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Prevalence of Obsessive-Compulsive Behavior During COVID-19 Pandemic: A Cross-Sectional Study

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Prevalence of Obsessive-Compulsive Behavior During COVID-19 Pandemic: A Cross-sectional Study

By

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Dedication

أهدى هذا البحث إلى:

قدوتي ومثلي الأعلى -أبي الحنون- من غرس فيّ حب العلم ورباني على العزة والكرامة.

أمي الحنون، من علمتني العطاء، وسقتني الحب والحنان منذ خلقت، سندي الأول في هذه الدنيا.

زوجي الغالي الذي أشرقت شمسه في سماء حياتي، وأصبحت نوراً تمدني بالحب والدعم، سندي ورفيق دربي، من أخذت عنه حب التحدي وتخطي الصعاب.

إلى إخوتي جميعاً فأنتم السند والعضد، ومن يشاطرني أفراحي وأحزاني.

إلى أولادي فلذات الأكباد، وأخص بالذكر ابنتي نورهان فهي قلبي النابض، وهي من وقفت بجانبي في جميع الظروف، وكانت سندي الدائم.

إلى عائلتي الثانية عائلة زوجي المحبة المعطاءة.

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∨ الإقرار

أنا الموقعة أدناه، مقدمة الرسالة التي تحمل العنوان:

Prevalence of Obsessive-Compulsive Behavior during COVID-19 Pandemic: A Cross-Sectional Study

أقر بأنّ ما اشتملت عليه هذه الرسالة إنما هو نتاج جهدي الخاص، باستثناء ما تمت الإشارة إليه حيثما ورد، وأنّ هذه الرسالة كاملة أو أي جزء منها، لم يُقدم من قبل للحصول على أي لقب أو بحث لدى أي مؤسسة بحثية أخرى.

Declaration

The work provided in this thesis unless otherwise referenced is the researcher own work and has not been submitted elsewhere for any other degree or qualification.

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List of Abbreviations

Abbreviation	Meaning
В	Coefficient.
CEQ	Cognitive Error Questionnaire.
CG	Clinical group.
CGI-S	Clinical Global Impression Scale.
COVID-19	Coronavirus Disease 2019.
CY-BOCS	Children's Yale-Brown Obsessive Compulsive Scale.
DSM-IV	Diagnostic and Statistical Manual of Mental
	Disorders-Fourth Edition.
DSMV	Diagnostic and Statistical Manual of Mental
	Disorders-Fifth Edition.
IRB	Institutional Review Board.
MERS	Middle East Respiratory Syndrome.
n	Sample size.
OC	Obsessive-Compulsive.
OCD	Obsessive Compulsive Disorder.
OCI-CV	Obsessive-Compulsive Inventory-child version.
OCI-R	The Obsessive-Compulsive Inventory-Revised scale.
OCS	Obsessive Compulsive symptoms.
OR	Odds Ratio.
PHQ-9	Patient Health Questionnaire.
SARS	Severe Acute Respiratory Syndrome.
SE	Standard Error.
SG	Survey group.
SPSS	Statistical Package for Social Science.
SSRIs	Selective Serotonin Reuptake Inhibitors.
WHO	World Health Organization.
YBOCS	Yale-Brown Obsessive Compulsive Scale.

Prevalence of Obsessive-Compulsive Behavior during COVID-19 Pandemic: A Cross-Sectional Study

By Manahel Saleh Supervisor Dr. Adnan Sarhan

Abstract

Background: Obsessive-Compulsive Behavior is characterized by the feeling that one needs to behave repetitive activities despite the fact that these behaviors are not accustomed with one's overall purpose, and it is an extension of obsessive-compulsive behavior, the rates of obsessive behaviors can be increased during the COVID-19 pandemic due to the preventive precautions against this virus.

Aim: The study aimed to identify the prevalence of obsessive-compulsive behavior during COVID-19 pandemic.

Method: A cross-sectional design was used to assess the obsessive-compulsive behavior among general population sample. A simple random sampling technique (n = 421) was used for data collection. The data collected using a questionnaire (Yale-Brown Scale) for obsessive-compulsive disorder.

Results: The prevalence of obsessive-compulsive behavior symptoms among the participants was (47.0%) during COVID-19 Pandemic. People with other illnesses like hypertension, diabetes, heart disease, and others were 2.4 times more likely to have compulsive behavior when compared to others from healthy people. People who have COVID-19 were twice as likely

to develop obsessive-compulsive behavior as non-infected people. On the other hand, People who did not adhere to safety procedures were 0.31 times less likely to develop obsessive-compulsive behavior than others who closely adhered to these procedures. Besides, the study showed that people previously diagnosed with OCD are at 4.95 times risk of worsening their condition during this pandemic.

Conclusion: The COVID-19 pandemic has a negative impact on the behavior of members of the Palestinian population, the majority of the participants have signs of obsessive-compulsive behavior, and the participants who had OCD have worsened their condition during the COVID-19 pandemic. In addition, participants who have had COVID-19 are more likely to have OCD than those who have not. The Palestinian Ministry of Health should shed light on the mental health implications of the pandemic, especially understanding the symptoms of obsessive-compulsive disorder.

Keywords: Prevalence, Obsessive, Compulsive, Behavior, OCD, COVID-19, Pandemic, Palestine.

Chapter One

Introduction

1.1. Research Overview:

The novel COVID-19 has been declared a global pandemic by the World Health Organization (WHO), after the first instances were reported in Wuhan, China, around the end of December 2019. "Despite the city being quarantined, the virus spread quickly" (WHO, 2020).

The COVID-19 has had an impact on overall health since it affects all bodily systems, particularly the respiratory system, and can lead to mortality (Harapan et al., 2020). It can also influence mental health at this time, thus physical protection is the focus. Regardless, individual's mental health is equally vital as it has long-term negative consequences (Dong & Bouey, 2020).

Patients with pre-existing mental problems are not the only ones who have worsened mental symptoms. However, the general population has also been affected by COVID-19 pandemic (Vindegaard & Benros, 2020).

The influence of the COVID-19 pandemic on a country's population's mental health varies according to its internal stability; the less stable the country, the more affected it is (Shuwiekh et al., 2020).

In countries like Palestine, as has been subjected to long-term occupation and internal conflict as well as the COVID-19 pandemic, health, particularly

psychological well-being and quality of life, will be severely impacted (AlKhaldi et al., 2020).

The Palestinian Authority faced numerous obstacles and challenges in controlling the spread of the disease, including Israeli military and economic control, a lack of border control, a lack of medical and financial resources, overcrowding in cities and refugee camps and workers within Israeli borders, poverty, food insecurity, and the Authority's current financial crisis, in addition violence of Israeli settlers (Hejaz et al., 2020).

On the other hand, despite the Palestinians' ability to maintain good levels of well-being and resilience protecting them from psychological distress even in the aftermath of the COVID-19 outbreak. COVID-19 is considered a new pandemic that reduces people's resilience around the world.

Despite the Palestinians' ability to maintain good levels of well-being and resilience that protect them from psychological distress even in the wake of the outbreak of the COVID-19, they have been affected by it in some way, even though the Palestinians are subjected to psychological despite the fact that Palestinians are subjected to permanent psychological pressures as a result of their environment which is defined by persistent stresses of occupation, poverty, and other factors, they have been influenced in some way (Veronese et al., 2021).

Therefore, Palestine has limited studies supporting the field of mental health during the COVID-19 pandemic and support the Palestinian persistence and the health sector in general (Ghandour et al., 2020).

Obsessive-Compulsive Behavior is characterized by the feeling that one needs to behave repetitive activities despite the fact that these behaviors are not accustomed with one's overall purpose (Luigjes et al., 2019).

From which, obsessive compulsive disorder (OCD) can be defined as a mental illness that requires diagnosis and treatment. Despite the obvious need for medical and psychological therapy, and despite the fact that OCD is one of the four most common mental diseases, it is nevertheless stigmatized and treated as a private matter. Looking at it from this perspective, combined with the difficulties in discovering and recognizing its symptoms, it's easy to see how a comprehensive diagnosis may take years. Furthermore, Interviews, symptom rating measures, and behavioral observation, as well as a clinician's experience, are all used in the diagnosis of OCD (Sen et al., 2016).

Obsessive-Compulsive Disorder has signs and symptoms that can affect any person, not just those with an obsessive personality, because everyone has intrusive and irrational thoughts and impulses at times (Rudwan & Abdelkhalek, 2002).

According to numerous researches, 80% of normal samples reported having similar and invasive thoughts and that while the great majority of healthy people have similar symptoms, the obsessions experienced by sufferers differ from those experienced by healthy people. Despite the two groups' whispers colliding, patients' obsessions last longer and to a greater extent, causing misery and unhappiness, and making it harder for their owners to get rid of them. This differs from normal whispers in that the whispers of the disordered are stronger, more urgent, intrusive, and frequent, causing a great

deal of distress and interfering with the individual's social and functional activities to the point where the individual suffering from this disorder is unable to perform the tasks of his/her life (Albesher, 2002).

During the COVID-19 pandemic, Tanir and colleagues discovered that patients with OCD may have additional symptoms and that existing OCD symptoms may increase (Tanir et al., 2020).

Exacerbation of OCD has been well-documented in prior epidemics such as Severe Acute Respiratory Disease (SARS), Middle East Respiratory Syndrome (MERS), and Influenza, especially within 6-12 months after the outbreak has ended. When anti-infection strategies include' repetitive behaviors,' there is a risk of growing obsessional illnesses. It may not be obvious during the active phase of the outbreak due to under-detection, disruption of medical services, and other public health priorities (Mak et al., 2009).

Given the lengthy duration of the COVID-19 pandemic, health care professionals must pay special attention to psychological consequences including obsessions and compulsions in persons at risk. In addition, pharmacological therapies must be followed up on: Patients on medication, such as Selective Serotonin Reuptake Inhibitors (SSRIs), must be reminded of the necessity of taking their prescriptions on a regular basis to keep their OCD from worsening. Treatments that aren't based on drugs should be pursued as well. Emotional and behavioral methods, such as "preventing over-response in Exposed patients' successful treatment," can be employed (Zareie, 2020).

The aim of the study is to identify the prevalence of obsessive-compulsive behavior during COVID-19 pandemic.

1.2. Background:

Obsessive-Compulsive Disorder (OCD):

The DSMV defining the obsession and compulsion behaviors as follows:

- (1) and (2) are the definitions of obsessions:
- 1- Recurrent and persistent thoughts, desires, or ideas that are perceived as invasive, undesired, and produce substantial worry or distress in most people at some point throughout the disturbance.
- 2- The person tries to ignore or suppress these ideas, urges, pictures, or neutralize them with a thought or action (i.e., by performing a compulsion).
- (1) and (2) define compulsions as follows:
- 1- Repetitive activities (e.g., hand washing, order checking) or mental acts (e.g., praying, counting, quietly repeating phrases) that the individual feels compelled to execute in response to an obsession or in accordance with strict restrictions.
- 2- The behavioral or mental activities are intended to prevent or reduce distress, or to avoid some dreaded event or scenario. These behaviors or mental activities, on the other hand, are either not realistically connected to what they are supposed to neutralize or prevent, or they are manifestly excessive (Abramowitz & Jacoby., 2014).

Until the 1850s Obsessive-compulsive behavior and disorder were considered a kind of insanity and nowadays the OCD become a separate disease (Berrios, 1989).

For a long time, obsessive-compulsive disorder was considered an anxiety disorder, according to the DSM-IV (Abramowitz & Jacoby., 2014).

OCD is characterized by recurring, persistent, or preoccupation obsessions about the fear of damage, disease, or contamination, forcing sufferers to engage in or avoid repetitive actions in attempt to lower the disease's risk. Obsessive/preoccupation or compulsions/behaviors are long-term (lasting more than one hour per day, for example) and cause clinically significant distress or impairment in social, occupational, or other critical areas of functioning in these disorders (American Psychiatric Association, 2013; World Health Organization, 2019).

Prevalence of Obsessive-compulsive disorder:

Obsessive-compulsive disorder affects 1% to 3% of the world's population, regardless of gender, religion, or socioeconomic status. Obsessive-compulsive disorder is known as a disease of secrets. Patients hide their symptoms out of shame or fear of criticism (Alvarenga, 2007).

Coronavirus disease (COVID-19):

Coronavirus disease (COVID-19) is a new pandemic that is quickly spreading. The physical effects are well-documented, but mental health issues have received less attention (WHO, 2020).

It is predicted that new measures such as self-isolation and quarantine have had an impact on people's normal activities, habits, and livelihoods, leading to increased feelings of loneliness, anxiety, despair, sleeplessness, alcohol and hazardous drug use, self-harm, and suicidal conduct (Kumar & Nayar, 2020).

While COVID-19 is expected to cause mental health issues on a broad scale, certain groups are especially sensitive to the pandemic's effects, such as those with obsessive-compulsive disorder (Jassi et al., 2020).

The fear of being contaminated is a complicated, powerful, long-lasting, and easily transmitted worry that is commonly associated to obsessive routines such as constant hand washing, cleaning, and taking extra steps to prevent exposure to imagined sources of contamination (Rachman, 2004).

1.3. Problem statement:

Obsessive-compulsive disorder (OCD) is a widespread, chronic, and long-term mental illness in which a person experiences uncontrollable, recurring thoughts (obsessions) and/or behaviors (compulsions) that he or she feels compelled to repeat over and over.

The effect and impact of COVID-19 have many views medically, psychologically, and also socially. From our observations as nurses; we saw that a high number of people behave in obsessive compulsive way when dealing with the precautions of this disorder. The Ministry of Health recommendations are washing hands after any external contact and using

masks and gloves. But we have observed that a large number of people using this behavior in extreme way which can reach -for some- the obsessivecompulsive behavior and others go into obsessive compulsive disorder.

Through searching in Google Scholar and PubMed websites, there are many researches about COVID-19 that are recent. And the little research around the world on the effect of the COVID-19 on the behavior of individuals and its relationship to OCD, but there is no similar research in Palestine.

The COVID-19 pandemic is new and there are insufficient studies on the impact of COVID-19 on the behavior of individuals and its relationship with OCD in Palestine, that makes this study very urgent and decisions must be taken after it.

Since the study of the subject of the impact of the COVID-19 on the individual behavior and its relationship to obsessive-compulsive disorder is qualitatively new in Palestine, good recommendations are being implemented.

1.4. Significant of study:

This study which aims to identify the prevalence of Obsessive-Compulsive Behavior during COVID-19 Pandemic is the first in Palestine.

It can be used by health care practitioners to help in detecting obsessivecompulsive behavior during COVID-19 pandemic. The results of the study may help the Palestinian Ministry of Health to develop a mental health assessment tool for the general population, for early detection of obsessive-compulsive behavior during COVID-19 pandemic, and promptly take measures to prevent and manage further crises and complications.

The most important result of this study is the provision of mental health care to individuals, especially people who have COVID-19.

The study will encourage future research in the field of Obsessive-Compulsive Behavior during COVID-19 Pandemic; it will also increase awareness among health caregivers about the importance of not neglecting any symptoms or complications; as well as Obsessive-Compulsive Behavior.

1.5. Aim of the study:

The study aimed to identify the prevalence of Obsessive-Compulsive behavior during COVID-19 pandemic.

1.6. Study objectives:

- 1- To assess the level of Obsessive-Compulsive behavior during COVID 19 pandemic.
- 2- To compare the dependent variables with demographic independent variables.

1.7. Research questions:

- 1- What is the level of Obsessive-Compulsive behavior during COVID-19 pandemic?
- 2- Is there any association between the dependent variable and the other suspected associated variables?

1.8. Hypothesis:

H1: There is a significant prevalence of Obsessive-Compulsive behavior during COVID-19 among the general population sample.

H0: There is no significant association between the prevalence of Obsessive-Compulsive behavior and the suspected associated variables at the significant level of 0.05.

Chapter Two

Literatures Review

Coronavirus disease 2019 (COVID-19) began as a pandemic in December 2019 in China and quickly spread throughout the world, affecting countries and people of all ages in a variety of ways (WHO 2020). According to research studies, there appears to be a substantial link between the growing frequency of OCD and the COVID-19 pandemic (Seçer & Ulaş, 2020).

2.1. Prevalence of obsessive-compulsive behavior:

Before the outbreak of the COVID-19 pandemic, the prevalence of OCD was approximately 2% among the general population worldwide (Caraveo & Colmenares, 2004). This number does not differ much in Arab countries such as the prevalence of OCD in Iraq is 2.3% (Hasan & Ibrahim, 2020). Also, 0.1% in Lebanon (Karama et al., 2007).

According to certain research, 15.3% of Palestinian university students in Gaza strip have obsessive compulsive disorder (Abadsa, 2012).

But these numbers have risen in a frightening way during the COVID-19 pandemic, as we will see in subsequent studies.

2.1.1 International prevalence of obsessive-compulsive behavior during COVID-19 Pandemic:

Tanir et al (2020) examined at how the COVID-19 pandemic and house quarantine affected the symptom profile, severity, and exacerbation of OCD

symptoms and causes. The study comprised 61 young men with obsessive-compulsive disorder, ranging in age from 6 to 18 years old. The sample was taken from the Department of Child and Adolescent Psychiatry at Istanbul University. Due to house quarantine for this age group during the COVID-19 pandemic, participants and their parents were questioned over the phone or online. Before and after the pandemic, the Children's Yale-Brown Obsessive Compulsive Scale (CY-BOCS) and Clinical General Impression (CGI-S) were used to classify the symptom profile and severity. Before the pandemic, the average CY-BOCS score was 14.24 5.05, and after the pandemic, it was 19.0 6.89. This implies that children with OCD may acquire new symptoms or have current symptoms deteriorated during the COVID-19 pandemic (Tanir et al., 2020).

Nissen et al. (2020) in Denmark published a research examining how children and adolescents with OCD respond to the COVID-19 pandemic. The participants were divided into two groups: 65 children and adolescents (ages 7 to 21) who had just been diagnosed with OCD, and 37 adults. Children/adolescents (7-21 years) were diagnosed years ago and, for the most part, finished their initial therapy. Based on (Y-BOCS), two questionnaires (CG) Clinical group and (SG) Survey group were produced, with the conclusion that both groups had a relationship. New OC symptoms expressing ideas of COVID-19 being essential to OCD were shown to be a significant association between aggravation of anxiety, depressive symptoms, and exacerbation of OCD in 15.4% of newly diagnosed CG. This

was also linked to an increase in OCD symptoms. In SG, 35% of people had a worsening of OCD symptoms (Nissen et al., 2020).

Furthermore, Darvishi et al (2020) conducted Iranian's cross-sectional descriptive study during the COVID-19 epidemic, 150 young people aged 13 to 19 were randomly selected to investigate the frequency of obsessive-compulsive disorder and cognitive mistakes among young people. Results of the Cognitive Error Questionnaire (CEQ) Obsessive-compulsive symptoms were present in 67.3% of the individuals. Women had a somewhat greater prevalence of obsessive-compulsive disorder symptoms than males (Darvishi et al., 2020).

In addition, the research results showed that fear of COVID-19 has an important effect on OCD according to the study conducted by Seçer and Ulaş (2020), the researchers intended to see if emotional contact, sadness, anxiety, and experiential avoidance had a role in the link between COVID-19 fear and obsessive-compulsive disorder symptoms in teenagers. A total of 598 students aged 14 to 18 were polled, to reach all of Turkey, Google Forms were sent out by email and WhatsApp-like applications to the targeted pupils, and online data collecting procedures were finished in 15 days. In the first stage, the measuring model assessed five separate implicit variables (COVID-19, emotional reactivity, experiential avoidance, sadness and anxiety), and in the second stage, obsessive-compulsive disorder. For COVID-19, model 1 was developed for the direct treatment of obsessive-compulsive dread illness. The objective of model 2 was to see if fear of

COVID-19 might predict OCD directly or indirectly through the stated variables. It included emotional reactivity, experiential avoidance, sorrow, and anxiety. Model 3 was modified to exclude direct predictive pathways between dread of COVID-19 and obsessive-compulsive disorder, and to examine mediated relationships between them. The Emotional Reactivity Scale, the Child Depression and Anxiety Scale, the COVID-19 Fear Scale, and the Empirical Avoidance Questionnaire were used to evaluate the data. Fear of COVID-19 has a substantial influence on obsessive-compulsive disorder in teenagers (36%) according to the correlation coefficients (Seçer & Ulas, 2020).

According to a Canadian study presented by Abba-Aji et al. (2020), the prevalence of OCD symptoms and compulsive behavior increased at a substantially higher rate during the COVID-19 pandemic than before, with 60.3 percent of respondents reporting developing OCD symptoms and 53.8 percent reporting having a compulsive behavior. Respondents with just OCD symptoms since COVID-19 start were more likely to feel stressed (Abba-aji et al., 2020).

French and Lyne (2020) performed a case report research that focuses on the psychological impact of infectious disease epidemics on mentally ill people, as well as some of the hazards that these patients face during pandemics like the COVID-19 crisis. In February 2020, before any COVID-19 cases were reported in Europe, a woman in her 30s from Ireland with a history of obsessive-compulsive disorder, underwent acute assessment at a local

psychiatric hospital and was severely depressed throughout the initial assessment while wearing gloves and an infection control mask. As a result of her obsessive-compulsive symptoms, she has increased functional restrictions, such as never leaving her house, washing and sanitizing her hands excessively (taking several hours per day), and avoiding social contact nearly entirely. Media reports regarding the development of the COVID-19 version in China has expedited this. Public health authorities have implemented public health measures and raised public awareness of the importance of frequent hand washing and observing appropriate social distancing measures as a result of the COVID-19 pandemic, but the case raises several important points that deserve further investigation. It's crucial to distinguish between logical and adaptive behavioral changes made in reaction to an epidemic, which are considered appropriate in terms of public health, and obsessive thoughts that occur during an OCD relapse. The impact of the coronavirus's appearance, as well as related media stories, is discussed in this case study (French & Lyne, 2020).

According to Chakraborty and Carmacar's (2020) study which aimed to evaluate the effect of COVID-19 on OCD patients. A total of 84 patients from West Bengal who had previously been diagnosed with contamination concern and compulsive cleaning were chosen randomly. The 30-day study on pollution and obsessive washing comprised telephone interviews, the Yale Brown Obsessive-Compulsive Disorder scale, and a comparison of the participants' pre-pandemic scores. After the COVID-19 pandemic, only 5 patients (6%) experienced deteriorating symptoms, and these were patients

who did not take their treatment because they were scared of running out of medication at pharmacies. As a consequence, a hand-washing strategy does not worsen the need for patients to shower and does not raise the risk of COVID-19 infection. It has no influence on their fear of contamination or on how they feel about it (OCD) (Chakraborty & Karmakar, 2020).

2.1.2 Prevalence of obsessive-compulsive behavior during COVID-19 Pandemic in Arab countries:

During the COVID-19 pandemic, Taher et al. (2021) presented a cross-sectional study on 1644 Iraqi medical students from August to October 2020, with the goal of assessing the prevalence of OCD symptoms among Iraqi medical students, as well as evaluating psychological symptoms. The Obsessive-Compulsive Inventory-Revised scale (OCI-R) was used to collect data. The study found that 67.9% of the participants were females, and 70.1% of the individuals had related psychological disorders. Anxiety was the most common symptom (25.9%), followed by stress (23.7%), and 43% of individuals reported potential OCD symptoms that needed to be extra evaluated. Washing and contamination were both low, at 14 and 19.4%, respectively, but the frequency of particular numbers was the lowest, at 8%. Unpleasant thoughts were the most prevalent symptom, accounting for 51.8% of the total. All of the related mental symptoms were shown to be strongly linked to the possibility of obsessive-compulsive disorder (Taher et al., 2021).

In 2021, El Othman conducted a cross-sectional survey with 386 Lebanese from the general public to examine despair, stress, anxiety, and obsessive-compulsive behaviors among Lebanese people in response to the COVID-19 pandemic. This study found a strong relationship between psychological stress, depression, anxiety and obsessive-compulsive traits during the COVID-19 pandemic where it increased dramatically and identified the most vulnerable subgroups, for example, university education level, middle income, high age, being male and practicing religion at times, and the practice of health prevention increased after the development of the COVID-19 pandemic in Lebanon (El Othman et al., 2021).

A Saudi cross-sectional study presented by Al Husseini and others in 2021 aiming to assess the frequency of depression and obsessive-compulsive disorder (OCD) in the general population during the COVID-19 pandemic in Saudi Arabia, the Patient Health Questionnaire (PHQ-9) and the OCD-Revised Inventory Test (OCI-R) were utilized, and they were distributed via social media sites in both Arabic and English. The Chi-square test was employed, with p 0.005 chosen as the significance level. There were 2,187 people in total. The findings showed that unmarried and jobless women were more likely to suffer from depression, but more income and education were linked to a reduced prevalence of depression. During the COVID-19 pandemic, men, married people, higher income groups, greater levels of education, and employed people were all more likely to acquire OCD (AlHusseini et al., 2021).

Khan and colleagues reported a slightly different cross-sectional study in Qatar in 2021, aiming to see if COVID-19 pandemic concerns are linked to obsessive-compulsive symptoms and vice versa in teenagers with mental and behavioral problems. The COVID-19 Inventory was used to assess OCD symptoms, whereas the OCD Revised Inventory was used to assess OCD symptoms (OCI-R). The relationship between COVID-19 pandemic concerns and the development of obsessive-compulsive symptoms was investigated using Pearson's correlation coefficient (r). The result was a COVID-19 inventory score of 12 or above in 90.4 percent of young people with mental illnesses, suggesting that the great majority of young people with mental disorders are afraid of mental disease. Severe epidemic-related results were seen in more than half of the participants, and more than half had an adjusted OCI-R score of 17 or above, suggesting significant OCD symptoms. The averages of the two scores were shown to have a positive association. r = 0.405, Sig. (Bilateral) = 0.001 showed that this association was statistically significant. This indicates that teenagers with mental illnesses are more prone to experience pandemic concerns, which are often linked to OCD symptoms (Khan et al., 2021).

2.1.3 Prevalence of obsessive-compulsive behavior during COVID-19 pandemic in Palestine:

Currently there is a lot of recent international research on the COVID-19 and its effect on the behavior of individuals and its relationship to obsessive-compulsive disorder, but there are no similar studies in Palestine.

Schwartz-Lifshit et al (2020) did a study on a sample of Jewish children and adolescents in the occupied areas. Its goal was to see if OCD in children and adolescents deteriorated throughout COVID-19's first wave. There were 29 children and adolescents with OCD in the study, all of them were Jewish. During the year leading up to the COVID-19 outbreak, symptoms of obsessive-compulsive disorder (OCS) were assessed using the Clinical Global Impression Scale (CGI), a functional questionnaire, and the Children's Obsessive-Compulsive Disorder (OCI-CV) questionnaires from a third large hospital in central Israel. They were called by phone. Participants under the age of nine were aided in completing out questionnaires by their parents. At the time of the follow-up, all study participants were getting psychiatric and/or psychotherapy treatment. At the follow-up, the majority of the individuals (65%) were given SSRIs. During the research period, 42% of patients got psychiatric treatment. Over the course of the research, no worsening of symptoms of OCD occurred, as indicated by no change in severity ratings for CGI improvement rather than deterioration among individuals, based on CGI improvement scores (Schwartz-Lifshitz et al., 2020).

2.1.4 The effect of COVID-19 pandemic on OCD symptoms:

Patients might encounter a deteriorating of OCD indications in various measurements, including, however not restricted to, tainting/cleaning, animosity, and accumulating measurements. Patients who had never introduced such indications might encounter their beginning with regards to

this major natural change. More elevated levels of avoidant conduct are likewise anticipated. Also, OCD patients can encounter a deteriorating of wretchedness and nervousness side effects during significant life occasions, among which the current pandemic ought to be incorporated security suggestions (hand washing for example) can build up the unreasonable convictions of patients with OCD and helpless understanding. Thusly, commitment in openness and custom anticipation exercises might be lower, which could affect the drawn-out guess for OCD (Silva & Costa, 2021).

Studies have shown that compulsive behavior has been significantly affected by the COVID-19 pandemic, and it has become important to examine obsessive-compulsive symptoms in assessments, whether in psychiatric clinics or by primary care physicians, especially in young people, early in the day when they can obtain appropriate treatment due to public health measures. Necessary closures to prevent contamination and the spread of the COVID-19 is needed (Cunning & Hodes, 2021).

Rivera et al (2020) conducted research (Editor's Note) that looked at how the worldwide emergency of COVID-19 might lead to symptoms of obsessive-compulsive disorder and anxiety disorder, such as obsession with hygiene, over awareness of physiological sensations, and fear of infection. People may participate in ritual practices as a means of coping with their fear of contracting a sickness. The implementation of new preventative and health measures necessitates a shift in one's usual routine, Changes and practices resulting from rumination and ritual behaviors not only influence

everyday activities during the epidemic, but they may also become normal, affecting mental health. Health precautions, according to Rivera and Carballea, might act as triggers and reinforces for obsessive thinking and compulsive behavior (Rivera & Carballea, 2020).

Given the unrivaled infectiousness of the COVID-19, perhaps we should reevaluate our direction to our OCD patients with overwhelming trepidation of pollution and washing customs to clarify the rationale of anti-OCD treatments to current and future people with OCD (Fontenelle & Miguel, 2020).

Chapter Three

Methods

3.1 Introduction:

This chapter describes the methods and techniques used by the researcher including: study design, study sample description, and study instrument formulation, including validity and reliability.

The chapter also included a description of the procedures used by the researcher in conducting the study and a discussion of the statistical tests used in data analysis.

3.2 Study Design:

A descriptive cross-sectional design was used to identify the prevalence of obsessive-compulsive behavior during the COVID-19 pandemic in Tulkarm Governorate /Palestine.

The researcher utilized a cross-sectional design, which is a sort of observational study design in which the researcher measures the study participants' outcomes and exposures at the same time. Cross-sectional designs are also employed to determine the prevalence of illnesses in clinic-based samples and for population-based surveys. These studies can usually be completed in a shorter amount of time and for a lower cost. Researchers can estimate the prevalence of disease using cross-sectional studies. In this

strategy, the researchers will also be able to assess the odds ratios to investigate the relationship between exposure and outcomes (Setia, 2016).

3.3 Study Site and Setting:

At the entrance of the Taj Mall in the center of Tulkarm, a random sample of people entering to the compound was selected. The researcher had a suitable place in the mall to deliver the questionnaire and hold the interview.

3.4 Sample and sampling method:

3.4.1 Population size:

The target population of this study includes general population, entering from the main entrance to Taj Mall, Tulkarm, whether they are shopkeepers, buyers, or passers-by.

The researcher recruited 421 participants from the people who entered the mall until she has reached the full sample size.

3.4.2 Sampling and sample size:

Simple random sampling technique has been adopted for the purpose of the current study, in which each individual has been selected randomly and entirely by chance, such that each individual had the same probability of being selected at any stage during the sampling process. In this study, from every ten, the researcher chose one of those entrants from the entrance of Taj Mall in the city center of Tulkarm.

The sample size was calculated when the researcher recognized the Population Census of Tulkarm city, according to the Palestinian Central Bureau of Statistics.

Sample size for infinite Population(s) = $(Z - Score) 2 \times P \times (1-P)/$ (margin of error) 2 (COCHRANE, 1977).

$$S = (1.96)2 \times 0.5 (1-0.5)/(0.05)2$$

$$S = 3.8416 \times 0.25 / 0.0025$$

$$S = 384.16$$

Adjusted Sample size (n) = (S)/1+[(S-1)/Population]

$$n = (384.16) / 1 + [(384.16 - 1)/198856] = 383.4$$

$$n = 383$$

n = 383 + (considering 10% product of study participants)

$$n = 383 + 38 = 421$$
.

3.5 Inclusion criteria:

Inclusion criteria: Anyone entering from the main entrance to the Taj Mall over 18 years of age, frees from mental disorders, and agree to participate; was recruited into the study.

3.6 Exclusion criteria:

Exclusion criteria: Any person with a high-risk disease who is unable to participate in the study. Or any person refused participation.

3.7 Data Collection Tool:

A two-part data collection questionnaire was used, the first part is demographic information and the second part is the 10-item Yale-Brown Scale (*Annex 1*) in which the participants choose the suitable answer for each question.

The Yale Brown Obsessive-Compulsive Scale, a well-known and widely used questionnaire, was employed. The Yale-Brown Obsessive Compulsive Scale was created to solve the shortcomings of current rating scales by giving a precise measure of OCD symptom severity that is unaffected by the kind of OCD or compulsions present. 10-item physician-graded scale with separate subtotals for OCD severity, each item evaluated from 0 (no symptoms) to 4 (severe symptoms) (total range, 0 to 40)(Okasha et al., 1994).

3.8 Validity and Reliability:

The questionnaire is universal and known, with reliable and valid use (Cronbach's $\alpha = 0.96$) in the literature (Castro-Rodrigues et al., 2018). On the other hand, it was reviewed by expert evaluators Samah Abdel Mawla; coordinated by Dr. Ahmed Al-Hadi, background translation and translation into Arabic as they were translated by specialists at Ain Shams University in Egypt (*Annex 2*). The Arabic version has been used in many studies, such as

the study carried out by Dr. Okasha in 1994, which showed that the diversity of psychosocial and cultural factors influences the emergence of OCD, its phenomena and its consequences, and even the response to treatment. This proves the validity and reliability of this scale (Okasha et al., 1994).

Many studies have also been conducted to measure its reliability, validity, and applicability in different regions of the world and in different languages. For example, López-Pina et al. (2015) conducted a new study of this approach and measured its Cronbach alpha, 144 studies fulfilled selection criteria. For the overall measure, the mean reliability was 0.866 for alpha coefficients, 0.848 for correlations between test and retest, and 0.922 for intra-grade correlations. Median analyzes led to a predictive model in which the standard deviation of the overall test and target population (clinical versus non-clinical) showed 38.6% of the total variance between alpha coefficients. These studies indicate that the Yale-Brown 10-item scale is a reliable and valid tool for assessing the severity of symptoms of obsessive-compulsive disorder and that it is appropriate as a measure of outcome in clinical trials of obsessive-compulsive disorder (López-Pina et al., 2015).

Also, there is a study conducted by Goodman and et al 1989 to evaluate the reliability, Validity and ease of use of the Yale-Brown Scale and its results indicated that the Yale-Brown Scale is a reliable tool for measuring disease severity in patients with OCD with a range of severity and types of OCD symptoms appropriate in this regard; furthermore, The Yale Brown scale is valid, as it is highly correlated with two of three independent measures of

obsessive-compulsive disorder and weakly correlated with measures of depression and anxiety in patients with obsessive-compulsive disorder who have minimal secondary depressive symptoms, according to the study. And that the Yale-Brown scale was responsive to drug-induced alterations, with lower Yale-Brown scores indicating an improvement in OCD symptoms (Goodman et al., 1989).

Moreover, in a study conducted among Arabic Jordanians in 2016, Dr. Akhras employed the Yale Brown Scale for Obsessive Compulsive Disorder, and he used more than one scale to extract their own scale, demonstrating the scale's reliability and validity (Akhras, 2017).

3.9 Pilot Study:

A Pilot study was conducted on (5%) of the sample size (n = 21) of the general population in the Tulkarm city, they were selected from the same location from which the entire sample was selected, that is the entrance of Taj Mall, and it was excluded from the sample size. The researcher took the participants' telephone numbers and after two weeks the researcher asked them to re-fill the same questionnaire and that demonstrated no apparent answers' differences.

3.10 Data collection:

Data was collected from people entering from the main entrance to Taj Mall, Tulkarm, and 421 participants were randomly assigned. One out of every ten entering the mall was selected. A questionnaire consisting of demographic

information and a 10-item Yale-Brown scale was filled out by the study participants after explaining the instructions and the purpose of the study to them, in order to measure obsessive-compulsive behaviors, taking into account many variables. Data were collected over a period of two months from the end of May to the end of July 2021, daily for 1-2 hours daily from Sunday to Thursday (5 days). Before data collection, each participant agreed to participate and fill out the questionnaire, the interview took 20 minutes to fill the questionnaire which was distributed and collected by the researcher at a convenient location in the mall. A list of filled-in questionnaires has been written.

3.11 Ethical considerations and accessibility:

Ethical approval was formally obtained from An-Najah National University Institutional Review Board (IRB) (Annex 3). The consent form in Arabic was read to each participant orally before starting the questions and then signing them (Annex 4). It was made in accordance with the Helsinki Declaration of Ethical Research in Human Beings. The consent form confirmed that the data would be collected in an anonymous manner, and the data would be used for research purposes only. The participants were given the right to participate or not (any participant may withdraw from the study at any time), and ensure confidentiality. Respect all personal beliefs. Moreover, choose the right place to collect information according to participants' convenience.

3.12 Statistical methods and data analysis:

After completing data collection, the data was digitally coded by the researcher and statistical analysis using the Statistical Package for Social Science (SPSS V24) were conducted with the assistance of a statistician.

Frequencies of independent variable was analyzed; also, the association between dependent and independent variables assessed by using logistic regression analysis.

3.13 Independent Variables in this study:

Gender, age, educational level, work, COVID-19 history, place of residence, marital status, monthly income, adherence to safety procedures, history of obsessive-compulsive disorder and history of medical diseases.

3.14 Dependent variables of the study:

Obsessive-Compulsive behavior or Disorder (OCD).

3.15 Conceptual definition of the Key Terms:

Obsessive-Compulsive behavior or Disorder (OCD) is a common, long-term disorder in which a person has uncontrollable, recurring thoughts (obsessions) and/or behaviors (compulsions) that he or she feels compelled to repeat.

The researcher developed the conceptual table based on the review of the available literature. The conceptual table clarifies and summarizes the

variables of the study. This is used to direct the research process and make the results more significative and relevant.

Table 1: Conceptual and Operational definitions.

Variables.	Conceptual definition.	Operational definition.			
Gender.	Gender or sex refers to the characteristics of male or female.	This type of Male or female. question is answered by choosing one of the sexes.			
Age.	A period of human life, measured by years from birth, usually marked by a certain stage or degree of mental or physical development and involving legal responsibility and capacity.	question is o 30_39 years. answered by o 40_49 years. circle within o More than			
Educational level.	Level of education that a person has successfully completed.	This type of question is answered by o Diploma. choosing the last educational certificate obtained. O High school or less. O Diploma. O Bachelor's degree. O Postgraduate studies.			
Occupation.	Current work or career.	This type of o Yes. question is o No. answered by choosing yes or no.			
Marital status.	The state of being single, married, divorced, or widowed.	question is o Married.			

		marital		
COVID-19	Having COVID 10 or	status.		Vas
history.	Having COVID-19 or not.	This type of question is		No.
mstory.	not.	answered by		
		choosing	O	I don't know.
		Yes, No, or I		
		don't know.		
Place of	It refers to the civil		\circ	City.
residence.	division of the			Village.
residence.	country (city, village,	1		Camp.
	or camp) in which an	_	Ü	cump.
	individual resides.	place where		
		he/she stays.		
Monthly	It is the amount of		0	Less than
income.	money that the	question is		400 dollars.
	person earns or	answered by	0	More than
	receives monthly.	choosing		400 dollars.
	·	between two		
		options, the		
		first is less		
		than the		
		minimum		
		wage and the		
		second is		
		more than the		
		minimum		
		wage in		
		Palestine.		
Adherence	1			
•	measures such as	-		
procedures.	washing hands,	——————————————————————————————————————	0	I don't care.
	wearing masks and			
	gloves, to prevent			
		strongly		
	implements infection			
	control	sometimes,		
	measurements of			
History of	Ministry of Health.		^	Vac
obsessive	If the participant previously diagnosed	anestion is	0	No.
008088146-	with obsessive-		O	110.
	with 008688176-	answered by		

compulsive compulsive disorder choosing yes disorder. by a specialist. or no. participant This type of History of If the o Yes. previously diagnosed question medical is o No. with any chronic answered by diseases. by a choosing yes disease specialist. or no. And if the answer is yes, there is another branch to choose the type of disease, such as hypertension, diabetes, heart disease,

and others.

Chapter Four

Results

This chapter points out the results of the study, including: Part one presents socio-demographic data, part two the prevalence of obsessive- compulsive behavior, and part three the findings of the association between obsessive-compulsive behavior categories and socio-demographic parameters. The present study included 421 samples from the study area. In this chapter the data collected were edited, tabulated, analyzed and interpreted. The researcher used appropriate statistical tests, including frequencies and percentage. Characteristics of study participants are demonstrated below.

4.1 Socio-demographic data:

Table 2 showed the results of the distribution of demographic characteristics. In which, most of the participants' ages ranged between 18-29 years, and they constituted (43.2%) of the study sample, while 119 participants between 30-39 years, which represents (28.3%); in addition to 80 participants between 40-49 years, and represents (19.0%); also, 40 participants aged more than 50 years, and represents (9.5%) of the study sample. Also, female participants outnumbered males by 262 (62.2%) versus 159 (37.8%) respectively.

Regarding to marital status, most of participants (n=244) were married (58.0 %), while 158 participants (37.5%) were single, and only 19 participants (4.5%) were divorced or widowed.

Moreover, most of participants (n=197) from cities (46.8%), while 170 participants (40.4%) from villages, and 54 participants (12.8%) from refugee camps. Furthermore, 258 participants (61.3%) are working, while 163 (38.7%) do not work. In addition, 280 participants (66.5%) their monthly income is more than 400\$, while 141 participants (33.5%) their monthly income is less than 400\$.

Also, the results showed that 358 participants (85.0%) did not previously diagnosed with any disease, while 63 participants (15.0%) previously diagnosed with chronic disease. Likewise, 134 participants (31.8%) have a history of COVID-19, and 227 (53.9%) did not have a history, while 60 (14.3%) didn't know if they have or not.

With regard to educational level, most of the participants (177) had a bachelor's degree (42.0%); while 140 (33.3%) completed high school level or less; in addition to 80 (19.0%) had a diploma; finally, 24 (5.7%) had a master degree or more. Moreover, (53.4%) Observe safety precautions at some times.

Finally, the results showed that only (7.1%) of the participants (n=30) were previously diagnosed with OCD, while 391 (92.9%) were not previously diagnosed with OCD.

Table 2: Distribution of participants according to socio-demographic characteristics.

Varial	Frequency	Percentage		
<u> </u>	oics .	(n)	(%)	
	18-29.	182	43.2%	
A go group.	30-39.	119	28.3%	
Age group:	40-49.	80	19.0%	
	More than 50	40	9.5%	
Gender:	Male.	159	37.8%	
Gender:	Female.	262	62.2%	
	Single.	158	37.5%	
Marital status:	Married.	244	58.0%	
Maritai status.	Divorced or	19	4.50/	
	widowed.	19	4.5%	
	City.	197	46.8%	
Residency:	Village.	170	40.4%	
	Refugee Camp.	54	12.8%	
Monthly income	More than 400\$.	280	66.5%	
Monthly income:	Less than 400\$.	141	33.5%	
Previously	Yes.	63	15.0%	
diagnosis with any disease:	No.	358	85.0%	
	I don't know.	60.0	14.3%	
Having COVID-19:	Yes.	134	31.8%	
•	No.	227	53.9%	
Work:	Yes.	258	61.3%	
WORK:	No.	163	38.7%	
	Master or more.	24	5.7%	
	Bachelors.	177	42.0%	
Educational level:	Diploma.	80	19.0%	
	High school or less.	140	33.3%	
Compliance	I don't care.	96	22.8%	
Compliance with	Some times.	225	53.4%	
safety precautions:	Strongly.	100	23.8%	
Previously	Yes.	30	7.1%	
diagnosed with obsessive compulsive disorder:	No.	391	92.9%	

4.2. Prevalence of obsessive- compulsive behavior:

Table 3 shows that (53%) of the participants in the study complain of very slight obsessive-compulsive behavior which is considered as basic data to compare other obsessive compulsive behavior levels with it. (33.2%) suffer from slight OCD behavior, (10.9%) suffer from moderate OCD behavior, and (2.9%) suffer from severe obsessive-compulsive behavior. The prevalence of symptoms of obsessive-compulsive behavior among the participants was (47.0%).

Table 3: Distribution of the sample according to the level of obsessive-compulsive behavior.

Level	Yale Brown Scale score	Frequency (n)	Percentage
			(%)
Very slight	0-7.	223	53.0%
Slight	8-15.	140	33.2%
Moderate	16-23.	46	10.9%
Severe	24-31.	12	2.9%

4.3. Association between obsessive-compulsive behavior categories and socio-demographic parameters:

Table 4 showed the results of an ordinal logistic regression analysis of the factors associated with slight, moderate and severe obsessive-compulsive behavior among the study participants. The results showed that there is a significant association between previously diagnosed with any disease and obsessive-compulsive behavior. People with other illnesses were 2.4 times more likely to have compulsive behaviors than others (95% CI 1.32-4.30). Also, those who had COVID-19 were more susceptible to obsessive-compulsive behavior 2 times than those who did not have it (95% CI 1.32-

2.99). The results also showed that people who did not adhere to safety procedures were 0.31 times less likely than others to develop obsessive-compulsive behavior (95% CI 0.16-0.58). Besides, the study showed that people previously diagnosed with OCD are at 4.95 times risk of worsening their condition during this pandemic (95% CI 2.34-10.10).

Table 4: Ordered Logistic Regression for factors associated with slight, moderate, and severe OCD compared with very slight OCD among participant.

Variables		В	SE	OR	OR (95% C. I fo		P
		_		OR)		_	
					Lower	Upper	
Severe OCD.		0.13	0.42	1.14	0.50	2.58	0.76
Moderate OCD		2.24	0.44	9.36	3.96	22.15	0.00
Slight OCD.		4.18	0.51	65.07	23.73	178.43	0.00
Gender.	Male.	0a					
	Female.	0.20	0.24	1.22	0.77	1.94	0.39
Age.	More than	0.28	0.45	1.32	0.54	3.21	0.54
	50.						
	49-40.	0.37	0.36	1.45	0.71	2.95	0.31
	39-30.	0.11	0.31	1.11	0.61	2.05	0.73
	29-18.	0a					
Marital status.	Single.	0a					
	Married.	0.11	0.30	1.11	0.62	2.02	0.72
	Divorced	0.82	0.54	2.27	0.79	6.55	0.13
	or						
	widowed.						
Residency.	City.	0a					
	Village.	0.12	0.22	1.13	0.74	1.73	0.57
	Refugee	-	0.34	0.72	0.37	1.41	0.34
	Camp.	0.33					
Monthly	More than	0.13	0.25	1.14	0.70	1.85	0.61
income.	400\$.						
	Less than	0a					
	400\$.						
Previously	Yes.	0.87	0.30	2.38	1.32	4.30	0.004
diagnosis with	No.	0a					
any disease.							

			38				
Have COVID-	I don't	0.26	0.30	1.29	7.25	2.33	0.39
19.	know.						
	Yes.	0.65	0.23	1.92	1.32	2.99	0.004
	No.	0a					
Work.	Yes.	-	0.25	0.63	0.39	1.03	0.07
		0.46					
	No.	0a					
Educational	Master or	-	0.50	0.66	0.25	1.74	0.40
level.	more.	0.42					
	Bachelors.	0.20	0.25	1.22	0.74	2.01	0.43
	Diploma.	-	0.30	0.83	0.46	1.51	0.55
		0.18					
	High	0a					
	school or						
	less.						
Compliance	I don't	-	0.32	0.31	0.16	0.58	0.00
with safety	care.	1.19					
precautions.	Some	-	0.24	0.48	0.30	0.77	0.002
	times.	0.73					
	Strongly.	0a	0.0	1	0.0	0.0	0.0
Previously	Yes.	1.56	0.36	4.95	2.34	10.10	0.0
diagnosed	No.	0a					
with obsessive							
compulsive							
disorder.							

B: coefficient; **SE**: standard error; *statistically significant difference at $p \le 0.05$; **OR**: odds ratio.

Chapter Five

Discussion

The goal of this chapter is to compare and contrast the findings represented in Chapter four with existing literatures.

People in Palestinian society face many challenges and these challenges have increased during the COVID-19 pandemic. The effects of this pandemic are often severe for the general population, which can negatively affect their mental health. It also affects the behavior of people in society. Hence, this study attempted to identify the prevalence of obsessive-compulsive behavior during the COVID-19 pandemic among Palestinian adults in the West Bank. The results of the current study on obsessive-compulsive behavior revealed that the prevalence of symptoms of obsessive-compulsive behavior among the participants was (47.0%).

The results of the study of (Darvishi et al., 2020) was consistent with our study, where the prevalence of obsessive-compulsive behavior reached 67.3% among the participants. Also, agreed with (Abba-aji et al., 2020), where the percentage reached 60.3% of participants reported symptoms of compulsive behavior. Furthermore, in an Arab study conducted by Taher and others it was shown that 43% of 1644 study participants had symptoms of obsessive-compulsive disorder (Taher et al., 2021).

Our results found that there is a significant correlation among the previous diagnosis of any disease like hypertension, diabetes, heart disease, and others

and obsessive-compulsive behavior. People with other illnesses were 2.4 times more likely to have compulsive behaviors compared to others. Therefore, our study is consistent with Khan 2020 who found that people with mental illnesses are more likely to have OCD during COVID-19 pandemic (Khan et al., 2021). In addition, Aguglia and others agreed with this result in 2018, which showed that 48.1% of the sample who newly diagnosed with OCD, were previously diagnosed with other medical disease (Aguglia et al., 2018).

One of the most important results of this study is that people who have COVID-19 were twice as likely to develop obsessive-compulsive behavior as non-infected people. But there is no study to support or deny this finding.

From the researcher's point of view, this is because of the fears and stress they were exposed during their infection with COVID-19, including fear for their lives and isolation from others because of the exposure to quarantine, their fear of transmitting the disease to their beloved ones and harming them, and their fear of repeating the experience again. Consequently, they have more obsessive-compulsive behavior than others.

The results also showed that people who did not adhere to safety procedures were 0.31 times less likely than others to develop obsessive-compulsive behavior. This is consistent with a case report of (French & Lyne, 2020) that they showed the negative impact of the applying of safety measures under the COVID-19 pandemic on the case with a history of obsessive-compulsive disorder, where she was constantly wearing gloves and a mask, and she was

washing her hands and sterilizing them excessively, meaning that it took several hours a day, and this indicates an increase in obsessive-compulsive behavior.

Likewise, the study reported by Davide et al., 2020 looked at how OCD symptoms changed during quarantine and how pre-quarantine pollution and calm state symptoms affected the worsening of OCD symptoms during quarantine. The Yale-Brown OCD Severity Score (Y-BOCS) was examined six weeks after complete lockdown began, and researchers discovered that containment measures put in place to prevent the spread of the COVID-19 pandemic can actually raise the incidence of OCD (Davide et al., 2020). In addition, (Cunning & Hodes, 2021), (El Othman et al., 2021) and (Rivera & Carballea, 2020) all agreed that the applying of prevention and safety measures increases the spread of compulsive behavior and obsessive thoughts.

But the results of the study (Chakraborty & Karmakar, 2020) differed with them, as one of the results of their study was that safety measures do not increase the symptoms of obsessive-compulsive disorder.

On the other hand, a study conducted in northern Italy by Benatti et al. in 2020 to describe the impact of COVID-19 outbreaks on a group of Italian patients with OCD found that those who had previously been diagnosed with OCD are at 4.95 times the risk of deteriorating their illness during this pandemic. Over a third of the 123 individuals in the study demonstrated clinical worsening in their OCD (Benatti et al., 2020).

Also, there is a study presented by Jelinek et al. in 2020 on the impact of the COVID-19 pandemic on obsessive-compulsive patients, where 394 participants with obsessive-compulsive disorder participated in an online survey, showing that 72% of them suffered from an increase in OCD symptoms in light of this pandemic (Jelinek et al. 2020). This result agreed with several studies presented by (Tanir et al., 2020), (Nissen et al., 2020), (Seçer & Ulaş, 2020), (French & Lyne, 2020) and (Silva & Costa, 2021). Their results were similar, namely, the deterioration of OCD indicators in OCD patients during the COVID-19 pandemic, but some studies differed with them, such as (Schwartz-Lifshitz et al., 2020) and (Chakraborty & Karmakar, 2020) which found that COVID-19 pandemic did not affect OCD patients and did not increase their symptoms, and they returned these results because the studies were conducted at the beginning of the pandemic or the sample size was small.

Finally, in this study, the researcher did not find a relationship between the prevalence of obsessive-compulsive behavior and gender, age, marital status, place of residence, monthly income, work and educational level. The results did not agree with the results of some studies such as (Darvishi et al., 2020), which showed that women are more susceptible than men to have symptoms of obsessive-compulsive disorder during the COVID-19 pandemic. And the opinion was jurisprudence in an Arab study presented by (Taher et al., 2021), but it was opposed by another Arab study presented by (AlHusseini et al., 2021), where the results were that married men with high incomes, a high level of education and employees are more susceptible to obsessive-

compulsive behavior than others. The study of (El Othman et al., 2021) agreed with (AlHusseini et al., 2021) regarding to gender, where it was shown that males are more susceptible than females, and that those with high age, university education and middle income are more susceptible than others to obsessive-compulsive symptoms. Another study presented by (Cunning & Hodes, 2021) proved that the youth group is more susceptible than others to obsessive-compulsive behavior.

Chapter Six

Conclusion and Recommendations

6.1 Conclusion:

The COVID-19 pandemic has a negative impact on the behavior of members of the Palestinian population, the majority of the participants have symptoms of obsessive-compulsive behavior, and the participants who had OCD have worsened their condition during the COVID-19 pandemic. In addition, participants who have had COVID-19 experience are more likely to have OCD than those who are not. Furthermore, respondents who were not interested in applying prevention and safety measures had almost no symptoms of obsessive-compulsive behavior. Based on these findings, there is great importance to focus on the mental health of the general Palestinian population during the COVID-19 pandemic, especially the obsessivecompulsive behavior that has arisen during this pandemic and there is a need for more attention to the mental health of people who have been exposed to COVID-19. In addition, for people who suffer from other diseases, the Palestinian Ministry of Health should also shed light on the mental health implications of the pandemic, especially understanding the symptoms of obsessive-compulsive disorder.

6.2 Recommendations:

According to the results of this study, there is great importance to focus on the mental health of the general Palestinian population during the COVID- 19 pandemic, especially the obsessive-compulsive behavior that has arisen during this pandemic. Therefore, the researcher recommends several recommendations, including:

- Develop a mental health assessment tool for the general population, for early detection of obsessive-compulsive behavior, during the COVID-19 pandemic, and to take measures immediately to prevent and manage further crises and complications. This policy is adopted in all health clinics, whether governmental or otherwise.
- The Palestinian Ministry of Health should shed light on the repercussions of the pandemic on mental health, in particular understanding the symptoms of obsessive-compulsive disorder that are likely to develop in the Palestinian population through the applying of the Ministry of Health strategies related to preventing the spread of the pandemic, and on strengthening family support for patients with COVID-19 through the development of the educational health program and dissemination through social media or the media.
- The Palestinian Ministry of Health should support the psychiatrists, psychologists and community mental health nursing, to play their role in the diagnosis, treatment and follow-up of OCD during the pandemic. And supporting their role in conducting and publishing studies related to the prevalence of obsessive-compulsive disorder in Palestine during the COVID-19 pandemic.

6.3 Strength of the study:

- The subject of the study is new and there is no similar study to it in Palestine, as it has a great relationship with the pandemic that the whole world is going through.
- The study topic is important, interesting and closely related to researcher's specialty as a community mental health nurse.
- Data collection was simple random.
- Clear research questions and hypotheses.
- A very good way of definitions of conceptual and operational organization.
- The results are new and can be generalized, and recommendations can be taken into consideration.

6.4 Limitations of the study:

During conducting this study, researcher faced several constraints and limitations, including:

- Limitation of movement, transportation and quarantine during COVID-19 pandemic.
- Lack of studies related to the impact of the COVID-19 pandemic on obsessive-compulsive behavior, especially in Palestine.

- Some participants may be ashamed to fill in some questions clearly despite the privacy provided due to cultural issues.
- Inability to include more than Tulkarm city to increase the generalizability of the study.

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Appendices

Appendix A: Yale-Brown Obsessive Compulsive Scale.

YALE-BROWN OBSESSIVE COMPULSIVE SCALE (Y-BOCS)

Questions 1 to 5 are about your obsessive thoughts

Obsessions are unwanted ideas, images or impulses that intrude on thinking against your wishes and efforts to resist them. They usually involve themes of harm, risk and danger. Common obsessions are excessive fears of contamination; recurring doubts about danger, extreme concern with order, symmetry, or exactness; fear of losing important things.

Please answer each question by circling the appropriate number.

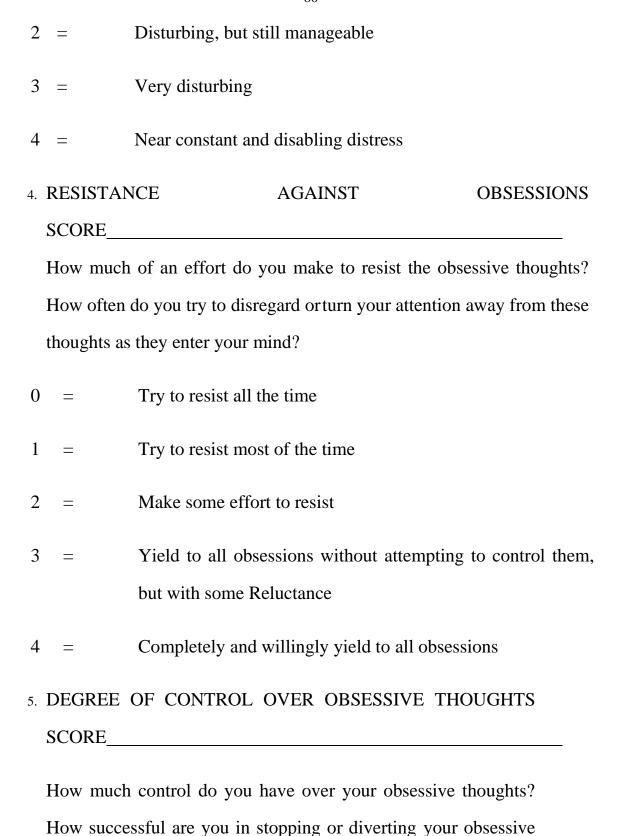
1. TIME OCCUPIED BY OBSESSIVE THOUGHTS

SCORE

How much of your time is occupied by obsessive thoughts?

- 0 = None
- 1 = Less than 1 hr/day or occasional occurrence
- 2 = 1 to 3 hrs/day or frequent
- 3 = Greater than 3 and up to 8 hrs/day or very frequent occurrence

4	=	Greater	than 8 hrs	s/day or	nearly o	constant o	ccurrence
2.	INTERFER	RENCE	DUE	ТО	OBSE	ESSIVE	THOUGHTS
	SCORE						
	How much	do your ol	bsessive th	noughts	interfer	e with yo	ur work, school,
	social, or o	other impo	rtant role	function	ning? Is	s there an	ything that you
	don't do be	cause of th	nem?				
0	=	None					
1	=	Slight inte	erference	with so	cial or o	other activ	ities, but overall
		performan	nce not Im	paired			
2	=	Definite in	nterferenc	e with s	ocial or	occupatio	nal performance,
		but still m	anageable	e			
3	=	Causes si	ubstantial	impai	ment in	n social	or occupational
		performan	nce				
4	=	Incapacita	nting				
3.	DISTRESS	ASSO	OCIATED) W	'ITH	OBSES	SIVE
	TH	OUGHTS			S	CORE	
H	ow much di	stress do y	our obsess	sive tho	ughts ca	use you?	
0	=	None					
1	=	Not too di	sturbing				



thinking? Can you dismiss them?

- 0 = Complete control
- 1 = Usually able to stop or divert obsessions with some effort and concentration
- 2 = Sometimes able to stop or divert obsessions
- Rarely successful in stopping or dismissing obsessions, can only divert attention with difficulty
- 4 = Obsessions are completely involuntary, rarely able to even momentarily alter obsessive thinking.

The next several questions are about your compulsive behaviors.

Compulsions are urges that people have to do something to lessen feelings of anxiety or other discomfort. Often, they do repetitive, purposeful, intentional behaviors called rituals. The behavior itself may seem appropriate but it becomes a ritual when done to excess. Washing, checking, repeating, straightening, hoarding and many other behaviors can be rituals. Some rituals are mental. For example, thinking or saying things over and over under your breath.

6. TIME	SPENT	PERFORMING	COMPULSIVE	BEHAVIORS
SCORE	<u>, </u>			

How much time do you spend performing compulsive behaviors? How much longer than most people do it take to complete routine activities because of your rituals? How frequently do you do rituals?

- 0 = None
- 1 = Less than 1 hr/day or occasional performance of compulsive behaviors
- 2 = From 1 to 3 hrs/day, or frequent performance of compulsive behaviors
- 3 = More than 3 and up to 8 hrs/day, or very frequent performance of compulsive Behaviors
- 4 = More than 8 hrs/day, or near constant performance of compulsive behaviors (too numerous to count)

7. INTERFERENCE DUE TO COMPULSIVE BEHAVIORS SCORE______

How much do your compulsive behaviors interfere with your work, school, social, or other important role functioning? Is there anything that you don't do because of the compulsions?

- 0 = None
- Slight interference with social or other activities, but overall performance not impaired
- 2 = Definite interference with social or occupational performance, but still Manageable
- 3 = Causes substantial impairment in social or occupational

performance

4	=	Incapacitating
3.	DISTRESS	ASSOCIATED WITH COMPULSIVE
	BEHAVIO	R SCORE
		I you feel if prevented from performing your compulsion(s)? us would you become?
0	=	None
1	=	Only slightly anxious if compulsions prevented
2	=	Anxiety would mount but remain manageable if compulsions prevented
3	=	Prominent and very disturbing increase in anxiety if compulsions interrupted
4	=	Incapacitating anxiety from any intervention aimed at modifying activity
€.		
	How much	of an effort do you make to resist the compulsions?

0	=	Always try to resist
1	=	Try to resist most of the time
2	=	Make some effort to resist
3	=	Yield to almost all compulsions without attempting to control
		them, but with some reluctance
4	=	Completely and willingly yield to all compulsions
10.	DEGRE SCORE	EE OF CONTROL OVER COMPULSIVE BEHAVIOR
		rong is the drive to perform the compulsive behavior? How much
	control	do you have over the compulsions?
0	=	Complete control
1	=	Pressure to perform the behavior but usually able to exercise voluntary control over it
2	=	Strong pressure to perform behavior, can control it only with difficulty
3	=	Very strong drive to perform behavior, must be carried to completion, can only delay with difficulty
4	=	Drive to perform behavior experienced as completely involuntary and over- powering, rarely able to even momentarily delay activity.
TC	OTAL SC	CORE

Appendix B: Questionnaire (Arabic form).



جامعة النجاح الوطنية

كلية الدراسات العليا

ماجستير الصحة النفسية المجتمعية

استبانة بعنوان:

مدى انتشار سلوك الوسواس القهري خلال جائحة COVID-19: دراسة مقطعية.

اعداد:

مناهل صالح.

اشراف:

الدكتور عدنان سرحان.

			نة: ()	رقم الاستبا					
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ا غير ذلك	أمراض		سغط الدم	<u></u> ض	ي	_ سکرہ			12. إن كانت
		قلب						التحديد	(نعم)، أرجو
									مما يأتي:

القسم الثاني

ضع علامة ☑على يمين الجملة التي توضح معدل حدوث البند خلال الأيام السبعة الماضية بما فيها وقت هذه الجلسة:

1- مقدار الوقت الذي تستغرقه الأفكار الوسواسية

لا شيء.	0	
أقل من ساعة في اليوم، أو تتكرر أحياناً (بمعدل ثمان مرات فأقل يومياً).	1	
من ساعة إلى ثلاث ساعات يومياً، أو تتكرر كثيراً (أكثر من ثمان مرات في اليوم، لكن معظم ساعات اليوم خالية من الافكار الوسواسية).	2	
من ثلاث إلى ثمان ساعات يومياً، أو تحدث كثيراً جدًا (تحدث أكثر من ثمان مرات في اليوم، وفي معظم ساعات اليوم).	3	
أكثر من ثمان ساعات يومياً، أو تحدث بشكل دائم (أكثر من طاقة تحملك، ونادراً ما تمر ساعة بدون وساوس كثيرة).	4	

مجموع الدرجات = ()

2- مقدار التعارض الذي تحدثه الأفكار الوسواسية مع نشاطاتك الاجتماعية والعملية

لا يوجد تعارض.	0	
تعارض قليل مع النشاطات الاجتماعية أو العملية، ولكن النشاط العام لا يتأثر.	1	
تعارض واضح في النشاطات الاجتماعية أو العملية، ولكن يمكن السيطرة	2	
عليه.		

تسبب خللاً كبيراً في أداء النشاطات الاجتماعية أو العملية.	3	
تسبب خللاً فادحاً.	4	

مجموع الدرجات = (

3- مقدار التوتر والقلق المصاحب للأفكار الوسواسية.

لا يوجد.	0	
قليل (أحياناً)، ليس مزعجاً.	1	
متوسط (غالباً) ومزعجاً، ولكن يمكن السيطرة عليه.	2	
شديد (غالباً) ومزعج جداً.	3	
توتر حاد (دائم) لحد الإعاقة تقريباً.	4	

مجموع الدرجات = ()

4- مقدار الجهد المبذول في مقاومة الأفكار الوسواسية (بغض النظر عن نجاحك في المقاومة).

لا أبذل جهداً في المقاومة أبداً (أو أن الأفكار قليلة جداً بحيث لا أحتاج للمقاومة).	0	
أحاول أن أقاوم معظم الوقت.	1	
أبذل بعض الجهد لأقاوم.	2	
أستسلم لكل الأفكار الوسواسية بدون محاولة للسيطرة عليها، وإن حاولت	3	

السيطرة فيكون بعد تردد.		
أستسلم بإرادتي كلياً للأفكار الوسواسية كلها.	4	

مجموع الدرجات = ()

5- مقدار سيطرتك على الأفكار الوسواسية

سيطرة تامة.	0	
سيطرة كبيرة، يمكنني عادة أن أصرف انتباهي عن الوسواس عند بذل بعض الجهد والتركيز.	1	
سيطرة متوسطة، بعض الأحيان أستطيع إيقاف أو صرف انتباهي عن الوسواس.	2	
سيطرة قليلة، نادراً ما أنجح في إيقاف الوسواس، أستطيع فقط صرف الانتباه وبصعوبة.	3	
لا أستطيع السيطرة، نادراً ما أستطيع صرف الانتباه عن الوسواس ولو للحظات قليلة.	4	

مجموع الدرجات = (

6- مقدار الوقت الذي تمضيه في القيام بالممارسات القهرية

لا أبذل أي وقت.	0	
أقل من ساعة يومياً، أو أقوم بالممارسات أحياناً (لا تزيد عن ثمان مرات	1	
في اليوم).		

من ساعة إلى ثلاث ساعات يومياً، أو أقوم بالممارسات كثيرا (أكثر من ثمان مرات في اليوم، ولكن معظم الساعات تخلو من الممارسات القهرية).	2	
أكثر من ثلاث ساعات يومياً، أو أقوم بالممارسات كثيراً جداً (أكثر من ثمان مرات في اليوم وخلال معظم ساعات اليوم).	3	
أكثر من ثمان ساعات يومياً، أو أقوم بالممارسات بشكل دائم (أكثر من أن تحصى، ونادراً ما تمر ساعة لا أقوم فيها بالممارسات).	4	

مجموع الدرجات = (

7- مقدار التعارض الذي تحدثه الممارسات القهرية في نشاطاتك الاجتماعية والعملية.

لا يوجد.	0	
تعارض طفيف مع النشاطات الاجتماعية أو العملية، ولكن النشاط العام لا يتأثر.	1	
تعارض واضح مع النشاطات الاجتماعية أو العملية، ولكن يمكن السيطرة عليه.	2	
تسبب خللاً كبيراً في أداء النشاطات الاجتماعية أو العملية.	3	
تسبب عجزاً كبيراً.	4	

مجموع الدرجات = (

8- مقدار التوتر والقلق الناتج عن الامتناع عن القيام بالممارسات القهرية.

لا يوجد.	0	
قلق بسيط عند الامتناع عن القيام بالممارسات.	1	
قلق ظاهر يمكن تجاوزه.	2	
قلق واضح ومزعج للغاية.	3	
قلق شدید یسبب عجزاً بلیغاً.	4	

مجموع الدرجات = (

9- مقدار الجهد المبذول في مقاومة الممارسات القهرية (بغض النظر عن مدى نجاحك في المقاومة)

أبذل جهداً في المقاومة دائماً (أو أن الممارسات القهرية قليلة بحيث لا حاجة للمقاومة).	0	
أحاول أن أقاوم معظم الوقت.	1	
أقوم ببعض المحاولات للمقاومة.	2	
استسلم لكل الأفعال القهرية بدون محاولة للسيطرة عليها، وإن حاولت السيطرة فيكون بعد تردد.	3	
أستسلم كلياً وبإرادتي لكل الممارسات القهرية.	4	

مجموع الدرجات = ()

10- مقدار سيطرتك على الممارسات القهرية

أستطيع السيطرة التامة على الممارسات القهرية	0	
عادةً أستطيع ايقاف الممارسات القهرية بصعوبة.	1	
أحياناً أستطيع إيقاف الممارسات القهرية بصعوبة.	2	
أستطيع _ فقط _ تأخير الممارسات القهرية بصعوبة، لكن يجب عليّ القيام	3	
بها حتى النهاية.		
نادراً ما أستطيع أن أؤخر القيام بالممارسات القهرية ولو للحظات.	4	

مجموع الدرجات = (

مجموع الدرجات الكلي = (

تحليل الإجابات

ماذا يعني تقييمك في مقاس ييل - براون للوسواس القهري:

شدة اضطراب الوسواس القهري	المعدل في مقياس ييل - براون للوسواس القهري
خفیف جداً	صفر ـ 7
خفيف	15-8
متوسط	23 -16
ملحوظ	31 -24
شدید	40 -32

- (صفر-7): أعراض وسواس قهري خفيفة جداً، لا تحتاج في الغالب إلى علاج، لأنك تتجنب مواقف كثيرة، أو لديك ممارسات قهرية فقط أو وسواس فقط.
- (8-15): أعراض خفيفة من المحتمل أن تتعارض في حياتك بطرق ملحوظة. (إذا كان لديك وسواس أو أفكار فهذا يعنى شدة متوسطة).
- (23-16): أعراض متوسطة، الحد الأدنى المطلوب لدخول دراسات علاج اضطراب الوسواس القهري هو إحراز 16 نقطة.
 - (31-24): أعراض ملحوظة من المحتمل أن تفسد نوعية حياتك بصورة كبيرة.
- (32-40): أعراض شديدة من المحتمل أن تسبب عجزاً بالغاً، قد تحتاج إلى علاج يقوم به اختصاصي في اضطراب الوسواس القهري.

Appendix C: IRB approval.

An-Najah National University Faculty of medicine Sciences Health Institutional Review Board



جامعة النجاح الوطنية كلية الطب وعلوم الصحة لجنة اخلاقيات البحث الطمي

Ref: Mas . Aprill 2021/1

IRB Approval Letter

Study Title:

Prevalence of Obsessive-Compulsive behavior during COVID-19 Pandemic: A Cross-sectional Study

Submitted by: Manahel Saleh

Supervisor: Adnan Sarhan

Date Approved:

8th Aprill 2021

Your Study "Prevalence of Obsessive-Compulsive behavior during COVID-19

Pandemic: ACross-sectional Study* viewed by An-Najah National University IRB committee and was approved on 8th Aprill 2021.

Hasan Fitian, MD

IRB

IRB Committee Chairman An-Najah National University

Appendix D: Consent form.

نموذج موافقة على المشاركة في بحث

عنوان الدراسة: مدى انتشار سلوك الوسواس القهري خلال جائحة كوفيد-19: دراسة مقطعية.

اسم الباحث: مناهل صالح.

اسم المشرف: د. عدنان السرحان.

عزيزي/تي المشارك/ة:

هذه الدراسة هي عبارة عن بحث ماجستير في الصحة النفسية المجتمعية، بكلية الدراسات العليا في جامعة النجاح الوطنية. تهدف إلى معرفة وتحديد مدى انتشار سلوك الوسواس القهري خلال جائحة كوفيد-19، واستكشاف محدداته، وذلك لمعرفة إذا أثرت جائحة كوفيد-19 على السلوكيات الوسواسية أم لا. وتقديم توصيات لأصحاب القرار لاتخاذ الإجراءات المناسبة.

كل المعلومات المأخوذة ستكون لغرض البحث العلمي فقط. يحق لك الرفض أو التوقف عن المشاركة في البحث في أي وقت. مع العلم أن هذه المعلومات ستكون سرية ولا تتضمن أسماء المشاركين، ولن يتم استخدام البيانات إلا في أغراض البحث العلمي فقط.

لذا أرجو منك الإجابة على أسئلة هذا الاستبيان بعناية واهتمام وذلك للحصول على نتائج دقيقة وواقعبة.

الأهداف المرجوة:

التعرف إلى مدى انتشار السلوك الوسواسي في مدينة طولكرم.

طريقة التواصل مع الباحث:

إذا كانت لديك أي سؤال عن الدراسة، يمكنك التواصل مع الباحثة من خلال:

هاتف رقم (0595303482) أو عبر البريد الإلكتروني: 0595303482) manahelsaleh81@gmail.com

صل عن الدراسة وأهدافها وإجراءاتها، ومنافعها وعن الحرية الكاملة في	قد حصلت على شرح مفه
المعلومات وحصلت على إجابات عن كل أسئلتي.	المشاركة. وأفهم كل
هذه الدراسة بطواعية وبدون أي نوع من الاجبار أو الضغط.	وافق على أن أشارك في
عن المشاركة في أي وقت.	علم ان بإمكاني التوقف
•••••••••••••••••••••••••••••••••••••••	توقيع
	المشترك:
•••••••••••••••••••••••••••••••••••••••	التاريخ:

توقيع الباحث:

أشكر لك حسن تعاونك.

جامعة النجاح الوطنية كلية ادراسات العليا

انتشار سلوك الوسواس القهري أثناء جائحة كورونا: دراسة مقطعية

إعداد مناهل صالح

إشراف د. عدنان السرحان

قدمت هذه الرسالة استكمالا لمتطلبات الحصول على درجة الماجستير في تمريض الصحة النفسية المجتمعية، من كلية الدراسات العليا، في جامعة النجاح الوطنية، نابلس – فلسطين. مدى انتشار سلوك الوسواس القهري خلال جائحة COVID-19: دراسة مقطعية إعداد

مناهل صالح إشراف

د. عدنان السرحان

الملخص

الخلفية: يتسم اضطراب الوسواس القهري بأن المصاب فيه يشعر بأنه يحتاج إلى ممارسة تصرف بشكل متكرر ومستمر، على الرغم من حقيقة أن هذه السلوكيات ليست اعتيادية للفرد، وهي امتداد لسلوك الوسواس القهري، يمكن أن تكون معدلات السلوكيات الوسواسية زادت خلال جائحة COVID-19 بسبب الاحتياطات الوقائية ضد هذا الفيروس.

الهدف: تهدف الدراسة إلى تحديد مدى انتشار سلوك الوسواس القهري خلال جائحة COVID-1.

المنهجية: تم استخدام تصميم الدراسة المقطعية لتقييم السلوك الوسواسي القهري بين عينة عامة من السكان. تم استخدام تقنية العينة العشوائية البسيطة لجمع البيانات (عدد العينة = 421). تم جمع البيانات باستخدام استبيان (مقياس بيل-براون) لاضطراب الوسواس القهري.

النتائج: بلغ معدل انتشار أعراض سلوك الوسواس القهري بين المشاركين (47.0٪) خلال جائحة COVID-19. كان الأشخاص المصابون بأمراض أخرى مثل ارتفاع ضغط الدم والسكري وأمراض القلب وغيرهم أكثر عرضة بنسبة 2.4 مرة للإصابة بالسلوك القهري مقارنة بالأخرين من الأشخاص الأصحاء. كان الأشخاص المصابون بـ COVID-19 أكثر عرضة للإصابة بسلوك الوسواس القهري بمقدار الضعف مقارنة بالأشخاص غير المصابين. من ناحية أخرى، كان الأشخاص الذين لم يلتزموا بإجراءات السلامة أقل عرضة بنسبة 0.31 مرة لتطوير سلوك الوسواس القهري من الأخرين الذين التزموا عن كثب بهذه الإجراءات. إلى جانب ذلك، أظهرت الدراسة أن

الأشخاص الذين تم تشخيصهم سابقًا بالوسواس القهري معرضون بنسبة 4.95 مرة لخطر تفاقم حالتهم خلال هذا الوباء.

الخلاصة: إن لوباء COVID-19 تأثير سلبي على سلوك أفراد الشعب الفلسطيني، فغالبية المشاركين لايهم علامات على سلوك الوسواس القهري، والمشاركين الذين أصيبوا بالوسواس القهري قد تفاقمت حالتهم خلال جائحة COVID-19. بالإضافة إلى ذلك، فإن المشاركين الذين أصيبوا بـ -COVID-19 هم أكثر عرضة للإصابة بالوسواس القهري من أولئك الذين لم يصابوا به. على وزارة الصحة الفلسطينية أن تسلط الضوء على تداعيات الوباء على الصحة النفسية، ولا سيما فهم أعراض اضطراب الوسواس القهري.

الكلمات المفتاحية: انتشار، وسواس، قهري، سلوك، الوسواس القهري، كوفيد -19، جائحة، فلسطين.