 (34.3%)
11–21 scores — abnormal	62 (15.5%)	64 (36.0%)

in both samples: 365 (91.2%) for Sample 1 versus 164 (92.1%) for Sample 2, (χ^2=0.124 p=0.72). Distribution between HADS-D scores was comparable in both samples, whereas the distribution of HADS-A scores differed between the samples. Sample 2 had a significantly higher number of patients with abnormal HADS-A scores (>10) (χ^2=30.2; p <0.0001), and a significantly lower number of normal scores (HADS 0–7) (χ^2=18.6; p <0.0001).

The distribution of positive HADS scores depending on CVD and DM diagnoses of patients are presented in Table 2 for both samples. The number of patients with diagnosis *I10 Essential (primary) hypertension* was significantly lower in Sample 2 compared with Sample 1 (χ^2=15.1; p=0.0001), as was the number of patients with positive HADS scores (>7) (χ^2=12.5; p=0.0004). The number of patients with diagnosis *I11 Hypertensive heart disease* was significantly higher in Sample 2 compared to Sample 1 (χ^2=4.6; p=0.03), as was the number of patients with positive HADS scores (>7) (χ^2=4.4; p=0.04). Other differences between the two samples were not found to be statistically significant.

The number of patients with the prescribed psychopharmacological treatment and the number of patients where this treatment was indicated according to the study criteria upon the expert evaluation for both samples are presented in Table 3.

Although it was expected that patients from Sample 2 with a HADS-A/HADS-D >7 would be referred to a psychiatrist for diagnostics and treatment prescription or correction, no one from Sample 2 actually met the psychiatrist through the PCPhs' referrals.

Table 2. HADS scores and diagnoses of patients in the samples

Diagnoses	Sample 1			Sample 2		
	Total	HADS-A and/or HADS-D <7	HADS-A and/or HADS-D >7	Total	HADS-A and/or HADS-D <7	HADS-A and/or HADS-D >7
n	400	35	365	178	14	164
I10 Essential (primary) hypertension	84 (21.0%)**	7 (20.0%)	77 (21.1%)**	14 (7.9%)**	0 (0.0%)	14 (8.5%)**
I11 Hypertensive heart disease	316 (79.0%)*	28 (80.0%)	288 (78.9%)*	154 (86.5%)*	12 (85.7%)	142 (86.6%)*
I12 Hypertensive renal disease	11 (2.8%)	0 (0.0%)	11 (3.0%)	1 (0.6%)	0 (0.0%)	1 (0.6%)
I13 Hypertensive heart and renal disease	15 (3.8%)	0 (0.0%)	15 (4.1%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
I15 Secondary hypertension	9 (2.3%)	0 (0.0%)	9 (2.5%)	1 (0.6%)	0 (0.0%)	1 (0.6%)
I20 Angina pectoris	42 (10.5%)	4 (11.4%)	38 (10.4%)	14 (7.9%)	3 (21.4%)	11 (6.7%)
I21 Acute myocardial infarction	11 (2.8%)	0 (0.0%)	11 (3.0%)	4 (2.2%)	1 (7.1%)	3 (1.8%)
I22 Subsequent myocardial infarction	5 (1.3%)	0 (0.0%)	5 (1.4%)	1 (0.6%)	0 (0.0%)	1 (0.6%)
I23 Certain current complications following acute myocardial infarction	5 (1.3%)	0 (0.0%)	5 (1.4%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
I24 Other acute ischaemic heart diseases	19 (4.8%)	2 (5.7%)	17(4.7 %)	2 (1.1%)	0 (0.0%)	2 (1.2%)
I25 Chronic ischaemic heart disease	50 (12.5%)	6 (17.1%)	44 (12.1%)	28 (15.7%)	5 (35.7%)	23 (14.0%)
E11 Type 2 diabetes mellitus	100 (25.0%)	7 (20.0%)	93 (25.5%)	33 (18.5%)	1 (7.1%)	32 (19.5%)

** p <0.05, **p <0.001*

Table 3. Prescribed pharmacological treatment for anxiety and depression and its indication according to the study criteria

	Sample 1			Sample 2		
	Total	**HADS <7**	**HADS >7**	**Total**	**HADS <7**	**HADS >7**
Psychopharmacological treatment prescribed						
n	400	35	365	178	14	164
yes	119 (29.8%)	9 (25.7%)	110 (30.1%)	59 (33.1%)	3 (21.4%)	56 (34.1%)
Psychopharmacological treatment indicated by the study criteria						
n	119	9	110	59	3	56
yes	46 (38.7%)	7 (77.8%)	39 (35.5%)	14 (23.7%)	2 (66.7%)	12 (21.4%)

There was no significant difference between samples in terms of the proportion of patients who received the indicated pharmacological treatment according to the study criteria (χ^2=2.8; p=0.09).

DISCUSSION

The results of the study revealed a high proportion of patients with CVD and DM having HADS-A and/or HADS-D scores >7 in both study samples (91.2% and 92.1%, respectively). One-third of the patients with the positively screened HADS scores received psychopharmacological treatment, but only in 21.4%–35.5% cases was the treatment indicated in compliance with the screening criteria used in this study. The training of PCPhs did not seem to affect the pattern of delivery of care offered to the patients in Sample 2 — no one in this sample received a consultation with a psychiatrist through a PCPh referral, nor received the indicated pharmacological treatment to any greater extent than the patients in Sample 1.

The level of positively screened (borderline or abnormal) anxiety and/or depression according to HADS (>7) reveled by our study exceeds the known rates of in CVD observed in other studies that used the same screening tool (47.2% for anxiety and 42.5% for depression).[26] The level of abnormal anxiety and/or depression according to HADS (>10) revealed by our study also differs from the known data.[27] Our results may partly be explained by the fact that our study was performed during the COVID-19 pandemic. On the one hand, the pandemic was a stressor that could have increased levels of anxiety and depression among patients; on the other, only those patients with more pronounced health problems would have been seeking medical help during the pandemic.[28] This may explain why in our study depression, according to HADS, was more frequent than anxiety, whereas in the mentioned studies anxiety was more frequent than depression.[26,27]

When it comes to the number of the patients who received the indicated pharmacological treatment for probably having anxiety and depressive disorder in our study, this corresponds with known data from previous studies on the treatment of depression in primary care.[14,29]

The fact that patients did not meet the psychiatrists through PCPh referral after PCPhs were trained to detect depression and anxiety and to perform referrals may be due to several reasons. First, the brief education provided might not have been sufficient to change their patterns of care delivery. More interactive training may be needed, with feedback on how much the PCPhs have actually understood the concepts, and how much they have developed the skills needed for the implementation of the proposed protocols. Furthermore, their learning achievement may have to be continuously monitored, and may require more time for the implementation of knowledge and the change to be visible. Second, the segregation of mental health and general medicine services that leads to organizational difficulties in referrals and territorial separation of community mental health facilities (dispensaries) from primary care facility may add to the risk of patients' non-compliance with the PCPhs' recommendations to visit a psychiatrist. Finally, patients' and physicians' stigma-related fears may be a serious barrier to getting a psychiatric consultation.[30]

The effect of PCPhs' mental health training is studied within the WHO mhGAP initiative in low-to-middle income countries,[31] and the number of referrals to specialized care is one of the estimated outcomes in some studies.[32,33] Interestingly, referrals of patients with mental health

problems from primary to specialized care is seen as an undesirable effect of training, since it is associated with a reduction in PCPhs' capacity to deal with psychiatric disorders, reduced knowledge, work experience, and poorer attitude towards mental health problems,[32,34] contrary to hospital settings where referrals to psychiatrist are welcomed.[35] In our study, the referral to a psychiatrist in primary care settings would be seen as a desirable effect of PCPhs' training, taking into consideration the Russian healthcare system's particular features such as restrictions on non-psychiatrists being allowed to treat mental disorders. Therefore, the differences in healthcare systems between the countries may make it difficult to make direct international comparisons of the study results.

Our research has several limitations. First, the assumptions of the presence of depression and/or anxiety and judgments on the pharmacological treatment being correctly indicated were based solely on the HADS score which, even though it is a valid screening tool, is not a substitute for clinical diagnostics and assessment. Second, the study was performed during the COVID-19 pandemic, a major unpredicted confounding factor that changed overall patterns of care delivery in primary care settings. This extraordinary situation led to physicians being overloaded with work, significant changes in patient flows, and reduced availability of non-urgent medical care.[36,37] Working conditions during the pandemic could have influenced doctors' ability to acquire the new skill of patient referral to psychiatrists that, even in more normal situations, would meet considerable resistance due to stigma-related issues.[38,39] Third, the information about psychopharmacological treatment was collected according to the patients' self-reports, and was limited purely to the drug name and dose, with no mental health history collected. Fourth, no information on psychosocial treatments that patients may have had (supportive counseling, individual or group psychotherapy, etc.) were collected during the study, and these procedures may have affected the further need for pharmacological treatment, since contemporary guidelines suggest that for mild to moderate cases of depression, psychosocial intervention should be used as the first line of treatment.[40,41]

In spite of these limitations, this study did have several advantages. It is the first study to our knowledge whose aim was to assess the effect of training of PCPhs with straightforward instructions and guidelines to perform patient referrals for those who screened positively for depression and anxiety to a psychiatrist. Furthermore, this study was performed in naturalistic primary care settings, and all study procedures were adjusted to the routine working conditions of PCPhs. In addition, the specifics of the Russian healthcare system, with the need to refer all patients with suspected mental health problems to psychiatrists, was considered.

CONCLUSION

The study revealed high levels of anxiety and depression in patients with CVD and DM undergoing treatment in primary care facilities, and a lack of the prescribed indicated pharmacological treatments for these conditions. Barriers to referrals for consultation with psychiatrists do exist, despite PCPhs' focused training and an otherwise straightforward referral protocol.

The study results indicated several requirements for primary care practice and healthcare. The high levels of depression and anxiety in patients with CVD and DM revealed by the screening in a primary care setting may point to the need for more careful diagnostics of anxiety and depression disorders in routine primary care. The brief training that the PCPhs received may not be sufficient to make a difference in healthcare delivery patterns, implying the need for more profound training of physicians in the diagnostics and treatment of common mental disorders and, indeed, in motivating patients to visit mental health professionals. The physicians' skills acquisition may have to be monitored and evaluated on an ongoing basis, with problem-solving interventions provided where needed. More research is needed to identify and evaluate the most efficient ways to train physicians in the early recognition of and intervention related to anxiety and depression among patients with CVD and DM. Furthermore, closer interactions between mental health professionals and PCPh may be needed to overcome the barriers to referring patients with mental health problems to psychiatrists. Finally, more research is needed to identify the barriers in receiving treatment in specialized community mental health settings for patients and in physicians making referrals.

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References

1. Smithson S, Pignone MP. Screening Adults for Depression in Primary Care. *Med Clin North Am*. 2017;101(4):807–821. doi: 10.1016/j.mcna.2017.03.010
2. Bandelow B, Michaelis S. Epidemiology of anxiety disorders in the 21st century. *Dialogues in Clinical Neuroscience*. 2015;17(3):327–335. doi: 10.31887/DCNS.2015.17.3/bbandelow
3. Townsend N, Kazakiewicz D, Lucy Wright F, et al. Epidemiology of cardiovascular disease in Europe. *Nat Rev Cardiol*. 2021. doi: 10.1038/s41569-021-00607-3
4. Khan MAB, Hashim MJ, King JK, et al. Epidemiology of Type 2 Diabetes — Global Burden of Disease and Forecasted Trends. *J Epidemiol Glob Health*. 2020;10(1):107–111. doi: 10.2991/jegh.k.191028.001
5. Okunrintemi V, Valero-Elizondo J, Michos ED, et al. Association of Depression Risk with Patient Experience, Healthcare Expenditure, and Health Resource Utilization Among Adults with Atherosclerotic Cardiovascular Disease. *J Gen Intern Med*. 2019;34(11):2427–2434. doi: 10.1007/s11606-019-05325-8
6. Chazov EI, Oganov RG, Pogosova GV, et al. Kliniko-epidemiologicheskaya programma izucheniya depressii v kardiologicheskoi praktike u bol'nykh arterial'noi gipertoniei i ishemicheskoi bolezn'yu serdtsa (KOORDINATA): rezul'taty mnogotsentrovogo issledovaniya. *Kardiologiya*. 2007;(3):28–37.
7. Oganov RG, Pogosova GV, Koltunov IE, et al. Depressivnaya simptomatika ukhudshaet prognoz serdechno-sosudistykh zabolevanii i snizhaet prodolzhitel'nost' zhizni bol'nykh arterial'noi gipertoniei i ishemicheskoi bolezn'yu serdtsa. *Kardiologiya*. 2011;(2):59–66.
8. Egede LE, Zheng D, Simpson K. Comorbid depression is associated with increased health care use and expenditures in individuals with diabetes. *Diabetes Care*. 2002;25(3):464–470. doi: 10.2337/diacare.25.3.464
9. Breslow AS, Tran NM, Lu FQ, Alpert JE, Cook BL. Depression Treatment Expenditures for Adults in the USA: a Systematic Review. *Curr Psychiatry Rep*. 2019;21(10):105. doi: 10.1007/s11920-019-1083-3
10. Deischinger C, Dervic E, Leutner M, et al. Diabetes mellitus is associated with a higher risk for major depressive disorder in women than in men. *BMJ Open Diabetes Res Care*. 2020;8(1). doi: 10.1136/bmjdrc-2020-001430
11. Bickett A, Tapp H. Anxiety and diabetes: Innovative approaches to management in primary care. *Exp Biol Med (Maywood)*. 2016;241(15):1724–1731. doi: 10.1177/1535370216657613
12. Celano CM, Daunis DJ, Lokko HN, Campbell KA, Huffman JC. Anxiety Disorders and Cardiovascular Disease. *Curr Psychiatry Rep*. 2016;18(11):101. doi: 10.1007/s11920-016-0739-5
13. Fleury MJ, Imboua A, Aube D, Farand L. Collaboration between general practitioners (GPs) and mental healthcare professionals within the context of reforms in Quebec. *Ment Health Fam Med*. 2012;9(2):77–90. PMC3513700
14. Krasnov VN, Dovzhenko TV, Bobrov AE, et al. Psikhiatriya v pervichnom zvene zdravookhraneniya: novoe reshenie staroi problemy. *Sotsial'naya i klinicheskaya psikhiatriya*. 2013;23(4):5–13.
15. Firth J, Siddiqi N, Koyanagi A, et al. The Lancet Psychiatry Commission: a blueprint for protecting physical health in people with mental illness. *Lancet Psychiatry*. 2019;6(8):675–712. doi: 10.1016/S2215-0366(19)30132-4
16. WHO. *Mental Health Gap Action Programme (mhGAP): Scaling Up Care for Mental, Neurological and Substance Use Disorders*. World Health Organization; 2008.
17. WHO. *WHO Mental Health Gap Action Programme (mhGAP)*. World Health Organization; 2016.
18. WHO. *mhGAP intervention guide for mental, neurological and substance use disorders in non-specialized health settings: mental health Gap Action Programme (mhGAP), version 2.0*. World Health Organization; 2016.
19. Krasnov VN, Bobrov AE, Starostina EG, Dovzhenko TV. *Razrabotka mekhanizmov kompleksnoĭ diagnostiki i poliprofessional'nogo vedeniya bol'nykh s nepsikhoticheskimi rasstroĭstvami v usloviyakh pervichnogo zvena zdravookhraneniya*. 2010.
20. Karpenko O, Kostyuk G. Community-based mental health services in Russia: past, present, and future. *Lancet Psychiatry*. 2018;5(10):778–780. doi: 10.1016/S2215-0366(18)30263-3
21. Kostyuk G, Karpenko O, Masyakin A, Burygina L. Mental health law in Russia. *European Psychiatry*. 2019;56:S157–S158.

22. Bobrov AE, Kuznetsova MV. Vzaimodeistvie psikhoterapevta i uchastkovykh terapevtov polikliniki: sravnenie rezul'tatov raboty po konsul'tativnoi modeli i modeli soprovozhdeniya. *Sotsial'naya i klinicheskaya psikhiatriya*. 2013;23(3):72–78.
23. Martynikhin IA. The Use of ICD-10 for Diagnosing Mental Disorders In Russia, According to National Statistics and a Survey of Psychiatrists' Experience. *Consortium Psychiatricum*. 2021;2(2):35–44. doi: 10.17816/cp69
24. Zigmond AS, Snaith RP. The hospital anxiety and depression scale. *Acta Psychiatr Scand*. 1983;67(6):361–370. doi: 10.1111/j.1600-0447.1983.tb09716.x
25. Bauer M, Pfennig A, Severus E, et al. World Federation of Societies of Biological Psychiatry (WFSBP) guidelines for biological treatment of unipolar depressive disorders, part 1: update 2013 on the acute and continuation treatment of unipolar depressive disorders. *World J Biol Psychiatry*. 2013;14(5):334–385. doi: 10.3109/15622975.2013.804195
26. Pogosova NV, Boytsov SA, Oganov RG, et al. Clinical-Epidemiological Program of Studying Psychosocial Risk Factors in Cardiological Practice in Patients With Arterial Hypertension and Ischemic Heart Disease: First Results of a Multicenter Study in Russia. Article in Russian. *Kardiologiia*. 2018;17(9):47–58. doi: 10.18087/cardio.2018.9.10171
27. Pogosova NV, Boitsov SA, Oganov RG, et al. Psychosocial Risk Factors in Ambulatory Patients With Arterial Hypertension and Ischemic Heart Disease of 30 Cities in Russia: Data from the KOMETA (Comet) Study. Article in Russian. *Kardiologiia*. 2018;58(11):5–16. doi: 10.18087/cardio.2018.11.10193
28. Pierce M, Hope H, Ford T, et al. Mental health before and during the COVID-19 pandemic: a longitudinal probability sample survey of the UK population. *Lancet Psychiatry*. 2020;7(10):883–892
29. Simon GE, Fleck M, Lucas R, Bushnell DM, Group L. Prevalence and predictors of depression treatment in an international primary care study. *Am J Psychiatry*. 2004;161(9):1626–1634. doi: 10.1176/appi.ajp.161.9.1626
30. Wakida EK, Talib ZM, Akena D, et al. Barriers and facilitators to the integration of mental health services into primary health care: a systematic review. *Syst Rev*. 2018;7(1):211. doi: 10.1186/s13643-018-0882-7
31. Keynejad RC, Dua T, Barbui C, Thornicroft G. WHO Mental Health Gap Action Programme (mhGAP) Intervention Guide: a systematic review of evidence from low and middle-income countries. *Evid Based Ment Health*. 2018;21(1):30–34. doi: 10.1136/eb-2017-102750
32. Spagnolo J, Vasiliadis HM, Berbiche D, et al. The influence of primary care physicians' mental health knowledge, attitudes and self-efficacy on referrals to specialised services: findings from a longitudinal pilot trial. *BJPsych Open*. 2020;6(6):e130. doi: 10.1192/bjo.2020.115
33. Gureje O, Abdulmalik J, Kola L, et al. Integrating mental health into primary care in Nigeria: report of a demonstration project using the mental health gap action programme intervention guide. *BMC Health Serv Res*. 2015;15:242. doi: 10.1186/s12913-015-0911-3
34. Steele M, Zayed R, Davidson B, et al. Referral Patterns and Training Needs in Psychiatry among Primary Care Physicians in Canadian Rural/Remote Areas. *J Can Acad Child Adolesc Psychiatry*. 2012;21(2):111–123. PMC3338177
35. Wimalaratne IK, McCarthy J, Broekman BFP, et al. General hospital specialists' attitudes toward psychiatry: a cross-sectional survey in seven countries. *BMJ Open*. 2021;11(11):e054173. doi: 10.1136/bmjopen-2021-054173
36. Tyazhelnikov AA, Kostenko EV, Gushchin MV, Kuznetsova AS. Features of professional burnout and subjectively significant stress factors in doctors who provided remote telemedicine services during COVID-19 pandemic. *Medical alphabet*. 2021(33):21–25. doi: 10.33667/2078-5631-2020-33-21-25
37. Aksenova EI, Shkrumyzk AR. Professional"noe vygoranie meditsinskikh rabotnikov v period pandemii. *Byulleten' Nacional'nogo nauchno-issledovatel'skogo instituta obshchestvennogo zdorov'ya imeni N.A. Semashko.* 2021;(4):148–155.
38. Vistorte AOR, Ribeiro WS, Jaen D, et al. Stigmatizing attitudes of primary care professionals towards people with mental disorders: A systematic review. *Int J Psychiatry Med*. 2018;53(4):317–338. doi: 10.1177/0091217418778620
39. Heinz I, Baldofski S, Beesdo-Baum K, et al. "Doctor, my back hurts and I cannot sleep." Depression in primary care patients: Reasons for consultation and perceived depression stigma. *PLoS One*. 2021;16(3):e0248069. doi: 10.1371/journal.pone.0248069
40. National Collaborating Centre for Mental Health (UK). *NICE Clinical Guidelines, No. 91. Depression in adults with a chronic physical health problem: recognition and management*. British Psychological Society; 2010
41. National Collaborating Centre for Mental Health (UK). *Common Mental Health Disorders: Identification and Pathways to Care*. British Psychological Society; 2011.

Plasma Neurotrophic Factor Levels are not Associated with the Severity of Depression: Prospective Pilot Study

Содержание нейроторофических факторов в плазме крови не ассоциировано с тяжестью депрессии: проспективное пилотное исследование

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Original research

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ABSTRACT

INTRODUCTION: Depression is one of the most common mental illnesses. Impaired neurogenesis is observed in depression. Biomarkers of impaired neurogenesis in depression can act as a useful objective and diagnostic and prognostic tool to determine the severity of depression.

AIM: To study the concentration of biochemical indicators in the blood that may be involved in the pathogenesis of depression and their intercorrelations, and to determine any associations between the concentrations of biochemical indicators and severity of depressive symptoms.

METHODS: We determined the plasma concentrations of serotonin, dopamine, and neurotrophic factors involved in neurogenesis (BDNF, CDNF and neuropeptide Y) using enzyme immunoassay and mass spectrometry in depressed patients (n=22) and healthy controls (n=16) matched by socio-demographic parameters. All participants were assessed using the Hamilton Depression Scale (HAMD), the Generalized Anxiety Disorder Questionnaire (GAD-7), and the Center

for Epidemiologic Studies Depression Scale (CES-D) to enter the study. The standard cut-offs for the CES-D and GAD-7 scales were used to confirm the presence or absence of depression and anxiety.

RESULTS: The concentrations of serotonin, dopamine, BDNF, CDNF, and neuropeptide Y in plasma did not differ between the groups and was not found to be associated with the scores on the scales. Positive correlations were found between the concentration of neuropeptide Y and serotonin, BDNF, and CDNF in blood plasma.

CONCLUSIONS: Plasma concentrations of biomarkers related to the pathophysiology of depression did not correlate with the severity of its symptoms.

АННОТАЦИЯ

АКТУАЛЬНОСТЬ: Изучение концентрации биохимических показателей в крови, принимающих возможное участие в патогенезе депрессии, поиск ассоциаций с тяжестью депрессивной симптоматики может быть полезным в качестве объективной диагностики заболевания и прогнозирования тяжести течения патологии.

ЦЕЛЬ: Изучение биохимических показателей крови, которые могут быть связаны с депрессией. Определения корреляционной взаимосвязи этих показателей при депрессивных расстройствах.

МАТЕРИАЛ И МЕТОДЫ: В работе определяли концентрацию в плазме крови моноаминовых нейромедиаторов серотонина и дофамина, и нейротрофических факторов, участвующих в нейрогенезе (BDNF, CDNF и нейропептид Y) у пациентов с депрессией и здоровых добровольцев с одинаковыми социо-демографическими параметрами, используя методы иммуноферментного анализа и масс-спектрометрии. Все участники исследования были опрошены по шкале депрессии Гамильтона (HAMD), опроснику генерализованного тревожного расстройства (GAD-7) и опроснику депрессии центра эпидемиологических исследований (CES-D). Показатели шкал CES-D и GAD-7 использовались для подтверждения наличия или отсутствия депрессии и тревоги у участников исследования.

РЕЗУЛЬТАТЫ: Суммарный балл по трем исследованным шкалам у пациентов с депрессией существенно выше, чем в контрольной группе. Содержание серотонина, дофамина, BDNF, CDNF и нейропептида Y в плазме крови не отличалось в группах испытуемых и не было ассоциировано с баллами по шкалам. Обнаружены положительные корреляции содержания нейропептида Y с серотонином, и BDNF с CDNF в плазме крови.

ВЫВОДЫ: Исследованные маркеры хоть и связаны с патофизиологией депрессии, не коррелируют с тяжестью симптоматики и содержание их в плазме крови не отражает процессы, происходящие в мозге.

Keywords: *depression; HAMD; CES-D; GAD7; BDNF; CDNF; neuropeptide Y*
Ключевые слова: *депрессия; HAMD; CES-D; GAD7; BDNF; CDNF; нейропептид Y*

INTRODUCTION

Depression is a common mental disorder with multifactorial etiology. There is a need for the search for biomarkers that correlate with depression that will allow for timely diagnostics of at-risk individuals and to assess treatment efficacy for those who develop depression.[1,2] Depression is known to be accompanied by biochemical changes in the blood that could potentially serve as appropriate biomarkers.[2]

Although there are many hypotheses on how depression actually develops, the pathophysiology of the disease is still not fully understood. The monoaminergic hypothesis was one of the earliest on the development of depression, which attributes the depressive symptomatology to the dysfunction of monoamine neurotransmitter systems.[1] Serotonin is a key neurotransmitter for emotional responses, whose metabolism and reuptake

from the synaptic cleft are impaired in depression. Dopamine is the main neurotransmitter supporting the reward pathway.[3] Depression is associated with a decrease in activity of the dopaminergic system.[3-5] Although the main functions of monoamine neurotransmitters are in brain tissue, their concentrations in blood may reflect certain neurochemical changes, and identifying such associations is promising in terms of finding potential biomarkers of depression.[5]

Depression is associated with structural and cellular changes in the corticolimbic brain areas that control mood and emotions, such as neuronal loss and synaptic dysfunction.[6-9] The loss or reduction of neurogenesis in the hippocampal dentate gyrus and subventricular zone of the lateral ventricles in adults may cause depression. Impaired growth factor signaling is associated with manifestations of depression.[7,10] The brain-derived neurotrophic factor (BDNF) is a well-researched protein that has multiple functions and is involved in the processes of neurogenesis, neuroplasticity, and memory formation.[11] The BDNF has been found not only in the brain but also in blood and saliva.[12,13] Numerous studies have shown that the BDNF in blood is involved in certain depression-associated mechanisms.[14-17] Cerebral dopamine neurotrophic factor (CDNF) shows neuroprotective and neurorestorative activity. Among the known growth factors, CDNF is the least studied.[19,20] Neuropeptides function as neuromodulators in the brain. Neuropeptide Y (NPY) is widely distributed in the central nervous system and is involved in physiological and behavioral regulation, and in neurogenesis modulation.[21,22] NPY is associated with anxious behavior in animals and humans and affects cognitive function.[23-25] Several studies have shown that NPY concentrations may alter in cerebrospinal fluid and blood during depression and antidepressant therapy.[26-30]

Thus, specific growth factors, neuropeptides, and neurotransmitters in the blood may potentially act as biomarkers for depressive disorders. To confirm this assumption, we conducted a study to examine blood concentrations of factors related to the regulation of neuroplasticity and neurogenesis (BDNF, CDNF, and neuropeptide Y) and monoamine neuromediators (serotonin and dopamine), and to determine the connections between these factors and the severity of depressive symptoms. Another aim was to determine possible correlations between the levels of neurotrophic factors in plasma and the relationships between these parameters with each other in depressive disorders.

This study is a part of the study "Metagenomic analysis of the gut microbiota in people with depressive disorders to identify marker gene compositions. A single center non-interventional observational exploratory study" (study code "PKB1-2020-01").

MATERIAL AND METHODS

Study population

The study includes twenty-two patients with depression (13 males and nine females, aged 18–59 years old) and sixteen healthy volunteers (seven males and nine females, aged 18–45 years old). The patients were continuously selected from inpatients of Mental Health Clinic No. 1, named after N.A. Alexeev, of the Moscow Healthcare Department with diagnoses of depression.

Inclusion criteria:

Patients with moderate to severe depressive episodes with or without psychotic symptoms within bipolar disorder, depressive episodes, recurrent depression (ICD-10 F31.3; F31.4, F31.5; F32.1; F32.2; F32.3; and F32.8, F32.9, F33.1, F33.2, F33.3), aged 18–60 years old were enrolled in the study. Additionally, patients underwent evaluation using the Generalized Anxiety Disorder Questionnaire (GAD-7)[33], and the Center for Epidemiological Studies (CES-D)[32]. Following scales cut-offs were used to confirm the presence of depression and absence of anxiety: The patients had total scores of HAMD ≥14, CES-D ≥27, and GAD-7 <10.

The group of healthy volunteers met the following criteria: (1) absence of current psychiatric disorders; (2) total CES-D score under 18 and GAD-7 score under 5. Exclusion criteria were:

- acute infectious and chronic autoimmune diseases, somatic diseases that may affect biochemical analysis (for instance, cancer, HIV, diabetes, mellitus);
- concurrent eating disorders, posttraumatic stress disorder, or psychoactive substance use disorder, including alcohol dependence;
- concomitant neurological diseases, or a history of severe craniocerebral trauma.

Instruments

Medical examination and medical history investigation were carried out in accordance with routine clinical

practice, including anthropometric parameter evaluation (height, weight), collecting information about smoking or alcohol use, and any family history of mental disorders.

17-item Hamilton Depression Rating Scale (HAMD-17) scores[31] and CES-D[32] were used to assess symptoms severity in patients with depression.

Fasting blood samples were collected from the cubital vein in the morning on the second or third day after admission. Plasma was separated by centrifugation immediately after blood sampling (3,000 rpm for 10 minutes) at 4ºC and was stored at -80ºC.

Healthy volunteers were blood sampled using the same protocol.

Before the analysis, the plasma samples were thawed and BDNF, CDNF, and neuropeptide Y plasma concentrations were determined using an enzyme immunoassay kit (Abcam) according to the manufacturer's protocols. Monoamines were determined using an Agilent 6490A mass spectrometer combined with an Agilent 1290 liquid chromatograph.

Statistical analysis

Given the small sample size, all statistical analyses were performed using nonparametric statistical methods, regardless of the variables' distribution patterns. Continuous variables were presented as medians with indication of quartiles 1 (Q1) and 3 (Q3), and categorical variables were presented as absolute and relative frequencies. The Kruskal-Wallis test was used to compare continuous variables between the groups. The differences between the frequencies were analyzed using Fisher's exact test. Relationships between quantitative variables were measured using the Spearman's rank correlation method. All statistical tests were performed at a statistical significance level of 5%. Statistical analysis was performed using the freeware R (RStudio, Version 1.3.1073, 2020) and Jamovi software suites (Jamovi, Version 1.6, 2021).

All study participants signed voluntary informed consent forms. The study was approved by the Research Clinical Institute of Otorhinolaryngology of L.I. Svelzhevsky (Protocol No. 2 dated May 20, 2020).

RESULTS

Overall and clinical characteristics of the study sample are shown in Table 1. Among the 22 patients, 11 were diagnosed with a first depressive episode, six patients had had a second episode, and five patients had had three or more episodes. Five patients had family histories of psychiatric disorders, whilst in the group of healthy volunteers no-one had family history of mental disorders. Five patients showed a moderate severity of depression (total HAMD score of 14 to 18), 14 patients had severe depression (score of 19 to 24), and three had extreme depression (score >24).

Study groups were comparable in age, gender, anthropometric parameters, smoking or alcohol use status, and family histories of mental disorders (Table 1).

No differences were found in blood biomarker concentrations between patients with depression and healthy volunteers (Table 2).

The correlation analysis showed no relationship between biomarker concentrations and the total score in the CES-D, GAD-7, and HAMD scales (Tables 3 and 4). Positive correlations between NPY and serotonin in the depressed patient group, and between CDNF and BDNF in the healthy volunteer group, were revealed.

DISCUSSION

In our study we did not find differences in the blood concentrations of the examined biochemical indicators (biomarkers) for depression between the patient and healthy volunteers groups. In the patients group, we did not find any correlations between biomarker concentrations and HAMD and CES-D scales scores.

Quantitative serotonin and dopamine levels seem to be very useful indicators of depression,[4,26] although our study has not revealed any links between plasma concentrations of neurotransmitters and depression, other studies show mixed results.[34-36] Plasma serotonin levels have been investigated as biomarkers, even though the relationship between plasma serotonin and brain serotonin is uncertain.[35] Plasma levels of serotonin have been shown to be very low or undetectable in patients with monopolar depression.[37] However, there is evidence that plasma levels of serotonin do not change in depression,[35] which is similar to the results of our study. Some authors have concluded that plasma serotonin levels do not correlate with the amount of serotonin in the brain; in a similar manner, serotonin levels in the blood do not depend on the depressive disorder stage, and it thus cannot be used as a quality marker for treatment.[34] In terms of dopamine, some researchers revealed an increase,[5] some a decrease,[38] and some did not find any changes in the blood in depression.

Table 1. Clinical and demographic characteristics of the study population

Parameter	Main group (*n*=22)	Control group (*n*=16)	Statistical significance rates
Age[a] - Median (Q1, Q3)	29.0 (21.0, 38.0)	25.0 (24.0, 30.0)	KW=0.00 *p*=0.951
Gender[b]			
- Females	9 (40.9%)	9 (56.2%)	*p*=0,512
- Males	13 (59.1%)	7 (43.8%)	
Weight, kg[a] - Median (Q1, Q3)	58.5 (54.2, 76.8)	62.0 (57.0, 79.5)	KW=0.13 *p*=0.722
Height, cm[a] - Median (Q1, Q3)	171.5 (169.2, 177.8)	172.0 (164.5, 178.0)	KW=0.087 *p*=0.768
Smoking status[b]			
- Negative	13 (59.1%)	9 (56.3%)	*p*=1.000
- Positive	9 (40.9%)	7 (43.7%)	
Alcohol use status[b]			
- Negative	12 (54.5%)	8 (50.0%)	*p*=0.743
- Positive	10 (45.5%)	8 (50.0%)	
Depression in past medical history[b]			
- Positive	11 (50%)	0 (0%)	*p*=0.005
- Negative	11 (50%)	16 (100%)	
Family history of psychiatric disorders[b]			
- Negative	17 (77.3%)	16 (100.0%)	*p*=0.067
- Positive	5 (22.7%)	0 (0.0%)	
HAMD, total score[a] - Median (Q1, Q3)	20.0 (19.0, 22.0)	2.0 (0.0, 3.5)	KW=26.3 *p* <0.001
GAD7, total score[a] - Median (Q1, Q3)	7.5 (5.0, 8.8)	2.0 (0.8, 3.0)	KW=22.0 *p* <0.001
CES-D, total score[a] - Median (Q1, Q3)	28.0 (28.0, 30.5)	3.0 (0.0, 8.2)	KW=27.5 *p* <0.001

[a] *Kruskal–Wallis test*
[b] *Fisher's exact test*

Table 2. Comparison of serotonin, dopamine, neuropeptide Y, BDNF, and CDNF values in plasma of patients with depression and healthy volunteers

Biomarkers	Depression (*n*=22)	Volunteers (*n*=16)	Statistical significance rates
Serotonin (ng/ml) - Median (Q1, Q3)	4.4 (1.7, 11.0)	7.2 (2.9, 31.2)	KW=0.423 *p*=0.284
Dopamine (pg/ml) - Median (Q1, Q3)	3.4 (1.9, 5.9)	3.7 (2.4, 6.8)	KW=0.013 *p*=0.908
NPY (pg/ml) - Median (Q1, Q3)	408.1 (148.6, 618.2)	492.4 (186.2, 571.9)	KW=0.014 *p*=0.906
BDNF (pg/ml) - Median (Q1, Q3)	312.1 (293.4, 458.3)	313.3 (165.8, 406.9)	KW=0.423 *p*=0.515
CDNF (ng/ml) - Median (Q1, Q3)	82.9 (68.3, 152.7)	55.8 (43.3, 97.5)	KW=1.773 *p*=0.183

Table 3. The correlation analysis of serotonin, dopamine, neuropeptide Y, BDNF, and CDNF content in the plasma of patients with depression and healthy volunteers. The table also shows the associated p-values

Patients with depression					
Parameter	**BDNF (pg/ml)**	**Serotonin (ng/ml)**	**NPY (pg/ml)**	**Dopamine (pg/ml)**	**CDNF (ng/ml)**
BDNF	**1**	0.074	0.906	0.396	0.763
Serotonin	0.074	**1**	**0.024**	0.333	0.744
NPY	0.906	**0.024**	**1**	0.354	0.617
Dopamine	0.396	0.333	0.354	**1**	0.662
CDNF	0.763	0.744	0.617	0.662	**1**
CES	0.871	0.508	0.900	0.783	0.281
GAD7	0.389	0.512	0.139	0.267	0.263
HAMD	0.091	0.056	0.639	0.783	0.480
Healthy volunteers					
Parameter	**BDNF (pg/ml)**	**Serotonin (ng/ml)**	**NPY (pg/ml)**	**Dopamine (pg/ml)**	**CDNF (ng/ml)**
BDNF	1	0.356	0.299	0.536	**0.008**
Serotonin	0.356	**1**	0.462	1.000	0.200
NPY	0.299	0.462	**1**	0.132	0.880
Dopamine	0.536	1.000	0.132	**1**	0.136
CDNF	**0.008**	0.200	0.880	0.136	**1**
CES	0.409	0.613	0.774	0.115	0.076
GAD7	0.281	0.553	0.955	0.389	0.843
HAMD	0.539	0.883	0.695	0.096	0.744

Chronic stress has a negative impact on hippocampal neurogenesis in adults. Preclinical studies show that exposure to stress leads to atrophy and cell loss in the hippocampus, as well as to decreased expression of neurotrophic growth factors.[10] Therefore, the focus of this study has concentrated on identifying the substances in blood that affect neurogenesis and the neuroplasticity of the brain.

Some authors suggest that depression develops due to dysfunctional neurogenesis in the regions of the brain responsible for emotion and cognition.[39] This hypothesis is based on the revealed correlation between lower BDNF levels and a higher incidence of depressive symptoms. If we review the existing research on the relationship between BDNF blood concentrations and depression, we may find sufficient evidence to support this pattern. Patients with depression have lower serum and plasma BDNF levels than healthy controls.[14-17] Thus, many studies have identified BDNF as a possible biomarker for depression. Our study showed no apparent differences in plasma BDNF concentrations of the patients with depression and healthy volunteers, as well as the absence of associations of their levels with depression scale scores. Such studies should be interpreted with caution as they show mixed results, have small sample sizes, systematic publication errors, and different patterns of BDNF measurement, where these studies mostly ignore the different sampling factors that affect BDNF, which is problematic when interpreting the relationship between peripheral blood BDNF and depression. The question of the relationship between peripheral BDNF and depression has many unresolved issues and requires further careful validation, and at this stage the blood BDNF value is not recommended for use as a biomarker in clinical practice.[12]

CDNF has a unique mode of action associated with the prevention of cell death,[20] therefore it was useful to investigate whether the CDNF concentration in blood can be related to depressive state. In our study, we found

Table 4. The correlation analysis of serotonin, dopamine, neuropeptide Y, BDNF, and CDNF content in the plasma of patients with depression and healthy volunteers. The table shows the correlation factor values

Patients with depression					
Parameter	**BDNF (pg/ml)**	**Serotonin (ng/ml)**	**NPY (pg/ml)**	**Dopamine (pg/ml)**	**CDNF (ng/ml)**
BDNF	**1**	-0.516	-0.032	-0.393	-0.082
Serotonin	-0.516	**1**	**-0.721**	0.800	0.133
NPY	-0.032	**-0.721**	**1**	-0.429	0.135
Dopamine	-0.393	0.800	-0.429	**1**	0.214
CDNF	-0.082	0.133	0.135	0.214	**1**
CES	0.037	0.202	-0.034	-0.111	0.287
GAD7	0.192	-0.200	0.375	-0.491	0.297
HAMD	-0.370	0.549	-0.122	-0.108	-0.190
Healthy volunteers					
Parameter	**BDNF (pg/ml)**	**Serotonin (ng/ml)**	**NPY (pg/ml)**	**Dopamine (pg/ml)**	**CDNF (ng/ml)**
BDNF	**1**	0.309	-0.345	-0.262	0.840
Serotonin	0.309	**1**	-0.310	0.000	0.595
NPY	-0.345	-0.310	**1**	0.595	-0.050
Dopamine	-0.262	0.000	0.595	**1**	-0.667
CDNF	0.840	0.595	-0.050	-0.667	**1**
CES	0.221	0.173	-0.101	-0.610	0.641
GAD7	0.287	0.202	-0.023	-0.346	0.084
HAMD	0.172	-0.058	0.136	-0.630	0.141

no apparent connection between this factor and diagnosed depression and its severity. However, we have revealed that CDNF levels are correlated with plasma BDNF levels in the group of healthy volunteers. This pattern requires further investigation, as CDNF has only recently been discovered and is thus a poorly studied growth factor.

Although our study demonstrated no alterations in plasma NPY concentrations in depression, the correlation between NPY concentrations in the central nervous system and depression has been shown in a number of studies.[26] In cases of depression, NPY expression is reduced in the hippocampus, amygdala, and cerebrospinal fluid, but is increased in the hypothalamus. However, the scientific literature provides us with mixed results on blood NPY levels in people with major depressive disorder (MDD). It has been shown that in cases of MDD, blood NPY concentrations can remain unchanged,[26] can increase,[27] or decrease.[40] However, a meta-analysis of studies[35] has revealed that NPY levels are lower in patients with depression compared to healthy controls,[29] and there is evidence that NPY levels increase (become normal) with antidepressant medication.[30] It is also worth noting that psychotropic drug use and the female gender are associated with higher NPY levels.[29]

In our study, we found no association between NPY and the presence of depression and its severity, but we have found a positive correlation between plasma NPY and serotonin concentrations in the group of patients with depression. This association is an interesting finding because there are indications in animal studies that certain mechanisms of interaction between serotonin and NPY exist in the brain. In animal studies, it has been shown that serotonin neurons and NPY-synthesizing neurons in the hypothalamus, which inhibit and stimulate food intake, respectively, can interact with fluoxetine (a serotonin reuptake inhibitor) to control energy homeostasis, significantly reducing NPY levels in the paraventricular nucleus, the main

area of NPY release.[41] Also, intracerebroventricular administration of NPY increases serotonin release in the hypothalamus.[42] The results reported in these studies show an association between serotonin and NPY in the central nervous system and its possible association with depression; however, this does not exclude possible peripheral associations of these factors, and which thus require further research.

Our study was limited by the small sample size, clinical heterogeneity of the depressive episode (bipolar and unipolar depression, half of the patients having had their first episode), and also because the medications used in therapy were not considered.

CONCLUSION

Contrary to our expectations, we have found no apparent association between the concentration of the studied biochemical parameters and the severity of depressive symptoms. At the same time, our work has shown definite connections between concentrations of biochemical indicators in plasma. A positive correlation between serotonin and NPY levels in the plasma of patients with depression, and between CDNF and BDNF in the plasma of healthy volunteers has been shown. These findings require closer attention in future studies.

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Reference

1. Hoifodt RS, Waterloo K, Wang CEA, et al. Cortisol levels and cognitive profile in major depression: A comparison of currently and previously depressed patients. *Psychoneuroendocrinology*. 2019;99:57–65. doi: 10.1016/j.psyneuen.2018.08.024
2. Uddin M. Blood-based biomarkers in depression: emerging themes in clinical research. *Mol Diagn Ther*. 2014;18(5):469–482. doi: 10.1007/s40291-014-0108-1
3. Belujon P, Grace AA. Dopamine System Dysregulation in Major Depressive Disorders. *Int J Neuropsychopharmacol*. 2017;20(12):1036–1046. doi: 10.1093/ijnp/pyx056
4. Belujon P, Grace AA. Dopamine System Dysregulation in Major Depressive Disorders. *Int J Neuropsychopharmacol*. 2017;20(12):1036–1046. doi: 10.1093/ijnp/pyx056
5. Pan JX, Xia JJ, Deng FL, et al. Diagnosis of major depressive disorder based on changes in multiple plasma neurotransmitters: a targeted metabolomics study. *Transl Psychiatry*. 2018;8(1):130. doi: 10.1038/s41398-018-0183-x
6. Kraus C, Castren E, Kasper S, Lanzenberger R. Serotonin and neuroplasticity — Links between molecular, functional and structural pathophysiology in depression. *Neurosci Biobehav Rev*. 2017;77:317–326. doi: 10.1016/j.neubiorev.2017.03.007
7. Levy MJF, Boulle F, Steinbusch HW, et al. Neurotrophic factors and neuroplasticity pathways in the pathophysiology and treatment of depression. *Psychopharmacology (Berl)*. 2018;235(8):2195–2220. doi: 10.1007/s00213-018-4950-4
8. Liu W, Ge T, Leng Y, et al. The Role of Neural Plasticity in Depression: From Hippocampus to Prefrontal Cortex. *Neural Plast*. 2017;2017:6871089. doi: 10.1155/2017/6871089
9. Yohn CN, Gergues MM, Samuels BA. The role of 5-HT receptors in depression. *Mol Brain*. 2017;10(1):28. doi: 10.1186/s13041-017-0306-y
10. Schmidt HD, Duman RS. The role of neurotrophic factors in adult hippocampal neurogenesis, antidepressant treatments and animal models of depressive-like behavior. *Behav Pharmacol*. 2007;18(5–6):391–418. doi: 10.1097/FBP.0b013e3282ee2aa8
11. Caviedes A, Lafourcade C, Soto C, Wyneken U. BDNF/NF-kappaB Signaling in the Neurobiology of Depression. *Curr Pharm Des*. 2017;23(21):3154–3163. doi: 10.2174/1381612823666170111141915
12. Arosio B, Guerini FR, Voshaar RCO, Aprahamian I. Blood Brain-Derived Neurotrophic Factor (BDNF) and Major Depression: Do We Have a Translational Perspective? *Front Behav Neurosci*. 2021;15:626906. doi: 10.3389/fnbeh.2021.626906
13. Klein AB, Williamson R, Santini MA, et al. Blood BDNF concentrations reflect brain-tissue BDNF levels across species. *Int J Neuropsychopharmacol*. 2011;14(3):347–353. doi: 10.1017/S1461145710000738
14. Bocchio-Chiavetto L, Bagnardi V, Zanardini R, et al. Serum and plasma BDNF levels in major depression: a replication study and meta-analyses. *World J Biol Psychiatry*. 2010;11(6):763–773. doi: 10.3109/15622971003611319
15. Brunoni AR, Lopes M, Fregni F. A systematic review and meta-analysis of clinical studies on major depression and BDNF levels: implications for the role of neuroplasticity in depression. *Int J Neuropsychopharmacol*. 2008;11(8):1169–1180. doi: 10.1017/S1461145708009309
16. Karege F, Bondolfi G, Gervasoni N, et al. Low brain-derived neurotrophic factor (BDNF) levels in serum of depressed patients probably results from lowered platelet BDNF release unrelated to platelet reactivity. *Biol Psychiatry*. 2005;57(9):1068–1072. doi: 10.1016/j.biopsych.2005.01.008
17. Schroter K, Brum M, Brunkhorst-Kanaan N, et al. Longitudinal multi-level biomarker analysis of BDNF in major depression and bipolar disorder. *Eur Arch Psychiatry Clin Neurosci*. 2020;270(2):169–181. doi: 10.1007/s00406-019-01007-y
18. Lindahl M, Saarma M, Lindholm P. Unconventional neurotrophic factors CDNF and MANF: Structure, physiological functions and therapeutic potential. *Neurobiol Dis*. 2017;97(Pt B):90–102. doi: 10.1016/j.nbd.2016.07.009
19. Lin CQ, Chen LK. Cerebral dopamine neurotrophic factor promotes the proliferation and differentiation of neural stem cells in hypoxic environments. *Neural Regen Res*. 2020;15(11):2057–2062. doi: 10.4103/1673-5374.282262
20. Galli E, Planken A, Kadastik-Eerme L, et al. Increased Serum Levels of Mesencephalic Astrocyte-Derived Neurotrophic Factor in Subjects With Parkinson's Disease. *Front Neurosci*. 2019;13:929. doi: 10.3389/fnins.2019.00929
21. Morales-Medina JC, Dumont Y, Quirion R. A possible role of neuropeptide Y in depression and stress. *Brain Res*. 2010;1314:194–205. doi: 10.1016/j.brainres.2009.09.077
22. Geloso MC, Corvino V, Di Maria V, Marchese E, Michetti F. Cellular targets for neuropeptide Y-mediated control of adult neurogenesis. *Front Cell Neurosci*. 2015;9:85. doi: 10.3389/fncel.2015.00085
23. Redrobe JP, Dumont Y, Fournier A, Baker GB, Quirion R. Role of serotonin (5-HT) in the antidepressant-like properties of neuropeptide Y (NPY) in the mouse forced swim test. *Peptides*. 2005;26(8):1394–1400. doi: 10.1016/j.peptides.2005.03.029
24. Nahvi RJ, Sabban EL. Sex Differences in the Neuropeptide Y System and Implications for Stress Related Disorders. *Biomolecules*. 2020;10(9). doi: 10.3390/biom10091248
25. Gotzsche CR, Woldbye DP. The role of NPY in learning and memory. *Neuropeptides*. 2016;55:79–89. doi: 10.1016/j.npep.2015.09.010
26. Hou C, Jia F, Liu Y, Li L. CSF serotonin, 5-hydroxyindolacetic acid and neuropeptide Y levels in severe major depressive disorder. *Brain Res*. 2006;1095(1):154–158. doi: 10.1016/j.brainres.2006.04.026
27. Irwin M, Brown M, Patterson T, et al. Neuropeptide Y and natural killer cell activity: findings in depression and Alzheimer caregiver stress. *FASEB J*. 1991;5(15):3100–3107. doi: 10.1096/fasebj.5.15.1743441
28. Czermak C, Hauger R, Drevets WC, et al. Plasma NPY concentrations during tryptophan and sham depletion

in medication-free patients with remitted depression. *J Affect Disord*. 2008;110(3):277–281. doi: 10.1016/j.jad.2008.01.014
29. Tural U, Iosifescu DV. Neuropeptide Y in PTSD, MDD, and chronic stress: A systematic review and meta-analysis. *J Neurosci Res*. 2020;98(5):950–963. doi: 10.1002/jnr.24589
30. Ozsoy S, Olguner Eker O, Abdulrezzak U. The Effects of Antidepressants on Neuropeptide Y in Patients with Depression and Anxiety. *Pharmacopsychiatry*. 2016;49(1):26–31. doi: 10.1055/s-0035-1565241
31. Hamilton M. A rating scale for depression. *J Neurol Neurosurg Psychiatry*. 1960;23:56–62. doi: 10.1136/jnnp.23.1.56
32. Radloff LS. The CES-D scale: A self-report depression scale for research in the general population. *Applied psychological measurement*. 1977;1(3):385–401.
33. Spitzer RL, Kroenke K, Williams JB, Lowe B. A brief measure for assessing generalized anxiety disorder: the GAD-7. *Arch Intern Med*. 2006;166(10):1092–1097. doi: 10.1001/archinte.166.10.1092
34. Cowen PJ, Browning M. What has serotonin to do with depression? *World Psychiatry*. 2015;14(2):158–160. doi: 10.1002/wps.20229
35. Holck A, Wolkowitz OM, Mellon SH, Reus VI, Nelson JC, Westrin Å, Lindqvist D. Plasma serotonin levels are associated with antidepressant response to SSRIs. *J Affect Disord*. 2019 May 1;250:65–70. doi: 10.1016/j.jad.2019.02.063. Epub 2019 Feb 26. PMID: 30831543; PMCID: PMC6699768.
36. Mosolov SN. Diagnosis and Treatment of Depression in Patients with Schizophrenia. *Consortium Psychiatricum*. 2020;1(2):29–42. doi: 10.17650/2712-7672-2020-1-2-29-42
37. Takada A, Shimizu F, Takao T. [Tryptophan Metabolites in Plasma of Patients with Depression]. *Brain Nerve*. 2018 Sep;70(9):1025–1031. Japanese. doi: 10.11477/mf.1416201123. PMID: 30177580.
38. Blardi P, de Lalla A, Auteri A, et al. Plasma catecholamine levels after fluoxetine treatment in depressive patients. *Neuropsychobiology*. 2005;51(2):72–76. doi: 10.1159/000084163
39. Duman RS, Heninger GR, Nestler EJ. A molecular and cellular theory of depression. *Arch Gen Psychiatry*. 1997;54(7):597–606. doi: 10.1001/archpsyc.1997.01830190015002
40. Hashimoto H, Onishi H, Koide S, Kai T, Yamagami S. Plasma neuropeptide Y in patients with major depressive disorder. *Neurosci Lett*. 1996;216(1):57–60. doi: 10.1016/0304-3940(96)13008-1
41. Dryden S, Frankish HM, Wang Q, Pickavance L, Williams G. The serotonergic agent fluoxetine reduces neuropeptide Y levels and neuropeptide Y secretion in the hypothalamus of lean and obese rats. *Neuroscience*. 1996;72(2):557–566. doi: 10.1016/0306-4522(95)00566-8
42. Mori RC, Telles MM, Guimaraes RB, et al. Feeding induced by increasing doses of neuropeptide Y: dual effect on hypothalamic serotonin release in normal rats. *Nutr Neurosci*. 2004;7(4):235–239. doi: 10.1080/1028415040001279

Stigma and Quality of Life among People Diagnosed with Mental Disorders: a Narrative Review

Стигматизация и качество жизни людей с психическими расстройствами: нарративный обзор

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Review

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ABSTRACT

INTRODUCTION: The anti-psychiatric movements that emerged in the early 1960s led to the appearance of stigma in psychiatry. The misunderstanding of the concept of mental disorder, the negative way in which associated hospitalization was perceived, the inclination to treat patients through psychological therapies, and the criticism of pharmacological treatment led to the discrediting of psychiatry.

AIM: The current paper aims to review the available literature regarding the impact of stigma on the quality of life of people diagnosed with mental disorders.

MATERIAL AND METHODS: A narrative review of relevant literature published between 1999 and 2021 was conducted. The authors analysed studies found on PubMed and the Web of Science electronic databases. The search terms combined two overlapping areas with keywords such as "stigma" and "mental disorders". A descriptive analysis was employed to synthesize the obtained data.

RESULTS: Stigma continues to be an important challenge to the management of health conditions in people with mental disorders. A lack of comprehension may give the impression that all psychiatric patients are aggressive and are unable to function adequately. Such stigmatizing beliefs and habits have proven to be very difficult to change.

CONCLUSIONS: Due to the stigmatization and repulsive attitudes in society, patients are reluctant to be linked to any form of mental disorder or to be seen as having any contact with mental health professionals. This undermines the beneficial effects of treatment, resulting in a poor quality of life and diminished socio-occupational functioning.

АННОТАЦИЯ

АКТУАЛЬНОСТЬ: Антипсихиатрические течения, возникшие в начале 1960-х гг., привели к стигматизации психиатрии. Неправильное понимание концепции психических расстройств, негативное отношение к госпитализации, тенденция к лечению пациентов посредством психологии и критика фармакологических методов лечения стали причиной дискредитации психиатрии.

ЦЕЛЬ: Целью данной работы является анализ доступных литературных источников, касающихся влияния стигматизации на качество жизни людей с диагностированными психическими расстройствами.

МАТЕРИАЛ И МЕТОДЫ: Был выполнен нарративный обзор релевантных литературных источников, опубликованных в период с 1999 г. по 2021 г. Авторы проанализировали работы, представленные в электронных базах данных PubMed и Web of Science. Используемые для поиска ключевые слова, например, «стигматизация» и «психические расстройства», объединяли две взаимосвязанные области. Для обобщения полученных данных применялся метод описательного анализа.

РЕЗУЛЬТАТЫ: Стигматизация остается важной проблемой при лечении людей с психическими расстройствами. Из-за недостаточного понимания проблемы может создаваться впечатление, что все пациенты с психическими заболеваниями агрессивны и неспособны адекватно функционировать. Как оказалось, такие стигматизирующие мнения и стереотипы очень сложно изменить.

ВЫВОДЫ: Из-за стигматизации и отторжения обществом пациенты не хотят, чтобы их каким-либо образом ассоциировали с психическими расстройствами или знали о том, что они посещают специалистов в области психиатрии. Это снижает положительный эффект терапии, а также приводит к ухудшению качества жизни и ограничению социального и профессионального функционирования.

Keywords: *stigma; mental disorders; discrimination; psychiatric patients; rejection; social marginalization*
Ключевые слова: *стигматизация; психические расстройства; дискриминация; пациенты с психическими заболеваниями; отвержение; социальная маргинализация*

INTRODUCTION

The concept of stigma originally referred to the mark, the sign made with red iron by powerful people in society disgusted by Greek slaves, murderers, or others.[1] Since ancient times, this has been used to differentiate and label people from what are considered to be inferior social classes, leading to their social marginalization.[2] Within the setting in which power is exerted, stigma is described as the co-occurrence of marking, stereotyping, isolation, loss of status, and discrimination.[3] A number of authors have attempted to theorize the subject of stigma. Link and Phelan[4] suggest that stigma is a complex phenomenon, which cannot be explained sufficiently by a single, unique definition. They describe four components they consider to comprise stigma, including distinguishing and labelling differences, the association of human differences with negative attributes, the notion of "us" and "them" as two distinct categories, and the loss of social status and discrimination leading to inequalities.[4] These components are related to people's habits of labelling others as different, associating differences with negative stereotypes, separating different people from the rest of the population, and stigmatizing the experience of discrimination based on labelling.

Today, stigma remains a fundamental problem, linking psychiatry, psychology, and public health,[5] as its negative

influence might be felt primarily by people suffering from mental disorders. Those with mental disorders are still the subject of public stigma, which includes discrimination, prejudice, and false perceptions.[6] According to current research, different mental disorders are subjected to different levels of public stigma and trivialization. For example, schizophrenia is one of the most stigmatized of mental disorders due to an associated misperception of risk and unpredictability.[7] Eating disorders and depression are also frequently stigmatized due to a loss of personal control.[8,9] Another concept that exists within the context of public stigma is self-stigma. Self-stigma is defined as a process in which patients diagnosed with mental health disorders become aware of public stigma and internalize this by applying it to themselves.[10] Self-stigma has been linked to the increased severity of symptoms, reduced treatment adherence, an increased rate of suicidality, and a significant deterioration in quality of life.[11] It is important to note that quality of life indicators have been linked to patients' judgements of their own neurocognitive impairments rather than physicians' assessments of their conditions. For optimal outcomes, clinicians may need to measure patients' views of neurocognitive performance to further refine the understanding of the treatment process, which would also aid social function.[12] The existing stigma towards mental health disorders is a key barrier to successful treatment and rehabilitation of mentally ill people.[13,14] In order to increase the quality of life of patients suffering from mental health disorders, it is important to find the most effective measures to raise awareness of the negative influence surrounding stigma.[15]

Against this background, the current study aims to review the available literature regarding the impact of stigma on the quality of life of people diagnosed with mental disorders. In particular, this review is focused on gaining a clearer understanding of how psychiatric patients are treated by society and the extent of the stigma towards them.

MATERIAL AND METHODS

The following two electronic databases were searched: PubMed and the Web of Science. This narrative review is based on scientific literature published between 1999 and 2021. Search terms included keywords such as "stigma", "mental disorders", "discrimination", "psychiatric patients", "rejection", and "social marginalization". Studies were eligible if they evaluated the impact of stigma on the quality of life of adults diagnosed with mental disorders. Studies in which patients had other stigmatizing conditions, such as HIV and obesity, were excluded. A descriptive analysis was employed to synthesize the obtained data. The study findings were recorded in English.

RESULTS

The results of the current review will be presented in three parts. Firstly, the impact of public and self-stigma on patients' quality of life will be presented. Secondly, the consequences of stigma on patients' access to healthcare will be discussed. Finally, the particular ways in which stigma can be addressed will be highlighted.

Impact of public and self-stigma on patients' quality of life

Public stigma against people with mental disorders is a complicated phenomenon that can affect any aspect of a person's life, including their ability to secure housing and jobs, pursue a career, access benefits, and receive equal care from the justice system and social public services.[16] As a result, public stigma affects the prospects of people with mental disorders in terms of meeting life aspirations, finding sustainable jobs, and living comfortably in a healthy and secure household.[4] There is a widespread belief that people who suffer from psychiatric disorders are to blame for their disease. The stereotype that people with mental disorders are dangerous and unpredictable is perhaps the most damaging. This leads to avoidance and withdrawal, two of the most troublesome discrimination practices. People with mental disorders are ignored by the general population in order to prevent their possible abuse.[6,17] Wahl et al., in a study involving over 1400 participants, concluded that patients diagnosed with mental disorders experience social exclusion as they are not called or visited by their friends once their psychiatric diagnosis has been revealed.[18] Thus, prejudice and discrimination may be used to exclude psychiatric patients in two ways: directly through discriminative attitudes, and indirectly through marginalization.[19]

Internalized stigma or self-stigma is the way in which a person with a mental disorder adapts to the stigmatizing beliefs held by certain members of the community to which they belong.[20,21] One of the most common consequences of self-stigma is a lack of self-esteem

and self-efficacy.[22] Currently available research shows that almost one-third of psychiatric patients experience self-stigma, worsening their ability to have a normal life and complete recovery, and leading to a low subjective quality of life.[23,24] Cavelti et al. assessed the insight, self-stigma, and demoralization of 145 patients with schizophrenia spectrum disorders. This study concludes that high levels of insight were correlated with high levels of demoralization when they were followed by self-stigmatizing attitudes. However, this was not the case or, indeed, was exhibited even to a low level when these patients were not in this situation. Therefore, self-stigma can be considered to be a moderator between the patient's insight and his/her feeling of demoralization.[25] Other studies have shown that self-stigma combined with insight is a significant predictor for symptoms of demoralization, such as hopelessness, low self-esteem, depression, and reduced quality of life.[26,27] In general, there are three main ways in which self-stigma may affect the quality of a patient's life. Firstly, it exacerbates the severity of a psychiatric disorder and contributes to social isolation, causing difficulties in daily life;[28] secondly, self-stigma decreases a patient's willingness to find help and has a negative impact on compliance with treatment;[29] and thirdly, self-stigma is linked to inadequate recovery attitudes, a greater incidence of disabilities, and a higher economic burden.[30]

Consequences of stigma for access and care quality

Stigma has been labelled a "fundamental trigger" of health inequality as it restricts access to health services and influences a variety of health outcomes.[31] The impact of stigma on help-seeking behaviour is one of its most important consequences. According to the existing literature, more than 70% of patients with mental health issues around the world either do not seek, or will refuse or delay their treatment.[32] People with mental disabilities are less likely to seek treatment if they think their disease is stigmatized.[33,34] Expected discrimination from healthcare professionals has been reported as a factor in patients' reluctance to pursue mental health treatment.[35] Individuals who have dealt with a psychiatric disorder report feeling undervalued, ignored, and dehumanized by a large proportion of the health providers with whom they interact.[30] Furthermore, patients with severe mental disorders have a high mortality rate and die on average 25 years earlier than people suffering from other preventable medical conditions, such as heart disease.[36] This imbalance in mortality has been increasing in recent years, demonstrating the existence of barriers in patient access to mental healthcare.[37] Stigmatizing behaviour in the form of social distancing from people with mental disorders leads to difficulties in the recognition of emergencies and provision of help, particularly for patients who are less aware of their own condition.[38] In general, limited access to healthcare, reduced life expectancy, social isolation, various disabilities, hunger, homelessness, and interactions with criminal justice systems have all been recognized as consequences of the stigma surrounding mental health issues.[39]

Ways to address stigma

The media is a valuable source of knowledge regarding mental health and plays a significant part in shaping public attitudes and stigma.[40] The majority of such television coverage offers portrayals of mental disorders that conjure up images of dangerous, abusive people who are almost invariably potential murderers.[41] Characters are often depicted as unstable, antisocial, incapable, duplicitous, losers, and social outsiders.[42] In the same way as the media perpetuates myths in relation to psychiatric conditions, it may also serve to improve mental wellbeing by encouraging or otherwise supporting the societal battle against the stigma associated with mental illness. This can be achieved by disseminating public awareness programmes in order to provide factual knowledge on mental disorders and promote volunteering programmes, thus helping patients suffering from mental illness.[43]

Furthermore, educational anti-stigma programmes are required to provide accurate facts relating to stigmatized conditions.[44] Educational programmes may be created on any scale, from local to global. Based on the currently available evidence, anti-stigma educational programmes delivered at the school level are proven to be the most effective.[45] According to a study of European anti-stigma services, young people have shown major changes in their values and behaviours as a result of anti-stigma education.[46] In an American national poll, young people who had received anti-stigma education were more likely to seek help in relation to their mental health in comparison with adults over the age of 55 who had not received such training.[47]

It is also important to teach families and caregivers how to help their loved ones overcome their guilt and seek or receive treatment. The creation of trained teams in psychiatric hospitals is required who can help families and informal caregivers to provide care for patients with mental health issues. These trained teams should be involved in patient treatment after the patient has been released from the patient unit, ensuring their continuity of care.[51] Social support for people with mental health issues should be viewed as essential, not just for the family, but also for relatives, neighbours, and the whole community. Moreover, empathy and support should exist for every patient, especially as psychiatric symptoms might be caused by more serious pathologies, such as tumours.[48-50]

CONCLUSIONS

Public and self-stigma are widely recognized as barriers to various mental disorders. They are obstacles to seeking treatment and can disrupt adherence to recommended therapy. Stigma has a negative influence on all aspects of life and impedes rehabilitation, making it difficult to overcome mental health barriers and leading to psychiatric rehospitalization.

Regarding the management of people with mental disorders, stigma continues to be an important challenge. It has proved to be very difficult to change stigmatizing beliefs and habits. Stigma-reduction techniques frequently fall short of their goals, or worsen the problem. Due to the nuanced, multifaceted nature of stigma and discrimination, as well as challenges related to seeking help, diverse strategies are needed to eliminate stigma.

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References

1. Béreiziat-Lang S, Ott MR. From Tattoo To Stigma: Writing On Body And Skin. In: *Writing Beyond Pen and Parchment*. De Gruyter; 2019:193–208.
2. Scott J. Social Class and Stratification in Late Modernity. *Acta Sociologica*. 2002;45(1):23–35. doi: 10.1177/000169930204500103
3. Hatzenbuehler ML, Phelan JC, Link BG. Stigma as a fundamental cause of population health inequalities. *Am J Public Health*. 2013;103(5):813–821. doi: 10.2105/AJPH.2012.301069
4. Link BG, Phelan JC. Conceptualizing Stigma. *Annual Review of Sociology*. 2001;27(1):363–385. doi: 10.1146/annurev.soc.27.1.363
5. LeBel TP. Perceptions of and Responses to Stigma. *Sociol Compass*. 2008;2(2):409–432. doi: 10.1111/j.1751-9020.2007.00081.x
6. Corrigan PW, Kleinlein P. The Impact of Mental Illness Stigma. In: *On the stigma of mental illness: Practical strategies for research and social change.* American Psychological Association; 2006:11–44.
7. Robinson P, Turk D, Jilka S, Cella M. Measuring attitudes towards mental health using social media: investigating stigma and trivialisation. *Soc Psychiatry Psychiatr Epidemiol*. 2019;54(1):51–58. doi: 10.1007/s00127-018-1571-5
8. Hinshaw SP, Stier A. Stigma as related to mental disorders. *Annu Rev Clin Psychol*. 2008;4:367–393. doi: 10.1146/annurev.clinpsy.4.022007.141245
9. Crisp AH, Gelder MG, Rix S, Meltzer HI, Rowlands OJ. Stigmatisation of people with mental illnesses. *Br J Psychiatry*. 2000;177:4–7. doi: 10.1192/bjp.177.1.4
10. Corrigan PW, Rao D. On the self-stigma of mental illness: stages, disclosure, and strategies for change. *Can J Psychiatry*. 2012;57(8):464–469. doi: 10.1177/070674371205700804
11. Vrbova K, Prasko J, Ociskova M, et al. Suicidality, self-stigma, social anxiety and personality traits in stabilized schizophrenia patients — a cross-sectional study. *Neuropsychiatr Dis Treat*. 2018;14:1415–1424. doi: 10.2147/NDT.S162070

12. Caqueo-Urizar A, Boyer L, Baumstarck K, Gilman SE. Subjective perceptions of cognitive deficits and their influences on quality of life among patients with schizophrenia. *Qual Life Res*. 2015;24(11):2753–2760. doi: 10.1007/s11136-015-1019-2
13. Mirnezami HF, Jacobsson L, Edin-Liljegren A. Changes in attitudes towards mental disorders and psychiatric treatment 1976–2014 in a Swedish population. *Nord J Psychiatry*. 2016;70(1):38–44. doi: 10.3109/08039488.2015.1046916
14. Angermeyer MC, Dietrich S. Public beliefs about and attitudes towards people with mental illness: a review of population studies. *Acta Psychiatr Scand*. 2006;113(3):163–179. doi: 10.1111/j.1600-0447.2005.00699.x
15. Stuart H. Reducing the stigma of mental illness. *Glob Ment Health (Camb)*. 2016;3:e17. doi: 10.1017/gmh.2016.11
16. Corbiere M, Samson E, Villotti P, Pelletier JF. Strategies to fight stigma toward people with mental disorders: perspectives from different stakeholders. *ScientificWorldJournal*. 2012;2012:516358. doi: 10.1100/2012/516358
17. Graf J, Lauber C, Nordt C, et al. Perceived stigmatization of mentally ill people and its consequences for the quality of life in a Swiss population. *J Nerv Ment Dis*. 2004;192(8):542–547. doi: 10.1097/01.nmd.0000135493.71192.3a
18. Wahl OF. Stigma as a barrier to recovery from mental illness. *Trends Cogn Sci*. 2012;16(1):9–10. doi: 10.1016/j.tics.2011.11.002
19. Pădurariu M, Ciobîcă A, Persson C, et al. Self-stigma in psychiatry: ethical and bio-psycho-social perspectives. *Rev Rom Bioet.* 2011;9(1):76–82.
20. Mashiach-Eizenberg M, Hasson-Ohayon I, Yanos PT, Lysaker PH, Roe D. Internalized stigma and quality of life among persons with severe mental illness: the mediating roles of self-esteem and hope. *Psychiatry Res*. 2013;208(1):15–20. doi: 10.1016/j.psychres.2013.03.013
21. Yanos PT, Roe D, Lysaker PH. The Impact of Illness Identity on Recovery from Severe Mental Illness. *Am J Psychiatr Rehabil*. 2010;13(2):73–93. doi: 10.1080/15487761003756860
22. Grandon P, Saldivia S, Vaccari P, et al. An Integrative Program to Reduce Stigma in Primary Healthcare Workers Toward People With Diagnosis of Severe Mental Disorders: A Protocol for a Randomized Controlled Trial. *Front Psychiatry*. 2019;10:110. doi: 10.3389/fpsyt.2019.00110
23. Brohan E, Elgie R, Sartorius N, Thornicroft G, Group GA-ES. Self-stigma, empowerment and perceived discrimination among people with schizophrenia in 14 European countries: the GAMIAN-Europe study. *Schizophr Res*. 2010;122(1–3):232–238. doi: 10.1016/j.schres.2010.02.1065
24. Yanos PT, Roe D, Lysaker PH. Narrative enhancement and cognitive therapy: a new group-based treatment for internalized stigma among persons with severe mental illness. *Int J Group Psychother*. 2011;61(4):577–595. doi: 10.1521/ijgp.2011.61.4.576
25. Cavelti M, Kvrgic S, Beck EM, Rusch N, Vauth R. Self-stigma and its relationship with insight, demoralization, and clinical outcome among people with schizophrenia spectrum disorders. *Compr Psychiatry*. 2012;53(5):468–479. doi: 10.1016/j.comppsych.2011.08.001
26. Lysaker PH, Roe D, Yanos PT. Toward understanding the insight paradox: internalized stigma moderates the association between insight and social functioning, hope, and self-esteem among people with schizophrenia spectrum disorders. *Schizophr Bull*. 2007;33(1):192–199. doi: 10.1093/schbul/sbl016
27. Staring AB, Van der Gaag M, Van den Berge M, Duivenvoorden HJ, Mulder CL. Stigma moderates the associations of insight with depressed mood, low self-esteem, and low quality of life in patients with schizophrenia spectrum disorders. *Schizophr Res*. 2009;115(2–3):363–369. doi: 10.1016/j.schres.2009.06.015
28. Michaels PJ, López M, Rüsch N, Corrigan PW. Constructs and concepts comprising the stigma of mental illness. *Psychol Soc Educ*. 2017;4(2):183. doi: 10.25115/psye.v4i2.490
29. Girma E, Moller-Leimkuhler AM, Dehning S, et al. Self-stigma among caregivers of people with mental illness: toward caregivers' empowerment. *J Multidiscip Healthc*. 2014;7:37–43. doi: 10.2147/JMDH.S57259
30. Asrat B, Ayenalem AE, Yimer T. Internalized Stigma among Patients with Mental Illness Attending Psychiatric Follow-Up at Dilla University Referral Hospital, Southern Ethiopia. *Psychiatry J*. 2018;2018:1987581. doi: 10.1155/2018/1987581
31. Reinka MA, Pan-Weisz B, Lawner EK, et al. Cumulative consequences of stigma: Possessing multiple concealable stigmatized identities is associated with worse quality of life. *J Appl Soc Psychol.* 2020;50:253–261. doi: 10.1111/jasp.12656
32. Thornicroft G. Most people with mental illness are not treated. *Lancet*. 2007;370(9590):807–808. doi: 10.1016/s0140-6736(07)61392-0
33. Yap MB, Reavley N, Jorm AF. Where would young people seek help for mental disorders and what stops them? Findings from an Australian national survey. *J Affect Disord*. 2013;147(1–3):255–261. doi: 10.1016/j.jad.2012.11.014
34. Gulliver A, Griffiths KM, Christensen H, et al. Internet-based interventions to promote mental health help-seeking in elite athletes: an exploratory randomized controlled trial. *J Med Internet Res*. 2012;14(3):e69. doi: 10.2196/jmir.1864
35. Girma E, Moller-Leimkuhler AM, Dehning S, et al. Self-stigma among caregivers of people with mental illness: toward caregivers' empowerment. *J Multidiscip Healthc*. 2014;7:37–43. doi: 10.2147/JMDH.S57259
36. Colton CW, Manderscheid RW. Congruencies in increased mortality rates, years of potential life lost, and causes of death among public mental health clients in eight states. *Prev Chronic Dis*. 2006;3(2):A42. PMC1563985
37. Saha S, Chant D, McGrath J. A systematic review of mortality in schizophrenia: is the differential mortality gap worsening over time? *Arch Gen Psychiatry*. 2007;64(10):1123–1131. doi: 10.1001/archpsyc.64.10.1123
38. da Silva AG, Baldacara L, Cavalcante DA, Fasanella NA, Palha AP. The Impact of Mental Illness Stigma on Psychiatric Emergencies. *Front Psychiatry*. 2020;11:573. doi: 10.3389/fpsyt.2020.00573
39. Gronholm PC, Henderson C, Deb T, Thornicroft G. Interventions to reduce discrimination and stigma: the state of the art. *Soc Psychiatry Psychiatr Epidemiol*. 2017;52(3):249–258. doi: 10.1007/s00127-017-1341-9
40. Wahl OF. Stop the Presses: Journalistic Treatment of Mental Illness. In: *Cultural Sutures.* Duke University Press;2020:55–70.
41. Sieff E. Media frames of mental illnesses: The potential impact of negative frames. *J Ment Heal*. 2009;12(3):259–269. doi: 10.1080/09638230310001182 49
42. Overton SL, Medina SL. The Stigma of Mental Illness. *J Couns Dev*. 2008;86(2):143–151. doi: 10.1002/j.1556-6678.2008.tb00491.x
43. Salter M, Byrne P. The stigma of mental illness: how you can use the media to reduce it. *Psychiatr Bull*. 2018;24(8):281–283. doi: 10.1192/pb.24.8.281

44. National Academies of Sciences, Engineering, and Medicine. *Ending Discrimination Against People with Mental and Substance Use Disorders: The Evidence for Stigma Change*. The National Academies Press; 2016. doi: 10.17226/23442
45. Griffiths KM, Carron-Arthur B, Parsons A, Reid R. Effectiveness of programs for reducing the stigma associated with mental disorders. A meta-analysis of randomized controlled trials. *World Psychiatry*. 2014;13(2):161–175. doi: 10.1002/wps.20129
46. Borschmann R, Greenberg N, Jones N, et al. Campaigns to reduce mental illness stigma in Europe: a scoping review. *Die Psychiatrie.* 2014;11:43–50.
47. Executive Summary: A Survey about Mental Health and Suicide in the United States. Accessed October 2, 2021. https://afsp.org/story/executive-summary-a-survey-about-mental-health-and-suicide-in-the-united-states
48. Ciobanu AM, Rosca T, Vladescu CT, et al. Frontal epidural empyema (Pott's puffy tumor) associated with Mycoplasma and depression. *Rom J Morphol Embryol*. 2014;55(3 Suppl):1203–1207.
49. Ciobanu AM, Lisievici MG, Coman TC, et al. Giant wing sphenoid meningioma with principal manifestation depression. *Rom J Morphol Embryol*. 2009;50(4):713–717.
50. Ciobanu AM, Popa C, Marcu M, Ciobanu CF. Psychotic depression due to giant condyloma Buschke-Lowenstein tumors. *Rom J Morphol Embryol*. 2014;55(1):189–195.
51. Sewilam AM, Watson AM, Kassem AM, et al. Suggested avenues to reduce the stigma of mental illness in the Middle East. *Int J Soc Psychiatry*. 2015;61(2):111–120. doi: 10.1177/0020764014537234

Acceptance and Commitment Therapy for Patients with a First Psychotic Episode

Применение психотерапевтического подхода «Терапия принятия и ответственности» у пациентов с первым психотическим эпизодом

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Review

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ABSTRACT

The search for the most effective methods of therapy for mental disorders is a priority for modern psychiatry. An approach to the early diagnostics and rehabilitation of patients experiencing psychotic episodes for the first time is proposed in the present article. The proposed approach is based on the combination of drug therapy and acceptance and commitment therapy (ACT) characterized by the development of the patient's psychological flexibility, rather than controlling the disease symptoms. The article describes the main processes of the ACT model: acceptance, cognitive defusion, contact with the present moment, understanding of the inner world, awareness of significant values, and the regulation of purposeful behaviour for the implementation of these values. Recommendations for different stages of treatment were also developed by specialists of the First Psychotic Episode Clinic at the Mental Health Clinic No.1 named after N.A. Alexeev. The psychological rehabilitation of patients with the use of ACT in the case of psychotic disorders with both negative and positive symptoms was elaborated. The application of acceptance and commitment therapy in the early diagnostics and treatment of patients experiencing a first psychotic episode results in fewer readmissions and improved psychosocial functioning in both inpatient and outpatient care.

АННОТАЦИЯ

Поиск наиболее эффективных методов лечения больных с психическими расстройствами имеет приоритетное значение для современной психиатрии. В статье рассматривается подход к ранней диагностике и реабилитации пациентов, впервые переживающих психотический эпизод. В основе него лежит сочетание медикаментозной терапии и психотерапевтического подхода «Терапия принятия и ответственности» (ТПО), отличительной особенностью которого является не борьба с симптомами заболевания, а развитие психологической гибкости пациента. В статье описаны основные мишени психотерапевтической работы в рамках модели ТПО: принятие, когнитивное распутывание, связь с настоящим моментом, понимание внутреннего мира, осознание значимых ценностей и регуляция целенаправленного поведения по реализации этих ценностей. Разработаны также рекомендации для разных этапов лечения в Клинике первого психотического эпизода на базе ГБУЗ «ПКБ № 1

им. Н.А. Алексеева ДЗМ». Конкретизирована психологическая реабилитация пациентов с применением ТПО при психотических расстройствах как с негативной, так и с продуктивной симптоматикой. Результатом применения ТПО в ранней диагностике и лечении пациентов с первым психотическим эпизодом является снижение количества повторных госпитализаций и улучшение психосоциального функционирования как при стационарном, так и при амбулаторном лечении.

Keywords: *acceptance and commitment therapy; schizophrenia; distress; first psychotic episode*
Ключевые слова: *терапия принятия и ответственности; шизофрения; дистресс; первый психотический эпизод*

INTRODUCTION

The first psychotic episode is considered the period with the greatest therapeutic opportunities for various primary psychotic disorders.[1,2] On the one hand, this group of patients has a higher rehabilitation potential, whilst on the other, they are the most sensitive and vulnerable in terms of stigmatization and self-stigmatization. It is known that such patients often experience difficulties in establishing close contacts with other people, finding employment, and adapting to a team.[3]

Activities aimed at restoring the social activity of patients can have a decisive impact on the maintenance of their rehabilitation potential, as well as a noticeable regression of the disease symptoms and faster recovery.[4]

The rehabilitation process for patients with a first psychotic episode is based on the principles of the biopsychosocial model of mental illness development, which also implies the implementation of psychosocial measures in addition to biological therapy. These arrangements should be aimed primarily at full or partial restoration of higher mental functions, socialization, and the patient's ability to form new capabilities, as well as the improvement of family relations, assistance in adapting to work, and educational activities.[5]

New areas of psychosocial rehabilitation have appeared in recent decades, significantly expanding the possibilities for providing care to patients with psychotic disorders, including avatar therapy,[6] acceptance and commitment therapy,[7] cognitive behavioural psychotherapy,[8] metacognitive insight therapy,[9] and neurocognitive training.[10] All these methods have proven their efficiency and are included in the treatment guidelines for mental disorders in the health systems of many countries as the first choice for psychotherapeutic work with mental disorders.[11,41]

At present, cognitive behavioural therapy (CBT) has many different approaches within the method itself. There are several areas of CBT, including dialectical behaviour therapy (DBT),[12,13] mindfulness-based cognitive therapy (MBCT),[14] and acceptance and commitment therapy (ACT).[15] These approaches use mindfulness skills and based on the concept of contextual behavioural nature of the formation and maintenance of mental disorders.[16]

BASIC PRINCIPLES AND CONCEPTS OF ACCEPTANCE AND COMMITMENT THERAPY

Acceptance and commitment therapy (ACT) is a modern and relatively young psychological model and psychotherapeutic approach developed by Stephen Hayes, Kirk Strosahl, and Kelly Wilson.[17] ACT is a form of behavioural therapy and a practical extension of functional contextualism philosophy, the theory of relational frames and development in applied behaviour analysis.[18] ACT refers to the third wave of behavioural psychotherapy. Scientists worldwide have engaged in the study of ACT for various conditions in clinical practice are paying considerable attention to this area in the modern scientific community.[19,20]

Acceptance and commitment therapy is based on five key principles:

- acceptance
- cognitive defusion
- contact with the present moment
- self as context
- values and actions aimed at implementation of the values.

These principles and their interactions are often described by the term “hexaflex.”[21] The skills formed, in accordance with the described principles, can be united under the concept of “psychological flexibility.”

There are several definitions of the concept of psychological flexibility in the literature. For example,

Kashdan and Rottenberg define psychological flexibility as "a wide range of human abilities to recognize and adapt to various situational demands:

- to shift attention or change the behavioral scenario when required for social functioning and personal development;
- to be conscious, open to the inner experience and pursue personally meaningful goals and values through consistent behavior."[22]

Levin describes psychological flexibility as follows: "instead of direct attempts to change the frequency or intensity of unpleasant experiences (i.e. thoughts, feelings, sensations), the model of psychological flexibility is focused on changing of the people's reaction to the experience itself, breaking the connection between this experience and behavior, and reorienting the existing experience towards value-significant one." The main aim of this therapy is to teach the patient to live a rich and meaningful life, accepting the discomfort that inevitably accompanies it. The focus of therapy is always to improve productivity, despite the presence of any symptoms that might cause discomfort.[23]

Unlike other cognitive behavioral approaches, ACT does not aim to remove or reduce the intensity of symptoms. Symptom reduction is often achieved as an additional result rather than as the primary aim of treatment. The development of psychological flexibility, as the main objective of ACT, includes the acquisition of the following skills:

- recognition and adaptation to situational demands
- a shift of mind states or behavioural responses
- maintenance of the balance between relevant values
- the opportunity to be aware, open, and ready to act in accordance with one's own values.

Several comprehensive treatment guidelines have been developed since the late 1990s that describe how ACT can be used to treat a variety of mental disorders.[24] Treatment with the use of these guidelines has been studied empirically and proven to be effective for a variety of clinical conditions:

- addictions
- depressive and anxiety disorders
- psychotic disorders
- chronic pain
- stress
- eating disorders.[16]

ACT TECHNIQUES FOR TREATMENT OF THE FIRST PSYCHOTIC EPISODE

Five main processes that are crucial to an individual changing are distinguished within ACT.[25]

Acceptance

The acceptance process describes the patient's willingness to allow the internal processes (feelings, emotions, thoughts) to be what they are, without any desire to change or influence them. For example, a patient with auditory hallucinations may begin to react to them (answer, obey the voice, try not to listen to the voice) in an attempt to regulate and control this unpleasant experience. The acceptance process is presented to patients as an alternative to attempts to control the positive symptoms and suggests going through unpleasant thoughts or emotions (listening to voices, observing anxious thoughts) without taking any action.

After termination of the acute psychotic state, patients may also face different painful experiences. Residual psychotic symptoms, post-psychotic depression, shame due to stigmatization, and somatic side effects of medication can all force the patient to use the experiential avoidance strategy (retire into oneself, break social ties, ignore symptoms of the disease, or, on the contrary, focus too much on them, use psychoactive substances, etc.), which only makes the discomfort worse.

The main purpose of the "acceptance" process is to change the patient's attitude towards a particular symptom, rather than an attempt to reduce the intensity of its manifestation. For this purpose to this end, the method of "creative hopelessness" is applied — a psychotherapeutic technique enabling the patient to give up their non-stop attempts to avoid unpleasant sensations and thoughts, and making it possible to withstand painful symptoms.[26]

Cognitive defusion

The term "cognitive fusion" refers to a person's tendency to merge with their thoughts in such a way that they take their content for truth or are immersed in them to such an extent that they are not capable of an alternative perception of the surrounding or inner realities.[27]

An example would be a person's inner voice telling them that they are crazy, dangerous, or uncontrollable. In this case, during the process of cognitive fusion, such a person will attach great importance to the content

of these thoughts and arrange all reactions and behaviour based on them.

Cognitive defusion is a skill enabling a person to detach from the content of thoughts in order to be able to form a variety of mental reactions to what is happening.

There are two categories of cognitive defusion exercises. The first category is distancing and observation of the content of thoughts, enabling a person to avoid delving into the content of thoughts and instead record the circumstances of their appearance (under what circumstances they appear and how often). The second category is aimed at deliteralization of the language (departure from literality of the language) and enables destruction of the processes contributing to cognitive fusion, such as useless investigation of the reasons or meaningless and unnecessary self-assessment.[28]

Contact with the present moment

The ability to be "here and now" is a skill that enables the individual to focus attention purposefully on internal and external events at the present moment, without commentary on or evaluation of what is happening. Due to this skill, conditions for contact with thoughts, feelings, and sensations are created, and the reaction to their content is attenuated.[29]

There are special exercises for training the skill of contact with the present moment. A patient is asked to select an object of attention, and make an effort to hold attention on that object for a short period of time. For example, a patient is asked to notice 10–15 objects in the room in order to focus on external sourses of information. In order to concentrate on internal processes, a patient is asked to feel five smells and listen to five sounds.[21]

Self as context

Behavioural responses often result from the self-concept; a person identifies themselves with the role that they are in. For example, a person with a mental illness might say "I'm crazy." This statement means that this person fully identifies themselves with the experience of living with the disease and does not remember any good or significant moments in their life when they were not ill.

The aim of acceptance and commitment therapy is to form an observing part of the personality that perceives the inner and outer world separately from one's thoughts, feelings, memories, physical sensations, and roles of a person. Observing attitude exercises enables the individual to create the experience of safe contact with uncomfortable and unwanted inner feelings.[30]

Values and actions aimed at implementation of values

The term "values" means the selected areas of activities defined by a person as significant and important to them.[30] Values determine what a person wants to be, and what kind of life they want to live.

Within the framework of the ACT model, contact with values is one of the most important aspects of psychological flexibility.[27] Patients experiencing a first psychotic episode are going through a painful experience, and can lose their connection with values and waste their resources on coping with these painful feelings. Finally, a patient may believe that their value-oriented behaviour is possible only upon improvement of their condition, which is often impossible due to mental illness implying a certain level of discomfort.[31]

Acceptance and commitment therapy teaches patients to restore their contact with values and to arrange their behavioral in accordance with them, despite the presence of any discomfort.

ACT uses the entire range of behavioural possibilities in working with value-oriented actions:

- planning
- keeping a diary of productive actions
- functional analysis of possible failures
- motivational interventions.[32]

Thus, the six processes listed above are the key components for the development of psychological flexibility in a person suffering from any mental illness.

Researchers suggest that psychological inflexibility is one of the factors reducing the routine functioning ability of people with mental disorders.[33] Studies show that psychological inflexibility is a contributing factor to distress and may be associated with the poor functioning of people with psychotic experiences.[27] ACT considers the problem of distress associated with psychotic experiences as a consequence of psychological inflexibility, when a person goes through a life situation in a limited manner due to continuous and excessive avoidance, too literal an interpretation of their own experience, a failure to understand where to move in life, and/or when the person has surrendered and experiences difficulties in taking any actions with a long-

term perspective. The content of experiences (in the case of hallucinations) or painful inferences (delusions) makes it necessary to avoid or control them, thus increasing the effect of the symptom itself.

In the treatment of psychotic disorders, ACT helps to develop an acceptance technique that patients can apply upon the occurrence of any psychotic experiences, and assists in the development of a specific style of attitude towards uncontrollable events. ACT encourages a person to switch from the repression and control strategy towards the achievement of contact with their feelings and experiences. As far as coping with psychotic symptoms is concerned, ACT encourages a patient to direct their behaviour to their own chosen values instead of merging with painful experiences, even if painful feelings remain.

Thus, the purpose of the application of ACT is not to confront painful thoughts or sensations, but rather to teach the skills of acceptance, keeping in touch with the present moment, and understanding unwanted symptoms and manifestations as a part of life and not the reason to pause all life in order to fight them.[34]

ACT EFFICIENCY EVIDENCE

The effect of ACT on patient readmission was investigated during an early study.[35] The application of ACT resulted in a 50% increase in the intervals between hospitalizations (22 days longer) in comparison with the treatment as usual group (drug therapy and psychoeducation). A later study performed by Gaudiano and Herbert in 2006 showed an improvement of only 38%.[8] In order to eliminate bias, the researchers additionally tested the participants involved in the study, which showed that the group of patients receiving ACT included patients with both high and low rehospitalization rates.[36]

In addition, 50% of the patients receiving ACT significantly improved their Brief Psychiatric Rating Scale (BPRS) scores, compared to 7% in the control group.[35] Similar results were obtained in remove the course of another study conducted in 2013.[37]

Recent retrospective studies have added supplementary data to these results. Tyrberg et al. used the rehospitalization rates within four months of discharge as the main criterion for their efficiency assessment. They also found that patients receiving ACT in addition to the basic treatment demonstrated a reduction in rehospitalization rates. Drug therapy persistence and the influence of this factor on treatment outcomes were also investigated. There were no significant differences between the groups, indicating that a higher persistence level did not explain the reduction in the readmission rates.[38]

Two studies were devoted to a review of patients' self-reports on the degree of belief in the content of positive symptoms.[35,36] Only one of them confirmed a significant decrease in confidence with regard to the veracity of the content of these symptoms after treatment.[36] In addition, according to the study by Gaudiano and Herbert,[35] distress was also considerably reduced after ACT, but this change was not significant according to the study by Bach and Hayes.[36] The frequency of symptom reporting was measured and was considerably higher in the group of patients receiving ACT.[36] The authors note that this is expected within the framework of the ACT model, since this approach normalizes the psychotic experience while the traditional view towards the treatment of schizophrenia spectrum disorders interprets such phenomena as a sign of deterioration or even disease recurrence. The researchers point out the fact that the number of symptoms most likely remains the same, but due to the normalization of the psychotic experience and the activities to reduce its avoidance, it becomes easier for patients to track the symptoms without fear of reporting them, thus helping to increase treatment persistence and to prevent recurrence. More recent studies using data consolidated from the previous ones have shown that the degree of belief in the content of hallucinations and delusions directly affects both the severity of the distress associated with a psychotic experience, and the duration of remission and a reduction in the number of hospital readmissions.[39]

These results are complemented by Gaudiano et al., who found that despite the permanent frequency of reports on hallucinations, 55% of patients receiving ACT no longer met the criteria for post-psychotic depression; this also significantly affects the reduction of distress arising from the presence of psychotic symptoms.[37] The study by White showed that the condition of patients from the comparison group not receiving ACT was still meeting the criteria for post-psychotic depressive disorder during the three-month follow-up period, while in the group of patients receiving ACT this figure was only 20%.[40]

The effect of ACT on psychosocial functioning and mood swings has also been examined. The results

of the study by Johns et al. showed improvements in both parameters.[41] A significantly lower percentage of patients in the ACT group met the criteria for post-psychotic depressive disorder as compared to the control group at all stages of follow-up (during and after treatment).[36,42] White et al. found that there were also considerably fewer complaints among the patients receiving ACT. Subsequent to the results of observation within three to nine months after treatment, all studies confirm sustainable improvement in functioning and emotional status; these parameters were much better than in the associated control groups.[40]

LIMITATIONS OF AVAILABLE RESEARCH AND PROSPECTS FOR FURTHER RESEARCH

Five of the 13 studies included in the most relevant systematic review to date contain a reanalysis of the existing data as well as overlapping data, i.e., no new material has been collected in these studies, meaning that they are based either on the data from the follow-up period, or the existing material analysed via alternative statistical methods. It is important to note that the data from more recent studies have confirmed the results of the previous ones. The follow-up period after treatment ranged from three months to one year.[43] Thus, there is a lack of new data meeting the most stringent criteria for research, which undoubtedly justifies the need for further and longer observations to assess the effectiveness of ACT in the longer term.

Criticism of the available studies mainly focuses on the small sample sizes and significant differences in the number of subjects from study to study, ranging from 120 to 14.[37,44] In addition, a certain number of participants dropped out of certain studies, subsequently having a significant impact on sample sizes that were already small.[45] The heterogeneity of the scales used by the researchers is also noted. In the various studies by Gaudiano et al., the parameters used for assessment of the treatment outcomes differ,[35-37,41] making it difficult to cross-check the available data for their assessment and analysis in meta-analytical reviews.[43]

In the studies reviewed, ACT has been used in various forms, for both a short term of two to four sessions,[31,32,41] and for a longer term of 10–24 sessions.[21,35,36,42]

Due to these objective limitations, the aim of future research should be the expansion of the sampled population under study and the establishment of unified methodological instruments in both the assessment of the state and the applied statistical methods.

PRACTICAL EXPERIENCE OF USING ACT FOR PATIENTS EXPERIENCING A FIRST PSYCHOTIC EPISODE IN RUSSIA

Since 2017, ACT protocols were adapted and used in the First Psychotic Episode Clinic at Mental Health Clinic No.1, named after N.A. Alexeev, as a part of treatment protocol for patients experiencing their first psychotic episode.[46]

The ACT programme is used in an inpatient department in the format of individual consultations, in the day hospital and outpatient departments of the Clinic, and is in the form of a group therapy format (the name of the programme "Training on the development of emotional self-regulation skills").

Further, we describe the format and content of the "Training for the development of emotional self-regulation skills" in the day hospital. This programme was formed on the basis of existing programmes developed in foreign clinics for treatment of patients experiencing their first psychotic episode.[34,46]

The training consists of four sessions, with an additional session to include new participants. The group is semi-open and includes up to 12 people (an even number of participants is important, since many exercises are paired). Each session lasts one hour, including a "warm-up" at the beginning and discussion of homework at the end of the session; sessions are held twice a week.

The training uses the methods of group discussion, role play, as well as the presentation of theoretical material in the form of interactive lectures. Theoretical interactive mini-lectures are alternated with practical training of the necessary skills, namely to stay in the present moment, to notice the events of one's inner life, separation, mindfulness, neutral self-observation, and implementation of value-oriented actions.

Session 1. Skills of being in the observer position

During this training the theoretical foundations of the concept of "psychological flexibility" are studied. It is understood as "a wide range of human capabilities — to recognize and adjust to the requirements of the situation; switch attention or change the scenario of behavior when it is required for social functioning and personal development; be conscious, open to inner

experience and realize personally meaningful goals and values through consistent behavior."

Non-constructive ways of interacting with negative thoughts and feelings are studied; for instance, fusion and avoiding fighting. The patients also train the experience of interacting with the new position of an observer. Having taken the position of an observer, the patient can distance themselves from negative thoughts and feelings and then begin to work with them.

Session 2. Learning to untangle from negative thoughts and their content

This training discusses the effect of negative thoughts and feelings on an individual. Exercises are conducted with patients to separate problems that can be influenced (wash dishes, clean the apartment) and which cannot be influenced (crisis, migration, war). If external circumstances are beyond the patient's control and it is impossible to solve the problem constructively, then the patient should focus on internal work. The patient is offered the following algorithm of actions: notice a negative thought or emotion; remind yourself that this is just a thought, not a reality; to separate oneself from an unpleasant thought with the help of the proposed techniques, reducing its significance, perceiving it in a different way (for example, as a sound). The patient is invited to try to control thoughts and feelings in order to understand that it is impossible. A facilitator leads the patient to the conclusion that it is only possible to control reactions to thoughts and feelings and behavior, but not thoughts and feelings themselves. The observer position skill allows the creation of distance from, and the reduction of the negative pressure on the psyche, which in turn allows the problem to be solved.

Session 3. Working with self-criticism and self-support

The purpose of this training is to educate patients about the origin and function of complex experiences such as shame and self-criticism, how these experiences affect the emergence of anxious and depressive thoughts in the individual, and provoke self-stigmatization in relation to mental illness. With the help of group exercises, internal ideas are formed that an individual's negative self-perceptions entail consequences such as unwillingness to comply with drug therapy and more frequent hospitalizations. Then, together with the patients, the image of the criticizing inner voice is examined, and then transformed to an assistant in solving difficult problems and problems associated with the disease. Thus, a new image of the internal assistant is created, and algorithms for interaction with its supporting role are developed.

Session 4. Working with values

The group examines the concept of values, how they are formed, and where they come from. Further, a classification of values is created and those that can be implemented at this stage of the treatment (hospital, day hospital, outpatient clinic) are identified. It is important to focus patients' attention on the fact that while on treatment, they support good health, which is one of their main values. Then, a set of actions is created to realize the selected value in the "here and now" mode. Also, possible obstacles are determined, negative thoughts and emotions that can interfere with the implementation of what the patient has planned are identified. As a homework assignment, patients are asked to take actions every day to realize one of their chosen values. If negative thoughts and emotions get in the way, patients are encouraged to work with them using the exercises they learned during the training sessions.

At the outpatient treatment, the patient continues to attend the "Training for the development of emotional self-regulation skills" program. However, the format of this group is one of supportive follow-up. The group becomes open and patients can visit for an unlimited time.

Thus, at all stages of treatment at the First Psychotic Episode Clinic, patients learn to form and develop self-observation skills; develop skills of flexible response to emerging undesirable, unpleasant events of inner life (negative emotions, thoughts, beliefs, voices and hallucinations, physical sensations); expand their behavioral repertoire; form the motivation to study and follow those areas of life that are consistent with the patient's personal values; and improve their quality of life by focusing attention on positive, useful and meaningful experiences.

CONCLUSION

An analysis of the research devoted to the problem of the first psychotic episode and the state of psychiatric care for patients experiencing their first psychotic episode shows that this subject area is an important field of research in psychiatry and psychotherapy. The initial period of the

disease forms and predetermines its long-term prognosis and therefore in many countries this category of patients forms a separate group for which special therapeutic approaches have been developed. In Russia, the First Psychotic Episode Programme, based on the principle of step-by-step polyprofessional psychiatric care with an emphasis on outpatient care, early involvement of psychosocial therapy, and the use of new generation antipsychotics for the relief of psychotic symptoms and subsequent supportive therapy, has also been developed and tested.

Meta-analysis of the data has shown that psychological inflexibility is a contributing factor to level of distress and may be associated with the poor functioning of people with psychotic experiences. ACT considers the problem of distress associated with the psychotic experience as a lack of psychological flexibility when a person goes through any life situation using a limited repertoire of reactions. The results of randomized controlled studies show that ACT is effective at reducing the distress related to both productive symptoms and associated behavior. Moreover, the efficiency of ACT is sustainable both for the individual and the group therapy formats, in the brief therapy format, ranging from four to 24 meetings, and in inpatient and outpatient treatment. The results also indicate a decrease in the readmission rates and the improvement of patients' psychosocial functioning.

Thus, the application of acceptance and commitment therapy is justified for use within the framework of psychosocial rehabilitation for patients suffering from chronic mental disorders and patients experiencing their first psychotic episode.

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References

1. World Health Organization. International classification of diseases for mortality and morbidity statistics (11th Revision). Accessed September 7, 2021. https://icd.who.int/browse11/l-m/en
2. Vujnovic M, Manukhina O, Reed GM, Theodorakis PN, Fountoulakis KN. ICD-11 Revision of Mental Disorders: the Global Standard for Health Data, Clinical Documentation, and Statistical Aggregation. *Consortium Psychiatricum*. 2021;2(2):3–6. doi: 10.17816/cp74
3. Neznanov NG, Shmukler AB, Kostyuk GP, Sofronov AG. Pervyi psikhoticheskii epizod: epidemiologicheskie aspekty organizatsii pomoshchi. *Social and clinical psychiatry*. 2018;28(3):5–11.
4. Gaudiano BA, Miller IW, Herbert JD. The treatment of psychotic major depression: is there a role for adjunctive psychotherapy? *Psychother Psychosom*. 2007;76(5):271–277. doi: 10.1159/000104703
5. Shashkova NG, Gazha AK. Pervyi psikhoticheskii epizod: osobennosti okazaniya psikhiatricheskoi pomoshchi bol'nym v sovremennykh usloviyakh. *Social and clinical psychiatry*. 2020;30(2):80–90.
6. Craig TK, Rus-Calafell M, Ward T, et al. AVATAR therapy for auditory verbal hallucinations in people with psychosis: a single-blind, randomised controlled trial. *Lancet Psychiatry*. 2018;5(1):31–40. doi: 10.1016/S2215-0366(17)30427-3

7. Bach P, Gaudiano BA, Hayes SC, Herbert JD. Acceptance and commitment therapy for psychosis: intent to treat, hospitalization outcome and mediation by believability. *Psychosis*. 2013;5(2):166–174. doi: 10.1080/17522439.2012.671349
8. Gaudiano BA, Herbert JD. Believability of Hallucinations as a Potential Mediator of Their Frequency and Associated Distress in Psychotic Inpatients. *Behavioural and Cognitive Psychotherapy*. 2006;34(04):497. doi: 10.1017/s1352465806003080
9. Moritz S, Klein JP, Lysaker PH, Mehl S. Metacognitive and cognitive-behavioral interventions for psychosis: new developments. *Dialogues Clin Neurosci*. 2019;21(3):309–317. doi: 10.31887/DCNS.2019.21.3/smoritz
10. Zaitseva YuS, Korsakova NK, Gurovich IYa. Neirokognitivnoe funktsionirovanie na nachal'nykh etapakh shizofrenii i kognitivnaya remediatsiya. *Social and clinical psychiatry*. 2013;23(4):76–87.
11. Maggie M. *The Dialectical Behavior Therapy Skills Workbook for Psychosis: Manage Your Emotions, Reduce Symptoms, and Get Back to Your Life.* New Harbinger Publications; 2021.
12. Kuckertz JM, Silverman AL, Bullis JR, Bjorgvinsson T, Beard C. Awareness of and attitudes toward CBT, DBT, and ACT in an acute psychiatric sample. *J Clin Psychol*. 2020;76(4):749–768. doi: 10.1002/jclp.22908
13. Holbrook AM, Hunt SR, See MR. Implementation of Dialectical Behavior Therapy in Residential Treatment Programs: A Process Evaluation Model for a Community-Based Agency. *Community Ment Health J*. 2018;54(7):921–929. doi: 10.1007/s10597-017-0224-6
14. Goldberg SB, Tucker RP, Greene PA, et al. Mindfulness-based interventions for psychiatric disorders: A systematic review and meta-analysis. *Clin Psychol Rev*. 2018;59:52–60. doi: 10.1016/j.cpr.2017.10.011
15. Villatte JL, Vilardaga R, Villatte M, et al. Acceptance and Commitment Therapy modules: Differential impact on treatment processes and outcomes. *Behav Res Ther*. 2016;77:52–61. doi: 10.1016/j.brat.2015.12.001
16. Ducasse D, Fond G. Acceptance and commitment therapy. Article in French. *Encephale*. 2015;41(1):1–9. doi: 10.1016/j.encep.2013.04.017
17. Hayes SC, Strosahl K, Wilson KG. *Acceptance and Commitment Therapy: An experiential approach to behavior change.* Guilford Press; 1999.
18. Feliu-Soler A, Montesinos F, Gutierrez-Martinez O, et al. Current status of acceptance and commitment therapy for chronic pain: a narrative review. *J Pain Res*. 2018;11:2145–2159. doi: 10.2147/JPR.S144631
19. Shawyer F, Farhall J, Mackinnon A, et al. A randomised controlled trial of acceptance-based cognitive behavioural therapy for command hallucinations in psychotic disorders. *Behav Res Ther*. 2012;50(2):110–121. doi: 10.1016/j.brat.2011.11.007
20. Fung K. Acceptance and Commitment Therapy: Western adoption of Buddhist tenets? *Transcult Psychiatry*. 2015;52(4):561–576. doi: 10.1177/1363461514537544
21. Hayes SC, Luoma JB, Bond FW, Masuda A, Lillis J. Acceptance and commitment therapy: model, processes and outcomes. *Behav Res Ther*. 2006;44(1):1–25. doi: 10.1016/j.brat.2005.06.006
22. Kashdan TB, Rottenberg J. Psychological flexibility as a fundamental aspect of health. *Clin Psychol Rev*. 2010;30(7): 865–878. doi: 10.1016/j.cpr.2010.03.001
23. Levin ME, Hildebrandt MJ, Lillis J, Hayes SC. The impact of treatment components suggested by the psychological flexibility model: a meta-analysis of laboratory-based component studies. *Behav Ther*. 2012;43(4):741–756. doi: 10.1016/j.beth.2012.05.003
24. McKay M, Greenberg MJ, Fanning P. *The ACT Workbook for Depression and Shame: Overcome Thoughts of Defectiveness and Increase Well-Being Using Acceptance and Commitment Therapy*. New Harbinger Publications; 2020.
25. Hayes SC, Strosahl K, Wilson KG. Acceptance and Commitment Therapy: An experiential approach to behavior change. Guilford Press; 1999.
26. Lillis J, Hayes SC. Applying acceptance, mindfulness, and values to the reduction of prejudice: a pilot study. *Behav Modif*. 2007;31(4):389–411. doi: 10.1177/0145445506298413
27. Dindo L, Van Liew JR, Arch JJ. Acceptance and Commitment Therapy: A Transdiagnostic Behavioral Intervention for Mental Health and Medical Conditions. *Neurotherapeutics*. 2017;14(3):546–553. doi: 10.1007/s13311-017-0521-3
28. Luoma JB, Hayes SC. Cognitive defusion. In: O' Donohue W, Fisher J, Hayes SC, eds. *Cognitive behavior therapy: Applying empirically supported techniques in your practice*. John Wiley & Sons; 2003:37–73.
29. Wielgosz J, Goldberg SB, Kral TRA, Dunne JD, Davidson RJ. Mindfulness Meditation and Psychopathology. *Annu Rev Clin Psychol*. 2019;15:285–316. doi: 10.1146/annurev-clinpsy-021815-093423
30. Hayes S, Strosahl K, Wilson K. *Acceptance and commitment therapy: the process and practice of mindful change*. Guilford Press; 2011.
31. Bora E, Yalincetin B, Akdede BB, Alptekin K. Duration of untreated psychosis and neurocognition in first-episode psychosis: A meta-analysis. *Schizophr Res*. 2018;193:3–10. doi: 10.1016/j.schres.2017.06.021
32. Luoma JB, Hayes SC, Walser RD. *Learning ACT: An Acceptance and Commitment Therapy skills-training manual for therapists*. Harbinger Publications; 2007.
33. JG AT, Davis ML, Morina N, et al. A meta-analysis of the efficacy of acceptance and commitment therapy for clinically relevant mental and physical health problems. *Psychother Psychosom*. 2015;84(1):30–36. doi: 10.1159/000365764
34. O'Donoghue EK, Morris EMJ, Oliver JE, Johns LC. *ACT for psychosis recovery: A practical manual for group-based interventions using acceptance and commitment therapy*. Context Press/New Harbinger Publications; 2018.
35. Gaudiano BA, Herbert JD. Acute treatment of inpatients with psychotic symptoms using Acceptance and Commitment Therapy: pilot results. *Behav Res Ther*. 2006;44(3):415–437. doi: 10.1016/j.brat.2005.02.007
36. Bach P, Hayes SC. The use of acceptance and commitment therapy to prevent the rehospitalization of psychotic patients: a randomized controlled trial. *J Consult Clin Psychol*. 2002;70(5):1129–1139. doi: 10.1037//0022-006x.70.5.1129
37. Gaudiano BA, Nowlan K, Brown LA, Epstein-Lubow G, Miller IW. An open trial of a new acceptance-based behavioral treatment for major depression with psychotic features. *Behav Modif*. 2013;37(3):324–355. doi: 10.1177/0145445512465173
38. Tyrberg MJ, Carlbring P, Lundgren T. Brief acceptance and commitment therapy for psychotic inpatients: A randomized controlled feasibility trial in Sweden. *Nordic Psychology*. 2016;69(2):110–125. doi: 10.1080/19012276.2016.1198271
39. Gaudiano BA, Herbert JD, Hayes SC. Is it the symptom or the relation to it? Investigating potential mediators of change in acceptance and commitment therapy for psychosis. *Behav Ther*. 2010;41(4):543–554. doi: 10.1016/j.beth.2010.03.001

40. White R, Gumley A, McTaggart J, et al. A feasibility study of Acceptance and Commitment Therapy for emotional dysfunction following psychosis. *Behav Res Ther*. 2011;49(12):901–907. doi: 10.1016/j.brat.2011.09.003
41. Johns LC, Oliver JE, Khondoker M, et al. The feasibility and acceptability of a brief Acceptance and Commitment Therapy (ACT) group intervention for people with psychosis: The 'ACT for life' study. *J Behav Ther Exp Psychiatry*. 2016;50:257–263. doi: 10.1016/j.jbtep.2015.10.001
42. Gaudiano BA, Busch AM, Wenze SJ, et al. Acceptance-based Behavior Therapy for Depression With Psychosis: Results From a Pilot Feasibility Randomized Controlled Trial. *J Psychiatr Pract*. 2015;21(5):320–333. doi: 10.1097/PRA.0000000000000092
43. Wakefield S, Roebuck S, Boyden P. The evidence base of Acceptance and Commitment Therapy (ACT) in psychosis: A systematic review. *Journal of Contextual Behavioral Science*. 2018;10:1–13. doi: 10.1016/j.jcbs.2018.07.001
44. Bach P, Gaudiano BA, Hayes SC, Herbert JD. Acceptance and commitment therapy for psychosis: intent to treat, hospitalization outcome and mediation by believability. *Psychosis*. 2013;5(2):166–174. doi: 10.1080/17522439.2012.671349
45. Gray R, Shrestha M, Brown E. Acceptance- and mindfulness-based interventions for persons with psychosis: Potential errors in reported meta-analyses. Schizophr Res. 2020 Aug;222:522. doi: 10.1016/j.schres.2020.05.021. PMID: 32444203.
46. Oliver J, Morris E, Johns L, Byrne M. ACT For Life Group Intervention for Psychosis Manual (2011). Accesed September 7, 2021. https://contextualscience.org/quotact_for_lifequot_group_intervention_for_psycho

Community-Based Psychiatric Services in Sri Lanka: a Model by WHO in the Making

Территориальные службы психиатрической помощи в Шри-Ланке: модель ВОЗ в действии

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Short Communication

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ABSTRACT

Sri Lanka is a lower middle-income, small island nation in the Indian Ocean, with a multi-ethnic population of 22 million. The healthcare system of the country is well established and relatively advanced, the delivery of which is free to the consumer. The health indicators of the country are impressive compared to regional figures. Psychiatric care in Sri Lanka has witnessed a rapid development over the last four decades, as the care model transformed from an asylum-based model, established during the British colonial times, to a district-wise hospital-based, care delivery model. Gradually, the teams that provided inpatient and outpatient services at the hospitals also started to provide community-based care. The newly added community-based services include outreach clinics, residential intermediate rehabilitation centres, home-based care, community resource/ support centres and telephone help lines. There is no or very little funding dedicated to community-based care services. The teams that deliver community services are funded, mostly indirectly, by the state health authorities. This is so, as these community teams are essentially the same psychiatry teams that are based at the hospitals, which are funded and run by the state health authorities. This lack of separation of the community and hospital teams without separate and dedicated funding is an impediment to service development, which needs to be addressed. However, paradoxically, this also constitutes an advantage, as the provision of care delivery from the hospital to the community is continuous, since the same team provides both hospital- and community-based care. In addition to the essential mental healthcare provision in the community with this basic infrastructure, each community service has improvised and adapted the utilization

of other resources available to them, both formally as well as informally, to compensate for their financial and human resource limitations. These other resources are the community officials and the community services of the non-health sectors of the government, mainly the civil administration. Although sustainability may be questionable when services involve informal resources from the non-health sectors, these have so far proven useful and effective in a resource-poor environment, as they bring the community and various sectors together to facilitate services to support their own community.

АННОТАЦИЯ

Шри-Ланка представляет собой небольшое островное государство в Индийском океане с доходами ниже среднего уровня и многонациональным населением в количестве 22 миллионов. Система здравоохранения в этой стране является устойчивой и относительно развитой, медицинские услуги предоставляются потребителям бесплатно. Показатели здоровья в стране являются впечатляющими в сравнении с региональными данными. Службы психиатрической помощи в Шри-Ланке быстро развивались в течение последних сорока лет, поскольку произошла смена модели психиатрической помощи: от модели на основе психиатрических лечебниц, сложившейся во времена, когда страна была колонией Британии, к модели оказания медицинских услуг на базе районных клиник. Постепенно группы специалистов, которые обеспечивали стационарное и амбулаторное лечение в клиниках, также стали оказывать медицинские услуги на территориальной основе. Новые дополнительные территориальные службы включают в себя выездные медпункты, центры промежуточной реабилитации с постоянным проживанием пациентов, уход на дому, территориальные информационные центры и центры поддержки, а также телефонные службы помощи. Специализированное финансирование территориальных медицинских услуг является очень скудным или вообще отсутствует. Финансирование групп, обеспечивающих функционирование территориальных служб, осуществляется государственными органами здравоохранения, в основном, косвенно. Это связано с тем, что такие территориальные службы, по сути, представляют собой те же службы психиатрической помощи на базе больниц, которые финансируются и управляются государственными органами здравоохранения. Отсутствие разграничения между территориальными и больничными службами и отдельного специализированного финансирования препятствует развитию таких служб, и эта проблема требует решения. Однако парадоксальным образом данная ситуация также является преимуществом, поскольку предоставление медицинских услуг на базе больниц и на территориальной основе осуществляется без перерывов, так как данные услуги оказывает одна и та же группа специалистов. Помимо оказания необходимой психиатрической помощи на территориальной основе с использованием такой базовой инфраструктуры, каждая территориальная служба приспособилась пользоваться другими доступными ресурсами, как официально, так и неофициально, чтобы компенсировать ограниченность финансовых и кадровых ресурсов. Такие ресурсы включают в себя общинных должностных лиц и территориальные правительственные службы, не связанные со здравоохранением (в основном, гражданскую администрацию). Хотя в случае привлечения неофициальных ресурсов из секторов, не связанных со здравоохранением, для оказания медицинских услуг устойчивость системы в долгосрочной перспективе вызывает сомнения, на данный момент в условиях нехватки ресурсов такая практика показала свою эффективность, поскольку она объединяет общество и различные секторы для упрощения предоставления услуг в целях поддержки региона.

Keywords: *community psychiatry; community mental health; service development; Sri Lanka; service delivery model*
Ключевые слова: *территориальная психиатрия; территориальные службы психиатрической помощи; Шри-Ланка; модель предоставления услуг*

INTRODUCTION

Sri Lanka is an island nation in the Indian Ocean, separated from the Indian peninsular by the Palk Strait. It has a total land area of 65,610 km^2 and the capital city is Colombo.[1]

A number of different ethnicities live together in the country with the majority being Sinhalese (74.9%) while Tamils, Muslims and other minorities make up the rest of the population.[2] The mid-year population of Sri Lanka in 2019 was 21.803 million with an annual growth rate of 0.62%. There are 93.9 males for every 100 females and the median age of the population is 31 years.[3] Sri Lanka has an ageing population, as in most other countries, with the Ageing Index (ratio of 60 years and over population to 0–14 year population) increasing from 18.8 percent in 1981 to 48.8 percent in 2019.[3] The population density is 348 per km^2 but over half of the population is concentrated in the Western, Central and Southern provinces, which when combined, cover less than a quarter of the total land area of the country.[2]

The World Bank has designated Sri Lanka a lower middle-income country. The total government health expenditure as a percentage of government expenditure in 2018 was 8.28%, which was above the average for South Asia (3.57%)[4] and as a percentage of gross domestic product in 2018 was 1.54%, which was higher than the regional average (0.95%).[5]

THE HISTORY AND EVOLUTION OF HEALTH SYSTEMS IN SRI LANKA

The healthcare system in Sri Lanka has evolved over 2000 years and has been influenced by many intrinsic and extrinsic factors.

Even around 543BC, when Sri Lankan recorded history begins, there are records of a system of hospitals, environmental sanitation and other related services during the reigns of the ancient kings. Traditional medical practices were a confluence of native medicinal practices known as "Deshiya Chikitsa", Ayurveda and Siddhi medicine (originating from India) and Arabic Unani medicine.[6]

Western medicine was introduced to Sri Lanka, then known as Ceylon, by the Portuguese who invaded the coastal areas of the country in 1505. The Portuguese and thereafter the Dutch, who displaced them, established a few hospitals in the coastal belt of Sri Lanka, mainly to treat their own soldiers. When the English invaded the country in 1876, bringing the entire nation under its rule in 1815, they further expanded the services which were already established. In 1859, the Civil Medical Department was created, which primarily provided services for the care of the sick, while a sanitary branch of the Civil Medical Department, which was responsible for environmental sanitation and prevention of communicable diseases, was established in 1915.[7]

Due to the influence of nationalist forces, Ceylon gained independence from British colonial rule in 1948, and in 1972 it became the Democratic Socialist Republic of Sri Lanka.[8] After gaining independence, Sri Lanka offered free universal healthcare to its citizens and over the next 70 years the country has achieved a relatively good level of healthcare, despite being a lower middle-income country.[9]

Listed below in Table 1 are the key socioeconomic and health expenditure indicators, while Table 2 shows selected health outcome indicators for Sri Lanka and a few other selected countries in the region (Table 1 and Table 2).

Currently allopathic medicine caters for the majority of the health needs of the people but this is heavily supplemented by Ayurvedic medicine, and to a lesser extent by Unani, Siddhi acupuncture and homeopathic systems. These traditional methods are practiced mostly in the private sector.[9]

ALLOPATHIC MEDICINE SYSTEM

This is delivered both by the government and the private providers and includes promotive, curative, preventive and rehabilitative services.[11]

The Ministry of Health (Central Government) is primarily responsible for the provision of comprehensive health services in the public sector and delivers its services through the Department of Health Services, headed by the Director General of Health Services.[10]

It is mainly responsible for setting policy guidelines, training health personnel, managing teaching and specialized medical institutions and the bulk purchase of medical requisites.

The establishment of provincial councils following the 13th amendment to the constitution in 1987 was a major reform, as it led to the devolution of the provision of healthcare to the provincial councils, which now have ultimate responsibility for the provision of healthcare in the provinces.[10]

Table 1. Key socioeconomic indicators and health expenditure of selected countries in the region

Country	Sri Lanka	Bangladesh	India	Pakistan	Malaysia	Thailand	Vietnam
Population in millions (2020)	21.92	164.70	1380	220.90	32.36	69.80	97.34
GNI per capita, Atlas method, current US$ (2020)	3721	2010	1900	1280	10580	7050	2660
CHE as a percentage of GDP (2018)	3.8	2.3	3.5	3.2	3.8	3.8	5.9
CHE per capita Int $ (2018)	516.9	109.6	275.1	178.2	1193.9	722.7	440.2
Domestic general government health expenditure as a percentage of CHE (2018)	8.3	3	3.4	5.3	8.5	15	9.3
Literacy rate, adult total (% of people ages 15 and above)	91.7	73.9	74.4	59.1 (2017)	94.9	93.8	95
Rural population (% of total population)	81.3	61.8	65.1	62.8	22.8	48.6	62.7
Hospital beds (per 1,000 people) 2017	4.2	0.8 (2016)	0.5	0.6	1.9	-	-
Physicians (per 1,000 people) 2018	1.0	0.6	0.9	1.0	1.5 (2015)	0.8	0.8 (2016)
Nurses and midwives (per 1,000 people) 2018	2.2	0.4	1.7	0.7	3.5 (2017)	2.8	1.4 (2016)

GNI — Gross National Income; CHE — Current Health Expenditure, GDP; Gross Domestic Product; Int $ — International dollars

Source: World Bank Open Data | Data [Internet]. [cited 2021 Aug 19]. Available from: https://data.worldbank.org/

Table 2. Selected health outcome indicators of selected countries

Country	Sri Lanka	Bangladesh	India	Pakistan	Malaysia	Thailand	Vietnam
Life expectancy at birth, total (years) 2019	77.0	72.6	69.7	67.3	76.2	77.2	75.4
Maternal mortality ratio (modeled estimate, per 100,000 live births) 2017	36	173	145	140	29	37	43
Mortality rate, infant (per 1,000 live births) 2019	6.1	25.6	28.3	55.7	7.3	7.7	15.9
Mortality rate, under-5 (per 1,000)	7.1	30.8	34.3	67.2	8.6	9.0	19.9
Human development Index 2020 (Rank)	0.782 (72)	0.632 (133)	0.645 (131)	0.557 (154)	0.810 (62)	0.777 (79)	0.704 (117)

Sources:

1. *World Bank Open Data | Data [Internet]. [cited 2021 Aug 19]. Available from: https://data.worldbank.org/*
2. *Latest Human Development Index Ranking | Human Development Reports [Internet]. [cited 2021 Aug 19]. Available from: http://hdr.undp.org/en/content/latest-human-development-index-ranking*

The provincial directors of health head up the administrative structure with the district directors of health for each district under them. Each district is then served by a defined number of medical officers of health (MOHs), who are responsible for a defined geographical area with a defined population. In each MOH area, services are provided by medical officers and several categories of field personnel, including public health nursing sisters, public health inspectors and public health midwives, who mainly focus on preventive aspects of healthcare delivery.[10]

Figure 1 shows the provincial administrative structure of governance in Sri Lanka (Figure 1).

A cross section of the current status of the free health services in the public sector for 2019 is presented in Table 3.

THE HISTORY OF PSYCHIATRIC SERVICES IN SRI LANKA

The indigenous medicine system which existed in Sri Lanka prior to the establishment of modern mental health services during British colonial rule recognized and treated mental disorders. Ayurveda medicine recognized mental disorders as illnesses and had well documented treatment modalities.[11] However, there were also native medical practices that attributed causality to astrological factors, sorcery, demon possession and

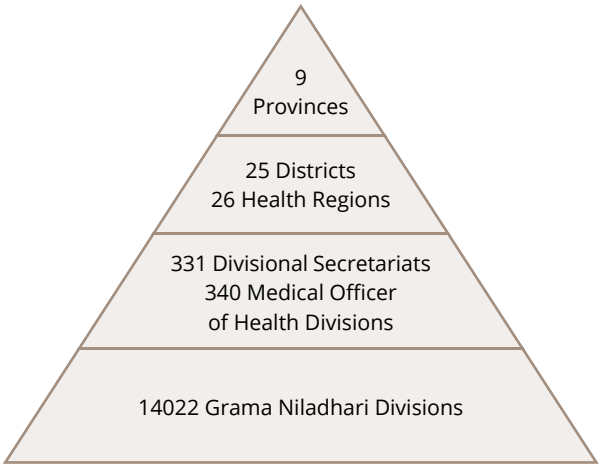

Figure 1. Provincial administrative and health care structure. Reproduced with permission.

Source: Directorate of Mental Health, Sri Lanka. Introduction. Accessed August 16, 2021. http://mentalhealth.health.gov.lk/index.php?option=com_content&view=article&id=9&Itemid=220&lang=en

black magic, as well as illness.[12] Therefore, certain indigenous treatments became a combination of healing practices, including herbal medicine and astrological and religious ceremonies.[13,14]

Modern mental health services in Sri Lanka based on Western allopathic medical principles began as asylums under the Lunacy Ordinance of 1873 during the British colonial rule. After establishing two asylums in the city of Colombo, which quickly became overcrowded, a third asylum was completed in 1926 in Angoda, a suburb of Colombo, with 1,728 beds. However, the conditions in the Angoda asylum were criticized by Edward Mapother, professor of psychiatry from the University of London, who was invited by the colonial government to carry out a comprehensive survey. His report, which was published in 1938, proposed 10 recommendations, which laid the foundation for the establishment of a modern mental healthcare system in Ceylon. The Mapother Report recommended the de-centralization of services and the development of a specialist medical service. Following this report, the asylum at Angoda was renamed a mental hospital in 1940 and is now the National Institute of Mental Health, Sri Lanka's premier tertiary care, specialized hospital for mental health.[15]

The first outpatient service was established at the National Hospital of Sri Lanka, Colombo, then the General Hospital, Colombo, in 1939.[16] Initial mental health services were primarily in and around the Colombo district, located in large institutions. In the mid-1960s, psychiatric facilities were set up in Kandy, Colombo and Jaffna, and over the next 20 years, psychiatrists established more units in major provincial hospitals.

The Ceylon Lunacy Ordinance, originally drafted in 1873, was revised in 1940 and was superseded by the Mental Diseases Ordinance in 1956. A second report of enquiry was published in 1966, which pointed out the weaknesses of the custodial care institutions. The five recommendations made in this report supported the development of a more community-oriented approach, delivered by psychiatrists with the support of psychologists, social workers, mental health nurses and occupational therapists.[13] Mental health services gradually expanded over the next few decades and the increased number of positions for psychiatrists was supported by the development of the Department

Table 3. Selected statistics of public health sector in Sri Lanka

Medical Officers per 100,000 population	93.5
Population per Medical Officer	1,069.8
Dental Surgeons per 100,000 population	7.2
Nurses per 100,000 population	214.8
Supervising Public Health Midwives/Public Health Midwives per 100,000 population	27.7
Number of hospitals	643
Number of hospital beds	86,589
Hospital beds per 1,000 population	4.0
Number of Medical Officer of Health (MOH) Divisions	356

Source: Ministry Of Health — Annual Health Statistics [Internet]. [cited 2021 Aug 19]. Available from: http://www.health.gov.lk/moh_final/english/public/elfinder/files/publications/AHB/AHS%202019.pdf

of Psychiatry at the University of Colombo in 1968 and the establishment of the Postgraduate Institute of Medicine in 1980.[14,15] However, the substantial number of psychiatrists who left Sri Lanka to work in developed countries after completion of their training presented a challenge in relation to the development of services.[13,15]

DIRECTORATE OF MENTAL HEALTH

At national level, the Directorate of Mental Health is the central organization of the Ministry of Health, executing the national mental health programme. The directorate is responsible for the development of technical strategies and guidelines, policy development, the development of annual operational plans and budgets, resource mobilization and capacity building in collaboration with the relevant sectors, together with the monitoring and evaluation of the national mental health programme.[16]

MENTAL HEALTH POLICY (2005 TO 2015)

A mental health policy was drafted by the Sri Lanka College of Psychiatrists and accepted by the government of Sri Lanka in 2005, with the objective of establishing a comprehensive and community-based service to optimize the mental health of the Sri Lankan people.

Seven areas of action were identified that included management at national and provincial levels, the organization of services, human resources development, research and ethics, the National Institute of Mental Health, tackling stigma and promoting mental wellbeing and mental health legislation.

This policy helped to direct the development of mental health services, however, all targets had not been achieved at the end of the defined time period. For example, the recruitment and training of allied mental health professionals continue to lag behind, while the mental health act is still in the process of being reviewed.

The policy recognized the administrative district as the basic service unit and planned for a minimum of one acute psychiatric inpatient unit based in each District General Hospital, as well as a rehabilitation unit for each district. Small divisional hospitals, situated in each MOH area, were to have a primary community mental health centre (PCMHC) comprising a medical officer of mental health (MOMH), community mental health nurses and a community support officer.[17]

The rapid expansion of services in the psychiatric sector in Sri Lanka is summarised and captured graphically on the website of the Mental Health Directorate of the Ministry of Health in Sri Lanka.[18]

Two further events in contemporary history affected the provision of mental healthcare in Sri Lanka.

The first was a protracted civil war against the Liberation Tigers of Tamil Eelam (LTTE) over a period of 26 years from July 1983 until May 2009. The armed conflict was mainly in the northern and eastern provinces and severely disrupted health services in the region, but the trauma of war affected the entire country.[18]

The second event was the Indian Ocean tsunami, which hit the southern and eastern coast of Sri Lanka on 26 December 2004, killing an estimated 35,000 people and displacing more than 515,000 from their homes.[19]

These two events directly impacted mental health in Sri Lanka by weakening the existing infrastructure for mental healthcare provision in the affected regions and increasing the risk of mental health problems among the population at the time. However, this also led to a renewed focus on community-based care.[20]

CURRENT PSYCHIATRIC SERVICES IN SRI LANKA

The psychiatric care workforce includes consultant psychiatrists, MOMHs who have either completed a three-month special mental health training or a one-year-diploma in psychiatry, psychiatric social workers (PSWs), trained, designated community psychiatry nurses (CPNs), who are nursing officers with a 6 month training in psychiatry, occupational therapists (OTs) and a variety of other workers including volunteers.

Only three clinical psychologists were available in the state sector in the whole of Sri Lanka in 2012 and they were all attached to universities.[21] No 'clinical psychologist' post exists in the cadre of the Ministry of Health to date, due to various factors including the dearth of trained clinical psychologists in the country. There have been discussions to recruit psychologists who have master's degrees in clinical psychology to the health ministry as an interim measure, until trained and qualified clinical psychologists are available.[22]

All the categories have increased cadre numbers gradually over the years, but significant shortages still remain.[23]

Table 4 and 5 summarize the current status of psychiatric services in the country (Table 4, Table 5).

Table 4. Health professionals working in the psychiatry sector per 100,000 population

Category of Staff	2005	2011	2017
Psychiatrists (Specialists)	0.2	0.29	0.52
Medical officer of Mental Health and Diploma holders (non-specialists)	*	0.75	1.47
Nursing Officers	1.8	2.92	3.28
Psychologists	0.02	0.09	0.25
Psychiatric social workers	0.07	0.33	0.28
Occupational therapists	*	0.19	0.22
Speech therapists	*	*	0.05
Community psychiatric nurses	*	*	0.18
Other paid mental health workers	*	*	1.04

** Data not available*

Source: Mental Health ATLAS 2017 [Internet]. [cited 2021 Aug 14]. Available from: https://www.who.int/publications/i/item/9789241514019

Table 5. Psychiatry care facilities per 100,000 population

Category of Staff	2011	2017
Psychiatric beds in mental hospitals	0.10	4.97
Psychiatric beds in general hospitals	0.20	3.96
Mental health outpatient facilities	1.36	*
Day treatment facilities	0.12	*
Community residential facilities	0.05	1.33

** Data not available*

Source: Mental Health ATLAS 2017. Accessed August 16, 2021. https://www.who.int/publications/i/item/9789241514019

COMMUNITY-BASED PSYCHIATRIC CARE IN SRI LANKA

The first outpatient clinic in Colombo district was established in 1939, which was followed by other hospital-based clinics in selected major cities. As the focus shifted from hospital-based care to community care, district hospital-based clinics were established in the latter part of the 20th century. Moreover, various elements of community psychiatry such as outreach clinics, residential intermediate rehabilitation centres, home-based care and community resource/ support centres gradually came into existence.[24]

This gradual evolution contributed to the lack of a clear demarcation between hospital-based psychiatric services and community-based psychiatric services, as both are carried out by hospital-based mental health teams headed by a consultant psychiatrist. This is further complicated by the presence of certain officials and service provision centres that cannot easily be categorized as hospital-based or community-based.[25]

To an outside observer, the Sri Lankan community-based psychiatric care system can be explained in two ways, according to the content of the service and the organization of care delivery.

Content of community-based psychiatric care

Community mental healthcare is provided for all age groups and for all kinds of mental illnesses, but this treatment mainly caters for adults with severe mental illnesses such as schizophrenia, schizoaffective disorder, bipolar affective disorder, recurrent depressive disorder and substance use disorders.

The types of services included here are outreach clinics, residential rehabilitation facilities, domiciliary care, helplines and community support centres.

Outreach clinics

At present, the main mode of delivery for community care is through outreach clinics held at peripheral, and sometimes, remote, healthcare centres. An example of such a clinic is the Colombo-15 community psychiatric clinic, which opened in 2010.[25]

In similar clinics functioning in other areas of Sri Lanka, psychiatric inputs are provided by medical officers under

the supervision of the district psychiatrist based at the district hospital, who usually visits the clinic at least once a month or more frequently. These clinics mainly function as follow up services for stable patients with long-term mental illnesses and as screening services, which send seriously ill patients to clinics manned by the specialist psychiatrists of the district hospital, located in the main city of that district.

According to the Mental Health Policy of Sri Lanka (2005–2015 and current policy draft version), there should be at least one community psychiatric centre or community psychiatric clinic in each MOH area, which is the smallest health administrative unit in the country.[26] There are 342 MOH areas in Sri Lanka, with an average population of around 60,000.

Residential rehabilitation facilities at district level

Intermediate-stay residential rehabilitation facilities have been expanded district-wise over the last two decades in many districts, from one in 2000 to 22 in 2017.[27] Most of these centres are hospital-based and are under the supervision of the psychiatrist based at the district hospital. Some of these units such as the Unavatuna District Hospital in Galle (Southern province) and the Kandana District Hospital in Ragama (Western province) cater for patients with significant psychiatric disabilities, due to disorders such as schizophrenia and other psychotic disorders, severe mood disorders, severe personality disorders, mental retardation, acquired brain injuries and other organic brain disorders. In addition to such government-funded rehabilitation centres, non-governmental organizations such as 'Nest' and 'Sahanaya' also offer residential mental healthcare facilities.[28]

There are seven state run residential treatment facilities for alcohol use disorders in seven districts.[16]

Although there are a number of long-term residential treatment facilities for patients with substance use disorders run by the private health sector, the standards of care and effectiveness in these centres are questionable. Some of these facilities follow religious practices in managing substance addiction and withdrawal, rather than evidence-based practices. The few centres run by government agencies such as the National Dangerous Drug Control Board are regulated more effectively and have a higher standard of care.[29,30]

Home-based or domiciliary care

Home visits for medical, social or functional assessment and for treatment delivery, such as the administration of depot antipsychotic injections are carried out by the hospital-based multidisciplinary teams as necessary.[31] However, the level of systematic delivery of such services varies in different parts of the country. Home visits are undertaken by the mental health teams, headed up by a consultant psychiatrist stationed in the district hospital, who will even travel to the remotest regions in the catchment area.

Crisis care services

Sri Lanka does not have a formal crisis care team in its community mental health set-up. In comparison to the West, the very different social set-up in Sri Lanka, where most people live with their families and extended families means that family provides non-specialized, immediate psychological support in times of personal crises. This may be why a mental health crisis team has not been of great need. However, the system of community mental healthcare is such that anyone can walk into their nearest primary care or other hospital and request a mental health assessment. Such persons will be seen by the MOMH or the consultant psychiatrist. Therefore, there is no significant delay in accessing mental healthcare in Sri Lanka.[22]

Psychological services

The cadre in the mental health services of the Ministry of Health does not currently include psychologists, but this is in the process of being amended. Therefore, there is no formal psychological service available nationally except in a few teaching hospitals, where either a psychologist attached to a university unit or psychiatrists provide such services. All psychiatrists are trained well in common psychological therapies as part of the postgraduate curriculum, and they make use of this competence in their practice. CPNs, PSWs and OTs in larger psychiatric units are trained in cognitive behaviour therapy for anxiety disorders and depression, and work as therapists in addition to the psychiatrists.[32]

Phone helplines

A national mental health helpline, 1926, was introduced by the National Institute of Mental Health of Sri Lanka in 2018, which is toll free and available to the public

24 hours a day and seven days a week.[33] Prior to the establishment of this national helpline, small-scale local helplines, which were established by mental health facilities in the regional hospitals, did improve the link between services and the community in the regional areas of Sri Lanka. An example of such a regional helpline was the mental health triage and support telephone service at Ampara General Hospital, which was established in 2008.[34]

Community resource/ support centres

Community support centres are drop-in facilities that provide day patient services, information and psychological support/ input.[32] However, to date, they have failed to gain crucial support or extensive utilization. It may be possible that other services and community points such as meetings at temples/ kovils/ churches/ mosques may be fulfilling these needs better amidst the dearth of infrastructure and human resources that are needed to run such community support centres in most areas of Sri Lanka.

The National Council for Mental Health, "Sahanaya", is a well-established community day centre operated by a non-governmental organization, which provides community support for the mental health needs of the public and fills the gaps arising from a limited availability of government funded community resource centres.[35]

Table 6 summarizes the mental health services available by 2017 (Table 6).

ORGANIZATION OF COMMUNITY-BASED PSYCHIATRIC CARE

Human resources

Multidisciplinary teams including MOMHs, CPNs and PSWs, led by a consultant psychiatrist, deliver all of the aforementioned community-based care, in addition to hospital-based care. These teams are primarily based at teaching, district and base hospitals, as psychiatrists are only appointed to these hospitals. At least one such team is available in each of the 24 districts in Sri Lanka.[36]

CPNs who have undergone specialist six-month training in both inpatient and community settings are fulfilling more prominent roles in the delivery of psychiatric care in the community, as they grow in numbers.

As there was a dearth of PSWs, development officers carrying out administrative responsibilities in the health sector were converted to PSWs following a training period of three months. They were appointed to work with the community mental health team in the area in which they were employed.

Use of non-medical/ non-health sector personnel to offer services to the community

One of the challenges in providing mental healthcare in Sri Lanka is the low level of mental health literacy, especially in rural areas, and the reluctance to seek help due to stigma.[37] A poor financial status, as seen in rural communities, understandably results in fewer follow up meetings too.

Table 6. Selected statistics of mental health sector in Sri Lanka by 2017

Outpatient facilities	
Mental health outpatient facilities attached to a hospital	230
"Community-based / non-hospital" mental health outpatient facility	20
Other outpatient facility (e.g. Mental health day care or treatment facility)	22
Outpatient facility specifically for children and adolescents (including services for developmental disorders)	25
Other outpatient services for children and adolescents (e.g. day care)	5
Inpatient facilities	
Exclusive psychiatry hospitals	1
Psychiatric units in general hospitals	31
Residential care facilities	23
Inpatient facility specifically for children and adolescents	3

Source: Mental Health ATLAS 2017. Accessed August 16, 2021. https://www.who.int/publications/i/item/9789241514019

Different mental health services across the country have used various innovative methods to tackle this problem of taking mental health services to people's doorsteps.

The northern and eastern provinces, which were the hardest hit during the long running terrorist conflict in Sri Lanka enrolled CSOs, who were from the community, in the mental health sector. They were paid an allowance but were not part of the national cadre in the mental health sector.[31,34]

Certain community psychiatric services temporarily recruited volunteer community support officers (CSOs) from the community during the post-tsunami period, when a large number of service providers were needed.[9]

Other mental health services utilize volunteers from the community and/ or field-level public officers from the non-health sector to coordinate services and to provide administrative, financial and welfare services support. As these non-health sector individuals (e.g., from the local civil administration) are from the community they serve, they are well accepted and well placed to help people with mental health needs and improve mental health literacy. It is important that the mental health team incorporate these as individual volunteer team members, rather than as a service or an organization providing services.

Some psychiatric services currently utilize these field-level government officers as unpaid volunteer case managers in the community (e.g., in the Ampara district and later replicated in the Hambanthota district).[25,34]

The sustainability of involving volunteers in the provision of services is questionable but seems to have worked in the case of Sri Lanka.

Sharing of trained mental health professionals within the district

The fewer than optimum number of mental health professionals in relation to the population is dealt with in different ways by different mental health teams. One mental health team comprising CPNs, PSWs, few MOMHs and one or two consultant psychiatrists cover the entire district, by attending the various clinics held at primary care level in the divisional hospitals in their areas, in addition to providing services at inpatient and outpatient hospitals with a larger base and district general hospitals.

This sharing of resources ensures that all areas of the district are served in an equitable manner. This also makes follow ups easier as the same team is involved in inpatient and outpatient care.

The disadvantage is the heavy burden of providing care for an entire district with a limited number of staff, which may lead to an increased burnout rate.

Funding

As the main psychiatry teams who deliver hospital care are also involved in the delivery of community care, there is no clear-cut, separate funding mechanism for community-based care. However, some of the services in the community are funded by provincial health authorities. For example, the transportation of the specialist psychiatrist and team from the main/ district hospital to remote clinics is provided by the provincial health service.

The extent of the provision and support for mental health services depends to a large degree on the budgetary allowance from the provincial government, which will differ from province to province.[9]

The lack of a separate mental health budget is a major drawback in Sri Lanka. A small percentage of the non-communicable disease (NCD) prevention allocation from the national health budget and other international funding projects are the main sources of funding for mental health activities in the country. This significantly impinges on the systematic expansion of the services and the infrastructure development, including transport services, medical supply maintenance and human resource development.[22]

Legal backing

The current mental health legislature of Sri Lanka, dating back to the Lunacy Ordinance of 1873 and amended in 1956, has little or no provision for community-based care. This legislature does not provide legal cover for involuntary treatment in regional hospitals or in the community, which significantly hinders an effective treatment framework within the peripheral mental health services in Sri Lanka today.

Link with primary care

In each district, outreach clinics are based in selected divisional hospitals which are primary care units, but these clinics do not exist in all divisional hospitals. Therefore, the link between primary care units and community-based mental services is not uniformly present countrywide. Generally primary healthcare staff will identify and refer individuals for psychiatric assessments.[21]

Link with other psychiatric care services within the district

There is no division within teams providing community-based and hospital-based services, as it is the district psychiatrist that provides leadership in relation to all aspects of mental health services in a particular health administrative district.[36]

Non-governmental organizations and professional organizations

Community mental health services liaise with the different non-governmental organizations active in the community they serve, where appropriate.[25,35]

A number of non-governmental organizations provide different types of supportive services for those with mental health issues. However, most of these organizations are based in the capital, Colombo and in other major cities.[23]

The Sri Lanka College of Psychiatrists is one of the main professional organizations which liaises closely with the Ministry of Health and the Directorate of Mental Health, to bring about the improvement of mental health services in the country. The College, in addition to its involvement in training mental health professionals of all categories, is involved in reviewing mental health legislature and mental health policy planning, as well as organizing the infrastructure and services throughout the country.[38]

WAY FORWARD

Mental health policy and legislature

The mental health policy after 2015 is in the process of being reviewed, however, this has not been finalized, which has led to a lag in the improvement of mental health services. A new mental health act is in the process of being enacted to improve and replace the previous Mental Diseases Ordinance of 1873, so that the legislature addresses current and future mental health needs.[16]

Human resource training, recruitment and retention

Increasing the cadre positions and training allied mental health professionals are ongoing challenges, especially in the face of a restricted health budget. However, this is recognized by the mental health directorate as a need.[18] Retaining allied mental health professionals (CPNs, PSWs, OTs, MOMHs) other than psychiatrists in mental health services is difficult, as they come under a general scheme for transfers and promotions in a similar manner to all other professionals in the public health sector. Addressing this effectively is necessary but this would require a change to the government recruiting and transfer rules and policies, which is unlikely to happen imminently.

Administrative backing

The fact that most of the health services in the country are under provincial governance means that local politics and priorities are in operation, which are different from national priorities. This results in differing budgets, impacting the services that are offered in different provinces. While some provinces actively support mental health service provisions and development, others may not. Therefore, there is a discrepancy in the service provision between different parts of the country.

Monitoring and evaluation

A lack of built-in monitoring and the absence of critical evaluation of the effectiveness of services is another drawback in further improving established systems.[9] Therefore, key performance indicators (KPIs) and outcome indicators need to be developed for community services. Research and audits are taking place but should be encouraged further. Provincial level and district level reviews of services which occur regularly are not formally evaluated.

Providing encouragement and opportunities for those who implement successful community models and giving others the chance to learn from peers working in different areas of the country where they have been successful are crucially important. Moreover, establishing pathways for the career development of all categories of staff and supporting the health of the workforce to prevent burnout are equally vital, in order to sustain these systems.

DISCUSSION

Historically, when the transition of mental healthcare from asylums and large mental hospitals to services in the community was initiated worldwide in the mid-20th century, this led to many debates and criticisms within the specialty.[38,39] Different countries offer different models of community services with varying levels of success or failure. Several models of community mental healthcare have been proposed over time.[40-42] However, the overall consensus is that there is no one universal public health model that fits all countries.[43]

The World Health Organization (WHO), recognizing the treatment gap in mental health services globally, produced guidance for mental health policy and service development in 2009. This pyramid model of care aims to help countries build or transform their mental health services, in a five-stage model to: promote self-care, build informal community care services, integrate mental health services into primary healthcare, build community mental health services, develop mental health services in general hospitals and limit the number of psychiatric hospitals.[44]

The model of mental health services in Sri Lanka is compatible with the WHO model and the improving statistics bear witness to the way in which this system has been effectively implemented.

However, going beyond this recommended model, the mental health services in different parts of Sri Lanka have managed to further adapt to the needs and availability of resources in the areas they serve, leading to slight but important differences in the organization and delivery of care within the country itself.

CONCLUSION

Sri Lanka has implemented a community mental health system based on the WHO recommended model. The different stakeholders led by the Ministry of Health are working together to improve the quality of the services. Further enhancing this model of care, the mental health professionals providing services in different parts of the country strive to improve their services, by utilizing the resources available in their area, rather than being limited to the resources made available by the government or the system. This has led to unique differences in the way in which services are offered in different areas of the country, which the authors view as a positive feature of the evolving community mental health service model in Sri Lanka.

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References

1. Ministry of Health, Sri Lanka. Annual health bulletin. Accessed November 7, 2021. http://www.health.gov.lk/moh_final/english/public/elfinder/files/publications/AHB/AHS%202019.pdf
2. Department of Census and Statistics. Population. Accessed November 7, 2021. http://www.statistics.gov.lk/Population/StaticalInformation/CPH2011/CensusPopulationHousing2012-FinalReport
3. Department of Census and Statistics. Accessed November 7, 2021. http://www.statistics.gov.lk/Population/StaticalInformation/CPH2011/CensusPopulationHousing2012-FinalReport
4. Domestic general government health expenditure (% of GDP) — South Asia, Sri Lanka, Data. Accessed November 7, 2021. https://data.worldbank.org/indicator/SH.XPD.GHED.GD.ZS?locations=8S-LK
5. Domestic general government health expenditure (% of general government expenditure) — South Asia, Sri Lanka, Data. Accessed November 7, 2021. https://data.worldbank.org/indicator/SH.XPD.GHED.GE.ZS?locations=8S-LK
6. Arseculeratne SN. Interactions between Traditional Medicine and "Western" Medicine in Sri Lanka. *Soc Sci*. 2002;30(5/6):4.

7. Librach IM. C. G. Uragoda, A history of medicine in Sri Lanka, Colombo, Sri Lankan Medical Association (6 Wijerama Mathawa, Colombo 7), 1987, 8vo, pp. ix, 326, illus., US $20.00. *Medical History*. 2012;31(4):492–492. doi: 10.1017/s0025727300047475
8. Peiris GH, Arasaratnam S. Sri Lanka. Encyclopedia Britannica. Accessed November 28. https://www.britannica.com/place/Sri-Lanka
9. Samarage SM. Health Care System: SRI LANKA. *Unpublished paper presented at the CICG Geneva Conference. Migration and Human Resources for Health: From Awareness to Action. Geneva, Switzerland. 2006.*
10. Fernando D. Health care systems in transition III. Sri Lanka, Part I. An overview of Sri Lanka's health care system. *J Public Health*. 2000;22(1):14–20.
11. Ramu MG, Venkataram BS. Manovikara (mental disorders) in ayurveda. *Anc Sci Life*. 1985;4(3):165–173.
12. Neki JS. Psychiatry in South-East Asia. *Br J Psychiatry*. 1973;123(574):257–269.
13. Silva DD. Psychiatric service delivery in an Asian country: the experience of Sri Lanka. *Int Rev Psychiatry*. 2002;14(1):66–70.
14. Minas H, Mendis J, Hall T. Mental Health System Development in Sri Lanka. In: Minas H, Lewis M, eds. *Mental Health in Asia and the Pacific*. Springer US; 2017:59–77. doi: 10.1007/978-1-4899-7999-5_4
15. Gambheera H. The evolution of psychiatric services in Sri Lanka. *South Asian journal of Psychiatry*. 2011;2(1):25–27.
16. Directorate of Mental Health. Overview. Accessed November 7, 2021. http://mentalhealth.health.gov.lk/index.php?option=com_content&view=article&id=5&Itemid=122&lang=en
17. WHO MiNDbank. The Mental Health Policy of Sri Lanka: 2005–2015. Accessed November 7, 2021. https://www.mindbank.info/item/61
18. Directorate of Mental Health, Sri Lanka. Introduction. Accessed August 16, 2021. http://mentalhealth.health.gov.lk/index.php?option=com_content&view=article&id=9&Itemid=220&lang=en
19. Abeyewickreme I, Abeykoon P, Karalliedde L, Veerasingam PG, Sri Lanka Medical Association, eds. *History of medicine in Sri Lanka, 1948–2017.* Sri Lanka Medical Association; 2018.
20. Mahoney J, Chandra V, Gambheera H, Silva TD, Suveendran T. Responding to the mental health and psychosocial needs of the people of Sri Lanka in disasters. *Int Rev Psychiatry*. 2006;18(6):593–597.
21. Jenkins R, Mendis J, Cooray S, Cooray M. Integration of mental health into primary care in Sri Lanka. Ment Health Fam Med. 2012;9(1):15–24.
22. Kathriarachchi ST, Seneviratne VL, Amarakoon L. Development of mental health care in Sri Lanka: Lessons learned. *Taiwan J Psychiatry*. 2019;33(2):55.
23. Mental Health ATLAS 2017. Accessed November 7, 2021. frohttps://www.who.int/publications/i/item/9789241514019
24. Carpenter J. *The history of mental health care in Sri Lanka*. Marga Publications; 1988.
25. Ranasinghe P, Mendis J, Hanwella R. Community psychiatry service in Sri Lanka: a successful model. Sri Lanka Journal of Psychiatry. 2011;2(1):3–5. doi: http://doi.org/10.4038/sljpsyc.v2i1.3157
26. The Mental Health Policy of Sri Lanka 2005–2015. Accessed November 7, 2021. https://issuu.com/lpsl/docs/mental_health_policy_sri_lanka
27. Directorate of Mental Health. National Data. Accessed November 7, 2021. https://mentalhealth.health.gov.lk/index.php?option=com_content&view=article&id=22&Itemid=159&lang=en#others
28. National Council for Mental Health — NCMH. Accessed November 7, 2021. http://www.ncmh.lk/page/gorakana-residential-facility/55
29. Treatment and Rehabilitation Division | National Dangerous Drugs Control Board. Accessed November 7, 2021. http://www.nddcb.gov.lk/treatment-and-rehabilitation-division.php
30. Mithuru Mithuro Drug Rehabilitation Center in Ratnapura, Sri Lanka. Sri Lanka Foundation. Accessed November 7, 2021. https://www.srilankafoundation.org/mithuru-mithuro-drug-rehabilitation-center-in-ratnapura-sri-lanka/
31. WHO. Sri Lanka technical advice report. Accessed November 7, 2021. https://www.who.int/mental_health/policy/en/Sri_Lanka_technical_advice.pdf
32. Hapangama A, Kuruppuarachchi KALA, Hanwella R. Achievements and challenges in psychiatric education and training in Sri Lanka. *BJPsych Int*. 2021;1–3.
33. NIMH opens National Mental Health Helpline 1926. Accessed November 7, 2021. https://nimh.health.gov.lk/en/2018/10/23/nimh-in-the-news-nimh-introduces-mental-health-helpline-1926/
34. AMHS | Foundation for Promotion of Mental Health. Accessed November 7, 2021. https://fpmh.wordpress.com/ampara-mental-health-service-amhs/
35. National Council for Mental Health — NCMH. Accessed November 7, 2021. http://www.ncmh.lk/
36. Directorate of Mental Health: Organizational Structure. Accessed November 7, 2021. http://mentalhealth.health.gov.lk/index.php?option=com_content&view=article&id=8&Itemid=127&lang=en
37. Fernando SM, Deane FP, McLeod HJ. The delaying effect of stigma on mental health help-seeking in Sri Lanka: The delaying effect of stigma. *Asia-Pac Psychiatry*. 2017;9(1):e12255.
38. SL College of Psychiatrists. Overview and the Vision. Accessed November 7, 2021. https://slcpsych.lk/overview-and-the-vision/
39. Tyrer P. Cost-effective or profligate community psychiatry? *Br J Psychiatry J Ment Sci*. 1998;172:1–3.
40. Farooq S. Community psychiatry in developing countries — a misnomer? *Psychiatr Bull*. 2001;25:226–227.
41. Thornicroft G, Tansella M. The balanced care model: the case for both hospital- and community-based mental healthcare. *Br J Psychiatry J Ment Sci*. 2013;202(4):246–248.
42. Community Psychiatry — an overview. ScienceDirect Topics. Accessed November 7, 2021. https://www.sciencedirect.com/topics/medicine-and-dentistry/community-psychiatry
43. Thornicroft G, Alem A, Antunes Dos Santos R, et al. WPA guidance on steps, obstacles and mistakes to avoid in the implementation of community mental health care. *World Psychiatry*. 2010;9(2):67–77. doi: 10.1002/j.2051-5545.2010.tb00276.x
44. Wakida EK, Talib ZM, Akena D, et al. Barriers and facilitators to the integration of mental health services into primary health care: a systematic review. *Syst Rev*. 2018;7(1):211.

The Quality of Care Provided by Outpatient Mental Health Services in Georgia

Качество обслуживания внебольничными службами охраны психического здоровья в Грузии

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ABSTRACT

Georgia has recently made a commendable effort to reform mental health care. The "Concept on Mental Health Care" adopted by the Government and the two strategic plans for 2014–2020 and 2021–2031, which aimed to develop comprehensive evidence-based, culturally appropriate, and human rights-oriented mental health care, have promoted the deinstitutionalization and development of community mental health services. Since 2018, new standards of care for mental health ambulatories and mobile teams have been imposed and implemented in the state programme and funded accordingly. The study aimed to investigate the quality of care in community mental health services. As a result, we monitored the mental health ambulatories in all major cities and regional centres of the country (in total, 16 ambulatories) and the mobile teams which had at least two years of experience (in total, 14 mobile teams). The data analyses showed that the new standards for ambulatories and mobile teams increased access to and coverage of mental health care across the country. However, further effort is still needed to achieve comprehensive treatment by mental health care services.

АННОТАЦИЯ

В последние годы, в Грузии были предприняты большие усилия по реформированию системы охраны психического здоровья. В 2013 году правительством Грузии была утверждена «Концепция психиатрической помощи», а также разработаны два стратегических плана на 2014–2020 и 2021–2031 гг, что способствовало процессу деинституционализации и развитию внебольничных служб охраны психического здоровья. С 2018 года в государственной программе были введены новые стандарты оказания помощи для амбулаторий и мобильных бригад и соответственно изменилась система финансирования. Настоящее исследование направлено на изучение качества обслуживания внебольничных служб охраны психического здоровья.

Анализ данных мониторинга амбулаторий психического здоровья во всех крупных городах и областных центрах страны (всего 16 амбулатории) и мобильных бригад, которые функционируют, не менее двух лет (всего 14 сервисов) показал, что ведение новых стандартов для внебольничных служб психического здоровья расширило доступ и охват психиатрической помощью по всей стране. Тем не менее необходимы дальнейшие усилия для развития всеобъемлющего, комплексного и основанного на биопсихосоциальном подходе системы психического здоровья в стране.

Keywords: *quality of care; community mental health; mobile team; ambulatory*
Ключевые слова: *качество обслуживания; психическое здоровье; мобильная бригада; амбулатория*

INTRODUCTION

Following the growing global focus on deinstitutionalization in the past 50 years, accessible community mental health services were highlighted as a commitment in the European Mental Health Action Plan 2013–2020, with the goal of improving the well-being of patients and families.[1] Georgia has made commendable efforts to reform mental health care in recent years, motivated by the growing need for affordable and efficient community mental healthcare.[2]

Georgia's mental health care system is managed by the Ministry of Internally Displaced Persons from the Occupied Territories, Labor, Health, and Social Affairs of Georgia (IDPLHSA), which oversees health and social welfare. The ministry supports and coordinates the preparation of the legislation, strategies, action plans, and state programmes that should be adopted by the Government and the Parliament.

The "Concept on Mental Health Care"[3] and the two strategic plans for 2014–2020 and 2021–2031, which have been developed and approved by the Government,[4] aimed to develop comprehensive evidence-based, culturally appropriate, and human rights-oriented mental health and social care services. The Georgian mental health state programme, which has been functioning since 1995, became the subject of significant amendments in 2018. The budget has been increased significantly and more than half of the funding has been allocated to developing community services, such as community-based ambulatories and mobile teams.

Along with an increased budget (of 8,000,000 GEL), new standards for community-based services have been introduced and incorporated into the mental health state programme. The number and location of community services and the funding methodology have been changed and defined according to the populations of the catchment areas. These changes contributed to achieving the indicator set by the mental health strategic document and the corresponding action plan for 2015–2020. The strategic document specified that by 2020 the ratio between community and institutional services in Georgia should have been 50:50. Introducing the standard of a qualitatively new type of outpatient service changed the ratio established in 2017 (7:75) to the ratio 48:52 in 2021.

The community mental health care services in Georgia include:[5]

Community ambulatories — specialized secondary level services, which provide care for persons with mental disorders within the area of their residence. Outpatient services are based on the biopsychosocial model and a multidisciplinary approach. Each centre serves a population of 70,000 to 100,000 inhabitants and has a staff of one psychiatrist, 1.5 nurses, and 1.5 psychologists.

Community mobile teams — intensive care for people with severe mental disorders who are frequently hospitalized or stay in hospital for a long time.

The multidisciplinary team consists of three to four staff members, including a psychiatrist, nurse, social worker, and/or psychologist. The team develops an individual care plan for each patient based on the recovery model and provides home care.

Currently, 33 mobile teams are operating countrywide, but the number and composition of the teams need further development.

Mental health crisis intervention centres for adults (aged 16–65 years) — a specialized service which serves individuals living in a particular catchment area (one team per 150,000 inhabitants) with the goal of reducing psychiatric hospitalizations. The teams consist of one team leader, one psychiatrist, one psychologist and

one social worker per 20 cases. The team serves people with acute mental health problems. These services can be provided at home (with two daily visits possible), or a person can be transferred to the crisis intervention centre. As the crisis resolves, the person must be referred to less intensive mental health services.

Residential/home care for persons with mental disorders — a specialized mental health service that offers supported housing and appropriate care to ensure the social adaptation and integration of the person with a mental disorder, as well as the maintenance/development of their independent living skills. The assisted living facilities offer different levels of support corresponding to the diverse needs of people with mental disorders. They provide a homelike setting, organized on a recovery model and different levels of therapeutic intervention.

The distribution of the services across the regions is shown in the figure (Figure 1).[6]

THE AIM AND METHODS OF THE STUDY

The study aimed to investigate the quality of the care provided by the community services, such as mental health ambulatories and mobile teams, and to develop recommendations for the further improvement of the standards of care based on the results.

As a result, we monitored the mental health ambulatories in all major cities and regional centres of the country (in total, 16 ambulatories) and the mobile teams with at least two years of experience (in total, 14 mobile teams).

The quality of care and standards of services have been studied using the following tools:

- The WHO QualityRights tool kit for assessing and improving quality and human rights in mental health and social care facilities.[7]
- The service monitoring tools for ambulatories (Appendix 1).
- The service monitoring tools for mobile teams (Appendix 2).

The service monitoring tools are the standardized instruments, which have been developed by the working group of experts approved by the Ministry of the Health of Georgia (number of document №01-109/ო, 27.05.2017). Independent monitoring groups made up of three to four members visited the services on the spot. The information was obtained from the following sources:

The service documentation — employment contracts, internal orders and regulations, medical records, lists of the available medications, etc.

Structural interview — the standardized questionnaire based on the WHO QualityRights tool kit and monitoring tools have been used to interview the multidisciplinary team members — psychiatrists, nurses, psychologists, social workers, services users, and caregivers.

The aim and procedures of the study were clearly described to the participants. All participants signed the informed consent.

Figure 1. Cartography of Mental health service provision in Georgia.

RESULTS AND DISCUSSION

The increased budget and introduction of new standards for ambulatories and the development of mobile teams organized in all country regions have significantly increased the capacity for mental health care. The medication supply of the community services has substantially improved. The implementation of the recovery model and multidisciplinary teamwork has stimulated the development of biopsychosocial treatment approaches. More mental health professionals, e.g., psychiatric nurses, psychologists and social workers, have been trained and employed.

In parallel to these remarkable achievements, the following challenges and barriers have been identified:

The official number of patients registered with the community services exceeds the real number of service users. This statistical discrepancy distorts the actual need for mental health care services. In the table (Table 1), we can see that if the ambulatory serves all registered patients, then according to the official number of visits, this number of patients are not able to visit the ambulatory at least once per three months. There is an imbalance between biological and psychosocial care.

The services predominantly offer biological treatment. The patients are generally seen by psychiatrists and receive psychopharmacological treatment. Hence, the psychiatrists are overloaded; sometimes, the psychiatrists have 15–20 or more patients per day while their appointment hours are five hours per day, and the average appointment time is approximately 20–25 min. Thus, the maximum number of patients per day per psychiatrist should not exceed 15–18 patients (Table 2).

According to the standards for community mental health ambulatories and mobile teams in Georgia, there are enough psychiatrists and psychologists in most community services, but still a shortage of qualified nurses and social workers. The average points for the WHO QualityRights tool kit standard 2.2.[8] — "The facility has skilled staff and provides good-quality mental health services" were six points out of 10 (Figure 2).

The score for the WHO QualityRights tool kit standard 2.3. "Treatment, psychosocial rehabilitation, and links to support networks and other services are elements of a service user-driven recovery plan and contribute to a service user's ability to live independently in the community" varied from very poor to poor (≈ two out of 10 points). Hence, the recovery model for care and multidisciplinary teamwork is not implemented properly, and the resources of other mental health professionals are not used accordingly (Figure 2).

There are significant differences in fund distributions for medications, administrative, and other expenses across the services, which cannot be explained by the number of patients or the workload of mental health professionals

Table 1. Number of Visits per Three Months

Ambulatory N	Number of registered patients	% of population	Number of visits	Number of home visits	Total visits	Number of possible visits/per three months
1	10040	2,9	776	89	865	0
2	3162	0,7	1105	6	1111	1
3	2576	1,4	570	31	601	1
4	4165	1,2	994	2	996	1
5	799	0,8	180	12	192	1
6	4568	2,0	810	10	820	1
7	5810	4,1	775,5	4,5	780	0
8	301	0,5	160	6	166	2
9	1034	1,4	246	2	248	1
10	763	0,5	438	39	477	2
11	7500	1,4	1940	4	1944	1
12	3456	2,1	820	10	830	1
13	14829	5,9	1100	3	1103	0
14	738	0,8	305	4	309	1

Table 2. The Average Psychiatrists' Workload in Outpatient Services

N of Ambulatory	Number of visits in ambulatories per month	Number of home visits per month	Number of Psychiatrists	Number of Daily visits
5	305	14	2	8,9
1	360	16	2	10,4
8	180	12	1	10,7
9	775,5	45	4	11,4
2	1570	31	7	12,7
11	438	32	2	13,1
14	810	10	3	15,2
15	861	2	3	16,0
4	1776	68	6	17,1
3	3100	89	10	17,7
6	3940	20	12	18,3
7	2105	6	6	19,5
10	1420	10	4	19,9
13	1494	14	4	20,9
12	446	2	1	24,9

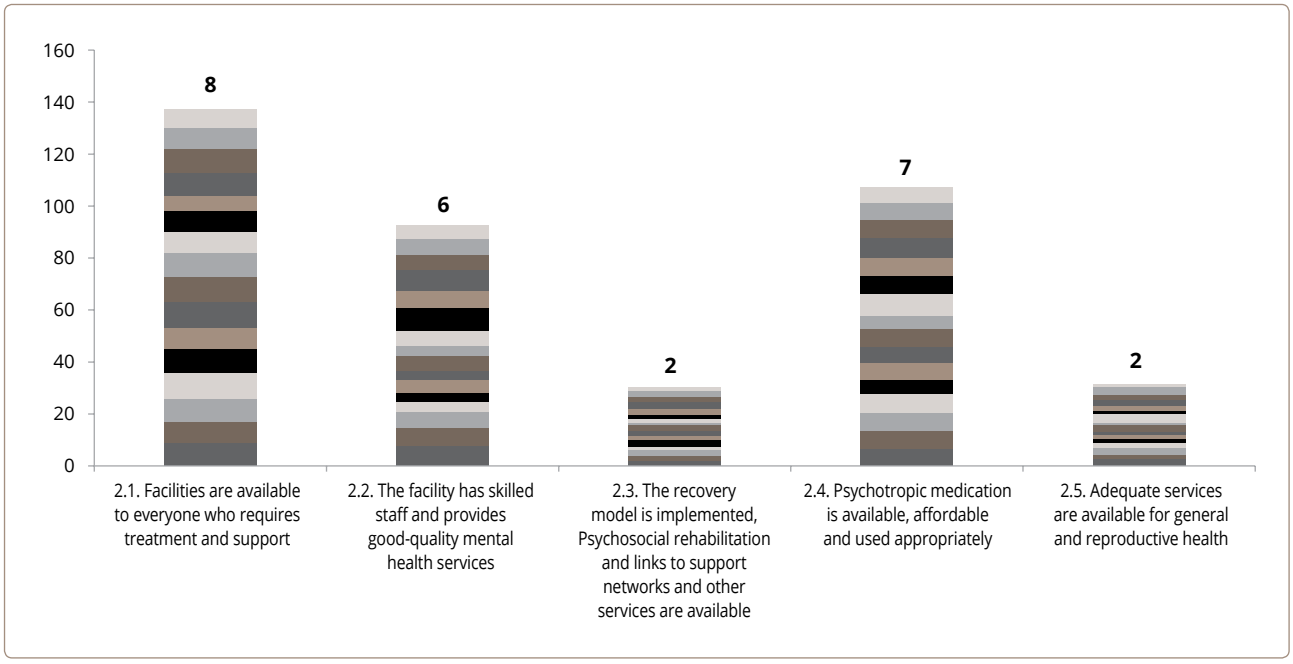

Figure 2. The data on the WHO QualityRights tool kit Team 2. The right of the enjoyment of the highest attainable standard of physical and mental health (Article 25 of the Convention on the Rights of Persons with Disabilities (CRPD).

Standard 2.1. Facilities are available to everyone who requires treatment and support — eight points out of 10.
Standard 2.2. The facility has skilled staff and provides good quality mental health services — six points out of 10.
Standard 2.3. The recovery model is implemented. Psychosocial rehabilitation and links to support networks and other services are available — two points out of 10.
Standard 2.4. Psychotropic medication is available, affordable, and used appropriately — seven points out of 10.
Standard 2.5. Adequate services are available for somatic and reproductive health — two points out of 10.

and mainly depend on the subjective interpretation of need by the owners or directors of the services (Table 3).

The results of the WHO QualityRights tool kit interviewing tools have revealed that most of the community mental health ambulatories have good infrastructure, satisfying physical conditions, and a comfortable environment, but lack sufficient space for psychosocial activities. The services are available to everyone who requires treatment and support (≈ nine points out of 10).

The psychiatrists are qualified to provide psychopharmacological treatment. Psychotropic medication is available, affordable, and generally used appropriately. However, the successful implementation of a recovery-oriented model and psychosocial treatment requires additional effort. The reproductive and somatic health of the patients lacks sufficient attention. The patients with serious mental disorders who are on long-term antipsychotic treatment have limited access to necessary laboratory tests and instrumental exams (Figure 2).

There is a significant deficiency of certified social workers, especially in the regions. Therefore, in most community services, the personnel working as social workers do not have specialized education. A lack of qualified social workers and a shortage of social programmes in the community prevent resocialization and the provision of support for independent living.

In mobile teams, the numbers, qualifications, and skills of mental health professionals (e.g., the numbers of nurses, psychologists, and social workers) differ across the services, which considerably influences the quality of care.

The mobile team assessment scale, which rates the structure and composition of human resources, the nature of services, and organizational boundaries, showed an unequal distribution of resources and service provision. Only half of the mobile teams with two or more years of experience showed desirable results and fully or nearly fully could implement the standards of care and receive <85 out of a total 100 points (Table 4).

Table 3. Fund Distribution in Outpatient Services (in GEL)

Index	Max	Min	P-value
Index of Medications (% from the total budget)	66	32	0,01
Index of salary for a Psychiatrist	1900	550	0,00
Index of salary for a nurse	1200	300	0,00
Index of salary for a psychologist	1500	400	0,00
Index of salary for a social worker	1000	125	0,01

Table 4. The Mental Health Mobile Team Care Assessment Scale

Mobile Team N	Human resources (35)	Organizational boundaries (40)	Nature of services (25)	Total (100)
1	32	37	24	93
2	34	40	19	93
3	31	37	22	90
4	35	34	19	88
5	28	37	22	87
6	27	37	23	87
7	29	37	20	86
8	24	38	21	83
9	28	35	20	83
10	30	30	17	77
11	27	29	20	76
12	23	35	18	76
13	20	29	23	72
14	19	29	14	62

The wages of mental health professionals vary and are based on the subjective decision of the administration rather than on objective criteria (qualifications, working hours, workload, etc.).

Some mobile teams share their offices with other mental health services, mainly with ambulatories, which increases the risk of access to patients' personal information and raises confidentiality issues.

CONCLUSIONS

Based on the results, the following recommendations have been proposed to the authorities and stakeholders:

The surveillance system, staffing, and care standards should be developed according to the methodology of the WHO Mental Health Policy and Service Guidance Packages "Human resources and training in mental health"[9] and "Planning and budgeting to deliver services for mental health."[10]

The assertive involvement of all mental health professionals (e.g., psychiatric nurses, psychologists, social workers, etc.) will enhance the accessibility and quality of care. The number of visits and consultations could be increased, and the service users could receive comprehensive biopsychosocial treatment.

The successful implementation of the recovery model requires continuing excellence in professional education. Training in human rights issues and recovery treatment should be routinely offered to psychiatrists and other mental health professionals. The regular monitoring and supervision of services are essential predictors for the further improvement of service delivery.

The introduction of the objective parameters for fund distribution warrants an equitable and fair funding system.

The strong liaison and developed referral system between mental and general health services will improve the quality of somatic and reproductive care and overall outcomes for people with mental and physical health problems.

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Appendix. Supplementary data
Supplementary material related to this article can be found, in the online version, at doi: 10.17816/CP109

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References
1. WHO Mental health action plan 2013–2020. Accessed November 07, 2021. https://apps.who.int/iris/bitstream/handle/10665/89966/9789241506021_eng.pdf
2. Wong B, Chkonia E, Panteleeva L, et al. Transitioning to community-based mental healthcare: Reform experiences of five countries. *BJPsych International*. 2021;1–3. doi: 10.1192/bji.2021.23
3. The Parliament of Georgia, Approval of the State Concept of Mental Health. Georgia Government, 2013. Accessed November 07, 2021. https://matsne.gov.ge/ka/document/view/2157098?publication=0
4. Government of Georgia. Approval of the Strategic Document for Mental Health Development and the Action Plan for 2015–2020.

Georgia Government, 2014. Accessed November 07, 2021. https://matsne.gov.ge/ka/document/view/2667876?publication=0
5. Healthcare State Program. Government of Georgia, document N828. Accessed November 07, 2021. https://www.matsne.gov.ge/en/document/view/5077572?publication=0
6. Georgian Mental Health Strategic Plan 2021–2031 (revised version). Accessed November 07, 2021. https://www.georgiancollege.ca/wp-content/uploads/student-success-and-corporate-services-mental-health-and-well-being-strategic-plan-2020-2023-georgian-college-2020-06-16.pdf
7. WHO qualityrights tool kit: assessing and improving quality and human rights in mental health and social care facilities. Accessed November 07, 2021. https://apps.who.int/iris/bitstream/handle/10665/70927/9789241548410_eng.pdf?sequence=3
8. Themes, Standards and Criteria of the WHO QualityRights tool kit. Accessed November 07, 2021. https://www.who.int/publications/i/item/who-qualityrights-tool-kit
9. WHO Mental Health Policy and Service Guidance "Human resources and training in mental health". Accessed November 07, 2021. https://www.who.int/mental_health/policy/Training_in_Mental_Health.pdf
10. WHO Mental Health Policy and Service Guidance "Planning and budgeting to deliver services for mental health". Accessed November 07, 2021. https://www.who.int/mental_health/policy/services/5_planning%20budgeting_WEB_07.pdf

Community Mental Health Services in Greece: Development, Challenges and Future Directions

Амбулаторная психиатрическая служба Греции: развитие, проблемы и перспективы

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Short communication

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ABSTRACT

The current system of mental health care in Greece was created in accordance with the European Union and other international principles for mental health care provisions. Whereas Greece has been reforming its system of mental health care since at least the 1980s, the main recent Greek effort has been "Psychargos", a program which began in 2000 and is still in effect. During the last two decades the Greek mental health system has been gradually shifting to a community-based system of care. Various services with unique, yet intertwined, responsibilities have been introduced. The Greek system of mental health care still faces challenges, and the mental health reform is ongoing. Future goals should be to improve the current framework of care and access to care by establishing community mental health services across the country that are fit for purpose, enhancing multidisciplinary collaboration and patient involvement, integrating community mental health care with physical and social care services, and ensuring that service development is driven by need. Crucially, such aims demand the adoption of a culture of clinical governance and a consistent shift from traditional therapeutic care to person-centred psychiatry and preventive psychiatry.

АННОТАЦИЯ

Существующая система психиатрической помощи в Греции была создана в соответствии с требованиями Европейского Союза и другими международными принципами оказания психиатрической помощи. Хотя реформа системы психиатрической помощи в Греции ведется, как минимум, с 1980-х годов, основной стала программа «Psychargos», которая была создана в 2000 г. и работает по сей день. В последние двадцать лет система психиатрической помощи в Греции постепенно переходит на внебольничный территориальный принцип предоставления медицинских услуг. Были созданы различные службы, выполняющие уникальные, но взаимосвязанные функции. В настоящее время в греческой системе психиатрической помощи все еще существуют проблемы, и реформа в данной сфере продолжается. Цели на будущее должны включать в себя усовершенствование существующей структуры психиатрической помощи, повышение доступности медицинских услуг путем создания целевых служб амбулаторной психиатрической помощи по всей стране, улучшение междисциплинарного сотрудничества и вовлеченности пациентов, интеграцию амбулаторной психиатрической помощи с медицинскими службами и социальной защитой, а также обеспечение развития

этих служб в соответствии с возникающими потребностями. Принципиальным аспектом является то, что данные цели требуют внедрения стандартов клинической практики и последовательного перехода от традиционной терапии к личностно-ориентированной психиатрии и профилактике психических расстройств.

Keywords: *mental health care; community mental health system; mental health centres; Greece; primary mental health care; preventive psychiatry*
Ключевые слова: *психиатрическая помощь; амбулаторная психиатрическая служба; центры психического здоровья; Греция; первичная психиатрическая помощь; профилактика психических расстройств*

COMMUNITY MENTAL HEALTH SERVICES IN GREECE: DEVELOPMENT, CHALLENGES AND FUTURE DIRECTIONS

Greece's shift from asylum-based to community-based mental health services began after joining the European Union (EU) in 1981. Specifically, the adoption of the European Council's decision 815/84 made provisions for urgent financial support to facilitate the psychiatric reform of the Greek mental health care system. In order to support the reform effort beyond that initial EU funding, in 1995 the Greek government implemented a long-term operational plan called "Psychargos", which was initially jointly funded by the EU, and eventually funded entirely with national funds (data obtained from the official "Psychargos" website). The name "Psychargos" originates from the mythological "Argos" and the return of the golden fleece, symbolizing the safe return of patients with mental disorders back to the community. The original "Psychargos" package ran from 2000 and has been renewed twice to this day. The most recent (third) "Psychargos" (2010–2020) package had three distinct linchpins, including, firstly, the programing of actions to promote community-based services, and secondly, the design of educational actions to promote the mental health of the general public and to prevent mental illness at a primary and a secondary level, for instance, in substance use disorders. Lastly, the package included actions to organize existent mental health services and to inform and train their workforce. The mental health service reform is ongoing.[1]

Service development plans

In 2011, an ex post evaluation of the progress of psychiatric reform was performed in collaboration with King's College London and the UK National Health Service, led by Professor Nikandros Bouras.[2] The research methodology comprised both qualitative and quantitative approaches based on multiple research methods. The primary data sources included individual interviews, focus groups (with both mental health workers and patients and patients' relatives), site visits and specially devised questionnaires. The secondary data sources included literature reviews, reports and official documents. The evaluation provided valuable insight into existing infrastructure and services, and highlighted several fundamental challenges, including organizational shortcomings. We refer the reader to the article for a more extensive presentation of the evaluation methodology. Following the economic crisis that ensued, in 2019 the Ministry of Health and Social Solidarity laid out a blueprint for the development of new services to support the further growth of community-based mental health care in the country. This ambitious plan put emphasis on the development of many new services in the community, such as mobile units, day hospitals and community mental health teams, and had an overall positive impact. Recently, the Ministry produced a national action plan for health for 2021–2025, which includes a set of generic goals, including preventive and public health targets. In regard to mental health, the emphasis was put on child and adolescent psychiatry and substance and alcohol misuse.

COMMUNITY MENTAL HEALTH SERVICES IN GREECE

Inpatient facilities remain the first point of contact for patients in Greece, but there is a multifaceted political drive to switch the focus of care to the community. The Ministry of Health, mental health professionals and the independent authority "The Greek Ombudsman", to name a few, have examined this issue, while studies have highlighted the service gap in the community and primary care.[2,3] As a result, most large hospitals and asylums have

closed, and the number of psychiatric beds is steadily falling (2019 figures: 71.45/100000 population). In their place, several types of community care services have emerged. These have been primarily state-funded, either through direct investment into the public health system, or through subsidizing private initiatives. The private sector itself has also stepped in with the development of long-term care homes to fill the gap left by the asylums. There are also many non-governmental organizations and local community operations offering a long list of individual options for psychosocial integration and therapeutic community options. The backbone of the community mental health service is composed of the following types of services:

- *Community and Outpatient Services*: Community mental health care in Greece is mainly offered by outpatient clinics located in general hospitals or psychiatric hospitals. However, community services per se, such as community mental health centres, mobile units and urgent intervention units, are gradually being deployed. Mobile units in particular offer a massive advantage in a mountainous and island nation like Greece, and often resort to creative means in order to reach isolated parts of the country. Other community services involve private practices and psychotherapy services. These services intertwine and cooperate well as a rule, but coordination can sometimes be a challenge.
- *Day Hospitals*: In the last decade there has been a significant increase in this specific type of centre. Their goal is the prevention and reduction of disability and institutionalization of patients with chronic mental disorders. Daily care centres aim to reintroduce patients with chronic mental disorders to the community as active members. It is vital for such rehabilitation services to collaborate closely with allied professionals such as occupational therapists and social workers. In addition to regular day hospitals, other types exist, such as occupational rehabilitation centres, patient clubs, apprenticeships, supervised work and skills training programs, and self-help groups. Among them, the so-called "Social cooperatives of limited responsibility", a form of mental health cooperative business, usually funded by the government, offers assertive occupational and social rehabilitation interventions, with a focus on societal reintegration.
- *Hostels and Sheltered Housing*: These services have a specific target. They accommodate patients with chronic mental disorders who are unable to fend for themselves and lack a social support network. They comprise post-discharge hostels, hostels for medium-term and extended stay with various supervision forms, boarding schools, secure apartments (supervised placements usually for five to 10 residents), and foster families. Sheltered housing can be a useful interim solution for patients with chronic mental disorders who lack a family or a close safety network. However, when this "interim solution" becomes chronic, a new type of institutionalization ensues.

THE HUMAN FACTOR

According to Eurostat, Greece has 26 psychiatrists per 100000 population, only second behind Germany among EU countries, and the number is on the rise. By contrast, according to the WHO Global Health Observatory[4] in 2016 only 12.75 mental health nurses were available per 100000 population, one of the lowest numbers in the EU. According to the same dataset, 8.78 psychologists were available per 100000 population, but this number is confounded by licensing issues. In Greece, the vast majority of mental health professionals work in large city centres, whilst the rest of the country has evident disproportionate shortages. Numbers aside, continuing professional development is not always actively thought of and is not centrally regulated for mental health professionals. As a result, a culture of ongoing reform is not easily maintained among the workforce. A silver lining is highlighted in the aforementioned ex post evaluation of the psychiatric reform:[2] according to the report authors, Greek mental health professionals have great local and clinical leadership potential, and this potential has not yet been harnessed due to their positioning and the lack of a clear hierarchy.

PERSPECTIVES AND CHALLENGES

Greece has come a long way since Leros[5] and, despite financial and societal setbacks in the last few years, has managed to push its psychiatric reform forward. Figure 1 shows the falling trends in psychiatric beds and a simultaneous rise in the total number of psychiatrists indicates the growth of community mental health care, as shown by the data obtained by Eurostat. Beyond the

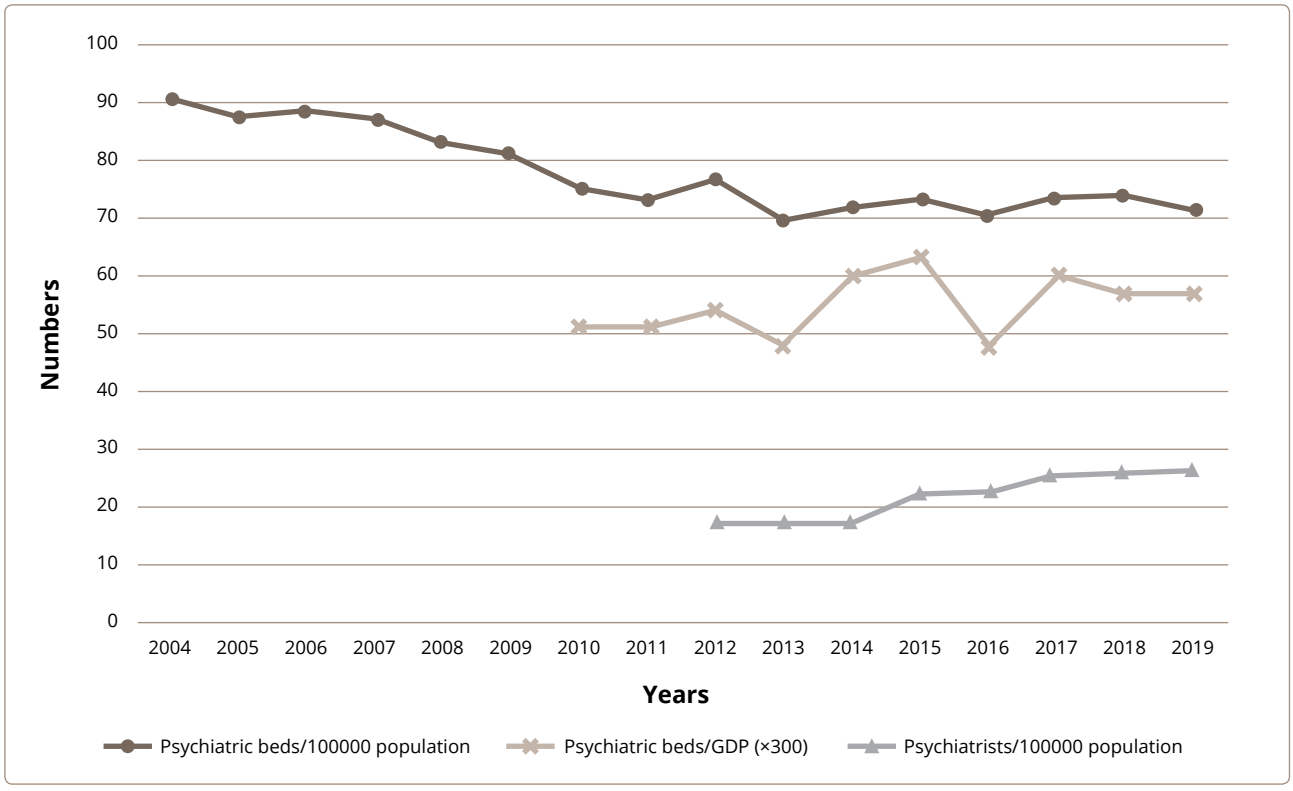

Figure 1. Psychiatric reform trends in Greece: trends in psychiatric beds and total number of psychiatrists.

development of new services, social, economic, and legal standards had to adapt to modern times and incorporate international experience. Importantly, the culture had to shift; mental health had to be elevated in importance and psychiatry had to gain parity of esteem. This change was recently heralded by the appointment of a dedicated Minister for Mental Health, a European first. Despite this good news, there are still organizational shortcomings, a relative lack of a culture of clinical governance, and widespread societal stigma regarding mental health.

Integrated care

Many modern mental health care systems aspire to integrated models of care, as proposed by the World Health Assembly.[6] As far as Greece is concerned such an aspiration is simultaneously its triumph and its nemesis. Its nemesis, because integration requires good organizational skills — not Greece's strong suit. Its triumph, because integrated care — if managed well — has enormous potential in Greece. This is because the country has strong, but largely unlinked institutions: physical health services, social care services, the armed forces, the Orthodox Church, Non-Governmental Organizations, various cooperatives and other social institutions, and active private initiatives.[7]

Patient rights

One of the main challenges still remaining is the high number of involuntary hospitalizations in Greek psychiatric clinics. For instance, involuntary admissions at the Department of Psychiatry, University Hospital of Larisa, constitute about 65% of total admissions, while this percentage rose to 78% during the COVID-19 pandemic (authors' unpublished audit data). Reducing involuntary admissions is a milestone target in the transition towards a new community-centred Greek mental health care system, which will be better positioned to safeguard patient rights.[8]

Clinical governance and leadership

Another shortfall of the Greek system of mental health care is the absence of a culture of clinical governance and leadership across ranks and disciplines. Essential systemic functions like quality improvement are the exception, not the rule. Simple principles, like evidence-informed service development guided by indices

of need, effectiveness, and cost-effectiveness, are seldom used even by policy makers and governmental agencies. Without this framework, a clear assessment of current provisions is not available. Provided Greek mental health professionals and policy makers develop a culture of clinical governance and leadership, modern information technology can provide them with the means to search, observe, trace and finally improve the quality of care given to patients.[9]

Education

To achieve a meaningful mental health service reform, one must also achieve a cultural reform with mental health professionals. This is best achieved through education, and in particular the development of attitudes such as person-centred psychiatric provision,[10,11] respect for human rights and preventive psychiatry. The evolution of a framework of professional development for Greek psychiatrists is imperative and it is the responsibility of the government to empower the Hellenic Psychiatric Association (and other professional associations) to develop and deliver that framework.

Preventive psychiatry

Preventive psychiatry (i.e., mental illness prevention and mental health promotion) is a major point of leverage for the further development of the Greek mental health reform. Combined with evidence-informed service development, prevention can yield remarkably high returns on investment. Smart specific primary and secondary preventive interventions, combined with tertiary prevention through rehabilitation, are a cost-effective and clinically effective investment with guaranteed returns. From an economic and service viability perspective, preventive programs are effective in a three-to-five-year window or earlier, thus making both managerial and clinical sense. Even mental health promotion is advantageous, given that it can yield diffuse but certain results.[12,13] For example, anti-stigma campaigns may not have tangible returns on investment, yet the benefits are certain, albeit dispersed.[14] Preventive psychiatry is an attitude that applies to all mental health services but is implemented chiefly in the community.

CONCLUSION

In conclusion, the Greek mental health care system has come a long way in recent years, but must evolve even further, despite the country's socioeconomic difficulties, in order to improve the level of care provided to patients. Moving in tandem with the international community, Greece must support better community treatment options for mental health patients, but more importantly, Greek mental health needs to invest in education and preventive psychiatry, and to evolve its culture of clinical governance and organization. Greek society must also take an active role, through educational and informative actions, in the continuous battle against stigma.

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References

1. Christodoulou G, Ploumpidis D, Christodoulou N, Anagnostopoulos D. Mental health profile of Greece. *Int Psychiatry*. 2010;7(3):64–67. PMC6734981
2. Loukidou E, Mastroyannakis A, Power T, et al. Evaluation of Greek psychiatric reforms: methodological issues. *Int J Ment Health Syst*. 2013;7(1):11. doi: 10.1186/1752-4458-7-11
3. Souliotis K, Agapidaki E, Tzavara C, Economou M. Psychiatrists role in primary health care in Greece: findings from a quantitative study. *Int J Ment Health Syst*. 2017;11:65. doi: 10.1186/s13033-017-0172-0
4. WHO Global Health Observatory. Accessed November 28, 2021. https://www.who.int/data/gho
5. Research Centre for the Humanities (RCH). Island of the Pariahs: the History of the Leros Psychiatric Hospital (1957–1995). Accessed November 28, 2021. https://www.rchumanities.gr/en/danae-karydaki/
6. World Health Organization. World Health Assembly 64. Strengthening national policy dialogue to build more robust health policies, strategies and plans, WHA64.8, 2011. Accessed November 28, 2021. https://apps.who.int/iris/handle/10665/3563
7. Christodoulou NG, Christodoulou GN. Financial crises: impact on mental health and suggested responses. *Psychother Psychosom*. 2013;82(5):279–284. doi: 10.1159/000351268
8. Douzenis A, Michopoulos I, Economou M, et al. Involuntary admission in Greece: a prospective national study of police involvement and client characteristics affecting emergency assessment. *Int J Soc Psychiatry*. 2012;58(2):172–177. doi: 10.1177/0020764010387477
9. Christodoulou NG, Kollias K. Current challenges for psychiatry in Greece. *BJPsych Int*. 2019;16(3):60–61. doi: 10.1192/bji.2018.23
10. Christodoulou NG, Ramalho R. Changement de paradigme d'une medicine preventive centree sur la maladie a une medicine preventive centree sur la personne. Médecine Pers Un Manif Collect Qui S' Adresse Aux Médecins Soignants Mal Décideurs Paris Wolters Kluwer. 2012;47–54.
11. Christodoulou N, Ramalho R, Larsson M, yuk O. Person-centred medicine and professional development. *Int J Pers Centered Med*. 2011;1(3):581–584.
12. Centre for Mental Health. The economic and social costs of mental health problems in 2009/10. Accessed November 28, 2021. https://www.centreformentalhealth.org.uk/sites/default/files/2018-09/Economic_and_social_costs_2010_0.pdf
13. Knapp M, McDaid D, Parsonage M. *Mental health promotion and mental illness prevention: The economic case.* Department of Health, London; 2011.
14. Kalra G, Christodoulou G, Jenkins R, et al. Mental health promotion: guidance and strategies. *Eur Psychiatry*. 2012;27(2):81–86. doi: 10.1016/j.eurpsy.2011.10.001

Grant Support as an Option for the Solution of Specific and Systemic Problems in the Activities of Non-Profit Organizations

Грантовая поддержка, как вариант решения частных и системных проблем в работе некоммерческих организаций

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Discussion

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ABSTRACT

The existing practices for the participation of non-profit organizations (NPOs) in solutions for social policy problems both in the Western world and in Russia are reviewed in this article, and a comparative analysis of the Russian and foreign experiences in this area is performed. A separate section of the article is devoted to studies of the grant support system for non-profit organizations in Russia. Systemic and specific problems are revealed. Conclusions are made on the imperfections of the evolving system for the interaction between the state and non-profit organizations, particularly in the area of project financing, as well as on the necessity for creating the conditions for the distribution of successful “pilot” projects by individual non-profit organizations within the entire territory of Russia.

АННОТАЦИЯ

В данной статье рассматриваются существующие практики участия некоммерческих организаций (НКО) в решении проблем социальной политики, как на Западе, так и в России; проводится сравнительный анализ российского и зарубежного опыта в данной сфере. Отдельный раздел работы посвящен изучению системы грантовой поддержки НКО в России. Выявлены системные и частные проблемы. Делаются выводы о несовершенстве формирующейся системы взаимодействия государства и НКО, в том числе в вопросах финансирования проектов; а также о необходимости создания условий для тиражирования успешных «пилотных» проектов отдельных НКО на территории всей России.

Keywords: *non-profit organizations; patient organizations; grant; financial stability; social policy; international experience*

Ключевые слова: *некоммерческие организации; пациентские организации; грант; финансовая устойчивость; социальная политика; международный опыт*

INTRODUCTION

An understanding of the historical period to be taken as the baseline for the establishment of the non-profit organization (NPO) institution in Russia is associated with difficulties in the definition of this concept, as well as the concept of a civil society and the interrelation of these concepts with regard to Russia. It should be noted that according to the opinion of Y. Degaltseva, this process traces its roots to the 18th century.[1] According to M. Weber, in the Western world the NPO system began to form due to the rapid development of Protestantism and the Protestant ethic.[2] In Russia the process was interrupted for a long period, and the first non-profit organizations in analogy with the Western type appeared in the USSR only at the end of perestroika. The Russian non-profit organizations obtained the regulatory basis for their activities only in 1996 upon enactment of the Federal Law on Non-Profit Organizations. It is obvious that the Russian NPO institution is still too young, and the gap with the leading Western practices of NPO participation in state social policy is sometimes quite significant. At the same time, there is seemingly nothing fatal in this situation, and the Russian NPO system is merely retracing the same path as Western countries in many aspects, with all the same mistakes and drawbacks.

In this article we will present the foreign experience of NPO participation in state social policy, perform a comparative analysis of the foreign and Russian NPO systems and also discuss the situation regarding the grant financing of non-profit organizations in Russia in more detail.

ON THE MODERN UNDERSTANDING OF PHILANTHROPY: NON-PROFIT ORGANIZATIONS AS AGENTS PROVIDING PUBLIC GOODS

Prior to discussing the issue of grant support in the non-profit sector, we will try to systematize the basic concepts to be used. Academic studies of philanthropy assume a comprehensive definition of philanthropy itself, but there is no universal definition. Philanthropy originated in Ancient Greece, and this concept has been continually subjected to the reflection of scholars ever since. The origins of academic studies of philanthropy are described in more detail in the comprehensive paper by M. Sulek.[3]

At present the definition by L. Salamon (1992) is the most common definition of philanthropy. He defines philanthropy as the "provision of private time or values (money, safety, property) for the public purposes". Then he characterizes philanthropy as "one of the income forms for private non-profit organizations".[4] Taking into account this definition, we understand philanthropy as the spending of private funds for public purposes. At the same time, some historians point out a fundamental difference between "Christian charity" and "scientific philanthropy". This difference became obvious in the Western world as early as the 19th century. In the simplest terms, "Christian charity" always "gives fish", while "scientific philanthropy" goes further and gives "a fishing rod", always striving to eliminate the root causes of social problems in order to ensure their consistent solution. Although few people remember and discuss it nowadays, the entry of foreign funds such as the Soros Foundation and the MacArthur Foundation into post-Soviet Russia particularly helped to preserve the Russian study of fundamental science in many aspects, including fundamental studies in the area of medicine. At present, the private foundations of Vladimir Potanin and Michael Prokhorov have taken up the baton. It is primarily promising projects capable of contributing to systemic changes in social problems, as opposed to salaries, which are financed. Thus, Russian non-profit organizations are mainly involved in the "scientific philanthropy" paradigm, essentially acting as the agents between grant makers, donators, philanthropists and their target audience in need of support. In general, non-profit organizations may be called "the agents" for the provision of public goods. The scientific philanthropy paradigm has its definitive advantages. This is especially true for the category of people with mental development disorders and history of mental illness. In this vein, attended employment projects are commonly considered the most promising nowadays, and these involve "giving a fishing rod". However, the NPO support system in Russia is still at the stage of formation, and there are some contradictions to be further described in more detail.

BEGINNING: THE EXPERIENCE OF THE US NON-PROFIT SECTOR IN THE REHABILITATION OF PSYCHIATRIC SERVICE CONSUMERS — THE EXAMPLE OF FOUNTAIN HOUSE

The rehabilitation of patients with psychiatric experiences by the efforts of non-profit organizations originates from early 1959, with the establishment in the US of Fountain House, a famous international organization.[5] This

organization introduced the concept of a clubhouse. This project is interesting because it is actually a patient community for people with mental disorders. These are usually day centres where some activities are provided. As a rule, a person with a diagnosis is highly stigmatized and seeks support from the reference group of his/her kind, where everything is simple, and they will always be welcomed with all their unique traits.

The concept of a clubhouse is based on the well-known communist principle: "from each according to his/her ability, to each according to his/her needs". Any patient who signs up to the clubhouse rules and accepts its charter may come to a clubhouse. These are usually patients without any obvious acute conditions, but they can have different degrees of functionality. Some of them only sit in the corner silently watching what is happening, whereas others are already willing to be engaged in certain creative activities: plasticine sculpture, embroidery or painting.

The concept of supervised employment originated particularly from these conditions, and self-help groups also began to function there. Canteens or coffee shops and small souvenir workshops where more functional patients worked usually operated in these houses. The coffee shop products were used for the needs of the clubhouse itself and could also be for sale. In these cases there were no strict procedures for the formalization of employment relations or workplace discipline. The only thing to be prescribed was the interchangeability of the patients, and in the case of any exacerbation in the condition of any worker his/her friend would help. Self-help groups began to function in accordance with the same principle. If it was observed that any patient was "lost" and had not appeared for a long time, his/her faithful companions would visit him/her at home. If necessary, they persuaded him/her to consult a doctor or even to take a course of treatment in the hospital. This clubhouse model became so popular over time that it spread across the entire territory of the US, and then global expansion began.

This model came to Russia in the 1990s. In particular, the Neva Clubhouse functioned for a long time in St. Petersburg, before it was liquidated due to changes in the social, economic and mainly political situation. At present, similar patient rehabilitation centres function only in Moscow, Arkhangelsk and Angarsk. The clubhouse model is partially implemented by some Russian non-profit organizations in an abridged form; however, a clubhouse is not only a format but also a certain philosophy — the philosophy of equality and mutual assistance, a departure from the objectification of disabled people with the phrase "our fellows" which has already become traditional, and a philosophy which includes the mechanisms for the development of personal responsibility for oneself and the people around, as well as excellent parameters for rehabilitation and social reintegration. Perhaps Russian society and the Russian third sector are not yet ready for the implementation of this model, although there has been a certain amount of progress which is bound to inspire.

THE SCANDINAVIAN EXPERIENCE

We have already mentioned the origin of the very idea of rehabilitation for disabled people with mental disorders by the efforts of non-commercial organizations within the framework of clubhouse programmes in the US. The subsequent European experience (primarily in Northern Europe) is also quite interesting. We will review the situation in Finland in more detail.

The development and transformation of the public health system in Finland resulted in considerable social changes. According to Hélen and Jauho, extensive networks of non-profit organizations in the area of public health and social security existed as early as the period of the Second World War.[6] However, the institutionalization of the NPO system in the country took place only in the 1960s–70s. The rapid expansion of non-profit organizations in the 1990s was due to a shift in mindset with regard to social policy. More than 2,000 non-profit organizations were established across Finland within a decade.

It is important to note that non-governmental organizations in the area of public health hold 20% of the entire social service market in the country and receive the maximum payments from the budget within the framework of the medical insurance system. Direct allocations from the public health budget of the country are the second source of NPO financing in Finland.[7] Aside from financing, the important role of non-profit organizations in both the development of legislative initiatives and the shaping of the public health policy by the relevant governmental authorities should be noted.

The significant role of non-profit organizations in Finland is due to the existing legislative base, primarily the Public Health Law (1972). In accordance with this law, the public health system is within the jurisdiction of the local authorities. Although some municipal bodies may manage hospitals independently, the majority do it in cooperation with other municipal bodies. The national system includes 278 health centres and 55 hospitals serviced by 20 health care districts.[7] Based on the data by G. Wamai, we present a table on the public health system structure in Finland (Table 1).

As can be seen from the table, 20.6% of the hospitals without any bed capacity are within the jurisdiction of non-profit organizations, and the proportion of the medical personnel in the "third sector" is 5.3%. As far as Russia is concerned, the system for the provision of social services by the efforts of non-commercial organizations is perhaps an exception to the rule, and the share of non-profit organizations in this service market is so small that it does not represent statistically significant figures. We will review the situation in Russia in more detail below.

THE SITUATION IN RUSSIA

Comparing the situation in the non-profit sector in the Western countries and Russia, A. Kochetkov notes that "the non-profit organizations in the social sector are much more developed in the Western world than in Russia as the relations between the third sector and the state in the Western countries are of systemic character".[8] This is due to the absence of any serious financing of the third sector in Russia and the scepticism of the majority of Russian citizens with regard to the possibility of solving socially significant problems via interaction with non-profit organizations. Civic engagement of the public is low. This is caused by the incompetence of many civic activists and a lack of recognition of their activities.

The volunteer movement in Russia is still developing and rather centralized, in comparison to the West European countries, where the independent civic engagement of the public is considerably higher. This is largely due to the centuries-long culture of non-governmental organizations in the social sphere and the confidence of citizens regarding the possibility of the efforts of these organizations having a real influence on the solution of socially significant problems.

The number of non-governmental organizations in Russia has been increasing in recent years. The Civic Chamber of the Russian Federation and the regional Civic Chambers are also developing. The Public Councils of the Russian Association of Mental Health Professionals and the Chief Psychiatrist of the Russian Federation are functioning successfully. According to the data of the Federal State Statistics Service, the number of volunteers is growing annually. The case of the #WEARETOGETHER competition, which transformed from an award in the area of volunteering into an international competition in 2021 and collected thousands of volunteers of various ages under its standards, is illustrative in this sense. At the same time, we are still behind Europe; according to A. Kochetkov, "not more than 10% of the public are engaged in volunteer activities. They are mainly students due to availability of sufficient spare time and increased mobility".[8] It can be stated that at present Russian society has adopted none of the social sphere arrangement models functioning efficiently in the Western countries.

As far as the mechanism for financing NPOs in Russia is concerned, nowadays the state supports non-profit organizations in four areas: (1) grants — special purpose funds provided to non-profit organizations free of charge and without repayment for the implementation of socially significant projects. Such support at the federal level is primarily provided by the Presidential Grants Fund, which has recently established regional operators for

Table 1. Public health infrastructure in Finland

	State				Private		NPO		Total
	Municipal	University	Total	%	Quantity	%	Quantity	%	
Hospitals (without any bed capacity)	55	5	60	58.8	21	20.6	21	20.6	102
Health centres (without any bed capacity)	278		278	99.6			1	0.4	279
Hospitals — bed capacity	17.171		41.081	95.9	1.760	4.1			42.841
Health centres — bed capacity	23.910								
Health care workers			127.632	83.2	17.688	11.5	7.988	5.3	153.318

grant competitions in order to provide local support; (2) subsidies — funds allocated for reimbursement of the current targeted expenditures of organizations for their project activities; (3) contractual relations — the provision of orders for the supply of any goods, performance of works and rendering of services for any national and municipal needs. These relations between the state (the customer) and a non-profit organization (the contractor) are to be governed by the Public Procurement Law prescribing preferential participation terms for socially oriented non-profit organizations; and (4) the provision of tax privileges for both legal entities and individuals donating to non-profit organizations.

During discussion of the draft budget for 2021 and the planning period of 2022–23, the Civic Chamber of the Russian Federation noted a number of significant drawbacks in the drafting of the federal budget.[9] A reduction in the financing of projects related to the support of non-profit organizations in the area of social services and civil society and a considerable reduction in the financing of national projects and governmental programmes were specified. Under the conditions of the COVID-19 pandemic and lockdown, the government of the Russian Federation compiled two registers of non-profit organizations entitled to obtain the implemented support measures. The first register included the organizations that had obtained governmental support within the last three years (particularly the Presidential Grants), and the second register included organizations not specified in the first one but requiring support because of serious losses during the pandemic.

A special purpose unscheduled competition of the Presidential Grants Fund was held to support socially oriented non-profit organizations during the lockdown and pandemic. There were 900 organizations that won the competition. The total amount of the presidential grant within the framework of this competition was ₽2,000,000,000. However, the social demand for the support of socially oriented non-profit organizations is continuously increasing. Additional support measures will be implemented for non-profit organizations and volunteers, enabling them to provide assistance in this area.

Non-profit organizations in the Russian Federation rely on their own financial activities and private donations, but a considerable number of non-profit organizations prefer to work with grants. This approach is especially justified under the crisis conditions. Unfortunately, there are no up-to-date data for the crisis year of 2020, but we will present comparative data for 2013 and 2014. While in the pre-crisis year of 2013, 55% (or 555,200,000 USD) was donated by individuals, 38% (or 381,800,000 USD) by companies, and only 7% (72,500,000 USD) by funds, the pattern changed considerably during the crisis of 2014: 29% by funds, 55% by companies and only 16% by individuals.[10]

In 2020 the NPO financing structure again underwent changes due to an increase of financing from funds, which was evidenced by the experts stating that the inflow of corporate donations had reduced in the ideal case or even stopped completely during the pandemic. Thus, grants remain the most sought-after source of financing for non-profit organizations during crisis periods.

GRANT SUPPORT OF NON-PROFIT PROJECTS IN RUSSIA: OPPORTUNITIES AND THE FINANCIAL STABILITY LIMITATIONS OF NON-PROFIT ORGANIZATIONS

Our work includes the experience of efficient interaction between the All-Russia Society of Persons with disabilities (ARSP) "New Choices" in St. Petersburg and the donator (the Presidential Grants Fund). Activities of the ARSP "New Choices" have been aimed at interaction with the families of patients since 2001, particularly for the creation of informational and psychological resources in order to cope with mental disorders and their consequences.

The activities of the same organization in St. Petersburg, within the framework of the project supported by the Civil Society Development Presidential Grants Fund of the President of the Russian Federation, became a logical extension of the activities carried out at the previous stages of the organization's work. This project was called "Informational and Psychological Support for the Relatives of Persons with Mental Disabilities as the Component of Social Adaptation for the Family in the New Status" (grant contract number 18-1-002037). The activities were developed in four basic areas: (1) informational support for the relatives of persons with mental disabilities via the Internet, (2) online consultations with a mental health professional, (3) regular face-to-face informational psychoeducational seminars for relatives and (4) face-to-face group work with a psychologist for the relatives of persons with mental disabilities containing elements of art therapy.

However, there are many examples of our applications and personal participation in grant competitions that we failed to win for any reason. A review of our failures and of the study performed by the CAF Charity Fund in 2020 upon the initiative of the Association of Socially Oriented Non-Profit Organizations "All Together Charity Community"[11] has enabled us to identify the main problems occurring in the course of interaction between the funds and the grant recipients.

SYSTEMIC PROBLEMS:

- the NPO market is growing, and the "profit" from charity donations is often obvious; so, dozens of detractive non-profit organizations and individuals appear, defaming this area of activities considerably
- the popularity of "digital begging" is rapidly growing, where donations are requested in a manipulative form at the drop of a hat. The purpose for which the donations are spent is not always transparent, thus also defaming the very idea of such help.

The market mechanisms in Russia are still imperfect in general. The mechanisms for regulating the charity market in Russia or "the capitalism of good deeds" are also imperfect. It is no secret that the efficiency criterion still remains the main criterion within the framework of market relations. That is why each fund wants to know how much public good and charity is provided per each spent ruble. The funds are not interested in financing any project which does not comply with the stability criteria; it is not in the best interests of the funds to finance any projects with an uncontrollable efficiency measurement system. The most unusual point is that there are no National State Standards for charities at present. No systemic activities are carried out in this area as yet. The conditions are such that each non-profit organization will develop its own National State Standard from ground zero. As the "rules of the game" are not clear, everybody will interpret them differently. We will identify specific problems in the interaction between non-profit organizations and the funds below.

SPECIFIC PROBLEMS

Stigmatization among the donators of non-profit organizations associated with mental disorders. Various regional centres support many useful projects willingly and routinely: the prevention of HIV infection, the development of culture and cinematography and the employment of schoolchildren in summer and their recreation, as well as single mothers, orphans and different groups of disabled people (with impaired hearing, vision or locomotion systems). On the contrary, non-profit organizations supporting disabled people with mental disorders often cannot rely on any regional subsidies. Granted activities in this area cannot be demonstrated and promoted as widely as assistance to any other non-profit organizations; this subject is often "third-rail", as is the case for hospices, or help for critically ill and incurable patients. There is a lack of property support for non-profit organizations in the area of mental health. They often receive "subsidized" premises without proper working conditions. Due to the individualities of the NPO activities, rather uncommon problems often occur that are difficult to solve within the framework of general rules and require a personal approach. But many grant programme managers of the major funds are not involved in the agendas of these non-profit organizations and not ready to delve in to solve the problem.

The terms of grant competitions. These are often similar with regard to requirements for the budget and areas of expenditures acceptable for the projects. But the activities of non-profit organizations can differ to a great extent; for example, some non-profit organizations provide services to target groups, and others arrange large-scale events, etc. There is no clear understanding of the criteria established by the donator for the grant activities.

Marginal determination of the salary rates for grant projects. Expenditures for human resources, i.e., the salaries of people working every day to make the social changes possible, are one of the most important budget items for many non-profit organizations aimed at long-term outcomes. At the same time, donators often raise artificial obstacles for financing these expenditures. The terms and conditions of competitions often contain formal restrictions with regard to remuneration, the rental of premises and other administrative costs in the project budget, as well as to the salary rates that may be paid from the granted funds. The organizations have to use indirect schemes and be evasive in order to comply with the competition terms, thus resulting in a lack of trust between the donator and the recipient. The applicants try to specify low salaries in the application, and then raise additional funds in other ways.

Non-profit organizations also lack the resources for organizational infrastructural development because such competitions are very rare. Sometimes the grant recipients find themselves in the position of a pleader, and the competition supervisor treats them as if they have wasted his or her personal money. In this case non-profit organizations do important social work — sometimes work which the governmental organizations would not undertake for any reason (and if they undertook it then it would certainly be much more expensive). At times, the non-profit organization and the supervisor spend too much effort, time and other resources on such difficult communication.

Co-financing problems. The co-financing of projects is required in the majority of grant competitions. On the one hand, it is clear that the donator wants to know that he/she is not alone in investing the money into the project. But 46% of the surveyed non-profit organizations note that the conditions with regard to raising funds in the form of co-financing seem difficult for them, and they often have to invest their own money/resources. In the majority of cases it turns out that co-financing in NPO applications means the organization's own resources, such as their premises, the labour of volunteers, etc. In some very rare cases non-profit organizations have and can demonstrate co-financing from other donators. Our activities are not annual. In 90% of cases co-financing is the voluntary labour of the non-profit organization itself.

Absence of clear criteria for inclusion into the grant programme. Situations often occur with the grant applications when one and the same project is evaluated differently within the framework of the same competition. Things are becoming even more complicated due to the fact that the majority of donators fail to provide any feedback to applications and do not explain the reasons for refusal. As a result, many non-profit organizations (more than half of them according to surveys) do not understand why they have been evaluated in one way and not another.

Impact of inflation and long application review periods. Sometimes (especially in the regional competitions) non-profit organizations have to re-approve plans and budgets. The detailed plan and budget have to be submitted at the stage of application, but time delays require the introduction of certain adjustments into the budget due to existing inflation, and then the approval procedure starts again.

Grant administration. This takes a lot of time and resources: non-profit organizations often face the formal or non-professional attitudes of the managers on the part of the donator. The requirements for reporting are constantly increasing. The reporting stage raises the majority of questions among non-profit organizations. The problem is increasing from year to year, with more and more documents and reports required. This increases the administrative burden on the non-profit organizations for grant servicing. The requirements for reporting often seem formal and pointless, and do not correspond to project activities, such as requirements for photos of the persons under care, photographic reports on the number of any event participants, etc. Sometimes the donators impose absurd requirements, such as demands for the personal data of the recipients, requests for photos of dinners at the events, or attempts by their representatives to attend the personal meetings of the recipients with psychologists, etc. For instance, there are known cases where the granting organization expressed a wish to attend the psychologist's consultation in the course of individual work in order to control the NPO activities.

The activists propose to adopt a targeted programme for the support of civic initiatives and socially oriented non-profit organizations and register the new support measures in it. It is also proposed that the authorities involved in the interaction with non-profit organizations delegate to a single decision-making centre for non-profit sector issues.

In addition, it is also proposed that a single co-working space with convenient furniture, flip charts and projection units in each large city or provincial capital for volunteer conferences, training seminars and meetings with the beneficiaries of various non-profit organizations be arranged.

CONCLUSION

In this paper we identified some difficulties in the establishment of the NPO institution in Russia. It is obvious that the state has great hopes for the development of social institutions. At the same time, the main problem remains unsolved — whether non-profit organizations are capable of taking up at least some functions of the state for solving social policy issues. Unfortunately, successful cases of projects for attended accommodation, employment, etc., still remain non-recurrent and unique

successful cases (functioning under specially arranged "pilot" conditions). The problem is related not only to the lack of experience among non-profit organizations but also to the absence of any elaborated legislative basis in the Russian Federation capable of "recording" the main problems of disabled or health-impaired people and the fair distribution of various financial resources for consistent social support of such people at different levels. Non-profit organizations can implement pilot projects that may be expanded later subject to systemic support from the state.

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References

1. Degal'tseva EA. Nepoliticheskie obshchestvennye formirovaniya v gosudarstvennoi strukture dorevolyutsionnoi Rossii. Accessed November 26, 2021. https://zaimka.ru/degaltseva-voluntary/
2. Veber M. *Protestantskaya etika i dukh kapitalizma: Izbrannye proizvedeniya*. Progress; 1990.
3. Sulek M. On the Classical Meaning of Philanthrôpía. *Nonprofit and Voluntary Sector Quarterly*. 2009;39(3):385–408. doi: 10.1177/0899764009333050
4. Salamon LM. *America's nonprofit sector*. The Foundation Center; 1999.
5. Creating Community: Changing the World of Mental Health. Clubhouse International. Accessed December 1, 2021. https://clubhouse-intl.org/
6. Helen I, Jauho M. Governing Public Health In Finland 1879–1972. Paper presented at: European Health and Social Welfare Policies; 2002.
7. Wamai GR. NGO and public health systems: Comparative trends in transforming health care systems in Kenya and Finland. Paper presented at: International Society for Third Sector Research (ISTR) Sixth International Conference on "Contesting Citizenship and Civil Society in a Divided World"; July 11–14, 2004; Toronto. Accessed November 26,2021. https://www.researchgate.net/profile/Richard-Wamai/publication/228603572_NGO_and_Public_Health_Systems_Comparative_Trends_in_Transforming_Health_Care_Systems_in_Kenya_and/links/00b495220465cbe947000000/NGO-and-Public-Health-Systems-Comparative-Trends-in-Transforming-Health-Care-Systems-in-Kenya-and.pdf
8. Kochetkov AP. Vzaimodeistvie tret'ego sektora i gosudarstva v stranakh Zapada i Rossii: sravnitel'nyi analiz. *PolitBook*. 2018;(3):35–51.
9. Doklad o sostoyanii grazhdanskogo obshchestva v Rossiiskoi Federatsii. Obshchestvennaya palata RF. 2020. Accessed November 26, 2021. http://report2020.oprf.ru/upload/OPRF2020.pdf
10. Coutts Institute. Philanthropy. Russia Report. Accessed November 26, 2021. https://philanthropy.coutts.com/en/reports/2015/russia/findings.html
11. Analiticheskii otchet Blagotvoritel'nogo Fonda «KAF» Konkursy, otchety, granty: kak uluchshit' otnosheniya NKO i donorov? Accessed November 26, 2021. http://cafrussia.ru/storage/files/file-151.pdf