





**NEAR EAST UNIVERSITY**  
**INSTITUTE OF GRADUATE STUDIES**  
**DEPARTMENT OF CLINICAL PHARMACY**

**ASSESSMENT OF THE EFFECTS OF COVID-19 PANDEMIC ON  
COMMUNITY PHARMACISTS' BURNOUT LEVELS AND  
WELL-BEING IN NORTHERN CYPRUS.**

**M.Sc. THESIS**

**RUBAB IRFAN**

**Nicosia**

**July, 2023**

**NEAR EAST UNIVERSITY**

**INSTITUTE OF GRADUATE STUDIES**

**DEPARTMENT OF CLINICAL PHARMACY**

**ASSESSMENT OF THE EFFECTS OF COVID-19 PANDEMIC ON  
COMMUNITY PHARMACISTS' BURNOUT LEVELS AND  
WELL-BEING IN NORTHERN CYPRUS.**

**M.Sc. THESIS**

**RUBAB IRFAN**

**Supervisor**




**Dr. MERYEM DENIZ AYDIN**

**Nicosia**

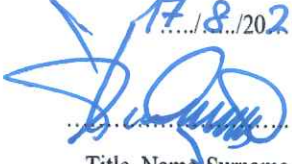
**July 2023**

## Approval

We certify that we have read the thesis submitted by Rubab Irfan titled “**Assessment of the Effects of Covid-19 Pandemic on Community Pharmacists’ Burnout Levels and Well-Being in Northern Cyprus.**” and that in our combined opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Educational Sciences.

Examining Committee	Name-Surname	Signature
Head of the Committee:	Prof. Dr. Bilgen Bařgut	
Committee Member:	Yar.Doç.Dr. Aysel Pehlivanlı	
Advisor:	Dr.Meryem Deniz Aydın	

Approved by the Head of the Department

17.8.2023  
  
 Title, Name-Surname  
 Head of Department  
 Prof. Dr. İhsan ÇALIS

Approved by the Institute of Graduate Studies

18.8.2023  
  
 Prof. Dr. Kemal Hüsnü Can Başer  
 Head of the Institute  


### **Declaration**

I hereby declare that all information, documents, analysis, and results in this thesis have been collected and presented according to the academic rules and ethical guidelines of the Institute of Graduate Studies, Near East University. I also declare that as required by these rules and conduct, I have fully cited and referenced information and data that are not original to this study.

Rubab Irfan

03/07/2023

Day/Month/Year

## **Acknowledgments**

First, I would like to thank the Almighty Allah for giving me the opportunity and strength to complete this study on time.

I acknowledge my parents, Mr. & Mrs. Muhammad Irfan for the financial and emotional support provided to me throughout especially during this study.

I acknowledge Dr. Meryem Deniz Aydin my thesis supervisor for the guidance and all the support given to me throughout this study.

**Rubab Irfan**

**Abstract**

**“Assessment of the Effects of Covid-19 Pandemic on Community Pharmacists’  
Burnout Levels and Well-Being in Northern Cyprus.”**

**Rubab Irfan**

**MA//Ph.D., Department of Clinical Pharmacy**

**February 2023, 77 pages.**

## SUMMARY

### **Purpose:**

To evaluate community pharmacists' burnout levels and well-being after the pandemic in Northern Cyprus.

### **Method:**

This study used a quantitative cross-sectional method involving one questionnaire. The eligible participants were community pharmacists who are actively working in North Cyprus. The questionnaire consisting of three sections: demographic information, Copenhagen Burnout Inventory, and WHO-5 Well-Being Index.

### **Results:**

The results were presented as percentages, and the magnitude of the chi-square test and the internal consistency of the Copenhagen Burnout Inventory and WHO-5 well-being index were checked using Cronbach's alpha. Of 237 community pharmacists that were approached, 202 agreed to complete the questionnaire, resulting in an 85.2% response rate. The prevalence cut-off for personal burnout among community pharmacists was moderate at 25.2%, high at 4.5%, and severe at 1.5%. The prevalence of work-related burnout with a moderate degree was 21.8%, and the high degree was 2.5%. Client-related burnout with a moderate degree was reported at 17.8%, 2.5% high degree, and 1.5% severe degree. The internal consistency of CBI was good with (Cronbach alpha= 0.859). The prevalence of poor well-being among community pharmacists was 28.2%. The internal consistency was good evaluated by using Cronbach alpha= 0.848.

### **Conclusion:**

After analyzing the data, several conclusions were made, including the need for community pharmacists to improve their knowledge regarding pandemics and enhance their ability to cope with potential pandemics in the future. Regarding the quality of care, addressing the well-being of community pharmacists is a concern. The appropriate time for rest is necessary for well-being and as a preventive measure for burnout. Providing



all safety measures and availability of medicines indicated in COVID-19 symptomatic control is an area of concern.

***Key Words:*** Community Pharmacists, Mental Well-being, COVID-19, Burnout

## Table of Contents

Approval.....	2
Declaration.....	3
Acknowledgments.....	4
Abstract.....	5
Summary.....	6
Table of Contents.....	8
Lists of Tables/ List of Figures.....	9
Abbreviations.....	11

## CHAPTER I

Introduction.....	12
Statement of the Problem.....	17
Purpose of the Study.....	17
Research Questions/ Hypothesis.....	17
Significance of the Study.....	17
Limitation.....	18
Definition of Terms.....	19

## CHAPTER II

Literature Review.....	20
Theoretical Framework.....	20
Related Research.....	22

### CHAPTER III

Methodology.....	24
Research Design.....	24
Participants/ Population & The Sample.....	24
Data Collection Tools/Materials.....	25
Data Analysis Plan/Procedure.....	25
Ethical Considerations.....	26

### CHAPTER IV

Findings and Discussion.....	27
------------------------------	----

### CHAPTER V

Discussion.....	40
-----------------	----

### CHAPTER VI

Conclusion and Recommendations.....	43
References.....	45
Appendices.....	51
Curriculum Vitae.....	78

### List of Tables/List of Figures

Table 1 Community Pharmacist's Demographic Data .....	27
Table 2 Burnout Among Community Pharmacists .....	29
Table 3 Burnout Evaluation .....	32
Table 4 Burnout descriptive statistics .....	34
Table 5 Personal Burnout Assessment with Demographic Data .....	35
Table 6 Work-Related Burnout Assessment with Demographic Data.....	36
Table 7 Client-Related Burnout Assessment with Demographic Data .....	37
Table 8 Well-Being Among Community Pharmacists .....	37
Table 9 Descriptive statistics of WHO-5 .....	38
Table 10 Well-Being Index with Frequency and Percentages .....	38

Table 11 Well-Being with Demographic .....	39
Figure 1 Personal burnout evaluation.....	33
Figure 2 Work-Related burnout evaluation .....	33
Figure 3 Client-Related burnout evaluation .....	34
Figure 4 Relationship between Well-being and Gender of the community pharmacist.....	39

## **List of Abbreviations**

**CP:** Community Pharmacist

**SARS-CoV-2:** Severe Acute Respiratory Syndrome Coronavirus 2

**COVID-19:** Coronavirus disease 2019

**MERS:** Middle East Respiratory Syndrome

**VOC:** Variant of Concern

**WHO:** World Health Organization

**CDC:** Center for Disease Control and Prevention

**PTSD:** Post-traumatic stress disorder

**CBI:** Copenhagen Burnout Inventory

**WHO-5:** World Health Organization-5 Well-being Index

## CHAPTER I

This chapter covered the background information, statement of the problem, purpose of study, research questions, the significance of the study, limitations, and definition of terms.

### Introduction:

In December 2019, SARS-CoV-2 break through, causing a disease (COVID-19), in China, Wuhan. This virus is highly contagious and spreads all around the world. COVID-19 mainly attacks the respiratory system, with Symptoms like cold, cough, flu, or pneumonia and may potentially affect other organs (Biancolella, et al., 2022). On March 11<sup>th</sup>, 2020, WHO officially declared COVID-19 as a pandemic globally. (WHO, 2020). The confirmed cases of COVID-19 worldwide as of April 19, 2023, were 765,222,932, and over 6 million deaths.

The virus belongs to the coronavirus family, which cause diseases like severe acute respiratory syndrome (SARS) and middle east respiratory syndrome (MERS). The term 'Corona', which comes from the Latin meaning crown, refers to the morphology of coronaviruses due to the spike proteins that emerge from them. The biology of this virus is related to these spike proteins. The virus's spike protein is a component that binds to a human cell to contaminate it, enabling the virus to multiply inside infected cells and disseminate to other cells. Symptoms of COVID-19 may vary from mild to extreme. The most prevalent symptoms include pyrexia, dyspnea, myalgia, ageusia and anosmia, rhinorrhea, chest tightness or congestion, and epiphora. Symptoms may appear 2-14 days after getting the infection (Zhou, et al., 2021).

SARS-CoV-2 virus can form genetic lineages due to mutations. Genetic mutation attributes to how quickly a virus can spread and the severity of the disease. Variants of concern and being monitored by scientists include Alpha (B.1.1.7 and Q lineages), Beta (B.1.351 and descendent lineages), Gamma (P.1 and descendent lineages), Delta (B.1.617.2 and AY lineages), Epsilon (B.1.427 and B.1.429), Eta

(B.1.525), Iota (B.1.526), Kappa (B.1.617.1), 1.617.3, Mu (B.1.621, B.1.621.1), Zeta (P.2) (Yamasoba, et al., 2022).

The COVID-19 virus can spread to others when an infected person exhales droplet, tussis, sneezes, or blows their nose. Due to mutation, viruses constantly change and can form new variants. The SARS-CoV-2 "Omicron" variant, which causes coronavirus disease, has been named as a variant of concern by the Centers for Disease Control and Prevention (CDC). (Centers for disease Control and Prevention, 2021)

Omicron emerged more quickly than the delta variant and the original COVID-19 virus. Fully vaccinated people can be infected and be a source to spread the virus to others, reducing the efficacy of monoclonal antibodies. However, the COVID-19 vaccines can still prevent severe illness in vaccinated individuals. The CDC excluded the delta variant from a variant of concern to a monitored variant on April 14, 2022. Currently, the delta variant is no longer considered as an extensive public health threat in the U.S. (Yu, et al., 2022)

This pandemic negatively influenced the psychological health of all healthcare workers and increased stress, anxiety, depression, and burnout (Brooks, et al., 2020). Isolation from society was reported to be one of the main reasons which lead to poor mental health (Luo et al., 2020).

Burnout can be described as emotional, social, and physical exhaustion related to work-caused stress. The problem of burnout was first identified in professionals working in human services, specifically in professional care groups. This job entails interacting with many people, which might eventually become stressful. Emotional weariness, depersonalization, and decreased feeling of personal accomplishment were identified as the indicators of burnout in human services jobs. The interaction with clients was the primary focus (Buunk & Schaufeli, 1993).

Healthcare workers who work on the frontline are responsible for treating infected patients. Thus, they may suffer from mental exhaustion, burnout, fear of getting infected and posing a risk to their families (Neto, et al., 2020). Pharmacists also work as frontline and contribute to improving patient outcomes and quality of life (Elbeddini et al., 2020).

Community pharmacists administer the services of COVID-19 screening and effective medications & vaccines during the pandemic. Community pharmacists are also responsible for the availability of all necessary medications and the continuity of patient care (Figueiredo, Visacri, & Lima, 2021).

Healthcare workers have faced mental health challenges during the pandemic (Koutsimani, Montgomery, & Georganta, 2019).

One of the challenges is Burnout; even though it is not considered a mental illness, it is a state of feeling exhausted, a decline in professional efficacy, and negativism to the workplace when the worker cannot successfully manage their work due to stress and burden (Beser, et al., 2014).

Burnout shares similar symptoms with depression which makes the diagnosis challenging. However, burnout has additional symptoms to depression; people may experience exhaustion due to their work, cynicism, and loss of interest in their job (Maslach & Leiter, 2016).

Community pharmacists, the frontline healthcare professionals during the pandemic, deal with unique challenges when providing patient care. CPs are at a major risk of experiencing burnout because of exhaustion, increased workload, and unavoidable difficulties (Samir AlKudsi et al., 2022).

Having inadequate resources, such as staff and personal protection equipment, has frequently placed community pharmacists under more stress and restricted their ability to manage. Their ability to handle stress is also affected by a lack of availability of mental health services (Ghareeb & Hatoum, 2021).



The social distress and mental exhaustion caused by this pandemic have also been worsened by the moral problems pharmacists encounter, including shortages of medications, dispensing without prescription, and dealing with misinformation (Adams, Woods, & Leveson, 2020).

Although burnout can affect anyone at any stage of their work life, people who work under pressure, those with a lot of workloads and fear of loss are at greater risk, and these factors may change the behavior of workers and create negativity. (Fiorillo & Gorwood, 2020)

Usually, burnout may cause irritability, loss of interest, mental tiredness, feeling pressure, cynicism, poor work performance, and withdrawal. (Cosic, Popovic, Sarlija, & Kesedzic, 2020)

Physical illnesses and burnout are related to one another. In a population-based Finnish sample, 28% of workers with cardiovascular problems and 47% with severe burnout had musculoskeletal disorders. The results showed that burnout in males was linked to cardiovascular disease, whereas women's burnout was linked to musculoskeletal disorders (Ahola, 2007).

Long-term physical tiredness can lead to various health problems, such as musculoskeletal disorders including back and joint pain, physical discomfort, and decreased well-being. The challenges experienced by community pharmacists get worse by these health issues (Alharbi, Alshammari, Alenazi, & Alzahrani, 2020).

Safety measures, shortage of drugs, and shortage of staff are the factors that lead to increased workload, burnout, and poor mental health (Lee, Watson, & Al Hamarneh, 2021).

Unavailability of personal protective equipment (PPE), direct contact with an infectious patient, long time to convey fearful and frustrated patients to get treatment for COVID-19 and isolation from the public due to the risk of infection affects the mental health of pharmacists and increased stress. (Atif & Malik, 2020).

During the pandemic, patients avoid going to hospitals because they fear getting infected with COVID-19, so they go directly to the community pharmacies for guidance. Due to these factors, the increased workload also increases the burden on the pharmacists. As a result, pharmacists' well-being and quality of life are affected (Blake , Bermingham, Johnson, & Tabner, 2020).

The Project on Burnout, Motivation and Job Satisfaction (PUMA) project, a five-year prospective intervention study on burnout in the human services sector conducted by the National Research Centre for the Working Environment (the National Institute of Occupational Health), Denmark, in 1999, called for the development of a burnout assessment tool. This tool was the Copenhagen Burnout Inventory. A self-awareness tool recommended for identifying burnout warning signs and taking prompt corrective action is the Copenhagen Burnout Inventory. (Borritz, Rugulies, Christensen, Villadsen , & Kristensen, 2006)

When mental and physical well-being are combined, health promotion and disease prevention can be tackled more holistically. Beyond illness, mortality, and financial status, wellbeing is a trustworthy marker of population outcomes that indicates how people evaluate their own lives. (Diener et al., 2009).

There are many different well-being instruments that assess self-reported well-being in different ways, depending on whether someone wants to analyze well-being as a clinical outcome, as a general health outcome, for cost-effectiveness studies, or for numerous other goals. Interpersonal reports, observational techniques, physiological strategies, experience sampling techniques, ecological momentary inspections, and other methods are used by psychologists to measure various aspects of wellbeing. (Eid, 2008)

The WHO-5 Well-Being Index (WHO-5) is a prevalent measure. The WHO-5 is a brief, positively worded scale self-administered and used to measure subjective well-being over the period of last fifteen days. The WHO-5 tool's acceptable psychometric qualities in various clinical and non-clinical samples (Bech , Olsen , Kjoller , & Rasmussen , 2003).

### **Statement of the Problem**

There are various studies related to burnout levels of health professionals. However, in Northern Cyprus, there is an absence of available data related to the burnout levels of community pharmacists before, during and after the COVID-19 pandemic. Considering the role of community pharmacists in healthcare and their position as frontline healthcare workers, it is valuable to understand the consequences of the pandemic on their psychological health and overall well-being. A survey was conducted to assess the burnout levels and the well-being of community pharmacists. Thus, the results of this study will help understand the unique challenges community pharmacists face and how their well-being is affected during the pandemic.

### **Purpose of the study**

This study aims to explore the effects of the COVID-19 pandemic on community pharmacists and assess their levels of well-being and burnout considering their role as frontline health professionals. The study also aims to analyze the contributing factors of burnout among community pharmacists related to conditions caused by the pandemic.

### **Research Questions**

- i. How did the COVID-19 pandemic affect the community pharmacist's levels of burnout?
- ii. What is the present level of well-being of community pharmacists?

### **Significance of the study**

The findings of the study can be used to identify the negative effects of the COVID-19 pandemic on the burnout and well-being of community pharmacists.

Future researchers will use the findings of this study as a foundation for literature reviews and other academic concepts to contribute to the field.

The study findings can be used by the health care organization and pharmacy council to implement strategies that can improve well-being and decrease the rate of burnout.

### **Limitations of study**

The study had some limitations. The study did not include community pharmacists' mental health issues before the Pandemic began. Another area of improvement is the inability to assess respondents' burnout changes. It is unclear whether the COVID-19 pandemic has increased burnout and affected well-being among community pharmacists because there is no study assessing these factors before the pandemic, thus no comparison can be made. The results of the study cannot only be attributed to COVID-19 alone due to the earthquake.

### **Definition of terms:**

**Community pharmacists:** The safe supply of medications without a prescription or with "over the counter" advice and product sales are among the numerous services that community pharmacists, specialists in medicines and their use, offer.

**COVID-19:** A respiratory disease caused by the SARS-CoV-2 virus that spreads quickly. SARS-CoV-2 is believed to be highly contagious through droplets exhaled when an infected person coughs, sneezes, or talks. An abundant transmission method is contacting from infected individual's mouth, nose, or eyes after touching a surface with the virus.

**Burnout:** Burn-out is a syndrome defined as "the result of chronic workplace stress that has not been successfully managed." It has three dimensions that define it:

Decreasing professional efficacy,

Feelings of energy depletion or tiredness,

An increase in mental detachment from one's employment, or emotions of hopelessness or dissatisfaction about one's job.

**Mental well-being:** The state of feeling healthy, happy, and with prosperity represents the well-being. It includes maintaining an optimism outlook on life, feeling content with it, finding meaning or purpose in it, and handling stress.

## CHAPTER II

### Literature Review

Research-related information from different authors in the literature on the same topic is given in this Chapter.

#### **Theoretical Framework:**

Well-being, self-assurance, self-determination, cross-generational dependence, cognitive or emotional potential, including in mental health, stated by WHO. When there is an impact on mental health, all these factors may lead to mental health illness (Hossain, Mullick, Haidar, & Aktaruzzaman, 2020). WHO stated that pain symptoms and perceived danger are mental state indicators during the COVID-19 Pandemic. Chronic anxiousness and financial loss are major causes of stress during the pandemic (Bavel, et al., 2020). Psychological illness increases as the unemployment rate intensifies the individual's fear (Timming, French, & Mortensen, 2021).

The RPS surveyed pharmacists on their mental health and general well-being. Participants reported feeling physically exhausted, which had an impact on their overall well-being. Similar to this survey, it found that the pandemic had a detrimental impact on mental state (Royal Pharmaceutical Society, 2020)

Mental health issues can adversely demolish the ability of community pharmacists to bring about their responsibilities effectively. Patient safety and the standard of proper care can be at risk due to diminished concentration, decreased attention to specifications, and difficulty making decisions (Alkhamees, Alrubaya, & Alkhamees, 2021).

The risk of developing mental health disorders like generalized anxiety disorder, depression, and post-traumatic stress disorder (PTSD) is high for community pharmacists experiencing psychological health issues during the pandemic. Their well-being may suffer in the long term due to persistent stress and uncertainty (Johnson, Ebrahimi, & Hoffart, 2020).

According to International Pharmaceutical Federation, Community pharmacists are the primary point of contact in healthcare system. Apart from ensuring the availability and contribute in delivery of medicines, community pharmacists are also involved in counseling and educating the patients, informing them how to control and prevent infection. (Lima, Visacri, & Figueiredo, 2021)

In the United Kingdom, community pharmacists face the problem of medicines shortage, daily routine pattern disruption due to an upsurge workload, and sometimes bad behavior of patients. In the USA, the unavailability of personnel protective equipment (PPE) and other infection control measures are causes of concern for the continuity of services to their patients (Zaidi & Hasan, 2021).

In Lebanon, Pharmacists were concerned as they lacked the experience and training to manage the pandemic emergencies (Zeenny, Ramia, Akiki, Hallit, & Salameh, 2020).

All these concerns may affect the psychosocial behavior of pharmacists, and they need to resolve them to elaborate the pharmacist's role (Dawoud , et al., 2020).

The Transtheoretical model and the Attitude, Social Influence, and Self-Efficacy (ASE) model have been implemented in Spain to administer and develop the pharmaceutical care and to identify the psychological and behavioral variables (Zardain, et al., 2009).

Physical fatigue can negatively affect a community pharmacist's ability to appropriately balance work and personal life. Fatigue and physical strain imposed due to their jobs may prevent these individuals from participating in hobbies, leisure activities, and quality time with family and friends, which may increase stress levels and decrease emotional pleasure (Baka, 2019).

During the Pandemic, patients avoided unnecessary visits to hospitals and in return, it increased the strain on community pharmacists as they also play the role of clinical pharmacists. As a result of this increasing workload to the community pharmacists may lead to the decline in the quality of care and affects well-being and Burnout.

**Related Research:**

In Türkiye, on January 10<sup>th</sup>, 2020, the Ministry of Health made a panel of 31 medical experts (not from a mental health care background), and they reported 1<sup>st</sup> case of COVID-19 on 11<sup>th</sup> March 2020 and later on May 16<sup>th</sup>, 2020, confirmed cases were 148,067, deaths were reported 4,096 and recoveries around 1,589,625. (Acar, et al., 2021)

As a result of an increase in cases, Türkiye's government decided to initiate a lockdown. It led to a rise in mental health problems. Then they decided to initiate online mental health services. So, Online Read-Reflect Share (ORRS) group was made to start online counseling. The online service users reported loneliness, stress, anxiety, and academic issues. ORRS group serving 450 clients, the participants' satisfaction with each of 8 sessions ranged from 90% to 97%. They relieve anxiety and depression and enhance well-being (Tanhan, et al., 2020).

In another study, conducted on French CPs indicated that 10.5% of the pharmacists who completed the MBI questionnaire had severe burnout symptoms. Significant factors contributing to burnout, such as increased exertion, lack of resources, and concerns about personal safety, have been all observed (Balayssac, et al., 2017).

An emotional state of exhaustion, depersonalization, and a decline in confidence are symptoms of burnout. It often results from chronic stress at work and has an immense adverse impact on the health and performance of healthcare workers. According to studies done before the pandemic, the burnout rate among pharmacists was already concerning, with a prevalence ranging from 25% to 67%. (Goh, et al., 2021)

Researchers from other countries stated that online counseling is very effective (Zhou, et al., 2020).

In a study conducted in China, community pharmacists went through burnout in a ratio of 47.3% during the pandemic, by Chen et al. (2020). Researchers



discovered the main predictors of burnout included excessive work, illness anxiety, and a lack of support (Chen, et al., 2020).

A previous study conducted in 2019, 74% respondents reported they had been negatively affected by mental health issues due to increased demand, inadequate staff time, and long working duration. 89% of community pharmacists were at higher risk of burnout. The Pharmacy profession proves to be a valuable source of communication directly with patients during the COVID-19 pandemic, especially community pharmacists. They also play a major part in the spread of awareness to the public (Royal Pharmaceutical Society, 2020).

A Serbian study by Joi and Krajnovi also revealed that 44.4% of pharmacists working in community pharmacies experienced a higher level of burnout syndrome, and 60.3% and 55.8% of them had significant levels of anxiety, respectively (Jocic & Krajnovic, 2014).

In a recent survey conducted in Canada, 75% of community pharmacists revealed that they were emotionally exhausted and experienced depersonalization. They identified the leading causes of burnout were; a hectic schedule, lack of support, and fear of the COVID-19 virus spreading (Patel et al., 2021).

In one cross-sectional study, 47% of community pharmacists reported burnout and almost 80% reported it lasted up to a year. (Johnston et al., 2021)

In well-being physical as well as psychological wellness were taken into consideration. A study was conducted in UK, 76% of participants reported their emotional health had been impacted, they were feeling pressured, nervous, worried, terrified, depressed, and lonely. 56% of individuals reported effects on their physical well-being, including fatigue and exhaustion (Bhamra et al., 2021).

## CHAPTER III

### Methodology

This chapter provides information about the research design, participants/sample, data collection and analysis procedures and how the findings are analyzed.

#### Research Design

This cross-sectional study assessed the burnout levels and well-being of community pharmacists in Northern Cyprus. The eligible participants were pharmacists who worked in community pharmacies. The survey was conducted face-to-face by visiting community pharmacies in Northern Cyprus. Incomplete surveys were excluded from the study.

#### Questionnaire

The study was conducted over two months, from April 1, 2023, to May 30, 2023. The questionnaire utilized the Turkish version of the Copenhagen Burnout Inventory and the WHO-5 well-being index. The version was pilot tested on a sample of 10 community pharmacists before starting data collection. The study included pilot study results as no further changes were made after the pilot study. The study utilized one questionnaire, which was distributed to community pharmacists. The questionnaire comprised three sections. Section A consists of demographic data (12 questions included in this section), Section B consists of 19 questions based on the assessment of burnout, and Section C consists of 5 questions of the WHO-5 well-being index.

#### Population and Sampling:

##### Population:

The targeted population for this study was the community pharmacists in Northern Cyprus. Two hundred and two community pharmacists participated in this study.

##### Sample Size:

The Raosoft, Inc, Seattle, WA, USA, software calculator with a 5% margin of error, 95% confidence level, 50% response distribution and 350 population size

(total number of community pharmacies in Northern Cyprus) was used to calculate the required sample size. The recommended minimum sample size was 184.

**Data Collection:**

Data collection was done using a self-administered questionnaire provided in the Turkish Language. The approximate time needed to complete the questionnaire was 10 minutes.

**Data Analysis Procedure:**

The collected data were entered into Microsoft Excel and then analyzed using SPSS version 26.0 for Windows. The chi-square test was used to measure the association between the demographic variables and the degree of burnout, and the WHO-5 well-being index. And a p-value of 0.05 or less ( $P > 0.05$ ) was considered statistically significant.

Each participant was required to select one accurate response, and the sum of their responses was used to interpret the degree of burnout. Values were categorized as follows in three sections. CBI comprises of 3 subscales: Personal Burnout consisting of 6 questions, Work-related Burnout consisting of 7 questions, and Client-related burnout consisting of 6 questions, 12 questions from this section have responses of frequency along a 5 points Likert scale (ranging from Always 100, Often 75, Sometimes 50, Seldom/Rarely 25, Never 0). 7 questions use response categories according to intensity ranging from (a very low degree '0' to 'to a very high degree'). Scores of burn-out were categorized as follows with ranges: <50 indicates low, 50-74 indicates moderate, 75-99 indicates high, and 100 indicates severe. (Kristensen, Borritz, Villadsen, & Christensen, Copenhagen Burnout Inventory (CBI), 2005)

WHO-5 well-being Index (respond to each item by marking one box per row). The raw score is calculated by totaling the points of the five answers. The raw score ranges from 0 to 25, with 0 representing the worst and 25 representing the

best possible quality of life. To obtain a percentage score ranging from 0 to 100, the raw score is multiplied by 4. The prevalence cut-off is <50 percentage score indicates poor well-being, and >50 indicates the good well-being (Topp, Ostergaard, Sondergaard , & Bech, 2015).

**Ethical Considerations:**

Ethical approval for this study was obtained on 30<sup>th</sup> March 2023 from the Institutional Review Board (IRB) of Near East University Hospital (YDU/2023/111-1694).

## CHAPTER IV

### Findings and Discussion

During the study, we approached 237 community pharmacists (CPs) with a translated questionnaire in Turkish. Out of 237 pharmacists, 202 pharmacists agreed to participate in the survey.

#### Demographic data

##### Community Pharmacists' Demographic Data:

Of the 202 CPs who completed the questionnaire, (64.9% N=131) were female and (35.1%, N=71) were male. The largest age group among the Pharmacists was 26-35 years old, accounting for (50%, N=101), while the oldest (over 60) was the least represented. More than half were married. Most of the CPs (N=169, 83.7%) had work experience of more than 3 years, (9.4%, N=19) 1-3 years, and the least (6.9%, N=14) with less than 1 year of experience. 184 (91.1%) CPs had worked for more than 40 hours per week, 15 (7.4%) 40 hours, and the least (1.5%, N=3) worked for 35 hours. Most pharmacists (175%, N=86.6%) had reported a financial loss during the pandemic, and more than half were unsatisfied with their current financial situation. The least (7.9%, N=16) had chronic diseases. (55.9%, N=113) had COVID-19, while (80.2%, N=162) worried about getting infected with COVID-19. 86.6% have experienced financial losses, while less than half were satisfied with their financial situation. 55.9% had been infected with COVID-19 and 80.2% had worried about getting infected with COVID-19 (Table 1).

*Table 1 Community Pharmacist's Demographic Data*

Variables	Frequency N (%)
Gender	
Female	131 (64.9%)
Male	71 (35.1%)
Age	
20-25	13 (6.4%)
26-35	101 (50.0%)
36-45	61 (30.2%)
46-60	15 (7.4%)
More than 60	12 (5.9%)

Marital Status Married Unmarried	125 (61.9%) 77 (38.1%)
Experience Less than 1 year 1-3 years More than 3 years	14 (6.9%) 19 (9.4%) 169 (83.7%)
Educational level License Masters Doctor	93 (46%) 80 (39.6%) 29 (14.4%)
Working Hours 35 hours 40 hours More than 40 hours	3 (1.5%) 15 (7.4%) 184 (91.1%)
Have you experienced financial losses during the pandemic process? Yes No	175 (86.6%) 27 (13.4%)
Are you satisfied with your current financial situation? Yes No	90 (44.6%) 112 (55.4%)
Is your workload increased in the pandemic process? Yes No	163 (80.7%) 39 (19.3%)
Do you have any Chronic disease? Yes No	16 (7.9%) 186 (92.1%)
Have you had COVID-19? Yes No	113 (55.9%) 89 (44.1%)
Have you worried about getting infected during the Pandemic? Yes No	162 (80.2%) 40 (19.8%)

### Burnout Among Community Pharmacists:

This section assessed burnout among community pharmacists through CBI, consisting of 19 questions. The first 6 questions are about personal burnout, the next part consists of 7 questions about work-related burnout, and the last part client-related burnout consists of 6 questions.

*Table 2 BURNOUT AMONG COMMUNITY PHARMACISTS*

PERSONAL BURNOUT	Frequency N (%)
1. How often do you feel tired. <ul style="list-style-type: none"> <li>▪ Never</li> <li>▪ Rarely</li> <li>▪ Sometimes</li> <li>▪ Often</li> <li>▪ Always</li> </ul>	2 (1.0%) 26 (12.9%) 113 (55.9%) 43 (21.3%) 18 (8.9%)
2. How often do you feel physically exhausted. <ul style="list-style-type: none"> <li>▪ Never</li> <li>▪ Rarely</li> <li>▪ Sometimes</li> <li>▪ Often</li> <li>▪ Always</li> </ul>	1 (0.5%) 57 (28.2%) 91 (45.0%) 42 (20.8%) 11 (5.4%)
3. How often are you emotionally exhausted. <ul style="list-style-type: none"> <li>▪ Never</li> <li>▪ Rarely</li> <li>▪ Sometimes</li> <li>▪ Often</li> <li>▪ Always</li> </ul>	9 (4.5%) 71 (35.1%) 79 (39.1%) 30 (14.9%) 13 (6.4%)
4. How often do you think: "I can't take it anymore". <ul style="list-style-type: none"> <li>▪ Never</li> <li>▪ Rarely</li> <li>▪ Sometimes</li> <li>▪ Often</li> <li>▪ Always</li> </ul>	47 (23.3%) 94 (46.5%) 40 (19.8%) 14 (6.9%) 7 (3.5%)
5. How often do you feel worn-out. <ul style="list-style-type: none"> <li>▪ Never</li> <li>▪ Rarely</li> <li>▪ Sometimes</li> <li>▪ Often</li> <li>▪ Always</li> </ul>	39 (19.3%) 76 (37.6%) 48 (23.8%) 29 (14.4%) 10 (5.0%)

6. How often do you feel weak and susceptible to illness.	
<ul style="list-style-type: none"> <li>▪ Never</li> <li>▪ Rarely</li> <li>▪ Sometimes</li> <li>▪ Often</li> <li>▪ Always</li> </ul>	<p>31 (15.3%)  90 (44.6%)  68 (33.7%)  7 (3.5%)  6 (3.0%)</p>
<b>WORK-RELATED BURNOUT</b>	<b>Frequency N (%)</b>
7. Do you feel worn-out at the end of working day.	
<ul style="list-style-type: none"> <li>▪ Never</li> <li>▪ Rarely</li> <li>▪ Sometimes</li> <li>▪ Often</li> <li>▪ Always</li> </ul>	<p>15 (7.4%)  78 (38.6%)  69 (34.2%)  30 (14.9%)  10 (5.0%)</p>
8. Are you exhausted in the morning at the thought of another day.	
<ul style="list-style-type: none"> <li>▪ Never</li> <li>▪ Rarely</li> <li>▪ Sometimes</li> <li>▪ Often</li> <li>▪ Always</li> </ul>	<p>85 (42.1%)  53 (26.2%)  41 (20.3%)  17 (8.4%)  6 (3.0%)</p>
9. Do you think every hour you work is tiring for you.	
<ul style="list-style-type: none"> <li>▪ Never</li> <li>▪ Rarely</li> <li>▪ Sometimes</li> <li>▪ Often</li> <li>▪ Always</li> </ul>	<p>95 (47.0%)  61 (30.2%)  34 (16.8%)  9 (4.5%)  3 (1.5%)</p>
10. Do you find the strength to spare enough time for your family and friend.	
<ul style="list-style-type: none"> <li>▪ Never</li> <li>▪ Rarely</li> <li>▪ Sometimes</li> <li>▪ Often</li> <li>▪ Always</li> </ul>	<p>4 (2.0%)  30 (14.9%)  109 (54.0%)  36 (17.8%)  23 (11.4%)</p>
11. Is your job emotionally exhausting.	
<ul style="list-style-type: none"> <li>▪ Very low degree</li> <li>▪ Low degree</li> <li>▪ Somewhat</li> <li>▪ High degree</li> <li>▪ Very high degree</li> </ul>	<p>14 (6.9%)  51 (25.2%)  68 (33.7%)  52 (25.7%)  17 (8.4%)</p>
12. Do you feel burnout because of your job.	
<ul style="list-style-type: none"> <li>▪ Very low degree</li> <li>▪ Low degree</li> <li>▪ Somewhat</li> </ul>	<p>67 (33.2%)  48 (23.8%)  47 (23.3%)</p>



<ul style="list-style-type: none"> <li>▪ High degree</li> <li>▪ Very high degree</li> </ul>	<p>28 (13.9%) 12 (5.9%)</p>
<p>13. Does your job frustrate you.</p> <ul style="list-style-type: none"> <li>▪ Very low degree</li> <li>▪ Low degree</li> <li>▪ Somewhat</li> <li>▪ High degree</li> <li>▪ Very high degree</li> </ul>	<p>65 (32.2%) 79 (39.1%) 40 (19.8%) 10 (5.0%) 8 (4.0%)</p>
<b>CLIENT-RELATED BURNOUT</b>	<b>Frequency N (%)</b>
<p>14. Do you find it difficult to work with customers.</p> <ul style="list-style-type: none"> <li>▪ Very low degree</li> <li>▪ Low degree</li> <li>▪ Somewhat</li> <li>▪ High degree</li> <li>▪ Very high degree</li> </ul>	<p>34 (16.8%) 81 (40.1%) 61 (30.2%) 20 (9.9%) 6 (3.0%)</p>
<p>15. Do you find it frustrating to work with customers.</p> <ul style="list-style-type: none"> <li>▪ Very low degree</li> <li>▪ Low degree</li> <li>▪ Somewhat</li> <li>▪ High degree</li> <li>▪ Very high degree</li> </ul>	<p>46 (22.8%) 77 (38.1%) 49 (24.3%) 24 (11.9%) 6 (3.0%)</p>
<p>16. Does working with customers consume your energy.</p> <ul style="list-style-type: none"> <li>▪ Very low degree</li> <li>▪ Low degree</li> <li>▪ Somewhat</li> <li>▪ High degree</li> <li>▪ Very high degree</li> </ul>	<p>41 (20.3%) 58 (28.7%) 69 (34.2%) 28 (13.9%) 6 (3.0%)</p>
<p>17. Do you think you give more than you get back when you work with customers.</p> <ul style="list-style-type: none"> <li>▪ Very low degree</li> <li>▪ Low degree</li> <li>▪ Somewhat</li> <li>▪ High degree</li> <li>▪ Very high degree</li> </ul>	<p>27 (13.4%) 57 (28.2%) 64 (31.7%) 34 (16.8%) 17 (8.4%)</p>
<p>18. Are you tired of working with customers.</p> <ul style="list-style-type: none"> <li>▪ Never</li> <li>▪ Rarely</li> <li>▪ Sometimes</li> <li>▪ Often</li> <li>▪ Always</li> </ul>	<p>99 (49.0%) 56 (27.7%) 32 (15.8%) 8 (4.0%) 7 (3.5%)</p>

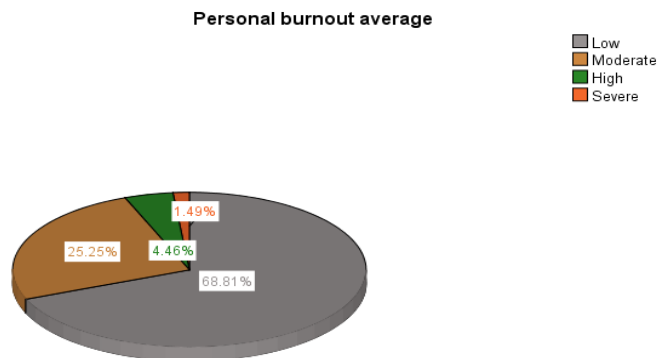
19. Do you sometimes wonder, how long you will be able to continue working with customers.	
<ul style="list-style-type: none"> <li>▪ Never</li> <li>▪ Rarely</li> <li>▪ Sometimes</li> <li>▪ Often</li> <li>▪ Always</li> </ul>	<p>91 (45.0%) 50 (24.8%) 43 (21.3%) 9 (4.5%) 9 (4.5%)</p>

### Community Pharmacist and Burnout:

According to the available data for Personal burnout, 68.8% of participants had a low level of Burnout, 25.2% of participants have moderate level of burnout, 4.5% of participants had high level of burnout, and 1.5% of participants had severe level of burnout, the subscale Cronbach alpha value is 0.863, indicating the good internal consistency. The corrected item-total correlations ranged from 0.357-0.786 with a mean of 0.664. The inter-item correlations among the personal burnout items were high, ranging from 0.272 to 0.774. The mean of CBI Personal burnout was  $42.22 \pm 23.41$  (range, 0-100).

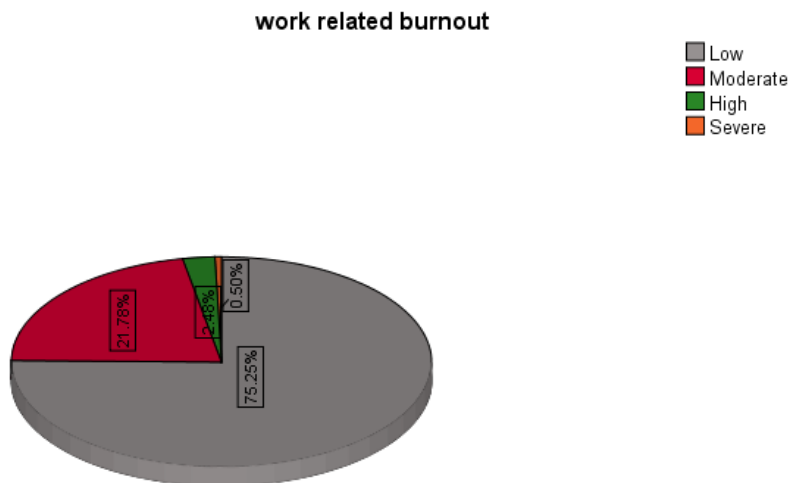
*Table 3 Burnout Evaluation*

<b>BURNOUT EVALUATION</b>			
<b>CBI</b>	<b>M (SD)</b>	<b>Prevalence cut-off N (%)</b>	<b>Subscale Cronbach alpha</b>
<b>Personal Burnout</b>	42.223 (23.413)	Low (<50) = 139 (68.8%) Moderate (50-74) = 51 (25.2%) High (75-99) = 9 (4.5%) Severe (100) = 3 (1.5%)	0.863
<b>Work-Related Burnout</b>	35.183 (26.025)	Low (<50) = 152 (75.2%) Moderate (50-74) = 44 (21.8%) High (75-99) = 5 (2.5%) Severe (100) = 1 (0.5%)	0.842
<b>Client-Related Burnout</b>	32.8 (21.125)	Low (<50) = 158 (78.2%) Moderate (50-74) = 36 (17.8%) High (75-99) = 5 (2.5%) Severe (100) = 3 (1.5%)	0.881



*Figure 1 Personal burnout*

Work-Related burnout, 75.2% of participants had a low level of Burnout, 21.8% of participants had moderate level of burnout, 2.5% of participants had a high level of burnout, and 0.5% of participants had a severe level of burnout, the subscale Cronbach alpha value is 0.842, indicating the good internal consistency. The corrected item-total correlations ranged from 0.115-0.788 with a mean of 0.597. The inter-item correlations among the work-related burnout items were high, ranging from 0.019 to 0.714. The mean of CBI work-related burnout was  $35.18 \pm 26.025$  (range, 0-100).



*Figure 2 Work-Related burnout*

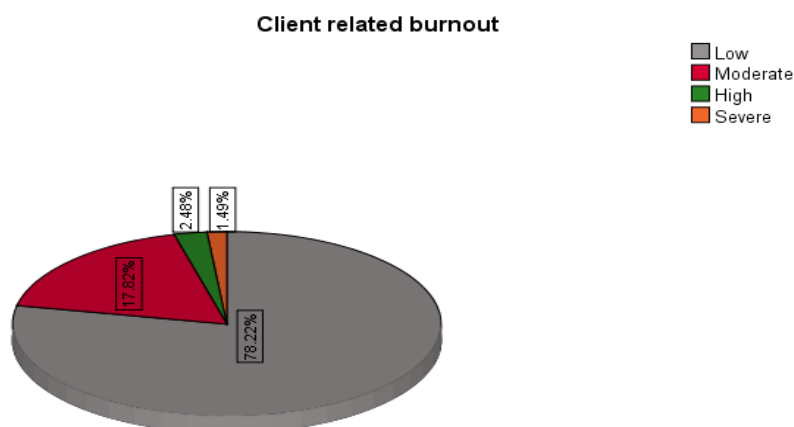
Regarding client-related burnout, 78.2% of community pharmacists had a low level of burnout, 17.8% of pharmacists had a moderate level of burnout, 2.5% of

community pharmacists had a high level of burnout, and 1.5% of community pharmacists had severe level of burnout, the subscale Cronbach alpha value is 0.881, indicating the good internal consistency. The corrected item-total correlations ranged from 0.577-0.824 with a mean of 0.694. The inter-item correlations among the client-related burnout items were high, ranging from 0.319 to 0.785. The mean of CBI Personal burnout was  $32.8 \pm 21.12$  (range, 0-100). As shown in Table 4.

Table 4 Burnout descriptive statistics

<b>BURNOUT EVALUATION</b>				
<b>CBI</b>	<b>N</b>	<b>Inter-Item Correlation</b>	<b>Item-Total Statistics</b>	<b>Subscale Cronbach alpha</b>
<b>Personal Burnout</b>	202	0.272-0.774	0.357-0.786	0.863
<b>Work-Related Burnout</b>	202	0.019-0.714	0.115-0.788	0.842
<b>Client-Related Burnout</b>	202	0.319-0.785	0.577-0.824	0.881
<b>Total Burnout</b>	202	0.566-0.731	0.692-0.825	0.859

Figure 3 Client-Related Burnout



### Personal Burnout Assessment with Demographics:

The assessment of personal burnout with demographic characteristics of community pharmacists was analyzed. The analysis results were presented in frequency (n) and percentage (%) as shown in Table 5. The age group between 26-35 years was affected with moderate levels of personal burnout, while among the genders, the females were affected with 88.9% of high levels of personal burnout. According to the work experience, a moderate level of burnout 74.5% was seen among the community pharmacists who have been working for more than 3 years in community pharmacies.

Table 5 Personal Burnout Assessment with Demographic Data

FACTORS	PERSONAL BURNOUT				Statistica l test
	LOW	MODERATE	HIGH	SEVERE	
	f (%)	f (%)	f (%)	f (%)	
Age					
20-25	6 (4.3%)	5 (9.8%)	2 (22.2%)	0 (0.0%)	P=0.008 X <sup>2</sup> =23.27 3
26-35	63 (45.3%)	32 (62.7%)	5 (55.6%)	1 (33.3%)	
36-45	49 (35.3%)	10 (19.6%)	2 (22.2%)	0 (0.0%)	
46-60	11 (7.9%)	4 (7.8%)	0 (0.0%)	0 (0.0%)	
Above 61	10 (7.2%)	0 (0.0%)	0 (0.0%)	2 (66.7%)	
Gender					
Female	82 (59.0%)	38 (74.5%)	8 (88.9%)	3 (100.0%)	P=0.046 X <sup>2</sup> =7.346
Male	57 (41.0%)	13 (25.5%)	1 (11.1%)	0 (0.0%)	
Experience					
<1 year	6 (4.3%)	6 (11.8%)	2 (22.2%)	0 (0.0%)	P=0.008 X <sup>2</sup> =15.99 2
1-3 years	9 (6.5%)	7 (13.7%)	3 (33.3%)	0 (0.0%)	
>3 years	124 (89.2%)	38 (74.5%)	4 (44.4%)	3 (100.0%)	

### Work-Related Burnout Assessment with Demographics:

Table 6 shows the frequency and percentage distribution of work-related burnout of community pharmacists with demographic data according to their scores, and it is calculated accordingly. If the participants scored less than 50, it was considered a low degree, 50-74 a moderate degree, 75-99 a high degree, and 100 as severe. Community pharmacists aged 26-35 were affected with 68.2% having

moderate levels of work-related burnout. Regarding gender, the females were more affected than males, and the community pharmacists who have worked for more than 3 years reported burnout (Table 6).

*Table 6 Work-Related Burnout Assessment with Demographic Data*

FACTORS	<b>WORK-RELATED BURNOUT</b>				Statistical test
	<b>LOW</b>	<b>MODERATE</b>	<b>HIGH</b>	<b>SEVERE</b>	
	<b>f (%)</b>	<b>f (%)</b>	<b>f (%)</b>	<b>f (%)</b>	
Age					P=0.007 X <sup>2</sup> =24.356
20-25	10 (6.6%)	2 (4.5%)	1 (20.0%)	0 (0.0%)	
26-35	69 (45.4%)	30 (68.2%)	2 (40.0%)	0 (0.0%)	
36-45	53 (34.9%)	7 (15.9%)	1 (20.0%)	0 (0.0%)	
46-60	10 (6.6%)	5 (11.4%)	0 (0.0%)	0 (0.0%)	
Above 61	10 (6.6%)	0 (0.0%)	1 (20.0%)	1 (100.0%)	
Gender					P=0.004 X <sup>2</sup> =11.297
Female	89 (58.6%)	36 (81.8%)	5 (100.0%)	1 (100%)	
Male	63 (41.4%)	8 (18.2%)	0 (0.0%)	0 (0.0%)	
Experience					P=0.009 X <sup>2</sup> =15.878
<1 year	11 (7.2%)	2 (4.5%)	1 (20.0%)	0 (0.0%)	
1-3 years	8 (5.3%)	10 (22.7%)	1 (20.0%)	0 (0.0%)	
>3 years	133 (87.5%)	32 (72.7%)	3 (60.0%)	1 (100.0%)	

#### **Client-Related Burnout Assessment with Demographics:**

Community pharmacists from the age group 26-35 were affected with a 60.0% high level of work-related burnout, while in gender, females were affected more than males, and the community pharmacists who have been working for more than 3 years reported a high degree of burnout of 80.0% (Table 7).

Table 7 Client-Related Burnout Assessment with Demographic Data

FACTORS	CLIENT-RELATED BURNOUT				Statistical test
	LOW	MODERATE	HIGH	SEVERE	
	f (%)	f (%)	f (%)	f (%)	
Age					P=0.002 X <sup>2</sup> =26.342
20-25	6 (3.8%)	6 (16.7%)	0 (0.0%)	1 (33.3%)	
26-35	75 (47.5%)	21 (58.3%)	3 (60.0%)	2 (66.7%)	
36-45	56 (35.4%)	5 (13.9%)	0 (0.0%)	0 (0.0%)	
46-60	11 (7.0%)	4 (11.1%)	0 (0.0%)	0 (0.0%)	
Above 61	10 (6.3%)	0 (0.0%)	2 (40.0%)	0 (0.0%)	
Gender					P=0.048 X <sup>2</sup> =7.017
Female	95 (60.1%)	29 (80.6%)	4 (80.0%)	3 (100.0%)	
Male	63 (39.9%)	7 (19.4%)	1 (20.0%)	0 (0.0%)	
Experience					P=0.0001 X <sup>2</sup> =23.987
<1 year	9 (5.7%)	4 (11.1%)	1 (20.0%)	0 (0.0%)	
1-3 years	9 (5.7%)	7 (19.4%)	0 (0.0%)	3 (100.0%)	
>3 years	140 (88.6%)	25 (69.4%)	4 (80.0%)	0 (0.0%)	

**WHO-5 WELL BEING INDEX:**

The WHO-5 well-being index is used to measure the well-being of individuals for the last two weeks. The questionnaire consists of 5 positive questions/items with a response range from 0 to 5, raw scores were given using a 6-point Likert scale. The raw scores are transformed into a percentage score by multiplying raw scores by 4, ranging from 0 to 100. A percentage score  $\leq 50$  indicates poor well-being and a need for further investigation linked to depression. A raw score of 13 or below 13 indicates poor well-being. The prevalence of poor well-being was 28.2%.

Table 8 WELL-BEING AMONG COMMUNITY PHARMACISTS

WELL-BEING AMONG COMMUNITY PHARMACISTS		
Factor	Poor Well-being	Good Well-being
	f (%)	f (%)
Community Pharmacist	57 (28.2%)	145 (71.8%)

### Descriptive Statistics of WHO:

The prevalence of poor Well-being (WHO-5 score <50) was 28.2%. The item mean ranged from 2.76 to 3.06. The mean total score of WHO-5 was 59.44 ± 21.22. The internal consistency was good with Cronbach alpha 0.848. The item-total correlations ranged from 0.356 to 0.744 with a mean of 2.97. The inter-item correlations were high, ranging from 0.276 to 0.743.

	<b>WHO-5 WELL BEING</b>
<b>N</b>	<b>202</b>
<b>Prevalence cut-off N (%)</b>	Poor Well-being (<50) = 57 (28.2%) Good Well-being (>50) = 145 (71.8%)
<b>M (SD)</b>	59.44 (21.22)
<b>Cronbach Alpha</b>	0.848
<b>Item-Total correlation</b>	0.356-0.744
<b>Inter-Item correlation</b>	0.276-0.743

Table 9 Descriptive Statistics of WHO-5

### Well-being Index:

Table 10 shows the frequency (n) and percentages (%) of the well-being index of community pharmacists.

Table 10 Well-Being Index with Frequency and Percentages:

INDEX	All of time	Most of the time	More than half of time	Less than half of time	Some of the time	At no time
	f (%)	f (%)	f (%)	f (%)	f (%)	f (%)
I have felt cheerful and in good spirits	15 (7.4%)	79 (39.1%)	55 (27.2%)	18 (8.9%)	28 (13.9%)	7 (3.5%)
I have felt calm and relaxed	12 (5.9%)	62 (30.7%)	56 (27.7%)	25 (12.4%)	33 (16.3%)	14 (6.9%)
I have felt active and vigorous	18 (8.9%)	78 (38.6%)	46 (22.8%)	26 (12.9%)	24 (11.9%)	10 (5.0%)
I woke up feeling fresh and rested	27 (13.4%)	62 (30.7%)	50 (24.8%)	20 (9.9%)	32 (15.8%)	11 (5.4%)
My daily life is full of interesting things	15 (7.4%)	72 (35.6%)	51 (25.2%)	26 (12.9%)	34 (16.8%)	4 (2.0%)



### Relationship between Well-being with the demographics of Community pharmacists:

The relationship between demographic characteristics (gender) and the well-being of community pharmacists was analyzed. The analysis results were presented as frequency (n) and percentage (%) as shown in Table 11.

Table 11 Well-Being with Demographic

<b>WELL-BEING WITH DEMOGRAPHIC</b>			
<b>FACTOR</b>	<b>Poor Well-being</b>	<b>Good Well-being</b>	<b>Statistical test</b>
	<b>f (%)</b>	<b>f (%)</b>	
Gender			
Female	44 (77.2%)	87 (60.0%)	P=0.021 X <sup>2</sup> =5.306
Male	13 (22.8%)	58 (40.0%)	

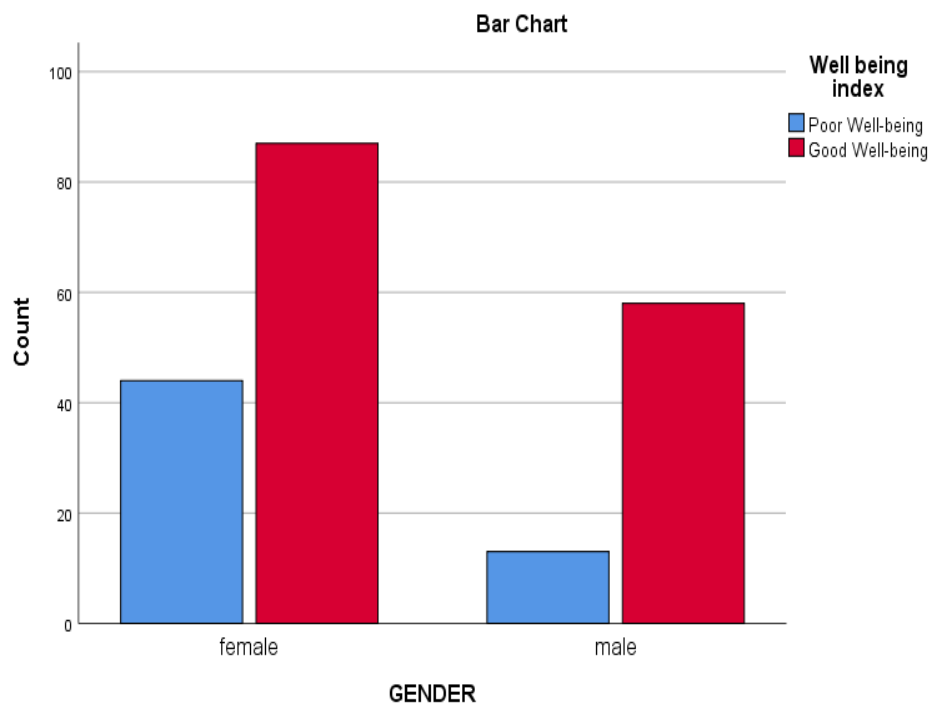


Figure 4 Relationship between Well-being and Gender of the community pharmacists

## CHAPTER V

### Discussion

Community pharmacists experienced more physical, psychological, and mental health issues including burnout and poor well-being during the COVID-19 pandemic.

The COVID-19 pandemic has left significant consequences on healthcare systems around the entire world. Community pharmacists have been leading their profession in giving vital healthcare services, such as dispensing medications, granting patients recommendations, and pursuing their health issues. However, specific challenges and stresses related to their pandemic-related work could harm their mental health. This study aims to assess the psychological well-being among community pharmacists during the COVID-19 epidemic and analyze various factors affecting it (Spoorthy et al., 2020).

It is necessary to encourage the practice of self-care among pharmacists. It includes encouraging regular breaks, physical activity, healthy eating habits, and adequate rest. Employers can prioritize balancing work and life to develop a healthy workplace. Allowing pharmacists simple accessibility to mental health resources, such as counseling services or online support platforms, can encourage them to seek support when they do. Programs for strengthening resilience and managing stress can also be introduced. (Shanafelt, et al., 2012)

As per the previous study conducted in the US, 81% of respondents reported having experienced burnout in the past, and 47% reported it currently. Using the ProQOL score, 65.3% of respondents were found to have moderate to high levels of burnout, which was a larger prevalence than what was reported by the self-ratings of respondents (Jones, Clark, & Mohammad, 2021).

Some previous studies stated that over 51% of pharmacists experience burnout and the associated factors include: long working hours, increased workload, increased responsibilities, and decreased availability of safety measures (Dee et al., 2022).

In Qatar during the COVID-19 pandemic a study was conducted to evaluate burnout, resilience, and other mental health problems, including depression, anxiety, and stress. In this study, community pharmacists have gone through moderate levels of burnout. 53.1%, 50.8% and 69.5% of participants experienced moderate-high emotional exhaustion, depersonalization, and moderate-low personal accomplishment (Samir AlKudsi et al., 2022).

A recent study was conducted in the same timeframe about the psychological impact of COVID-19 on community pharmacists during the lockdown period. This study reported the same as ours; females experience burnout more than males. Around 35% of community pharmacists reported high burnout symptoms, like the study conducted in Northern Cyprus (Lange , et al., 2020).

A study was conducted during the COVID-19 pandemic to identify the prevalence and risk factors for occupational burnout among community pharmacists. In this study, 74.9% of community pharmacists reported a high degree of burnout (Patel, Lee, Kelm, Bush, & Ball, 2021).

The American Society of Health Systems Pharmacists (ASHP) represents pharmacies in the interprofessional efforts to resolve workforce and patient care issues. The aim is entitled “Well-being and You” to sustain pharmacy personnel’s well-being, resilience, and professional work (American Society of Health-System, 2021).

A study conducted, including 1,119 participants at the start of the pandemic from June 2020 to September 2020, reported 76% of Burnout, which was an alarming rate (Bookwalter, 2021).

The Princess Margaret Cancer Centre's design and implementation of the CREATE program—Compassion, REsilience, and TEam-building—is an example of improved mental well-being support by an institution during the COVID-19. For frontline interdisciplinary HCW teams, this program is a proactive, team-based intervention that incorporates the crucial components of psychological first aid and adaptive coping skills into everyday workflows. The

program prepared a group of psychosocial coaches, and these support groups were made accessible to offer team help during immediately unstable circumstances as well as continued difficulties like tragedy or distress following a traumatic occurrence (Shapiro et al., 2021).

Our findings revealed burnout and poor well-being among community pharmacist in Northern Cyprus. 25.2% of community pharmacists reported moderate personal burnout, while 2.5% revealed high level of work-related and client-related burnout. 5 community pharmacists from 26-35 age group had high level (55.6%) of personal burnout. 36 female pharmacists had moderate level (81.8%) of work-related burnout. 25 community pharmacists having experience more than 3 years had reported moderate level (69.4%) of client-related burnout. 57 community pharmacists revealed Poor well-being. According to demographic factor, 44 female community pharmacists revealed poor well-being. Further evaluation could be made for depression if the respondents score is low. As we conducted this study after a disaster (earthquake) in Turkey, Lebanon and Syria. So may be the study could not specify the actual level of burnout and well-being of community pharmacist after COVID-19 pandemic as two emergency conditions impacted negatively in one time.

## CHAPTER VI

### Conclusion And Recommendation

This chapter presents a conclusion based on the research findings according to the research objectives of the research and gives recommendations accordingly.

#### **Conclusion:**

The study aimed to assess the impact of COVID-19 on community pharmacists' mental well-being and analyze burnout levels. The results indicated that community pharmacists had gone through many challenges. They felt exhausted, emotionally drained, and sometimes got bored from their job. Community pharmacists play a significant role in healthcare settings; they are also the first point of contact with patients. In return for these, their workload increased during the pandemic and the safety measures were not fully equipped, so they fear for themselves and their families. During the pandemic, some community pharmacists also faced financial loss due to complete or partial lockdowns. During the COVID-19 period, community pharmacists were involved in vaccination and screening for COVID-19. The older age, female gender, and unmarried community pharmacists were highly affected, as they suffered due to an increased workload and insufficient time to rest. Community pharmacists also felt burnout, emotional exhaustion, depersonalization, and sometimes decreased in their working activity. Burnout and poor well-being detached pharmacists from their everyday routine life and can be a reason for further complications like depression, cardiovascular diseases, musculoskeletal diseases, and insomnia.

#### **Recommendations:**

Pharmacists has a significant role in the health care system and should be provided with all safety measures. During the COVID-19 pandemic, none of the healthcare workers were ready to deal with the situation, as they were not educated about these types of emergencies. To tackle these types of pandemics, healthcare workers should be provided with information from different courses and seminars to have the knowledge and experience to handle it. Conversely, the increased work

hours lead to decreased quality of care, increased physical and mental tiredness, increased burnout and reduced well-being. Hence, the working hours should be maintained to ensure community pharmacists' mental, physical, and psychological well-being. Further evaluation should be made to assess the depression among individual suffering from poor well-being.

## References

- Acar, A., Er, A., Burduroglu, H., Sulku, S., Aydin Son, Y., Akin, L., & Unal, S. (2021). Projecting the course of COVID-19 in Turkey: A probabilistic modeling approach. *Turkish journal of medical sciences*, 51(1), 16-27.
- Adams, J., Woods, V., & Leveson, L. (2020). How pharmacy teams manage moral distress during the COVID-19 pandemic. *Journal of the American Pharmacists Association*, 60(5), 127-132.
- Ahola, K. (2007). *Occupational burnout and health*. Finnish Institute of Occupational Health. Helsinki: People and Work Research.
- Alharbi, M., Alshammari, M., Alenazi, N., & Alzahrani, A. (2020). Work-related musculoskeletal disorders among community pharmacists in Saudi Arabia. *Saudi Pharmaceutical Journal*, 28(11), 1537-1543.
- Alkhamees, A., Alrubaya, A., & Alkhamees, M. (2021). Impact of COVID-19 on the mental health of healthcare professionals in Saudi Arabia: A cross-sectional study. *Saudi Pharmaceutical Journal*, 29(12), 1527-1536.
- Alkudsi, Z., Hany Kamel, N., El-Awaisi, A., Shraim, M., & Saffouh El Hajj, M. (2022). Mental health, burnout and resilience in community pharmacists during the COVID-19 pandemic: A cross-sectional study. *Saudi pharmaceutical journal : SPJ : the official publication of the Saudi Pharmaceutical Society*, 30(7), 1009-1017. doi:<https://doi.org/10.1016/j.jsps.2022.04.015>
- American Society of Health-System, P. (2021, April 12). *Wellbeing & You*. Retrieved from ASHP: <https://wellbeing.Ashp.org/>
- Atif, M., & Malik, I. (2020). COVID-19 and community pharmacy services in Pakistan: challenges, barriers and solution for progress. *Journal of pharmaceutical policy and practice*, 13(33).
- Baka, E. (2019). Burnout syndrome and job satisfaction among pharmacists: The role of work-related factors. *Pharmacy*, 7(3), 101.
- Balayssac, D., Pereira, B., Viot, A., Collin, D., Alapini, D., Cuny, D., . . . Quaini, F. (2017). Burnout, associated comorbidities and coping strategies in French community pharmacies—BOP study: a nationwide cross-sectional study. *PLoS One*, 12(8), e0182956.
- Bavel, J., Baicker, K., Boggio, P., Capraro, V., Cichocka, A., Alia, J., . . . et al. (2020). Using social and behavioural science to support COVID-19 pandemic response. *Nature Human Behaviour*, 4, 460-471.
- Bech, P., Olsen, L., Kjoller, M., & Rasmussen, N. (2003). Measuring well-being rather than the absence of distress symptoms: a comparison of the SF-36 Mental

- Health subscale and the WHO-Five Well-Being Scale. *Int J Methods Psychiatr Res*, 12(2), 85-91.
- Beser, A., Sorjonen, K., Wahlberg, K., Peterson, U., Nygren, A., & Asberg, M. (2014). Construction and evaluation of a self rating scale for stress-induced Exhaustion Disorder, the Karolinska Exhaustion Disorder Scale. *Scandinavian journal of psychology*, 55(1), 72-82.
- Bhamra, S. K., Parmar, J., & Heinrich, M. (2021). Impact of the coronavirus pandemic (COVID-19) on the professional practice and personal well-being of community pharmacy teams in the UK. *International Journal of Pharmacy Practice*, 29(6), 556–565. <https://doi.org/10.1093/ijpp/riab062>
- Biancolella, M., Colona, V., Mehrian-Shai, R., Watt, J., Luzzatto, L., Novelli, G., & Reichardt, J. (2022). COVID-19 2022 update; transition of the Pandemic to the endemic phase. *Human Genomics*, 16(1), 19.
- Blake, H., Bermingham, F., Johnson, G., & Tabner, A. (2020). Mitigating the Psychological impact of COVID-19 on Healthcare Workers: A Digital Learning Package. *International journal of environmental research and public health*, 17(9), 2997.
- Bookwalter, C. (2021, February 11). Challenges in community pharmacy during COVID-19: the perfect storm for personnel burnout. *US Pharm*, 46(5), 28-31.
- Borritz, M., Rugulies, R., Christensen, K., Villadsen, E., & Kristensen, T. (2006). Burnout as a predictor of self-reported sickness absence among human service workers: prospective findings from three year follow up of the PUMA study.
- Brooks, S., Webster, R., Smith, L., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. (2020). The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *The Lancet Lond England*, 395(10227), 912-920.
- Buunk, B., & Schaufeli, W. (1993). 'Burnout: A perspective from social comparisons theory'. *Professional burnout: Recent developments in theory and research*. New York: Hemisphere, 53-69.
- Centers for disease Control and Prevention, U. (2021). New SARS-CoV-2 variant of concern identified: Omicron (B.1.1.529) variant. *Health Alert Network*, 459.
- Chen, Y., Sun, L., Zhang, X., Wu, Q., Xu, W., & Zhang, L. (2020). Factors influencing burnout syndrome among Chinese community pharmacists during COVID-19 epidemic. *Research in Social and Administrative Pharmacy*, 17(1), 1801-1807.
- Cosic, K., Popovic, S., Sarlija, M., & Kesedzic, I. (2020). Impact of Human Disasters and COVID-19 Pandemic on Mental Health: Potential of Digital Psychiatry. *Psychiatria Danubina*, 32(1), 25-31.



- Dawoud , D., Chen , M. A., Rossing, C., Garcia-Cardenas, V., V.Law, A., Aslani, P., . . . Desselle, S. (2020). Pharmacy practice research priorities during the COVID-19 pandemic: Recommendations of a panel of experts convened by FIP Pharmacy Practice Research Special interest Group. *Research in social & administrative pharmacy : RSAP*, 17(1), 1903-1907.
- Dee , J., Dhuhaiabawi, N., & Hayden, J. (2022). A systematic review and pooled prevalence of burnout in pharmacists. *International Journal of clinical pharmacy*, 1-10. doi:<https://doi.org/10.1007/s11096-022-01520-6>
- Diener, E., Lucas, R. E., Schimmack, U., & Helliwell, J. F. (2009). Chapter 1 using well-being to inform public policy. *Well-Being for Public Policy*, 3–7. <https://doi.org/10.1093/acprof:oso/9780195334074.003.0001>
- Eid, M. (2008). Measuring the immeasurable: Psychometric modeling of subjective well-being data. *The Science of Subjective Well-Being*. New York: Guilford Press, 141–167.
- Elbeddini, A., Prabakaran, T., Almasalkhi, S., & Tran, C. (2020). Pharmacists and COVID-19. *Journal of pharmaceutical policy and practice*, 36(13).
- Figueiredo, I., Visacri, M., & Lima, T. (2021). Role of pharmacist during the COVID-19 pandemic: A scoping review. *Research in social & administrative pharmacy: RSAP*, 17(1), 1799-1806.
- Fiorillo, A., & Gorwood, P. (2020). The consequences of the COVID-19 pandemic on mental health and implications for clinical practice. *European psychiatry: the journal of the Association of European Psychiatrists*, 63(1), 32. doi:<https://doi.org/10.1192/j.eurpsy.2020.35>
- Ghareeb , S., & Hatoum, H. (2021). Burnout among Lebanese community pharmacists during COVID-19 pandemic: Prevalence and associated factors. *Journal of Pharmaceutical Policy and Practice*, 14(1), 1-9.
- Goh, Y., Heng, K., Chan, C., Chuah, C., Lim, T., & Ang, C. (2021). Factors associated with burnout among community pharmacists during the COVID-19 pandemic in Singapore. *Research in Social and Administrative Pharmacy*, 17(2), 380-385.
- Hossain, I., Mullick, A., Haidar, A., & Aktaruzzaman, M. (2020). The COVID-19 Pandemic and Mental Health: A systemic review. *Texila International journal of academic research*, 7(1).
- Jocic, D., & Krajnovic, D. (2014). State anxiety, stress and burnout syndrome among community pharmacists: relation with pharmacists' attitudes and beliefs. *Ind. J. Pharm. Educat. Res*, 48(2), 9-15.

- Johnson, S., Ebrahimi, O., & Hoffart, A. (2020). PTSD symptoms among health workers and public service providers during the COVID-19 outbreak. *PloS one*, *15*(10), 0241032.
- Johnston , K., O'Reilly, C., Scholz , B., Georgousopoulou, E., & Mitchell, I. (2021). Burnout and the challenges facing pharmacists during COVID-19: results of a national survey. *International journal of clinical pharmacy*, *43*(3), 716-725.
- Jones, A., Clark, J., & Mohammad, R. (2021). Burnout and secondary traumatic stress in health-system pharmacists during the COVID-19 pandemic. *American journal of health-system pharmacy: AJHP : official journal of the American Society of Health-System Pharmacists*, *78*(9), 818-824.  
doi:<https://doi.org/10.1093/ajhp/zxab051>
- Koutsimani, P., Montgomery, A., & Georganta, K. (2019). The Relationship Between Burnout, Depression, and Anxiety: A Systematic Review and Meta-Analysis. *Frontiers in psychology*, *284*, 10. doi:<https://doi.org/10.3389/fpsyg.2019.00284>
- Kristensen, T., Borritz, M., Villadsen, E., & Christensen, K. (2005). Copenhagen Burnout Inventory (CBI). *APA Psyc Tests*. doi:<https://doi.org/10.1037/t62096-000>
- Lange , M., Joo, S., Couette, P., de Jaegher, S., Joly, F., & Humbert, X. (2020). Impact on mental health of the COVID-19 outbreak among community pharmacists during the sanitary lockdown period. *Annales pharmaceutiques francaises*, *78*(6), 459-463. doi:<https://doi.org/10.1016/j.pharma.2020.09.002>
- Lee, D., Watson, K., & Al Hamarneh, Y. (2021). Impact of COVID-19 on frontline pharmacists' roles and services in Canada: The INSPIRE Survey. *Canadian Pharmacists Journal/ Revue des Pharmaciens du Canada*, *154*(6), 368-373.
- Lima, T., Visacri, M., & Figueiredo, I. (2021). Role of pharmacist during the COVID-19 pandemic: A scoping review. *Research in social & administrative pharmacy: RSAP*, *17*(1), 1799-1806.
- Luo, M., Guo, L., Yu, M., Jiang, W., & Wang, H. (2020). The psychological and mental impact of coronavirus disease 2019 (COVID-19) on medical staff and general public - A systematic review and meta-analysis. *Psychiatry research*, *291*(113190), 291. doi:<https://doi.org/10.1016/j.psychres.2020.113190>
- Maslach, C., & Leiter, M. (2016). Understanding the burnout experience: recent research and its implications for psychiatry. *World Psychiatry*, *15*(2), 103-111. doi:[10.1002/wps.20311](https://doi.org/10.1002/wps.20311)
- Neto, M., Almeida , H., Esmeraldo, J., Nobre, C., Pinheiro, W., de Oliveira, C., . . . da Silva, C. (2020). When health professionals look death in the eye: the mental health of professionals who deal daily with the 2019 coronavirus outbreak. *Psychiatry research*, *288*(112972).

- Patel, S., Kelm, M., Bush, P., Lee, H., & Ball, A. (2021). Prevalence and risk factors of burnout in community pharmacists. *Journal of the American Pharmacists Association : JAPhA*, *61*(2), 145-150.  
doi:<https://doi.org/10.1016/j.japh.2020.09.022>
- Royal Pharmaceutical Society. (2020, November 27). Retrieved from rpharms:  
<https://www.rpharms.com/about-us/news/details/Impact-of-COVID-19-on-pharmacists-mental-health-and-wellbeing.com>
- Shanafelt, T., Boone, S., Tan, L., Dyrbye, L., Sotile, W., Satele, D., . . . Oreskovich, M. (2012). Burnout and satisfaction with work-life balance among US physicians relative to the general US population. *Archives of Internal Medicine*, *172*(18), 1377-1385. doi:<https://doi.org/10.1001/archinternmed.2012.3199>
- Shapiro, G. K., Schulz-Quach, C., Matthew, A., Mosher, P., Rodin, G., de Vries, F., Hales, S., Korenblum, C., Black, S., Beck, L., Miller, K., Morita, J., Li, M., & Elliott, M. (2021). An Institutional Model for Health Care Workers' Mental Health During Covid-19. *NEJM Catalyst Innovations in Care Delivery*, *2*(2).
- Spoorthy, M., Pratapa, S., & Mahant, S. (2020). Mental Health problems faced by healthcare workers due to the COVID-19 pandemic - A review. *Asian Journal of Psychiatry*, *51*, 102119.
- Tanhan, A., Yavuz, K., Scott Young, J., Nalbant , A., Arslan, G., Yildirim, M., . . . Cicek, I. (2020). A Proposed Framework Based on Literature Review of Online Contextual Mental Health Services to Enhance Wellbeing and Address Psychopathology During COVID-19. *ELECTRON J GEN MED*, *17*(6), 6-9.
- Timming, A., French, M., & Mortensen, K. (2021). Health anxiety versus economic anxiety surrounding COVID-19: An analysis of psychological distress in the early stages of the pandemic. *Journal of Affective Disorders Reports*, *5*, 100152.
- Topp, C., Ostergaard, S., Sondergaard , S., & Bech, P. (2015). The WHO-5 Well-Being Index: A Systematic Review of the Literature. *Psychother Psychosom*, *84*, 167-176. doi:10.1159/000376585
- WHO, D. (2020, March 11). *opening remarks at the media briefing on COVID-19*. (WHO)
- Yamasoba, D., Kimura, I., Nasser , H., Morioka, Y., Nao, N., Ito, J., . . . et al. (2022). Virological Characteristics of the SARS-CoV-2 Omicron BA.2 Spike. *Cell*(19), 2103-2115.
- Yu, J., Collier, A., Rowe, M., Mardas, F., Ventura, J., Wan, H., . . . Barouch, D. (2022). Neutralization of the SARS-CoV-2 Omicron BA. 1 and BA.2 Variants. *The New England journal of medicine*, *386*(16), 1579-1580.  
doi:<https://doi.org/10/1056/NEJMc2201849>

- Zaidi, S., & Hasan, S. (2021). Personal protective practices and pharmacy services delivery by community pharmacists during COVID-19 pandemic: Results from a national survey. *Research in Social and Administrative Pharmacy, 17*(1), 1832-1837.
- Zardain, E., del Valle, M., Loza, M., Garcia, E., Lana, A., Markham, W., & Lopez, M. (2009). Psychosocial and behavioural determinants of the implementation of Pharmaceutical Care in Spain. *Pharmacy world & science : PWS, 31*(2), 174-182.
- Zeenny, R., Ramia, E., Akiki, Y., Hallit, S., & Salameh, P. (2020). Assessing knowledge, attitude, practice, and preparedness of hospital pharmacists in Lebanon towards COVID-19 pandemic: a cross-sectional study. *Journal of pharmaceutical Policy and Practice, 13*, 54.
- Zhou, B., Thi Nhu Thao, T., Hoffmann, D., Taddeo, A., Ebert, N., Labroussaa, F., . . . Beer, M. (2021). SARS-CoV-2 spike D614G Change Enhances Replication and Transmission. *Nature, 122*-127.
- Zhou, X., Snoswell, C., Harding, L., Bambling, M., Edirippulige, S., Bai, X., & Smith, A. (2020). The Role of Telehealth in Reducing the Mental Health Burden from COVID-19. *Telemedicine journal and e-health : the official journal of the American Telemedicine Association, 26*(4), 377-379.

## Appendices

### Appendix A

#### Survey

Evaluation of Mental Health and Well-being of Community Pharmacists after the Pandemic in Northern Cyprus

##### A. Demographic data of Participants

1. Age
  - a) 20-25
  - b) 26-35
  - c) 36-45
  - d) 46-60
  - e) Above 60
  
2. Gender
  - a) Female
  - b) Male
  
3. Marital Status
  - a) Married
  - b) Unmarried
  
4. Your working time in the profession
  - a) less than 1 year
  - b) between 1-3 years
  - c) more than 3 years
  
5. Educational status
  - a) License
  - b) Master
  - c) Doctor
  
6. How many hours do you work on average per week?
  - a) 35
  - b) 40
  - c) More than 40 hours
  
7. Have you experienced financial losses during the pandemic?
  - a) Yes

b) No

8. Are you satisfied with your current financial situation?

a) Yes

b) No

9. Has your workload increased during the pandemic process?

a) Yes

b) No

10. Do you have any chronic disease?

a) Yes (.....)

b) No

11. Have you infected with COVID-19?

a) Yes

b) No

12. Were you worried about being infected during the pandemic?

a) Yes

b) No

<b>B. Evaluation of Burnout</b>					
<b>PERSONAL BURN-OUT</b>	<b>Always</b>	<b>Often</b>	<b>Sometimes</b>	<b>Rarely</b>	<b>Never</b>
1. How often do you feel tired?					
2. How often do you feel physically exhausted?					
3. How often do you feel emotionally drained?					
4. How often do you think “i can’t take it anymore”?					
5. How often do you feel worn-out?					
6. How often do you feel weak and insensitive to illness?					
<b>WORK-RELATED BURN-OUT</b>	<b>Very Highly</b>	<b>Highly</b>	<b>Little</b>	<b>Low degree</b>	<b>Very low</b>
7. Is your job emotionally tiring?					
8. Do you feel burnt out because of your job?					
9. Does your job overwhelm you?					
	<b>Always</b>	<b>Often</b>	<b>Sometimes</b>	<b>Rarely</b>	<b>Never</b>

10. Do you feel exhausted at the end of the working day?					
11. When you wake up in the morning, do you feel exhausted with the thought of “one more work day”?					
12. Do you think that every hour you work is tiring for you?					
13. Do you find the strength to spare enough time for your family and friends in your non-working time?					
<b>CLIENT-RELATED BURN-OUT</b>	<b>Very highly</b>	<b>Highly</b>	<b>Little</b>	<b>Low</b>	<b>Very low</b>
14. Do you find it difficult to work with customers?					
15. Do you find working with customers strenuous?					
16. Does working with customers consume your energy?					
17. When working with customers, do you think you give more than you get?					
	<b>Always</b>	<b>Often</b>	<b>Sometimes</b>	<b>Rarely</b>	<b>Never</b>
18. Tired of working with customers?					
19. Do you ever think how long you can keep working with customers?					

<b>C.WHO (Five) Wellbeing Index</b>						
Over the last two weeks	All of the time	Most of the time	More than half of the time	Less than half of the time	Some of the time	At no time
1. I have felt cheerful and in good spirits						
2. I have felt calm and relaxed						

3.I have felt active and fresh						
4.I woke up feeling fresh and rested						
5.My daily life has been filled with things that interest me						



## Appendix B

### Anket

Kuzey Kıbrıs'ta Pandemi Sonrası Serbest Eczacıların Ruh Sağlığı ve İyi Hallerinin Değerlendirilmesi

#### A. Katılımcıların Demografik Özellikleri

1. Yaş
  - a) 20-25
  - b) 26-35
  - c) 36-45
  - d) 46-60
  - e) 60'tan büyük
2. Cinsiyet
  - a) Kadın
  - b) Erkek
3. Medeni hal
  - a) Evli
  - b) Bekar
4. Meslekteki çalışma süreniz
  - a) 1 yıldan az
  - b) 1-3 yıl arası
  - c) 3 yıldan fazla
5. Eğitim durumu
  - a) Lisans
  - b) Master
  - c) Doktora
6. Haftada ortalama kaç saat çalışıyorsunuz
  - a) 35
  - b) 40
  - c) 40 saatten fazla
7. Pandemi sürecinde maddi kayıplar yaşadınız mı?
  - a) Evet
  - b) Hayır

8. Su anki Maddi durumunuzdan memnun musunuz?

- a) Evet  
b) Hayır

9. Pandemi sürecinde iş yükünüz arttı mı?

- a) Evet  
b) Hayır

10. Kronik bir hastalığınız var mı?

- a) Evet (.....)  
b) Hayır

11. COVID-19 geçirdiniz mi?

- a) Evet  
b) Hayır

12. Pandemi sürecinde enfekte olmaktan endişe duydunuz mu?

- a) Evet  
b) Hayır

<b>B. Kişisel Tükenmişlik</b>					
<b>Kişisel Tükenmişlik</b>	<b>Her zaman</b>	<b>Sık sık</b>	<b>Bazen</b>	<b>Nadiren</b>	<b>Hiçbir zaman</b>
1. Kendinizi ne sıklıkta yorgun hissedersiniz?					
2. Kendinizi ne sıklıkta fiziksel olarak bitkin hissederseniz?					
3. Kendinizi ne sıklıkta duygusal olarak bitkin hissedersiniz?					
4. Ne sıklıkta "daha fazla dayanamayacağım" diye düşünürsünüz?					
5. Ne sıklıkta kendinizi yıpranmış hissedersiniz?					
6. Kendinizi ne sıklıkta hastalıklara karşı zayıf ve dirençsiz hissedersiniz?					
<b>İşle İlgili Tükenmişlik</b>	<b>Çok yüksek derecede</b>	<b>Yüksek derecede</b>	<b>Biraz</b>	<b>Düşük derecede</b>	<b>Çok düşük derecede</b>
7. İşiniz duygusal anlamda yorucu mudur?					

8. İşiniz nedeniyle tükendiğinizi hisseder misiniz?					
9. İşiniz sizi bunaltır mı?					
	<b>Her zaman</b>	<b>Sık sık</b>	<b>Bazen</b>	<b>Nadiren</b>	<b>Hiçbir zaman</b>
10. İş günü sonunda kendinizi tükenmiş hisseder misiniz?					
11. Sabah uyandığımızda "bir iş günü daha" düşüncesiyle kendinizi bitkin hisseder misiniz?					
12. Çalıştığınız her saatin sizin için yorucu olduğunu düşünür müsünüz?					
13. İş dışı zamanlarınızda aileniz ve arkadaşlarınız için yeterli vakit ayıracak gücü kendinizde bulur musunuz?					
<b>İstemciyle İlgili Tükenmişlik</b>	<b>Çok yüksek derecede</b>	<b>Yüksek derecede</b>	<b>Biraz</b>	<b>Düşük derecede</b>	<b>Çok düşük derecede</b>
14. Müşteriler ile çalışmak size zor gelir mi?					
15. Müşterilerle çalışmayı yıpratıcı bulur musunuz?					
16. Müşteriler ile çalışmak enerjinizi tüketir mi?					
17. Müşterilerle çalışırken aldığımızdan daha fazlasını verdiğinizi düşünür müsünüz?					
	<b>Her zaman</b>	<b>Sık sık</b>	<b>Bazen</b>	<b>Nadiren</b>	<b>Hiçbir zaman</b>
18. Müşterilerle çalışmaktan bıktınız mı?					
19. Müşterilerle çalışmayı ne kadar daha sürdürebileceğinizi düşündüğünüz oluyor mu?					

<b>C.WHO (Beş) İyilik Durumu İndeksi</b>						
Son iki hafta boyunca	Her zaman	Çoğu zaman	Geçen zamanın yarısında çoğunda	Geçen zamanın yarısından daha azında	Bazen	Hiçbir zaman
1.Kendimi neşeli ve						

keyifli hissettim						
2.Kendimi sakin ve gevşemiş hissettim						
3.Kendimi aktif ve dinç hissettim						
4.Sabahları kendimi taze ve dinlenmiş hissederek uyandım						
5.Günlük yaşantım beni ilgilendiren şeylerle dolu						

## Appendix C

Sheet 1

(1) Age

### AGE \* Personal burnout average Crosstabulation

		Personal burnout average					
		Low	Moderate	High	Severe	Total	
AGE	20-25	Count	6	5	2	0	13
		% within Personal burnout average	4.3%	9.8%	22.2%	0.0%	6.4%
	26-35	Count	63	32	5	1	101
		% within Personal burnout average	45.3%	62.7%	55.6%	33.3%	50.0%
	36-45	Count	49	10	2	0	61
		% within Personal burnout average	35.3%	19.6%	22.2%	0.0%	30.2%
	46-60	Count	11	4	0	0	15
		% within Personal burnout average	7.9%	7.8%	0.0%	0.0%	7.4%
	more than 60 years	Count	10	0	0	2	12
		% within Personal burnout average	7.2%	0.0%	0.0%	66.7%	5.9%
Total		Count	139	51	9	3	202
		% within Personal burnout average	100.0%	100.0%	100.0%	100.0%	100.0%

### Chi-Square Tests

	Value	Df	Asymptotic Significance (2- sided)	Exact Sig. (2- sided)	Exact Sig. (1- sided)	Point Probability
Pearson Chi-Square	35.702 <sup>a</sup>	12	.000	.b		
Likelihood Ratio	27.415	12	.007	.004		
Fisher's Exact Test	23.273			.008		
Linear-by-Linear Association	2.286 <sup>c</sup>	1	.131	.132	.070	.015

N of Valid Cases	202					
------------------	-----	--	--	--	--	--

- a. 13 cells (65.0%) have expected count less than 5. The minimum expected count is .18.  
b. Cannot be computed because there is insufficient memory.  
c. The standardized statistic is -1.512.

(2) Gender

### GENDER \* Personal burnout average Crosstabulation

		Personal burnout average				Total
		Low	Moderate	High	Severe	
GENDER female	Count	82	38	8	3	131
	% within Personal burnout average	59.0%	74.5%	88.9%	100.0%	64.9%
male	Count	57	13	1	0	71
	% within Personal burnout average	41.0%	25.5%	11.1%	0.0%	35.1%
Total	Count	139	51	9	3	202
	% within Personal burnout average	100.0%	100.0%	100.0%	100.0%	100.0%

### Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	8.088 <sup>a</sup>	3	.044	.036		
Likelihood Ratio	9.584	3	.022	.031		
Fisher's Exact Test	7.346			.046		
Linear-by-Linear Association	8.022 <sup>b</sup>	1	.005	.005	.002	.001
N of Valid Cases	202					

- a. 3 cells (37.5%) have expected count less than 5. The minimum expected count is 1.05.  
b. The standardized statistic is -2.832.

## (3) Experience

**EXPERIENCE \* Personal burnout average Crosstabulation**

		Personal burnout average				Total	
		Low	Moderate	High	Severe		
EXPERIENCE	from 1 year	Count	6	6	2	0	14
		% within Personal burnout average	4.3%	11.8%	22.2%	0.0%	6.9%
	1-3 years	Count	9	7	3	0	19
		% within Personal burnout average	6.5%	13.7%	33.3%	0.0%	9.4%
	from more than 3 years	Count	124	38	4	3	169
		% within Personal burnout average	89.2%	74.5%	44.4%	100.0%	83.7%
Total	Count	139	51	9	3	202	
	% within Personal burnout average	100.0%	100.0%	100.0%	100.0%	100.0%	

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	17.148 <sup>a</sup>	6	.009	.028		
Likelihood Ratio	14.608	6	.024	.017		
Fisher's Exact Test	15.992			.008		
Linear-by-Linear Association	8.250 <sup>b</sup>	1	.004	.006	.005	.002
N of Valid Cases	202					

a. 7 cells (58.3%) have expected count less than 5. The minimum expected count is .21.

b. The standardized statistic is -2.872.

### Item Statistics

	Mean	Std. Deviation	N
How often do you feel tired	56.0644	20.64822	202
How often do you feel physically exhausted	50.6188	21.37065	202
How often are you emotionally exhausted	45.9158	23.89400	202
how often do you think, I cannot take it anymore	30.1980	24.76678	202
How often do you feel worn out	37.0050	27.68093	202
How often do you feel weak and susceptible to illness	33.5396	22.12517	202

### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
How often do you feel tired	197.2772	8692.798	.706	.833
How often do you feel physically exhausted	202.7228	8319.664	.786	.819
How often are you emotionally exhausted	207.4257	8010.504	.762	.821
how often do you think, I cannot take it anymore	223.1436	8245.915	.662	.839
How often do you feel worn out	216.3366	7623.578	.714	.831
How often do you feel weak and susceptible to illness	219.8020	9786.279	.357	.888



**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.863	.865	6

**Summary Item Statistics**

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	.516	.272	.774	.502	2.849	.029	6

**WORK-RELATED BURNOUT:**

- Frequency and Percentage of Work-related burnout

**work related burnout**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low	152	75.2	75.2	75.2
	Moderate	44	21.8	21.8	97.0
	High	5	2.5	2.5	99.5
	Severe	1	.5	.5	100.0
	Total	202	100.0	100.0	

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.842	.835	7

### Item Statistics

	Mean	Std. Deviation	N
Do you feel worn-out at the end of the working day Do you feel worn-out at the end of the working day	42.8218	24.39227	202
Are you exhausted in the morning at the thought of another day at work	25.9901	27.75174	202
do you think every hour you work is tiring for you	20.7921	24.06699	202
do you find the strength to spare enough time for your family and friends in your non-work time	44.5545	22.61069	202
Is your job emotionally exhausting	50.8663	26.55356	202
Do you feel Burnout because of your job	33.9109	30.96382	202
Does your job frustrate you	27.3515	25.86879	202

### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Do you feel wornout at the end of the working day Do you feel wornout at the end of the working day	203.4653	12643.404	.719	.802
Are you exhausted in the morning at the thought of another day at work	220.2970	12396.926	.650	.811
do you think every hour you work is tiring for you	225.4950	12916.420	.674	.809

do you find the strenght to spare enough time for your family anf friends in your non-work time	201.7327	16010.664	.115	.879
Is your job emotionally exhausting	195.4208	12898.703	.593	.820
Do you feel Burnout because of your job	212.3762	11083.629	.788	.785
Does your job frustrate you	218.9356	12746.001	.645	.812

### Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	35.184	20.792	50.866	30.074	2.446	124.450	7
Inter-Item Correlations	.419	.019	.714	.695	38.494	.054	7

(1) AGE

### AGE \* work related burnout Crosstabulation

		work related burnout				Total	
		Low	Moderate	High	Severe		
AGE	20-25	Count	10	2	1	0	13
		% within work related burnout	6.6%	4.5%	20.0%	0.0%	6.4%
	26-35	Count	69	30	2	0	101
		% within work related burnout	45.4%	68.2%	40.0%	0.0%	50.0%
	36-45	Count	53	7	1	0	61

	% within work related burnout	34.9%	15.9%	20.0%	0.0%	30.2%
46-60	Count	10	5	0	0	15
	% within work related burnout	6.6%	11.4%	0.0%	0.0%	7.4%
more than 60 years	Count	10	0	1	1	12
	% within work related burnout	6.6%	0.0%	20.0%	100.0%	5.9%
Total	Count	152	44	5	1	202
	% within work related burnout	100.0%	100.0%	100.0%	100.0%	100.0%

### Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	31.230 <sup>a</sup>	12	.002	.010		
Likelihood Ratio	23.095	12	.027	.009		
Fisher's Exact Test	24.356			.007		
Linear-by-Linear Association	.093 <sup>b</sup>	1	.760	.780	.415	.055
N of Valid Cases	202					

a. 13 cells (65.0%) have expected count less than 5. The minimum expected count is .06.

b. The standardized statistic is -.306.

(1) Gender:

**GENDER \* work related burnout Crosstabulation**

		work related burnout				Total
		Low	Moderate	High	Severe	
GENDER female	Count	89	36	5	1	131
	% within work related burnout	58.6%	81.8%	100.0%	100.0%	64.9%
male	Count	63	8	0	0	71
	% within work related burnout	41.4%	18.2%	0.0%	0.0%	35.1%
Total	Count	152	44	5	1	202
	% within work related burnout	100.0%	100.0%	100.0%	100.0%	100.0%

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	11.454 <sup>a</sup>	3	.010	.005		
Likelihood Ratio	13.966	3	.003	.002		
Fisher's Exact Test	11.297			.004		
Linear-by-Linear Association	11.108 <sup>b</sup>	1	.001	.001	.000	.000
N of Valid Cases	202					

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is .35.

b. The standardized statistic is -3.333.

## (2) Experience:

**EXPERIENCE \* work related burnout Crosstabulation**

			work related burnout				Total
			Low	Moderate	High	Severe	
EXPERIENCE	from 1 year	Count	11	2	1	0	14
		% within work related burnout	7.2%	4.5%	20.0%	0.0%	6.9%
	1-3 years	Count	8	10	1	0	19
		% within work related burnout	5.3%	22.7%	20.0%	0.0%	9.4%
	from more than 3 years	Count	133	32	3	1	169
		% within work related burnout	87.5%	72.7%	60.0%	100.0%	83.7%
Total	Count	152	44	5	1	202	
	% within work related burnout	100.0%	100.0%	100.0%	100.0%	100.0%	

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	14.712 <sup>a</sup>	6	.023	.099		
Likelihood Ratio	12.570	6	.050	.028		
Fisher's Exact Test	15.878			.009		
Linear-by-Linear Association	2.502 <sup>b</sup>	1	.114	.124	.079	.026
N of Valid Cases	202					

a. 8 cells (66.7%) have expected count less than 5. The minimum expected count is .07.

b. The standardized statistic is -1.582.

## CLIENT-RELATED BURNOUT:

## FREQUENCY AND PERCENTAGES:

**Client related burnout**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Low	158	78.2	78.2	78.2
	Moderate	36	17.8	17.8	96.0
	High	5	2.5	2.5	98.5
	Severe	3	1.5	1.5	100.0
	Total	202	100.0	100.0	

## CRONBACH ALPHA:

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.881	.883	6

**Summary Item Statistics**

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	.558	.319	.785	.467	2.464	.014	6

**Item Statistics**

	Mean	Std. Deviation	N
Do you find it difficult to work with customers	35.6784	24.53439	199
Do you find it frustrating to work with clients	33.6683	26.29688	199
Does working with customers consume your energy	37.8141	26.45504	199
Do you think you give more than you get back when you work with customers	44.5980	28.52146	199
are you tired of working with customers	21.1055	26.24253	199
do you sometimes wonder how long you will be able to continue working with clients	24.3719	27.91550	199

**Item-Total Statistics**

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Do you find it difficult to work with customers	161.5578	11532.410	.748	.852
Do you find it frustrating to work with clients	163.5678	10869.277	.824	.838
Does working with customers consume your energy	159.4221	11567.972	.670	.864
Do you think you give more than you get back when you work with customers	152.6382	11523.939	.611	.875
are you tired of working with customers	176.1307	11296.064	.734	.853
do you sometimes wonder how long you will be able to continue working with clients	172.8643	11797.815	.577	.880



## (1) AGE

**AGE \* Client related burnout Crosstabulation**

		Client related burnout				Total	
		Low	Moderate	High	Severe		
AGE	20-25	Count	6	6	0	1	13
		% within Client related burnout	3.8%	16.7%	0.0%	33.3%	6.4%
	26-35	Count	75	21	3	2	101
		% within Client related burnout	47.5%	58.3%	60.0%	66.7%	50.0%
	36-45	Count	56	5	0	0	61
		% within Client related burnout	35.4%	13.9%	0.0%	0.0%	30.2%
	46-60	Count	11	4	0	0	15
		% within Client related burnout	7.0%	11.1%	0.0%	0.0%	7.4%
	more than 60 years	Count	10	0	2	0	12
		% within Client related burnout	6.3%	0.0%	40.0%	0.0%	5.9%
Total		Count	158	36	5	3	202
		% within Client related burnout	100.0%	100.0%	100.0%	100.0%	100.0%

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	32.673 <sup>a</sup>	12	.001	.007		
Likelihood Ratio	30.174	12	.003	.001		
Fisher's Exact Test	26.342			.002		
Linear-by-Linear Association	3.762 <sup>b</sup>	1	.052	.052	.025	.007
N of Valid Cases	202					

a. 13 cells (65.0%) have expected count less than 5. The minimum expected count is .18.

b. The standardized statistic is -1.940.

## (1) GENDER

**GENDER \* Client related burnout Crosstabulation**

			Client related burnout				
			Low	Moderate	High	Severe	Total
GENDER	female	Count	95	29	4	3	131
		% within Client related burnout	60.1%	80.6%	80.0%	100.0%	64.9%
	Male	Count	63	7	1	0	71
		% within Client related burnout	39.9%	19.4%	20.0%	0.0%	35.1%
Total		Count	158	36	5	3	202
		% within Client related burnout	100.0%	100.0%	100.0%	100.0%	100.0%

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	7.572 <sup>a</sup>	3	.056	.047		
Likelihood Ratio	8.958	3	.030	.038		
Fisher's Exact Test	7.017			.048		
Linear-by-Linear Association	6.850 <sup>b</sup>	1	.009	.010	.004	.002
N of Valid Cases	202					

a. 4 cells (50.0%) have expected count less than 5. The minimum expected count is 1.05.

b. The standardized statistic is -2.617.

## (2) EXPERIENCE

**EXPERIENCE \* Client related burnout Crosstabulation**

			Client related burnout				Total
			Low	Moderate	High	Severe	
EXPERIENCE	from 1 year	Count	9	4	1	0	14
		% within Client related burnout	5.7%	11.1%	20.0%	0.0%	6.9%
	1-3 years	Count	9	7	0	3	19
		% within Client related burnout	5.7%	19.4%	0.0%	100.0%	9.4%
	from more than 3 years	Count	140	25	4	0	169
		% within Client related burnout	88.6%	69.4%	80.0%	0.0%	83.7%
Total		Count	158	36	5	3	202
		% within Client related burnout	100.0%	100.0%	100.0%	100.0%	100.0%

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)	Point Probability
Pearson Chi-Square	39.361 <sup>a</sup>	6	.000	.000		
Likelihood Ratio	24.092	6	.001	.000		
Fisher's Exact Test	23.987			.000		
Linear-by-Linear Association	10.660 <sup>b</sup>	1	.001	.003	.003	.001
N of Valid Cases	202					

a. 8 cells (66.7%) have expected count less than 5. The minimum expected count is .21.

b. The standardized statistic is -3.265.

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.859	.862	3

Personal Burnout:

### Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Inter-Item Correlations	.516	.272	.774	.502	2.849	.029	6

WHO-5 WELLBEING INDEX:

### Scores

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid depression	65	32.2	32.2	32.2
Normal	137	67.8	67.8	100.0
Total	202	100.0	100.0	

### Well-being index

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Poor Well-being	57	28.2	28.2	28.2
Good Well-being	145	71.8	71.8	100.0
Total	202	100.0	100.0	

### Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.848	.846	5

### Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Cronbach's Alpha if Item Deleted
i have felt cheerful and in good spirits	11.7921	18.454	.730	.798
I have felt calm and relaxed	12.0941	17.638	.744	.792
I have felt active and vigorous	11.8119	17.964	.738	.794
I woke up feeling fresh and rested	11.8663	17.241	.739	.793
My daily life has been filled with things that interest me	11.8812	22.215	.356	.888

### Item Statistics

	Mean	Std. Deviation	N
i have felt cheerful and in good spirits	3.0693	1.28332	202
I have felt calm and relaxed	2.7673	1.37870	202
I have felt active and vigorous	3.0495	1.34109	202
I woke up feeling fresh and rested	2.9950	1.44035	202
My daily life has been filled with things that interest me	2.9802	1.28117	202

**GENDER \* Well-being index Crosstabulation**

		Well-being index		Total
		Poor Well-being	Good Well-being	
GENDER female	Count	44	87	131
	% within Well-being index	77.2%	60.0%	64.9%
male	Count	13	58	71
	% within Well-being index	22.8%	40.0%	35.1%
Total	Count	57	145	202
	% within Well-being index	100.0%	100.0%	100.0%

**Chi-Square Tests**

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	5.306 <sup>a</sup>	1	.021		
Continuity Correction <sup>b</sup>	4.579	1	.032		
Likelihood Ratio	5.554	1	.018		
Fisher's Exact Test				.023	.015
Linear-by-Linear Association	5.280	1	.022		
N of Valid Cases	202				

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 20.03.

b. Computed only for a 2x2 table

## Appendix X

### Similarity Report

burnout			
ORIGINALITY REPORT			
<b>21</b> %	<b>16</b> %	<b>11</b> %	<b>10</b> %
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS
PRIMARY SOURCES			
<b>1</b>	<b>myburnout.co</b> Internet Source		<b>2</b> %
<b>2</b>	<b>pdfs.semanticscholar.org</b> Internet Source		<b>1</b> %
<b>3</b>	<b>Submitted to Yakın Doğu Üniversitesi</b> Student Paper		<b>1</b> %
<b>4</b>	<b>dglibrary.org</b> Internet Source		<b>1</b> %
<b>5</b>	<b>uspharmacist.com</b> Internet Source		<b>1</b> %
<b>6</b>	<b>Submitted to Associatie K.U.Leuven</b> Student Paper		<b>1</b> %
<b>7</b>	<b>depression.acponline.org</b> Internet Source		<b>1</b> %
<b>8</b>	<b>docs.neu.edu.tr</b> Internet Source		<b>1</b> %
<b>9</b>	<b>mdpi-res.com</b> Internet Source		<b>1</b> %
<b>10</b>	<b>qspace.qu.edu.qa</b> Internet Source		<b>&lt;1</b> %
<b>11</b>	<b>well-being.hkam.org.hk</b> Internet Source		<b>&lt;1</b> %
<b>12</b>	<b>D. K. Creedy, M. Sidebotham, J. Gamble, Julie Pallant, J. Fenwick. "Prevalence of burnout, depression, anxiety and stress in Australian midwives: a cross-sectional survey", BMC Pregnancy and Childbirth, 2017</b> Publication		<b>&lt;1</b> %
<b>13</b>	<b>Gamal E Ahmed Alsakkaf, Ahmet S Boşnak, Nevzat Birand. "Assessment of pharmacy students' knowledge about breast cancer and colon cancer in Northern Cyprus universities", Journal of Oncology Pharmacy Practice, 2023</b> Publication		<b>&lt;1</b> %
<b>14</b>	<b>www.frontiersin.org</b> Internet Source		<b>&lt;1</b> %

## Curriculum Vitae

### **RUBAB IRFAN**

**Location:** Onyildiz Apt, House# 8, Gonyeli, Nicosia, North Cyprus.

**Contact:** +90548 8583830 & +923132251908 (Whatsapp)

**Email:** rubab.irfan94@gamil.com

#### **PROFESSIONAL PROFILE**

---

I had work in a hospital industry from last 3 years, with my most recent experience being a pharmacist at united hospital. I possess valuable skills such as confidence and patient care that I believe make me best suited for the position of pharmacist in your company because of my work and skills being mention below.

#### **PROFESSIONAL EXPERIENCE**

---

##### **Internship (Nov 2016 – Dec 2016) and (Sep 2017 – Nov2017)**

- **Abbasi Shaheed Hospital Karachi, Pakistan**
  - Dispensing and Clinical Services
  - Inventory control and Drug Information
  - Patient Counseling and Checking of Patient Medication
  - Interventions for irrational Drug use

#### **PHARMACIST**

- **United Hospital**
  - Prescription Handling
  - Drug Dispensing and software Operation
  - Patient Therapy Management
  - Maintaining record of narcotics
  - Patient Counseling
  - Placement on rotations at Medical Emergency and Wards
  - Reviewing Prescriptions for Drug interactions and adverse effects
  - Associated with consultant in Drug Prescription

#### **ACADEMIC PROFILE**

---

##### **Masters in Clinical Pharmacy (Research)**

2021-2023

- Institute Near East University North Cyprus

##### **Doctor of Pharmacy (Pharm-D)**

2013-2017 (CGPA 3.67/4.0)

- Institute: Jinnah university for women, Karachi (Pakistan)



- Major Courses: Pharmaceutical Chemistry, pharmaceutical biochemistry, pharmaceuticals, pharmacognosy, pharmacology and therapeutics, pharmaceutical microbiology, pathology, clinical pharmacy, pharmaceutical technology, forensic pharmacy.

**Higher Secondary School Certificate** 2011-2012 Marks (704/1100)

- Board of intermediate and secondary education, (1<sup>st</sup> Division)
- Karachi (Pakistan)
- Pre-Medical (Science)

**Secondary School Certificate** 2009-2010 Marks (602/850)

- Board of intermediate and secondary education, (1<sup>st</sup> Division)
- Karachi (Pakistan)

**ACHIEVEMENTS AND CERTIFICATES**

---

- Extended Role of Clinical Pharmacist in Patient Care
- POSTURE CONPITETION Research in Pakistan Society of Basic & Applied Neuroscience (PASBAN). The Program Started with Prof. Dr. Ather Enam from AKU.
- Model Exhibition on “Over view of new Trends in Clinical Pharmacy Practice”
- Navigating the Future of Community Pharmacy in Pakistan.
- Planting Exhibition at A.P.W.A Government College.

**PERSONAL SKILLS**

---

**Language**

- English
- Urdu
- Turkish (Intermediate)

**Interpersonal**

1. Team Work
2. Quick Thicker
3. Analytical Mind
4. Strong leadership and presentation skills

**Digital Skills**

- MS Office
- SPSS

**Extracurricular Activates**

- Voluntary work, General Knowledge, Cooking, Planting Trees, Horse Riding, Internet Surfing

## RESEARCH WORK

---

“Schizophrenia: its prevalence, consequences and effective pharmacist role”

A research article published on 4 October, 2014 in world journal of pharmacist.

(volume 10 – issue 3 2015)

An effective role of aromatherapy in psychological & other mental disorders:

Evaluation of risk, awareness & benefits of essential oils.

A research article for AKUH conference.

POSTURE COMPETITION Research in Pakistan Society of Basic & Applied

Neuroscience (PASBAN). The Program Started with Prof. Dr. Ather Enam

AKU.

## REFERENCES

---

- Dr Sayyed sikandar shah  
Suat Gonsel ( Chief Pharmacist)  
Girne University Hospital  
[syed.shah@kyrenia.edu.tr](mailto:syed.shah@kyrenia.edu.tr)
  - Prof. Dr. Turay Yardımcı  
Dean of faculty of pharmacy  
Marmara üniversitesi İstanbul  
[+90 533 697 13 44](tel:+905336971344)
  - Prof. Dr. Nazmi özer  
Dean of faculty of pharmacy  
Girne American university.  
[nozertbd@gmail.com](mailto:nozertbd@gmail.com)
-