



**Medical University "Prof. Dr. Paraskev
Stoyanov" - Varna**

Department of Health Care, Affiliate Sliven

Teodora Staneva Radeva

Nursing care for dependent patients with psychiatric comorbidity

ABSTRACT

of a thesis for award of educational and scientific degree of Doctor

Scientific speciality "Health Care Management"

**Doctoral supervisors
Prof. Hristo Kozhuharov, PhD
Prof. Elena Zheleva, PhD**

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The thesis contains 126 pages, including 59 tables and 13 figures. The bibliography contains 187 literary sources, 40 of which are in Bulgarian language and 147 – in English.

A total of 2 publications were made in connection with the thesis. The thesis was discussed and referred for public defence by the Academic Council of the Department of Health Care at the Medical University - Varna on 18.05.2023

The public defence will take place on 18.05.2023 at 1:00 p.m. in the Aula of Affiliate Sliven, in accordance with Rector's order No P-109-197/16.03.2023 before a scientific jury composed of:

External members:

- 1. Professor Maria Atanasova Semerdzhieva, PhD (review)**
- 2. Professor Biyanka Lyubchova Tornyova, PhD (review)**
- 3. Associate Professor Kristina Petrova Zaharieva, PhD, (opinion)**

External reserve member

- 1. Associate Professor Maria Dimitrova, PhD - external reserve member**

Internal members

- 1. Associate Professor Emilia Petrova Georgieva, PhD**
- 2. Associate Professor Anna Petrova Georgieva, PhD**

Internal reserve member:

Associate Professor Silviya Ivanova Filkova, PhD

The defence materials are published on the websites of Medical University Varna and are available in the Library of MU "Prof. Dr. Paraskev Stoyanov" - Varna and the Department of Health Care, Affiliate Sliven.

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Introduction

Mental health is one of the biggest challenges facing any country. Good mental health is the basis for a full and productive life. Its importance is growing worldwide. The problems associated with mental health have medical, social and financial dimensions. The COVID-19 pandemic has further exacerbated this issue, placing an even greater burden on these dimensions.

Comorbidity is the presence of a concomitant or additional disease to the main one. The presence of addiction and a co-occurring mental disorder is high. The combination of more than two disorders developing simultaneously affects nursing care, creates therapeutic and diagnostic difficulties to differentiate and treat each of them. Dependent patients with a psychiatric comorbidity have worse outcomes than patients diagnosed with only one of the two disorders.

No common European study has been made on the frequency of comorbidity. Only partial research related to psychiatric comorbidity among users of psychoactive substances (PAS) has been conducted in Bulgaria so far. Our country ranks last in Europe in terms of care for the mentally ill.

Their life expectancy is shorter than that of the general population mainly due to the more frequent somatic complications resulting from the use of PAS and alcohol, overdose, acute intoxication or frequent suicides. The social assessment is also important because of lost work capacity and education as these patients often become the subject of pre-trial proceedings and represent a burden for relatives.

The fight against stigma and discrimination affecting mental patients and substance addicted patients is also important. The stigma is the main cause of discrimination against them, disrupting their family relationships and their ability to socialize.

Nursing is part of the health care system, and nursing care is the largest component and is directly related to positive patient outcomes. The role of nurses in **mental health care** in the **community** is explored and compared with concepts of follow-up care that begins before a patient leaves the psychiatric facility. Walgrove (1985) has rightly emphasized that nurses are a natural bridge between the hospital and the community. Psychiatric nurses have an extremely responsible role involving the provision of support to patients, their relatives, restoring social functions and improving the quality of life. There are no normative standards for psychiatric health care in this country to provide guidance to nurses. **The relevance** and significance of the problem of nursing care for dependent patients with psychiatric comorbidity is invariably present in nursing practice and science. Despite the high prevalence and negative consequences for public health, little is known about the reasons for the increased comorbidity. In Bulgaria, partial studies related to the psychiatric comorbidity among users of psychoactive substances have been conducted so far. No study of the role of psychiatric medicine in dependent patients with psychiatric comorbidity in Bulgaria was not found. This non-interventional study does not claim to be comprehensive, but it is assumed that the conducted investigation will serve as a basis for improving the nursing care for dependent patients with psychiatric comorbidity, both for nurses and the multidisciplinary clinical team working with such patients and for training students specializing in health care.

CHAPTER TWO

2.1. Goal and tasks of the study

Goal and tasks of the study

To study the organization of psychiatric health care for dependent patients with psychiatric comorbidity in hospital and non-hospital settings and to determine the possibilities for their optimization.

The following tasks were set in order to achieve the goal:

1. To present the essential characteristics of psychiatric health care for dependent patients with psychiatric comorbidity.
2. To study the needs of complex treatment and rehabilitation of dependent patients with psychiatric comorbidity and evaluate their organization in the current health system.
3. To investigate the awareness /knowledge and skills/ of psychiatric nurses and the multidisciplinary clinical teams regarding the behaviour towards dependent patients with psychiatric comorbidity and the organization of the care for such patients.
4. To establish the attitude of third and fourth-year nursing and midwifery students to working with dependent patients with psychiatric comorbidity.
5. Study of codependency in relatives of patients with addiction.
6. To analyze the preparedness of nurses and patients to set up and operate a specialized psychiatric nursing practice to support dependent patients with psychiatric comorbidity.

Subject of the study are dependent patients with psychiatric comorbidity, nurses and multidisciplinary clinical teams, third and fourth-year nursing and midwifery students, relatives of the patients and the relapse in patients 1 to 3 months after dehospitalization.

The object of the study is the organization of psychiatric health care for dependent patients with psychiatric comorbidity in hospital and outpatient settings.

2.2 Study hypotheses

1. The organization of psychiatric health care for dependent patients with psychiatric comorbidity does not meet the needs and expectations of patients and their relatives.
2. There is a need for additional training with an emphasis on nursing care and multidisciplinary clinical teams working with dependent patients with psychiatric comorbidity.
3. The inclusion of psychiatric nursing practice for dependent patients with psychiatric comorbidity can serve as an instrument for improving psychiatric health care in this country.

2.3 Organization of the study

Scope of the study – 294 persons distributed as follows:

- Nurses - 44 and multidisciplinary clinical teams - 14 working at the psychiatry clinics of University General Hospital “Sveta Marina”, Varna
- Dependent patients with psychiatric comorbidity who were treated at the Second Psychiatric Clinic of University General Hospital “Sveta Marina”, Varna – 68
- Codependents – members of the patient’s family - 68
- Third and fourth-year nursing students and fourth-year midwifery students from all departments of Medical University Varna for the period of the study – 100
- Patients with relapse within 1 to 3 months after discharge – 38

Inclusion criteria for the persons involved in the study:

First group: For patients with psychiatric comorbidity:

- Patients over 18 years of age.
- Patients who have signed informed consent.
- Patients with a confirmed diagnosis of mental and behavioral disorders due to psychoactive substance/alcohol use and psychiatric comorbidity.
- Patients who have undergone treatment and are about to be discharged.
- Patients who have basic education.
- Patients who can read and write in Bulgarian.
- Patients who have no traumatic damage to the Central Nervous System.

Second group: For codependents from the patient's close family included in the study

- Over 18 years of age.
- Signed informed consent.
- A relative of a person who has been hospitalized at University Hospital Sveta Marina EAD Varna “for the period of the study”.

Third and fourth group: For medical staff (health care specialists and members of multidisciplinary clinical teams)

- Over 18 years of age.

- Signed informed consent.
- Working in the structure of the psychiatric clinics of University Hospital Sveta Marina EAD Varna.

Fifth group: For students

- Over 18 years of age.
- Signed informed consent
- Third and fourth-year nursing students and fourth-year midwifery students

Sixth group: For patients who have had a relapse within 1 to 3 months

- Over 18 years of age.
- Signed informed consent
- Patients who have had a relapse within 1 to 3 months

Exclusion criteria for the groups participating in the study

- 1) Patients placed under total restraint.
- 2) Refusal to sign an informed consent or withdrawal of the informed consent.
- 3) Patients with traumatic damage to the Central Nervous System.
- 4) Patients who are unable to read and write in Bulgarian
- 5) Patients who have no basic education.

2.3.1. Time and place of the study

The study was held in the Psychiatric Clinics of University Hospital “Sveta Marina” EAD, Varna, as well as at Medical University “Prof. Dr. Paraskev Stoyanov” and all of its affiliates in Varna, Shumen, Veliko Tarnovo and Sliven.

The main part of the study was carried out independently by the author. The cooperation of the Directors of the affiliates and the Head of the Health Care Department of Medical University of Varna was used for the research of the opinion of “Nurse” and “Midwife” students.

All participants were informed in advance about the purpose and methodology of the study and were trained to work with the questionnaires.

Sources of information

- Available scientific literature
- Available national and international regulatory documents
- Opinion of nurses, multidisciplinary clinical teams working in the psychiatric clinics of University General Hospital “Sveta Marina”, Varna, hospitalized patients who were treated at the Second Psychiatric Clinic of University General Hospital “Sveta Marina”, Varna, relatives and cohabitants of patients, third and fourth-year nursing students and fourth-year midwifery students

This study was approved by the Commission for Ethics of Research at Medical University – Varna with Decision No. 111/20.01.2022.

2.4 Methods of investigation

To achieve the goal and objectives, the following studies were conducted:

- Study of the awareness /level of knowledge/ and professional competences of nurses and multidisciplinary clinical teams working with dependent patients with psychiatric comorbidity and the possibility of optimizing health care as well as the attitude of third and fourth-year nursing and midwifery students when working with them
- Study of the organization and identification of challenges in providing health care to dependent patients with psychiatric comorbidity based on historical review and opinion of nurses, multidisciplinary clinical teams, students and relatives of dependent patients with psychiatric comorbidity.
- Survey of six groups of research participants – patients with addiction and psychiatric comorbidity, nurses working in the psychiatric clinics of University General Hospital “Sveta Marina”, Varna, multidisciplinary clinical teams /doctors, psychologists, occupational therapists, social workers/, third and fourth-year nursing and midwifery students, cases of relapse for 1-3 months in patients with addiction and psychiatric comorbidity.
- Self-assessment questionnaire for codependency by (V. Tkacheva) for relatives and cohabitants of dependent patients with psychiatric comorbidity.

2.4.1 Documentary method - for the analysis of literary sources, documents, and legal acts that describe the investigated issues.

2.4.2 Statistical methods - for summarizing, systematizing, analyzing and interpreting the statistical indicators with a view to revealing the essence of the observed phenomena and relationships. The following are attached:

- Descriptive statistics
- Cronbach’s alpha method for studying internal consistency

2.5. Survey tools

Anonymous surveys were elaborated to conduct the survey of six groups of respondents. The survey cards for some of the participants – nurses and patients (appendix #1 and #2) – were borrowed from V. Vasileva’s thesis (2022).

A self-assessment questionnaire for the study of codependency elaborated by V. V. Tkacheva, translated by Kiril Kunchev, was also used.

A direct anonymous survey questionnaires was used to investigate the awareness, quality and efficiency of care, and the possibility to optimize psychiatric health care. To ensure the better processing of the primary information, the survey questionnaires contain closed questions with pre-formulated variations and semi-closed questions with pre-formulated

variations of part of the answers and a possibility to express opinions. Some of the questions allow for more than one answer within the provided pre-formulated variations. Four groups of respondents (nurses, multidisciplinary clinical teams, patients, students) were asked about the same problem of interest (for example, awareness, quality and efficiency of care) in order to obtain information for comparison.

The respondents are persons over 18 years of age who were treated at the Second Psychiatric Clinic of University General Hospital “Sveta Marina”, Varna, with a confirmed diagnosis according to ICD 10 **Mental and behavioural disorders due to psychoactive substance use/alcohol and an accompanying mental illness, according to ICD 10 and DSM-V criteria.**

Six groups of participants were screened over the course of one year.

- Nurses and Medical Paramedics working in the Psychiatric Clinics of University General Hospital “Sveta Marina”, Varna. Prepared survey card #2 containing open, closed and semi-open questions, divided into sections: awareness, health care, satisfaction, demographic variables – sex, age, place of residence /Appendix #2/.
- Third and fourth-year nursing and midwifery students. Prepared survey card #3 and survey card #4 containing open, closed and semi-open questions, divided into sections: awareness, professional training, demographic indicators – sex, age, place of residence /Appendix #3, Appendix #4/.
- Multidisciplinary clinical team consisting of doctors, social workers, psychologists, occupational therapists. Prepared survey card # 5 containing open, closed, and semi-open questions, divided into sections: awareness, quality and efficiency of care, demographic indicators – sex, age, place of residence /Appendix # 5/.
- Questionnaire in case of relapse in dependent patients with psychiatric comorbidity within a period of 1 to 3 months. Prepared survey card # 6 containing closed questions distributed into sections: sociodemographic indicators, individual factors, cause of relapse /Appendix # 6/.
- Self-assessment questionnaire for codependency by V.V. Tkacheva translated by Kiril Kunchev consisting of 16 questions – used for relatives and cohabitants of dependent patients with psychiatric comorbidity /Appendix #7/.
- Patients who were treated at the Second Psychiatric Clinic with a confirmed diagnosis according to ICD-10 Mental and behavioral disorders due to alcohol/psychoactive substance use and an accompanying mental illness. Prepared survey card # 1. It contains open, closed and semi-closed questions, distributed into sections: awareness, quality and efficiency of care, demographic indicators – sex, age, place of residence /Appendix #1/.
- Retrospective study of the available medical records.
- Statistical methods. The data obtained during the study was processed using specialized statistical software packages STATGRAPHICS; SPSS and EXCEL for Windows. The results are described in tables, graphs and numerical indicators for structures, frequency, average values.

Scope of the study – 294 persons were included, distributed as follows:

- 44 nurses and 14 multidisciplinary clinical teams working in the Psychiatric Clinics of University General Hospital “Sveta Marina”, Varna
- 68 dependent patients with psychiatric comorbidity treated at Second Psychiatric Clinic of University General Hospital “Sveta Marina”, Varna
- 68 codependents – close relatives of the patient
- 100 third and fourth-year nursing students and fourth-year midwifery students from all departments of Medical University Varna for the period of the study.
- 38 patients with relapse within 1 to 3 months after discharge.

Criteria for inclusion of persons in the study:

First group: For patients with psychiatric comorbidity:

- Patients over 18 years of age.
- Patients who have signed informed consent.
- Patients with a confirmed diagnosis of mental and behavioral disorders due to psychoactive substance/alcohol use and psychiatric comorbidity.
- Patients who have undergone treatment and are about to be discharged.
- Patients who have basic education.
- Patients who can read and write in Bulgarian.
- Patients who have no traumatic damage to the Central Nervous System.

Second group: For codependents from the patient's close family included in the study

- Over 18 years of age.
- Signed informed consent.
- A relative of a person who has been hospitalized at University Hospital Sveta Marina EAD Varna “for the period of the study”.

Third and fourth group: For medical staff (health care specialists and members of multidisciplinary clinical teams)

- Over 18 years of age.
- Signed informed consent.
- Working in the structure of the psychiatric clinics of University Hospital Sveta Marina EAD Varna.

Fifth group: For students

- Over 18 years of age.
- Signed informed consent
- Third and fourth-year nursing students and fourth-year midwifery students

Sixth group: For patients who have had a relapse within 1 to 3 months

- Over 18 years of age.
- Signed informed consent
- Patients who have had a relapse within 1 to 3 months

Exclusion criteria for the groups participating in the study

- 6) Patients placed under total restraint.
- 7) Refusal to sign an informed consent or withdrawal of the informed consent.
- 8) Patients with traumatic damage to the Central Nervous System.
- 9) Patients who are unable to read and write in Bulgarian
- 10) Patients who have no basic education.

Time and place of the study

The study was held in the Psychiatric Clinics of University Hospital “Sveta Marina” EAD, Varna, as well as at Medical University “Prof. Dr. Paraskev Stoyanov” and all of its affiliates in Varna, Shumen, Veliko Tarnovo and Sliven.

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All contributors were informed in advance about the purpose and methodology of the study and were trained to work with the questionnaires.

Sources of information

- Available scientific literature
- Available national and international regulatory documents
- Opinion of nurses, multidisciplinary clinical teams working in the psychiatric clinics of University General Hospital “Sveta Marina”, Varna, hospitalized patients who were treated at the Second Psychiatric Clinic of University General Hospital “Sveta Marina”, Varna, relatives and cohabitants of patients, third and fourth-year nursing students and fourth-year midwifery students

This study was approved by the Commission for Ethics of Research at Medical University – Varna with Decision No. 111/20.01.2022.

Chapter III

Results and Discussion

3. Organization of care for dependent patients with psychiatric comorbidity

3.1 Results of a study of dependent patients with psychiatric comorbidity

70 patients were invited to be examined for the needs of the study and 68 of them expressed consent to participate - (-% of response - 97%). The participants in the study were comorbid patients discharged in the period from January 2022 to December 2022 from the Second Psychiatric Clinic of University General Hospital “Sveta Marina”, Varna, with a confirmed diagnosis according to ICD 10 **Mental and behavioural disorders due to psychoactive substance use/alcohol and an accompanying mental illness, according to ICD 10 and DSM-V criteria.**

3.1.1 Patient demographics

	Frequency	Percentage	Valid percentage	Cumulative percentage
Men	54	79.4	79.4	79.4
Women	14	20.6	20.6	100.0
Total	68	100.0	100.0	

Number	68
Mean	38.56
Standard deviation	9.924
Minimum	21
Maximum	61

The distribution by sex was dominated by men 79,4% compared to women 20,6% and the mean age was 38,56 years.

3.1.2. Organization of psychiatric health care.

This section investigated the organization of admission, the sequence of hospitalization, the assessment of the quality of health care, the assessment of the communication of health care professionals with the patients.

	Frequency	Percentage	Valid percentage	Cumulative percentage
First time	20	29.4	29.4	29.4
Second time	10	14.7	14.7	44.1

Multiple	38	55.9	55.9	100.0
Total	68	100.0	100.0	

More than half of the patients (n=38) or 55.9% had multiple hospitalizations. The percentage of primary hospitalizations is also substantial (n=20) or 29.4%. Our study compared hospitalizations before and during COVID-19 at the Second Psychiatric Clinic, Narcology strand, January-March 2019 /the period before the COVID-19 pandemic/ and January-March 2021 / the period during the COVID-19 pandemic/. The analysis of the results indicates an increase in primary hospitalizations - 30.56% during the pandemic period in 2021 compared to pre-pandemic primary hospitalizations of 19.51% in 2019. The hospitalizations were predominantly due to alcohol use, followed by combined use and opioid dependence [31].

3.1.3 Organization of hospital admission

Table 4 Admission to hospital

	Frequency	Percentage	Valid percentage	Cumulative percentage
Definitely yes	53	77.9	77.9	77.9
Rather yes	11	16.2	16.2	94.1
I don't know	2	2.9	2.9	97.1
Rather no	1	1.5	1.5	98.5
Definitely no	1	1.5	1.5	100.0
Total	68	100.0	100.0	

It is known that the first impressions of patients during admission to a hospital are of great importance for their further attitude, compliance with the prescribed treatment and advice. It was established that 94.1%, Table 4, responded that they were definitely satisfied when admitted to the hospital. The percentage of those expressing dissatisfaction with the manner of admission is small.

Table 5 Information about the Internal order in the department

	Frequency	Percentage	Valid percentage	Cumulative percentage
Definitely yes	54	79.4	79.4	79.4
Rather yes	6	8.8	8.8	88.2
I don't know	3	4.4	4.4	92.6
Rather no	4	5.9	5.9	98.5
Definitely no	1	1.5	1.5	100.0
Total	68	100.0	100.0	

In psychiatric wards for dependent patients great importance is attached to the internal order regulations of the ward as their acceptance by patients constitutes a kind of contract with them; some of the rules are not so easy to implement and involve a number of restrictions /no phone, no lighters, no cigarettes, etc./. Expressing consent with these rules is a good sign for the further treatment of the patients.

Table 6 Do you think that medical professionals spend enough time talking to you?

	Frequency	Percentage	Valid percentage	Cumulative percentage
Definitely yes	43	63.2	63.2	63.2
Rather yes	13	19.1	19.1	82.4
I don't know	4	5.9	5.9	88.2
Rather no	6	8.8	8.8	97.1
Definitely no	2	2.9	2.9	100.0
Total	68	100.0	100.0	

The majority of patients - 82.4% - rate very well the time allocated by the nurses to talk with them.

Many of the answers to this question and the appreciation of the quality of health care were found to overlap - 85.3%.

This is an indirect sign that communication with nurses is a prerequisite for satisfaction with health care.

Table 7 Evaluation of the organization and quality of work in the department

	Frequency	Percentage	Valid percentage	Cumulative percentage
Excellent	29	42.6	42.6	42.6
Very good	29	42.6	42.6	85.3
I don't know	6	8.8	8.8	94.1
Satisfactory	3	4.4	4.4	98.5
Poor	1	1.5	1.5	100.0
Total	68	100.0	100.0	

3.1.4 Patient awareness

The awareness of patients regarding types of dependence, novelties in treatment, the risks and effects of PAS on the body, presence of addiction and accompanying mental illness, complications after use, and rehabilitation centres working with addicted (dependent) patients.

The results regarding the types of addictions, risks and effects on the body, as well as the complications during use are presented in Table 8, Table 9, Table 10.

Table 8 Patient awareness – types of dependence

	Frequency	Percentage	Valid percentage	Cumulative percentage
Poor	8	11,8	11,8	11,8
Average	7	10,3	10,3	22,1
Good	16	23,5	23,5	45,6
Very good	14	20,6	20,6	66,2
Excellent	23	33,8	33,8	100,0
Total	68	100,0	100,0	

	Frequency	Percentage	Valid percentage	Cumulative percentage
Poor	4	5,9	5,9	5,9
Average	7	10,3	10,3	16,2
Good	11	16,2	16,2	32,4
Very good	13	19,1	19,1	51,5
Excellent	33	48,5	48,5	100,0
Total	68	100,0	100,0	

Table 10. Patient awareness – complications after use of PAS

	Frequency	Percentage	Valid percentage	Cumulative percentage
Poor	13	19,1	19,1	19,1
Average	11	16,2	16,2	35,3
Good	8	11,8	11,8	47,1
Very good	10	14,7	14,7	61,8
Excellent	26	38,2	38,2	100,0
Total	68	100,0	100,0	

Patients evaluate their awareness regarding the types of addictions in the positive part of the scale – good, very good and excellent - a total of 83%, and the largest percentage evaluating it as excellent - 38%. The awareness of the risks and impact of PAS is similar - 83%, and an even larger percentage - 48.5% - assess themselves as having excellent awareness. A large percentage, although lower – 56%, of patients evaluate their awareness of the risks and impact of PAS as very good. It is logical that the self-assessment of awareness regarding novelties in the treatment of addictions is lower - 45%. The low awareness of the presence of rehabilitation centres dealing with dependent patients is a cause for concern - 36.8%. The insufficient awareness of the appropriate forms of continuing treatment in outpatient settings can be an obstacle to its conducting and an important pre-condition for a patient's permanent social maladjustment.

They assess as poor and unsatisfactory their awareness of their own condition – addiction and accompanying mental illness - 42.6% of patients.

	Frequency	Percentage	Valid percentage	Cumulative percentage
Poor	28	41,2	41,2	41,2
Average	12	17,6	17,6	58,8
Good	10	14,7	14,7	73,5
Very good	11	16,2	16,2	89,7
Excellent	7	10,3	10,3	100,0
Total	68	100,0	100,0	

	Frequency	Percentage	Valid percentage	Cumulative percentage
Poor	20	29,4	29,4	29,4
Average	9	13,2	13,2	42,6
Good	13	19,1	19,1	61,8
Very good	8	11,8	11,8	73,5
Excellent	18	26,5	26,5	100,0
Total	68	100,0	100,0	

	Frequency	Percentage	Valid percentage	Cumulative percentage
Poor	25	36,8	36,8	36,8
Average	8	11,8	11,8	48,5
Good	12	17,6	17,6	66,2
Very good	6	8,8	8,8	75,0
Excellent	17	25,0	25,0	100,0
Total	68	100,0	100,0	

**Table 14 Internal consistency
Reliability Statistics**

Cronbach's Alpha	N of Items
.649	6

The aim of the survey is to study the patients' awareness of the content and sources of information that they use most often regarding the problem of addictions, grading it as follows:

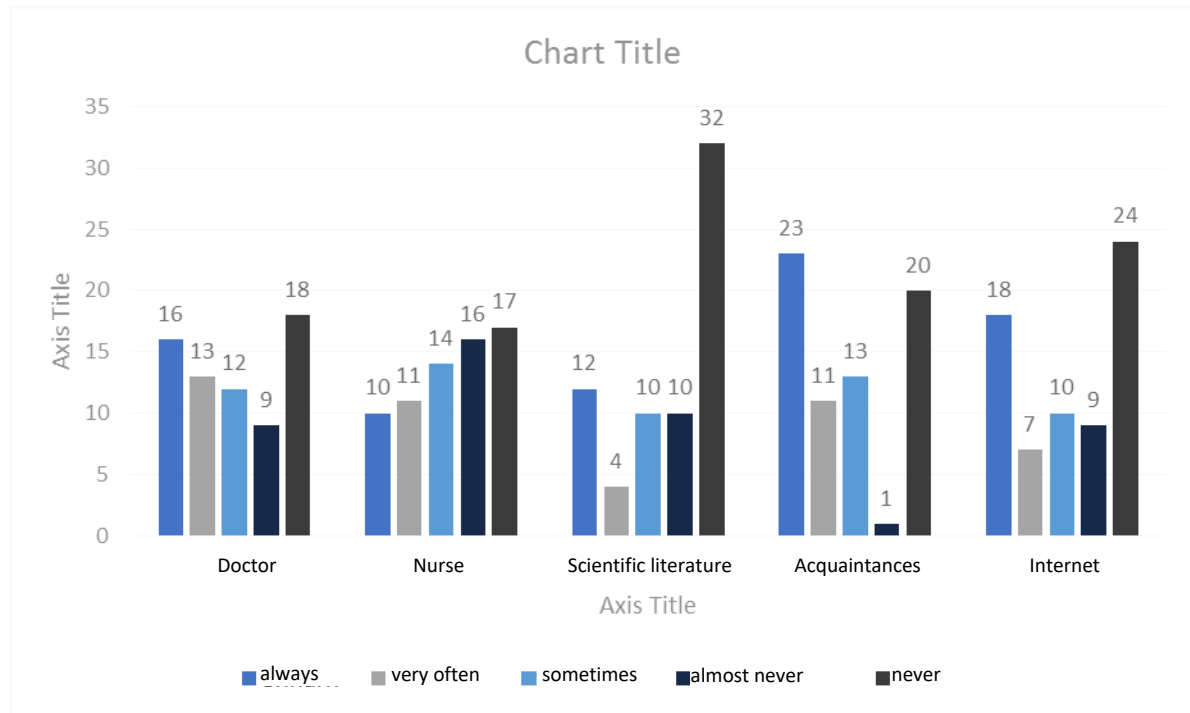


Figure 1 Sources of information for patients with addiction and psychiatric comorbidity.

The sources of information with respect to addictions, according to the answers of the patients, are as follows, arranged in descending order: (n=34) or 55% know people with such a problem, (n=29) or 42% the services of a doctor, (n=25) or 36% information from the Internet, (n=21) or 30.88% the services of a nurse, and lastly, (n=16) or 23.52% use scientific literature. Our impression is that a community of dependent persons is created in these cases. A high percentage of the sources of information - 55% - are people with such a problem.

3.1.5 Characteristics of patients with addiction and comorbid mental disorder.

Table 15. Characteristics of addictions

	Frequency	Percentage	Valid percentage	Cumulative percentage
Alcohol	32	47.1	47.1	47.1
Stimulants	8	11.8	11.8	58.8
Opioids	6	8.8	8.8	67.6
Cannabinoids	3	4.4	4.4	72.1
Synthetic drugs	2	2.9	2.9	75.0
Combined use of PAS	17	25.0	25.0	100.0
Total	68	100.0	100.0	

Alcohol dependence is the most common dependence in patients with psychiatric comorbidity as shown in Table 17: (n=32) which corresponds to 47.1%, followed by combined use of PAS (n=17) or 25% /when there is combined use, a patient uses more than one PAS/, use of stimulants (n=8) or 11.8%. All other addictions are less commonly used, such as opioids, cannabinoids, and synthetic drugs.

	Frequency	Percentage	Valid percentage	Cumulative percentage
Bipolar affective disorder	9	13.2	13.2	13.2
Schizophrenia	14	20.6	20.6	33.8
Personality disorder	18	26.5	26.5	60.3
Panic disorder	7	10.3	10.3	70.6
Generalized anxiety disorder	7	10.3	10.3	80.9
Obsessive-compulsive disorder	2	2.9	2.9	83.8
Monopolar depression	4	5.9	5.9	89.7
Post-traumatic stress disorder	5	7.4	7.4	97.1
Gambling	2	2.9	2.9	100.0
Total	68	100.0	100.0	

The highest percentage of accompanying mental illness is the personality disorder (n=18) or 26.5%. According to Onchev (2012), patients with the personality disorders are prone to alcohol and PAS abuse. Next is schizophrenia with (n=14) or 20.6% according to Chumpalova (2015), patients with schizophrenia and alcohol abuse/dependence make up 83.2% of all patients with PAS abuse [184]. All other accompanying diseases have a small percentage as shown in Table 16.

3.1.6. Relapse factors

Socio-demographic factors

Table 17. The mean age of patients with relapse is 39.21 years,

N	38
Mean	39.21
Standard deviation	8.999
Range	34
Minimum	27
Maximum	61

Table 18 Distribution by sex

Sex	Frequency	Percentage	Valid percentage	Cumulative percentage
Men	29	76,3	76,3	76,3
Women	9	23,7	23,7	100,0
Total	38	100,0	100,0	

Distribution by sex is 76,3% men to 23,7% women: Table 19

A large number of patients have no health insurance 55.3% (n=21) which hinders the recommendations given after discharge, namely a visit to the general practitioner (GP), consultation with a psychiatrist, consultation with a psychologist, a psychotherapist /paid services that cannot be used under the National Health Insurance Fund/ or therapeutic communities for the rehabilitation of addicts, the costs of which paid by the patient or the patient's relatives.

Table 19 Health insurance status

Health insurance status	Frequency	Percentage	Valid percentage	Cumulative percentage
1 With health insurance	17	44,7	44,7	44,7
2 Without health insurance	21	55,3	55,3	100,0
Total	38	100,0	100,0	

Table .20 . Did you follow the recommendations given after your discharge? /visit to the GP, specialist psychiatrist, self-help groups, psychologist/ etc.

	Frequency	Percentage	Valid percentage	Cumulative percentage
1 Yes	10	26,3	26,3	26,3
2 No	8	21,1	21,1	47,4
3. Non-adherence to therapy	20	52,6	52,6	100,0
Total	38	100,0	100,0	

More than half of the patients with relapse (n=20) or 52.6% reported non-adherence to the recommended treatment. This is characteristic of dependent patients with psychiatric comorbidity for several reasons, namely, lack of "insight" or "awareness" of the disease, some individual factors, social security status of the patient.

Individual factors associated with relapse

Family burden

Family burden	Frequency	Percentage	Valid percentage	Cumulative percentage
1. Yes	25	65.8	65.8	65.8
2. No	13	34.2	34.2	100.0
Total	38	100.0	100.0	

More than half of the patients - 65.8% (n=25) - who had a relapse of 1 to 3 months have a family burden which is considered a risk factor for dependent patients [182]. Another reason for the relapse is the motivation and self-efficacy and the presence of craving – a difficult to overcome desire to use.

	Frequency	Percentage	Valid percentage	Cumulative percentage
1. Motivation and self-efficacy	4	10,5	10,5	10,5
2. Presence of craving	34	89,5	89,5	100,0
Total	38	100,0	100,0	

The high percentage of patients Table 23 (n=34) or 89.5% indicates that the reason for relapse is the presence of cravings – an intense desire to use.

The most frequent use in dependent patients with psychiatric comorbidity is alcohol use - (n=21), which corresponds to 55.3%, use of PAS - (n=16) 42.1% and combined use of PAS - 2.6% as presented on Table 17

Table 23 Relapse in the use of PAS

	Frequency	Percentage	Valid percentage	Cumulative percentage
1 Alcohol	21	55,3	55,3	55,3
3 PAS	16	42,1	42,1	97,4
5 Combined use	1	2,6	2,6	100,0
Total	38	100,0	100,0	

Table 24. Are you also treating the accompanying mental illness??

	Frequency	Percentage	Valid percentage	Cumulative percentage
1 Yes	12	31,6	31,6	31,6
2 No	11	28,9	28,9	60,5
3. Non-adherent therapy	15	39,5	39,5	100,0
Total	38	100,0	100,0	

A large percentage of patients (68.4%) of patients with relapse do not treat or do not adhere to treatment after discharge, which is the reason for their relapse.

According to Sliedrecht (2019), the cause of relapse in psychiatric comorbidity related to the use of alcohol and PAS is associated with medical, financial and social dimensions, which interplay and trigger the occurrence of relapse. Conversely, the supportive factors of social networks, self-efficacy have a protective role against relapses [180]. The experience of some countries includes examples of services offered and managed by multidisciplinary clinical teams with emphasis on the treatment of anxiety, mood disorders and addictions.

With the advancement of digital technologies and the Internet, as well as the physical distancing measures related to the COVID-19 pandemic, there has been an increase in the demand for online mental health counselling services (Wind et al., 2020). Online services have the potential to address the need for mental health care. A qualitative study was conducted in thirteen countries of the European Union, including mental health nurses [181]. The advantages of online counselling consist in easier access to mental health care, flexibility and lower stigma. During the survey nurses were asked the question: **“Do you support the idea of organizing online consultations with medical professionals regarding addictions with psychiatric comorbidity?”**

Table 25 Do you support the idea of organizing online consultations with medical professionals regarding addictions with psychiatric comorbidity?

Response	Frequency	Percentage	Valid percentage	Cumulative percentage
Yes	31	70,5	70,5	70,5
No	6	13,6	13,6	84,1
I don't know	7	15,9	15,9	100,0
Total	44	100,0	100,0	

This question was answered positively by 70.5% of the nurses respondents (n=31). This is a challenge that arises in modern mental health care, it has its advantages and deserves to be more widely used.

Summary

- **1 group of patients:** In the group of dependent patients with psychiatric comorbidity, a high rate of relapse was detected - 55%, confirmed by the low levels of awareness related to rehabilitation centres and therapeutic communities, self-help groups /AA/ rehabilitating addicted patients. Patients with health insurance are prevented from following the recommendations given to them at discharge. Consultations with a psychologist, psychotherapist are services that are not covered by the NHIF. Regarding the sources of information, the patients indicated the highest percentage of 55% “acquaintances with such a problem”, which is not a reliable way of information regarding addictions. There are also other factors related to the relapse of patients with addictions /individual, social, mental – lack of insight among them/.

3.2.1 Socio-demographic characteristics of nurses

Nurses who gave informed consent to participate were invited to the study. There are a total of 44 respondents, of whom the medical paramedics are (n=6), the nurses are (n=38) with a percentage ratio by sex of 13.6% and 86.4%, respectively, at the time of the sample shown in Table 3.

Table 26. Distribution by sex of nurses

Distribution by sex				
Sex	Frequency	Percentage	Valid percentage	Cumulative percentage
Men	6	13,6	13,6	13,6
Women	38	86,4	86,4	100,0
Total	44	100,0	100,0	

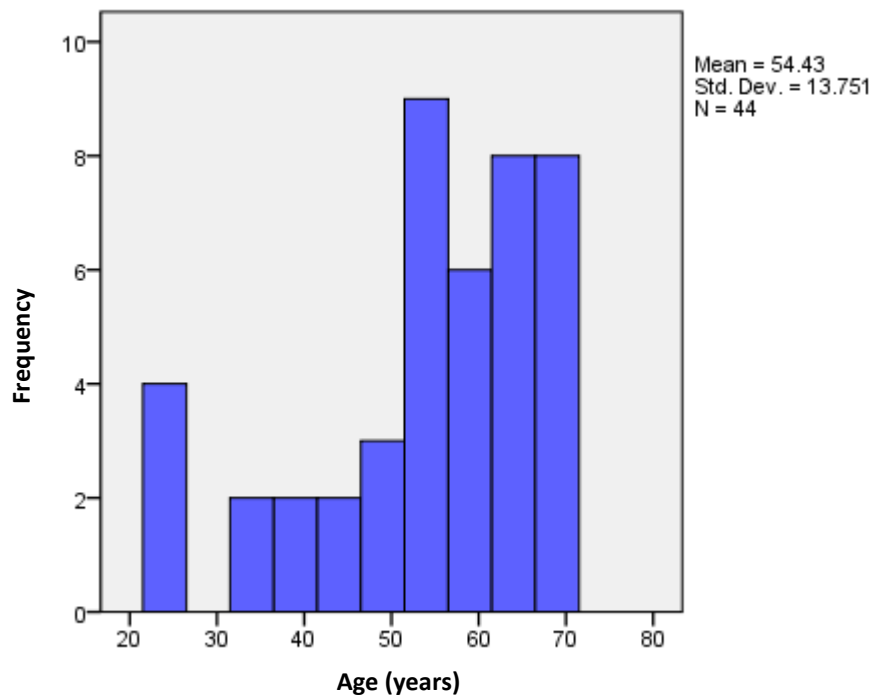


Figure 2. Distribution by age

The average age in the nurses group was 54.43 years, with a minimum age of 24 years and a maximum age of 71 years. The distribution in the histogram is shifted to the right – to the higher values of the age indicator.

Our data correspond with the data of the American Psychiatric Association of Registered Nurses, according to which the average age of nurses is 51 years, and only 4% of registered nurses are in the age range of 20-29 years [165]. A number of contemporary figures for Europe show that the average age of nurses is 42.1 years, with approximately 30% of them over the age of 50.

Table 27. Distribution of nurses by education

Education	Frequency	Percentage	Valid percentage	Cumulative percentage
Specialized secondary	4	9,1	9,1	9,1
Semi-higher	21	47,7	47,7	56,8
Health care specialist	1	2,3	2,3	59,1
Bachelor - Health care	11	25,0	25,0	84,1
Bachelor - Health care management	1	2,3	2,3	86,4
Master - Health care management	6	13,6	13,6	100,0
Total	44	100,0	100,0	

In terms of level of education, the majority of nurses have semi-higher education, followed by a bachelor’s degree in health care or expressed as percentage the ratio is 47.73% (n=21) nurses with semi-higher education followed by 25% (n=11) with a bachelor’s degree in health care. This corresponds to the higher age of the nurses who graduated as staff with semi-higher education. Despite the fact that there are 8 paramedics and 3 midwives in the surveyed group, they are assigned to the position of “nurse” and are logically included in the discussion as nurses (Table 26).

3.2.2 Special care for dependent patients with psychiatric comorbidity

To the question “What special care is applied in the clinic/department for dependent patients with psychiatric comorbidity?” (fig. 3) the interviewed nurses (n=44) had the opportunity to give more than one answer. The largest number of responses included “conducting work therapy” with (n=39) or 39.28%, followed by psychotherapy (n=35) or 35.26%. This is the special care that is most often applied in dependent patients with psychiatric comorbidity.



Figure 3 Special care for dependent patients with psychiatric comorbidity

Are they subjected to clinical and instrumental tests more frequently?
Do they undergo psychotherapy?
Do they undergo work therapy?
Are they involved in health discussions?
Does the care for them differ from the care for the other patients?
This resolves a social problem they have /presentation before a Work Capability Assessment Committee, a social institution, connection to rehabilitation programmes, etc./

In third place are the answers related to “solving a social problem, before a Work Capability Assessment Committee, a social institution” (n=22) or 22.15%. “The care for dependent patients with psychiatric comorbidity is no different from the care for other patients according to 14.10% of the respondents; 10.7% of them point out that it is important to hold health discussions on the use and complications of PAS and/or alcohol. The multidisciplinary care with the participation of a nurse is part of their treatment.

To the question **“Would you name the five most important activities in dependent patients with mental comorbidity. Rank them in order of importance, starting with the most important.”**

On this question, the nurses had the opportunity to rate their answers according to their importance.

Table 28. Ranking of the five most important activities in dependent patients

Place in order of importance	1	2	3	4	5
manipulations	12	8	13	10	1
drug therapy	16	22	6	0	0
communication with the patient	15	11	17	0	1
communication with loved ones	0	3	7	26	8
documentation	1	0	1	8	34

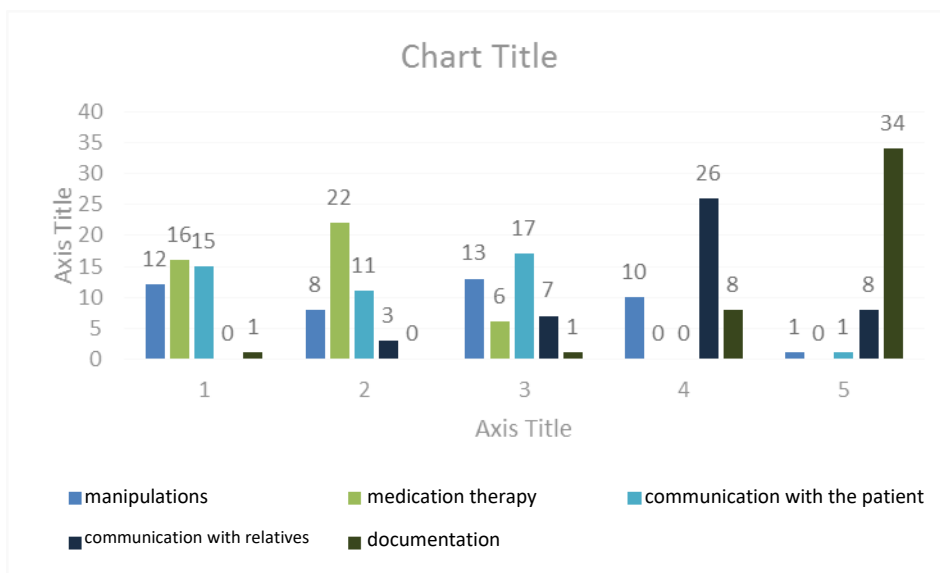


Figure 4. The distribution of activities in order of importance according to nurses

The respondents indicated the five most important activities for dependent patients with mental comorbidity, giving the greatest weight to drug therapy and communication with the patient - 70.45%, followed by manipulations. Drug therapies and manipulations invariably occupy the second place in terms of weight with 40.18%. Communication with relatives is given less weight. According to Arad et al (2022), poor communication has a negative impact on the quality of nursing care. A study conducted to determine the effect of training on the nurse's ability to communicate with patients showed that communication skills improved significantly after two weeks of training. It is recommended that training should be continuous without detachment from the workplace and should involve individual and group training [42]. Maintaining appropriate communication between the nurse and the patient and the team is at the heart of mental health care. All this suggests that nurses understand the importance of communication with patients, which is a specific feature of psychiatric nursing care. This once again emphasizes the need for communication training for nurses.

According to Sharrock, as integrated psychiatric services increase, so does patient contact with nurses in inpatient and outpatient settings. According to the literature, general nurses lack skills, confidence and knowledge in contrast to psychiatric nurses [185].

3.2.3. Nursing care for dependent patients with psychiatric comorbidity

It is assumed that nursing care for dependent patients with psychiatric comorbidity would be facilitated by nurses' professional experience with psychiatric patients. Table 29 shows that only 1/3 (31.8%) of the respondents had professional experience with dependent patients before entering their current workplace. The remaining 68.2% lack such experience. This is in accordance with the distribution of nurses by length of experience with psychiatric patients - 29.5% have experience of 1-5 years and are quite "new" to the psychiatric clinics (Figure 30). This reinforces the need for targeted training for the issue of "dependent patients with comorbidity"; 27.3% have more solid experience - from 5-10 years, and the share of those those with long-term professional experience is relatively small - (n=7 or 15.9% (Figure 30).

Table 29. Presence of previous experience/work with dependent patients with psychiatric comorbidity

Answer	Frequency	Percentage	Valid percentage	Cumulative percentage
Yes	14	31,8	31,8	31,8
No	30	68,2	68,2	100,0
Total	44	100,0	100,0	

Table 30. Distribution by length of service in psychiatric clinics

Length of service	Frequency	Percentage	Valid percentage	Cumulative percentage
1-5 years	13	29,5	29,5	29,5
5-10 years	12	27,3	27,3	56,8
10-15 years	7	15,9	15,9	72,7
15-20 years	7	15,9	15,9	88,6
More than 25 years	5	11,4	11,4	100,0
Total	44	100,0	100,0	

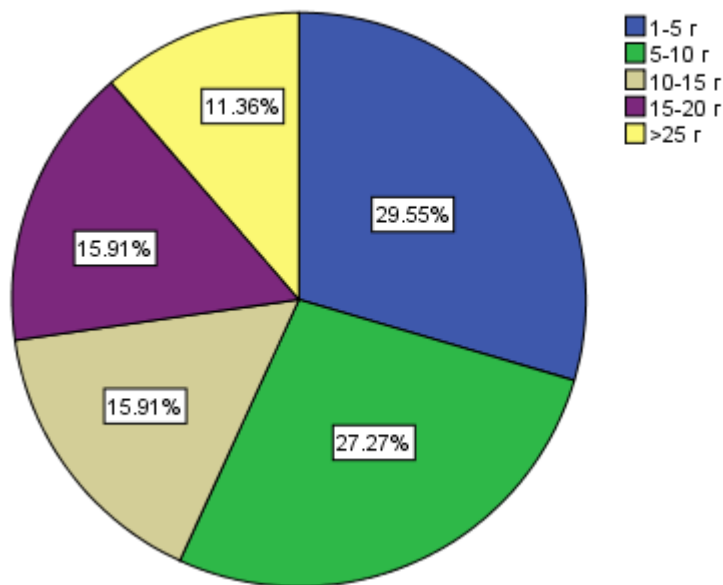


Figure 5 Distribution of length of service in psychiatric clinics

Nurses' understanding of "stigma" is an important element in the care they provide. According to Hankir et al. (2014) "stigma" in dependent patients with psychiatric comorbidity is one of the reasons for concealing symptoms and delaying the search for specialized psychiatric medical care [80]. Nurses are adamant that stigma exists for their patients - 81.82% (n=36) as shown in Table 31. Oexle draws attention to "self-stigma" – in his opinion it hinders a patient's recovery [126]. Interventions related to reducing stigma and self-stigma would improve patients' possibilities for more active **involvement** in the healing process.

Table 31 Is there a “stigma” in dependent patients with mental comorbidity" according to nurses

Answer	Frequency	Percentage	Valid percentage	Cumulative percentage
Definitely yes	14	31,8	31,8	31,8
Rather yes	22	50,0	50,0	81,8
I don't know	6	13,6	13,6	95,5
Rather no	1	2,3	2,3	97,7
Definitely no	1	2,3	2,3	100,0
Total	44	100,0	100,0	

Therefore, we asked the nurse respondents “Would you participate in information campaigns related to stigma?”

Answer	Frequency	Percentage	Valid percentage	Cumulative percentage
Definitely yes	13	29,5	29,5	29,5
Rather yes	13	29,5	29,5	59,1
I don't know	7	15,9	15,9	75,0
Rather no	9	20,5	20,5	95,5
Definitely no	2	4,5	4,5	100,0
Total	44	100,0	100,0	

As shown in Table 32, more than half of the nurses, 58% (n=26), agree to participate in information campaigns aimed at reducing stigma in dependent patients with mental comorbidity. According to Fraguas (2021) information campaigns, multidisciplinary fora for holding meetings, are essential to achieve a high level of quality care [71]. Many countries have conducted campaigns aimed to decrease the stigma for people with mental disorders and addictions that have proven effective and have modestly reduced stigma.

70.5% of the nurse respondents (n=31) have answered positively to this question. This is a challenge that arises in modern mental health care.

3.2.4. Awareness /level of knowledge and skills/ of psychiatric health care nurses.

The awareness/level of knowledge section of the survey used in the group of nurses included also questions about the types of addictions, innovations in the treatment of addictions, risks and effects of PAS on the body, presence of addictions and accompanying mental illness, complications resulting from the use of PAS as well as questions regarding rehabilitation centres and organizations for the treatment of addicted patients. The distribution according to the answers to question 1 from the section on the awareness of types of

addictions is shown on Table 33, to question 2 on the novelties in the treatment of addictions - Table 34, to question 3 on the risks and effect on the body - Table 35.

Table 33 Level of awareness of nurses - types of addictions

Level of awareness	Frequency	Percentage	Valid percentage	Cumulative percentage
Average	1	2,3	2,3	2,3
Good	20	45,5	45,5	47,7
Very good	13	29,5	29,5	77,3
Excellent	10	22,7	22,7	100,0
Total	44	100,0	100,0	

Table 34. Novelties in the treatment of addictions

Level of awareness	Frequency	Percentage	Valid percentage	Cumulative percentage
Poor	3	6,8	6,8	6,8
Average	7	15,9	15,9	22,7
Good	21	47,7	47,7	70,5
Very good	13	29,5	29,5	100,0
Total	44	100,0	100,0	

Table 35 Risks and effect of PAS on the body

Level of awareness	Frequency	Percentage	Valid percentage	Cumulative percentage
Average	8	18,2	18,2	18,2
Good	6	13,6	13,6	31,8
Very good	22	50,0	50,0	81,8
Excellent	8	18,2	18,2	100,0
Total	44	100,0	100,0	

The level of awareness of nurses regarding the types of addictions and novelties in their treatment was registered as good, and higher levels of awareness are noted in relation to the types of addictions than in relation to the novelties in treatment.

Table 36 Level of awareness in the group of nurses about the presence of addictions and a concomitant psychiatric disorder.

Level of awareness	Frequency	Percentage	Valid percentage	Cumulative percentage
Average	3	6,8	6,8	6,8
Good	13	29,5	29,5	36,4
Very good	17	38,6	38,6	75,0
Excellent	11	25,0	25,0	100,0
Total	44	100,0	100,0	

Predominantly good and very good levels are also registered with regard to the risks and effect of PAS on the body and the presence of dependence and an accompanying mental illness. Nurses also determine as good the level of awareness in terms of complications in the use of PAS, while the values are lower in relation to rehabilitation centres and organizations for the treatment of addictions.

Table 37 Level of awareness in the nurse group about complications resulting from the use of PAS

Level of awareness	Frequency	Percentage	Valid percentage	Cumulative percentage
Poor	2	4,5	4,5	4,5
Average	15	34,1	34,1	38,6
Good	16	36,4	36,4	75,0
Very good	11	25,0	25,0	100,0
Total	44	100,0	100,0	

Regarding the regular training courses on addictions in comorbid patients, it turns out that (n=32) 72.7% do not attend such courses.

Table 38. Distribution of attendance of regular courses on addictions in comorbid patients.

Answer	Frequency	Percentage	Valid percentage	Cumulative percentage
Yes	12	27,3	27,3	27,3
No	32	72,7	72,7	100,0
Total	44	100,0	100,0	

Table 39. Reasons for not attending regular specialized training and courses on addictions and mental comorbidity

Answer	Frequency	Percentage	Valid percentage	Cumulative percentage
Financial reasons	12	25,0	25,0	25,0
I have no information about the trainings	23	52,3	52,3	77,3
They are held in other cities	3	6,8	6,8	84,1
Lack of time	6	13,6	13,6	97,7
Total	44	100,0	100,0	

The largest share of the reasons for non-attendance of regular specialized courses, trainings, seminars, nurses attribute to the lack of information, which is 52.3% (n=23) when expressed in percentage, and to financial reasons 25% (n=12). Initiators of specialized trainings, courses, or seminars on addictions in comorbid patients are the Bulgarian Association of Health Care Professionals, the Bulgarian Psychiatric Association, and various rehabilitation centres and therapeutic communities dealing with patients with addiction. The lack of information regarding the mentioned forms of trainings is probably due to the fact that nurses do not keep contact with them, most likely due to insufficient interest or lack of interest.

The survey among the nurses regarding the level of satisfaction with their daily work yielded the following results:

Answer	Frequency	Percentage	Valid percentage	Cumulative percentage
High satisfaction	7	15,9	15,9	15,9
Dissatisfaction	3	6,8	6,8	22,7
Neither dissatisfied nor satisfied	13	29,5	29,5	52,3
Satisfied	21	47,7	47,7	100,0
Total	44	100,0	100,0	

According to the answers to this question, the nurses surveyed (n=28) or 63.63% feel satisfied and highly satisfied with their daily work.

According to Ogresta, Rusac and Zorec (2008), the importance of satisfaction for the occurrence of stress in health workers working in psychiatry is significant. According to a study, healthcare workers are exposed to a moderate degree of burnout syndrome, with no statistically significant difference demonstrated by the type of profession [127]. The medical profession itself is associated with mental and emotional strain and high levels of stress.

Answer	Frequency	Percentage	Valid percentage	Cumulative percentage
Definitely yes	14	31,8	31,8	31,8
Rather yes	21	47,7	47,7	79,5
I don't know	3	6,8	6,8	86,4
Rather no	5	11,4	11,4	97,7
Definitely no	1	2,3	2,3	100,0
Total	44	100,0	100,0	

According to the results in Table 41 (n=35) or 79.54% share that they feel burdened when working with dependent patients with mental comorbidity. The workload of psychiatric health care nurses is most likely due to the patient's disease profile related to comorbidity. To the question "Do you have difficulties in communicating with nurses as part of multidisciplinary clinical teams?"

Table 42. Communication difficulties of multidisciplinary clinical teams and nurses

Answer	Frequency	Percentage	Valid percentage	Cumulative percentage
Rather yes	1	7.1	7.1	7.1
I don't know	1	7.1	7.1	14.3
Rather no	11	78.6	78.6	92.9
Definitely no	1	7.1	7.1	100.0
Total	14	100.0	100.0	

A large percentage 78.57% (n=11) of multidisciplinary clinical teams "rather" do not experience difficulties in their communication with nurses when working with dependent patients with mental comorbidity

According to Sjöblom et al. (2005), families of people with mental problems have an important role in the recovery of the patient, although they feel "shame", "grief" and "guilt" [152]. Good communication of nurses and multidisciplinary clinical teams with the family can be a way to solve problems both for the patient and for the family living with them.

To the question "**Do you experience difficulties in "the communication with relatives" of dependent patients with mental comorbidity in multidisciplinary clinical teams?**"

Table 43.- Communication difficulties of multidisciplinary clinical teams with relatives of patients with addiction and mental comorbidity

Answer	Frequency	Percentage	Valid percentage	Cumulative percentage
Rather yes	4	28.6	28.6	28.6
I don't know	4	28.6	28.6	57.1
Rather no	4	28.6	28.6	85.7
Definitely no	2	14.3	14.3	100.0
Total	14	100.0	100.0	

Internal consistency of nurses and multidisciplinary clinical teams

44. Case Processing Summary

		N	%
Cases	Valid	58	100.0
	Excluded ^a	0	.0
	Total	58	100.0

a. Listwise deletion based on all variables in the procedure.

45. Reliability Statistics

Cronbach's Alpha	N of Items
.749	6

Summary

2nd and 3rd group of nurses and multidisciplinary clinical teams

The average age of the nurses surveyed was 54.43 years, which also confirms the European trends for the demographic aging of the nursing profession. The respondents ranked their activities in hospital settings in descending order: communication with the patient, followed by drug therapy. 81.82% of the nurses are adamant that there is a “stigma” attached to dependent patients with psychiatric comorbidity and 59.1% agree to participate in information campaigns related to the “stigma”. A large percentage of nurses do not attend regular courses related to dependent patients with psychiatric comorbidity, citing “lack of information” as the reason. The lack of information is due to the fact that they do not keep contact with the Bulgarian Association Of Health Care Professionals and other organizations. Satisfied with their daily work are 47.7%, however 79.54% feel burdened, but according to Ogrresta et al. (2008), the significance of satisfaction and occurrence of stress among health workers in the psychiatry sector is significant. The multidisciplinary clinical teams do not mention any communication difficulties with nurses, but only communication difficulties with relatives of dependent patients with mental comorbidity - 28.6%.

3.3. Results and discussion of the survey among nursing students - third and fourth-year nursing students and fourth-year midwifery students

Students from the Medical University of Varna - Department of Health Care and the affiliates in Sliven, Shumen and Veliko Tarnovo were involved in the study. 50 third-year nursing students and 50 fourth-year nursing and midwifery students participated in the study, after signing an informed consent for participation.

3.3.1 Demographic characteristics of the surveyed students

In the group of 3rd year students, only one student is male, the remaining 49 are female - 98% (Table 46).

Table 46. Distribution by sex in the group of third-year students

Sex	Frequency	Percentage	Valid percentage	Cumulative percentage
Men	1	2,0	2,0	2,0
Women	49	98,0	98,0	100,0
Total	50	100,0	100,0	

Although the nursing profession is predominantly occupied by women, men’s interest in the profession has increased in recent years. In the last few years, men have also been admitted and trained in the “nurse” speciality. The reason for the strong feminization of the profession is the low pay in Bulgaria. In the United Kingdom, men make up 10.6% of the nursing workforce, while in Italy they account for 21% which is one of the highest rates [179].

The distribution by age in the group of third-year nursing students shows that the average age of the surveyed students is 24.64 years with a minimum of 20 years and a maximum of 43 years.

Table 47 Distribution by age
Descriptive statistics – Distribution by age

Number of persons (N)	50
Mean age	24,64
Minimum	20
Maximum	43

The obtained results show that the mean age of third-year nursing students is 24.64 years. The minimum age is 20 years and the maximum age is 43 years.

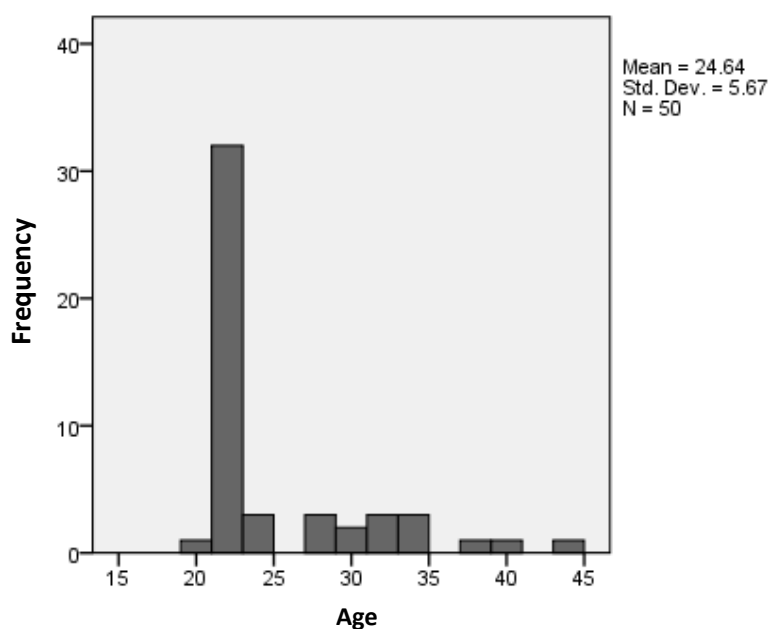


Figure 6. Histogram of the distribution by age in the group of third-year nursing students.

The mean age of third-year nursing students 24.64 with a standard deviation of 5.67, the minimum age is 20 years and the maximum age is 45.

Distribution according to the city where they study – the representatives from the four cities of Varna, Veliko Tarnovo, Shumen and Sliven are relatively evenly distributed (Table 27).

Table 48. Distribution of third-year nursing students by city

City	Frequency	Percentage	Valid percentage	Cumulative percentage
Varna	14	28,0	28,0	28,0
V. Tarnovo	13	26,0	26,0	54,0
Noisy	10	20,0	20,0	74,0
Sliven	13	26,0	26,0	100,0
Total	50	100,0	100,0	

The second group are the fourth-year nursing and midwifery students. All individuals in the group are female. The distribution by nursing and midwifery can be seen on Table 48. There are 32 nursing students which corresponds to 64% of the persons in the group, and the midwifery students are (n= 18) or (36%).

Table 49 Distribution by speciality in the group of fourth-year students

Speciality	Frequency	Percentage	Valid percentage	Cumulative percentage
Nurse	32	64,0	64,0	64,0
Midwife	18	36,0	36,0	100,0
Total	50	100,0	100,0	

3.3.2 Attitude of nursing and midwifery students to work with dependent patients with mental comorbidity

3.3.3 Professional training section

The opinion of third and fourth-year nursing students and fourth-year midwifery students was investigated in the professional training section.

The third-year nursing students were asked questions about any concerns about the clinical practice and fourth-year students were asked about any concerns about the pre-graduate internship, fourth-year midwives were also surveyed with questions related to professional training for providing assistance to dependent patients with mental comorbidity.

To the question “What concerns do you have when conducting clinical practice and pre-graduate internship?” – third and fourth-year students

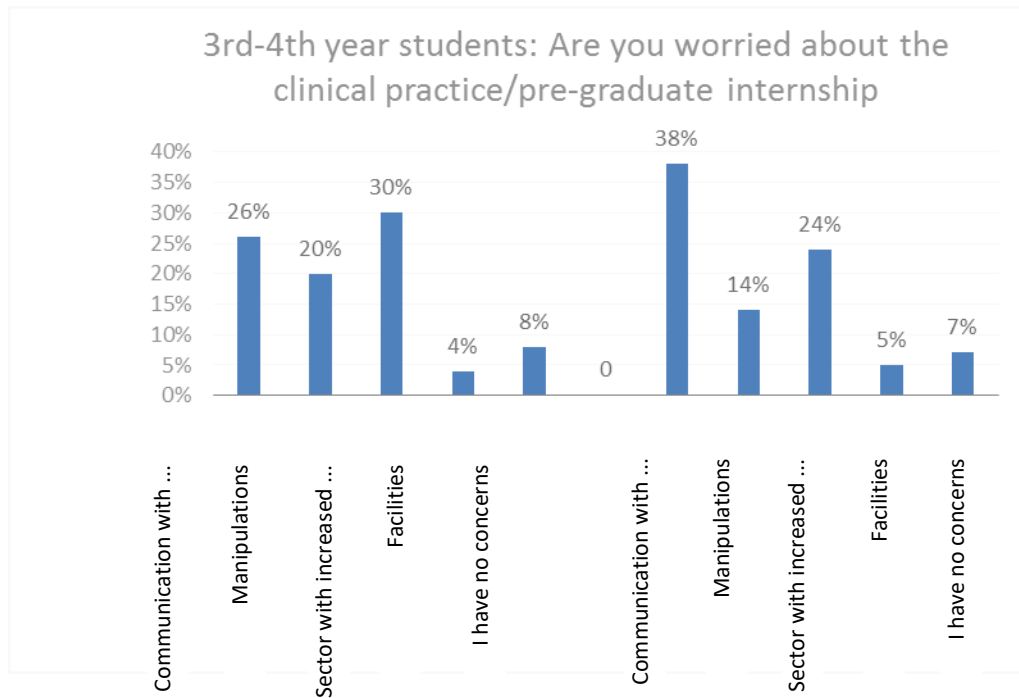


Figure 7 Difficulties in conducting clinical practice and pre-graduation internship - third and fourth-year students

30% and 24% of the third and fourth-year students are worried about the sector with enhanced supervision and communication with patients as presented in Figure 7. Patients with aggressive, auto-aggressive, unpredictable behaviour or addicts with mental comorbidity are accommodated in the sector with enhanced supervision to ensure better security. Direct visual monitoring is provided. Another concern experienced by third and fourth-year students when conducting clinical practice is “communication with patients” which represents 26% and 38% for these students. The third concern is the “manipulations” which accounts for 20% and 14% for third and fourth-year students. Only (n=8) or 16% of the students do not feel worried during the clinical practice.

In this connection, a psychiatric care workshop was organized at University Hospital “Sveta Marina” last year 2022 upon proposal by the 2nd Psychiatric Clinic of University Hospital “Sveta Marina”, 3rd and 4th year students and with the cooperation of the Department of Health Care. The workshop had a theoretical and a practical section. The students were introduced to novelties in the application of TMS/Trans-cranial magnetic stimulation/, types of PAS tests, and other topics that were of interest to them.

Regarding the idea of organizing a nursing practice to support dependent patients with psychiatric comorbidity.

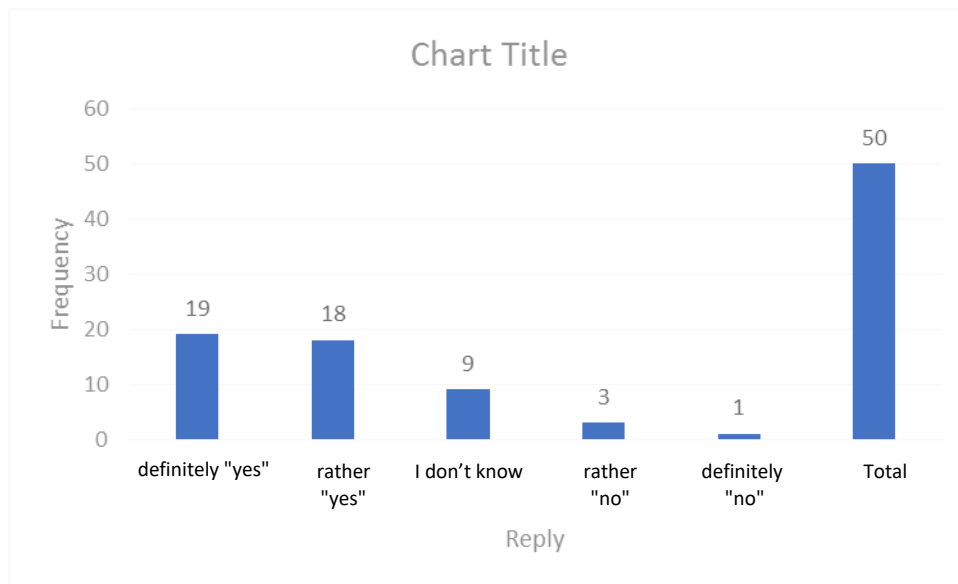


Figure 8 Distribution of answers of 4th year students on the organization of a nursing practice to support dependent patients with mental comorbidity

50. Participation in information campaigns on “stigma”

Answer	Frequency	Percentage	Valid percentage	Cumulative percentage
Definitely yes	20	40,0	40,0	40,0
Rather yes	19	38,0	38,0	78,0
I don't know	5	10,0	10,0	88,0
Rather no	4	8,0	8,0	96,0
Definitely no	2	4,0	4,0	100,0
Total	50	100,0	100,0	

Summary

3rd group – nursing and midwifery students

The main concerns during the clinical practice and pre-graduate internship for 3rd and 4th year students is the sector with enhanced supervision - 30% of students and the communication with patients - 38%. More than half of the students express their willingness to participate in information campaigns related to stigma.

3.4. Codependency/relatives and cohabitants/directly related to patients with comorbidities

The results of the codependency test (V.V. Tkacheva) completed by 68 close family members, as well as by cohabitants of dependent patients, were analyzed. The average value of the results from the codependency test was several times above the normal range – an average value of 61.88 while the standard deviation is 12.772. The minimum registered value of the obtained result is 22, and the maximum - 86. Values are observed within the entire range – from lower to higher – but those with a higher score in the codependency test predominate in the sample of relatives of PAS addicts. The descriptive statistics regarding the results from the codependency test applied to the relatives of patients are shown in Table 51.

Table 51

Descriptive statistics – results from the codependency test

Number (N)	68
Mean	61,88
Standard deviation	12,772
Minimum	22
Maximum	86

When comparing the results with the values corresponding to the normal range (16-32 points), it is clear that only one of the examined persons falls within this range, and all the others have a score higher than normal range (over 33 points). The high results show moderately expressed co-dependence with a test result of 33-60 points and strongly expressed co-dependence - with a result of 61-96 points. The distribution of persons according to the results is shown in Table 52.

Table 52

Distribution according to codependence test score for relatives of dependent patients

Degree of codependency	Result	Number of persons (N)
Normal range	16-32	1
Moderately expressed	33-60	30
Strongly expressed	61-96	37

When plotting the results using a histogram, it is apparent that the distribution is shifted to the right, that is toward the higher values of the test score. Persons with a higher score on the test - over 50 points - prevail. Almost all of the surveyed individuals show codependency, with more individuals with strongly manifested codependency being registered. The histogram of the distribution according to the result from the codependency test is shown in Figure 9.

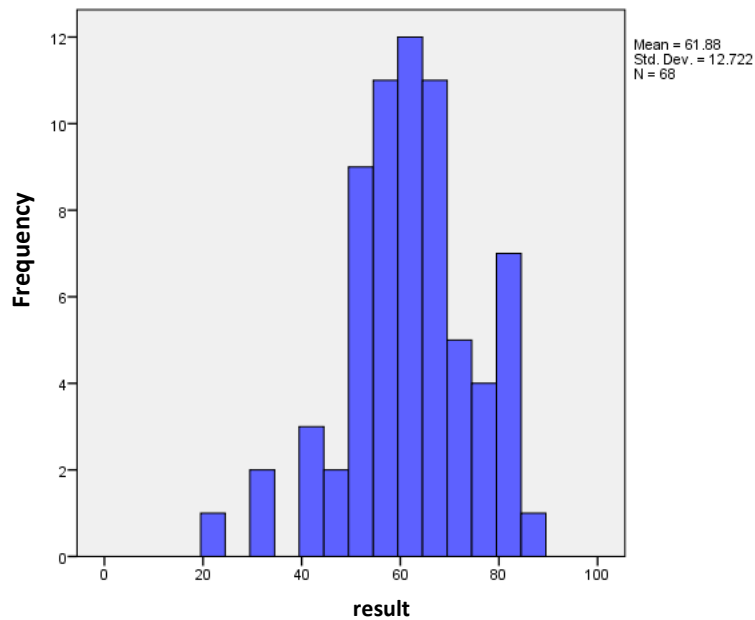


Figure 9. Histogram of the distribution according to the result from the codependency test of relatives of PAS addicts

According to Mulry (1987), codependency is a familial dependency and occurs in families of dependent patients, in response to stress or “shameful secrets” in the family. This stressful environment causes emotional changes in every member of the family. The training and the development of good communication skills of nurses working in psychiatric clinics will improve the relationships between patients, health care professionals and their families.

Summary

4th group of co-dependency in relatives of dependent patients with mental comorbidity: almost all examined persons show co-dependency and individuals with highly expressed co-dependency were registered. Co-dependency is a family disease and, in addition to the dependent patient, it occurs in families of dependent patients in response to stress or “shame” in the family.

3.5 Attitude to the creation of psychiatric nursing practices and their functioning

The group of dependent patients with mental comorbidity includes patients potentially threatened by deterioration or non-adherence to the therapy. The possibilities to avoid this danger involve various measures to improve the organization and the care of these patients.

The legislation of the Republic of Bulgaria envisages possibilities for the creation and operation of practices with fewer resources for hospital treatment staffed by nurses and other specialists. But as the experience of other countries shows, these possibilities could play a positive role in better patient care and facilitate the maintenance treatment in the post-discharge period.

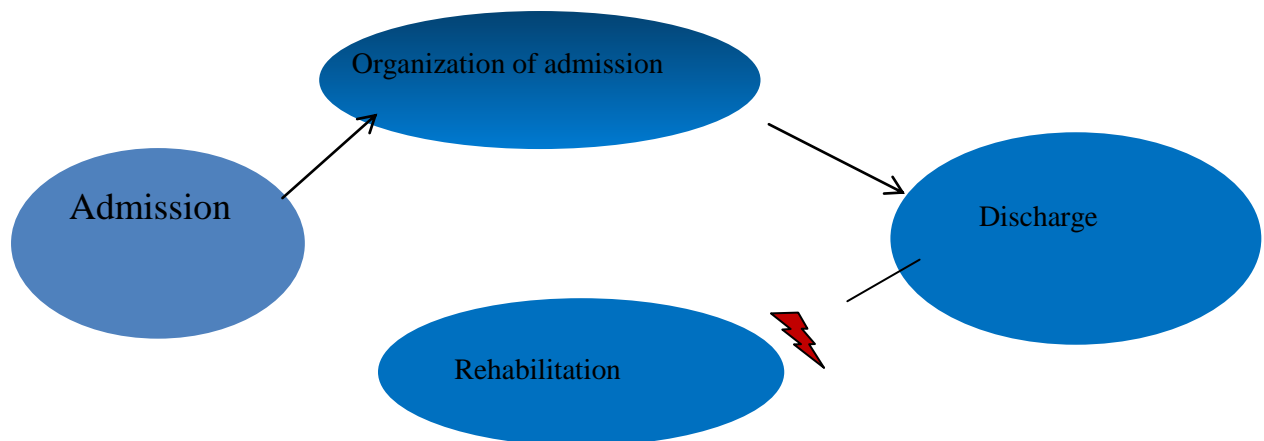


Figure 10. Pathway of dependent patients with mental comorbidity in the health care system

On this occasion, we asked the patients “Do you support the idea of organizing a nursing practice to help dependent patients with mental comorbidity?”

Table 53. Organization of nursing practice to support dependent patients with psychiatric comorbidity

	Frequency	Percentage	Valid percentage	Cumulative percentage
Definitely yes	49	72.1	72.1	72.1
Rather yes	14	20.6	20.6	92.6
I don't know	3	4.4	4.4	97.1
Rather no	1	1.5	1.5	98.5
Definitely no	1	1.5	1.5	100.0
Total	68	100.0	100.0	

Table 54 Nursing practice attendance for dependent patients with psychiatric comorbidity

	Frequency	Percentage	Valid percentage	Cumulative percentage
Definitely yes	48	70.6	70.6	70.6
Rather yes	7	10.3	10.3	80.9
I don't know	6	8.8	8.8	89.7
Rather no	3	4.4	4.4	94.1
Definitely no	4	5.9	5.9	100.0
Total	68	100.0	100.0	

Definitive response was given by (n=63) or 92% of the patients regarding the organization of the nursing practice to support dependent patients with mental comorbidity. They would use a similar nursing practice 80.88% (n=55).

The answers to the same question in the survey for nurses are presented on table 55.

Table 55 Do you support the idea of the organization of a nursing practice to help dependent patients with mental comorbidity?

Answer	Frequency	Percentage	Valid percentage	Cumulative percentage
Yes	32	72,7	72,7	72,7
No	2	4,5	4,5	77,3
I don't know	10	22,7	22,7	100,0
Total	44	100,0	100,0	

A large number of the surveyed nurses 72.7% (n=32) responded positively to the questions regarding the organization of a nursing practice to help dependent patients with mental comorbidity and to improve their mental health. Only 2 people did not support this idea.

Table 56 Do you support the idea of the organization of a nursing practice /students

Answer	Frequency	Percentage	Valid percentage	Cumulative percentage
Definitely yes	19	38,0	38,0	38,0
Rather yes	18	36,0	36,0	74,0
I don't know	9	18,0	18,0	92,0
Rather no	3	6,0	6,0	98,0
Definitely no	1	2,0	2,0	100,0
Total	50	100,0	100,0	

Fourth-year students also support with a large majority of 74.0% the idea of creating psychiatric nursing practices to support dependent patients with mental comorbidity. To the question “**Would you work in a similar practice?**” the positive answers were significantly less - 46%, which is logical, considering the lack of professional experience.

Table 57 Would you work in a similar practice?

Answer	Frequency	Percentage	Valid percentage	Cumulative percentage
Definitely yes	6	12,0	12,0	12,0
Rather yes	17	34,0	34,0	46,0
I don't know	16	32,0	32,0	78,0
Rather no	9	18,0	18,0	96,0
Definitely no	2	4,0	4,0	100,0
Total	49	100,0	100,0	

CONCLUSIONS, RECOMMENDATIONS AND CONTRIBUTIONS

4.1 Conclusions

A. From the theoretical study

1. The current organization of psychiatric care in this country lacks consistency and coordination between the structures. Psychiatric services are unevenly distributed throughout the country; the number of preventive healthcare and social services is insufficient; the integrated care for the mental patients lags behind. Bulgaria ranks last in the EU in terms of integration of the mental patients, with an index of 25.0 out of 100. Care for mental and dependent patients in Bulgaria is extremely poor and does not meet modern requirements.
2. There is an imbalance between the different professionals in the institutions providing psychiatric care – nurses, doctors, psychologists, social workers who form multidisciplinary clinical teams, necessary for quality health care. With an aging coefficient of 29.68% the nursing workforce in Bulgaria is in a situation of demographic aging. Psychiatric institutions are an unattractive place for nurses to work because of poor working conditions, low pay and high emotional stress.
3. The large number of psychiatric patients without health insurance is a hindrance for them to obtaining the full spectrum of medical prescriptions.

B. From the empirical study:

4. Dependent patients with comorbidities are a twice as vulnerable group with a significant prevalence among psychiatric patients and a large proportion of them have no health insurance. The pathway of dependent patients with comorbidities within the organization of psychiatric care is often interrupted between the discharge from the hospital and the post-hospital rehabilitation which hinders social adaptation/integration. There are aggravating factors for repeated hospitalizations and more frequent occurrence of relapse – in 55.9% of cases.
3. Interventions related to reducing stigma and self-stigma would improve patients' opportunities for active participation in the treatment process. Nurses have stated their preparedness to engage in such interventions.
4. The surveyed psychiatric nurses have a high average age of 54.43 years, which reflects the situation in Bulgaria, they are clearly aware of their responsibilities towards the specific needs of psychiatric patients, they attach great importance to their relations with them: they rank communication with patients and drug therapy among their most important activities. Their professional satisfaction is significant – 48%, but they assess their work in psychiatric clinics as very stressful – 80%. Their participation and interest in regular training courses is poor. The diversification of the forms of onsite and also online training can be a successful option of training with separation from the permanent place of residence.
5. Attracting nursing students and possibly midwifery students to become acquainted with the specifics of working with psychiatric patients can contribute to overcoming the expressed

“concerns” in clinical practice and to attracting motivated young personnel to psychiatric institutions.

6. Opening a specialized nursing practice to support dependent patients with mental comorbidities would significantly decrease their incidence of relapse, restore their social functions and improve their quality of life.

7. Almost all of the surveyed persons show co-dependence, with more of the persons having a strong co-dependence. It affects the physical and emotional state of relatives which leads to poor health, reactivity, self-neglect and additional responsibilities.

5.1. Recommendations

Based on the studied literature, results of my own research, I make the following recommendations

Bulgarian Association of Health Care Professionals, the Bulgarian Psychiatric Association

To the Bulgarian Association of Health Care Professionals (BAHCP) and the Medical Universities

- Development of standards of psychiatric health care in nursing practices that are included in the provision of interdisciplinary care to dependent patients with psychiatric comorbidity.
- Training nurses to apply the concept of interdisciplinary care.
- **The BAHCP** should support the development of a proposal to include the activities of specialized psychiatric nursing practice in the National Framework Agreement and the funding from the NHIF and the Ministry of Health.

To the Bulgarian Psychiatric Association (BPA)

- Participation of mental health nurses in BPA conferences related to awareness /level of knowledge and skills/

6.1 Contributions

Theoretical and practical contributions can be formulated on the basis of the conclusions, results and recommendations drawn from own studies.

Theoretical:

1. A theoretical study was made of the current organization of psychiatric care in Bulgaria and the main problems were identified.
2. The emergence of psychiatry and psychiatric nursing in Bulgaria and abroad was reviewed from a historical point of view.
3. An analysis was made of the normative documents and their application in respect of the organization of psychiatric health care in hospital and non-hospital environments.

4. The nursing care for dependent patients with psychiatric comorbidity was studied and the problems for its development and improvement were identified.

Applied practice:

1. The possibilities for participation of psychiatric nurses in information campaigns and interventions on problems specific to dependent patients with psychiatric comorbidity were studied;
2. The willingness of patients and nurses to support the idea for the creation and operation of a psychiatric nursing practice in support of dependent patients with psychiatric comorbidity was studied.
3. A Club for Introduction to Psychiatric Nursing was created and functions for nursing students at the facility of the Second Psychiatric Clinic.

Publications related to the thesis

1. Радева Т, ”Връзката между зависимостта и синята болест”Сборник Доклади “Медицински сестри и акушерки - ключов ресурс в съвременното здравеопазване, Тракийски Университет Стара Загора 2020;50-56 (Radeva T., “The relationship between addiction and blue sickness”, Collection of Reports “Nurses and midwives - a key resource in modern health care”, Trakia University Stara Zagora 2020; 50-56)
2. Радева Т, “Въздействие на COVID-19 върху зависимости” - Трета Международна конференция “Сестрински грижи принос за качество на живот” МУ “Проф. д-р Параскев Стоянов”2021;97-102 (Radeva T., “Impact of COVID-19 on addictions” - Third International Conference “Nursing care contribution to quality of life”, MU “Prof. Dr. Paraskev Stoyanov” 2021; 97-102)