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ARAB FEDERATION OF PSYCHIATRISTS

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The Arab Journal of Psychiatry (2023) Vol. 34 No.1

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Instructions to Authors

The Arab Journal of Psychiatry (AJP) is published by the Arab Federation of Psychiatrists since 1989 in Jordan.
The Journal is biannual published in May and November electronically. Original scientific reports, review articles, and articles describing the clinical practice of Psychiatry will be of interest for publication in AJP. The Articles should not be published before. The articles may be written in English or Arabic and should always be accompanied by an abstract in English and Arabic. All Papers are accepted upon the understanding that the work has been performed in accordance with national and international laws and ethical guidelines. Manuscripts submitted for publication in the Arab Journal of Psychiatry should be sent to:

The Chief Editor.

Papers are submitted in electronic form.

- Title, running head (Max: 40 letters), the title of the article in English and Arabic, and the names of authors should be without their titles and addresses in both languages.
- Abstract in English (max: 200 words). It should follow a structured format (objectives, method, results, and conclusion). It should be followed by keywords (max. 5).
- Declaration of interest after the keywords.
- Names of authors, titles, and full addresses and addresses for correspondence at the end of the paper.
- Acknowledgment of support and people who have made a major contribution to the study can be included after the references.
- Arabic abstracts like the English abstract should follow a structured format. In addition, it follows the references section (last page).
- All Pages should be numbered.

Tables

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Illustrations

All illustrations should be submitted camera-ready; line drawings/diagrams should be approximately twice the size they will appear in the journal.

Reference List

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- Mosey AC. Occupational therapy. Configuration of a profession. New York: Raven Press, 1981.

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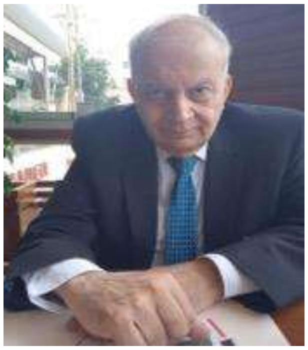
Letter from the Editor



May 2023

Dear Colleagues,

The time has come for me to step down from the position of Chief Editor having co-founded The Arab Journal of Psychiatry in 1989 with Dr Adnan Al-Tikriti. It has been a great honour to have played a part with him in increasing the mental health research output in the Arab world. The quality of papers has steadily improved over the years and so too has the international collaboration. This matters for a part of the world that has witnessed so many wars, conflicts and major social and geopolitical changes that have impacted on the mental health and wellbeing of people living through such times.

More investment in mental health research is needed to support even higher-quality studies in the Arab world. I believe the AJP continues to be an important conduit for such possibilities and look forward to seeing if it can be indexed in international databases as has been the ambition. For now, I must at least acknowledge a few - among so many regular contributors and supporters - who have been instrumental over the years in helping us get this far: Ahmad Okasha, Elie Karam, Abdelmanaf Aljadry, Numan Ali, Nazar Amin, Sudad Tamimi, Marwan Dwairy, Adib Essali, the late Adelaziz Thabet; and consistently supporting from behind-the-scenes: Raja Nasrallah and Tori Snell.

Finally, I am delighted to announce that the Executive Council of the Arab Federation of Psychiatrists has chosen an excellent colleague, Dr Hisham Ramy, Professor of Psychiatry, who will preside over the Journal from Cairo – the city where the AJP was first discussed all those years ago. I wish him every success and many fruitful years ahead as the new Chief Editor.

Yours Sincerely,

Walid Sarhan

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Substance Use from Moral Weakness to Brain Disease

Abdil-Monaf Al-Jadiry

استعمال المواد من ضعف الاخلاق الى مرض في الدماغ

عبد المناف الجادري

Cassio - "O thou invisible spirit of wine, if thou hast no name to be known by let us call thee devil" ... Iago- "Come, come. Good wine is a good familiar creature if it be well used."

Shakespeare's Othello (Act 2, Scene 3)

Abstract

Humans have used substances since the times of recorded history. Alcohol has been consumed for more than ten thousand years. Substances have been used for many purposes, including religious practices, medicinal effects, and entertainment. Over centuries, phrases like addiction, dependence, abuse, misuse, and use have been applied interchangeably to describe substance use (SU). Classificatory systems during the past several decades included substance use chapters, which adopted various phrases. To avoid confusion, in most up to date nosologies, "Substance Use Disorder (SUD)" developed as a more accurate description.

Addiction to certain drugs and illicit substances has become a significant worldwide public health issue, which is becoming unmanageable. The adverse consequences have been well recognized. Several theoretical explanations have been introduced over the years to explain the underlying mechanisms for substance use. These have included moral weakness, sociocultural, psychological, psychodynamic, evolutional, and neurobiological speculative hypotheses. In recent decades neuroscientific advances, and progress in molecule biological research and genetics favor the disease perspective. Recent world literature is increasingly illustrating the role of brain disease in causation.

The current article provides a brief review of the history of substance use, the chronological evolution of related terminologies, the nosologies presented in the series of editions of the international classification systems, and the different etiological perspectives, with a particular focus on the disease concept.

Keywords: Substance use, substance use disorder, addiction, dependence, substance abuse, drug abuse

Conflict of interest: None

Introduction

Substance use disorder (SUD) is a chronic, relapsing, and devastating condition affecting almost all communities worldwide. Substance use (SU) is an old new problem and has a tremendous impact on all aspects of the life of humankind and society at large. It causes overall adverse effects on the individual: physically, psychologically, and socially. The effects extend beyond the individual to the family and society. SUD is also associated with stigma, which exacerbates and complicates these more negative consequences.

The data relating to the prevalence of SUD are overwhelming. For instance, a study in 2015 funded by the National Institute on Alcohol Abuse and Alcoholism (NIAAA), part of the National Institutes of Health, estimated that 4% of Americans met the criteria for drug use disorder in the past year. About 10 percent have had drug use disorder at some time in their lives.[1] Speaking globally, over 2% of the world population has alcohol or illicit drug addiction.[2]

An estimated 275 million people (or 5.5% of the global population aged 15-64) used drugs at least once in 2019. Among them, approximately 62 million people used opioids. About 36.3 million people suffered from drug use disorders in 2019.[3]

The origin of substance use may be traced back thousands of years. Historically, the term "inebriety" was used to describe the substance use problem. Inebriety is described as a "state of drunkenness or intoxication". Inebriety was perceived as moral behavior; however, the biological perspective of substance uses problems existed for a long time, and systematic attempts to introduce diagnostic criteria initiated in the second half of the twentieth century continues to be refined.[4]

Despite the long history, there remains a lack of consensus concerning applied terminologies, the disease concept, agreement regarding traditional and moral use versus pathological and medicinal use, and the regulations for use and means to control its spread. Varied opinions have also increased the complexity of many essential aspects of the disorder and there remains a lack of solid scientific knowledge to explain its psychopathology and etiology as a consequence. However, recent neuroscience and molecular neurobiology advances favor the brain disease concept although none of the existing etiological theories and perspectives have received complete consensus. Considerable research is being carried out to establish an acceptable view of SU that can clarify obscurities around the problem.

People who use substances the world over can be uncooperative and non-compliant with management plans, with a strong tendency to escape or resist help attempts. Many communities issued punishment rules that caused people who used substances to repel and hide from the therapeutic scene or participate in epidemiological surveys and provide false information when included involuntarily. For these reasons, epidemiological survey data do not reflect global prevalence rates. Most people who use substances claim stress factors, sleep disturbances, anxiety, and depression as a reason for why they are prone to misuse. While some of their claims might be accepted as accurate, this is not the case for the majority. Unfortunately, flexibility in drug prescription forms a significant iatrogenic factor in risky individuals. However, one cannot ignore the increasing use and abuse across almost all ages regardless of gender and socioeconomic status. The increase may be attributed to multiple socioeconomic factors: poverty, unemployment, corruption, and insufficient or ineffective therapeutic and prophylactic services. Stigma and denial play an immense role in discouraging people who use substances from accessing the available services.

The spectrum of impacts of substance use is broad and reflected on the individual's physical and mental health, his family and peer group, and the community at large. The socioeconomic impacts can be both dangerous and insurmountable. In some cases of SUD, criminal or anti-social behavior occurs, especially when the person is under the influence of a drug or alcohol. Untreated individuals with a long SUD history may be vulnerable to personality changes.[5]

In addition to the possible physical, social, and psychological harm, the use of some drugs and of alcohol may also lead to criminal penalties, although these vary widely depending on the local jurisdiction.[6]

The family, society, and culture have a significant role in the control of SU; all people involved in the care of people who use substances should look at SUD from a broader perspective than the individual.

The current review aims to present a brief history of substance use, describe its evolution chronologically, draw a timeline for the descriptive terminologies, and discuss development of the disease concept.

A brief history of substance use

Ancient people used plant-based drugs and alcohol for medicinal, religious, and recreational purposes.[7] The first-ever recorded winery appeared in Armenia sometime around 7000 BC. Four thousand years ago, priests and shamans in central Asia used the mushroom amanita muscaria (fly agaric) to produce dissociative trance in religious ceremonies. Ethiopian priests consumed roasted and boiled coffee beans to stay awake at night. The discovery of the stimulant effect of coffee is attributed to an Ethiopian shepherd, from ancient times, who noticed that goats fed with coffee shrubs were more energetic after eating the shrubs.[8-10]

Historic accounts from the end of the third millennium BC describe how the Sumerians cultivated poppies and isolated opium from their seed capsules. They called the opium “gil” (joy) and the poppy “hul gil” (joy plant).[11]

Substances were used in ancient times for their medicinal effects. Egyptian medical documents from 1500 BC, known as the Ebers papyrus, described how poppy grains were used to calm children who cried excessively. Further, Homer in his epic Odyssey describes how Paris used nepenthes pharmakon on Helen to help her forget her home after he abducted her from Troy. In Greek, the word nephenthes means “the one who chases away sorrow” – ne = not, phenthes = sorrow/grief.

It is interesting that in the nineteenth century, opium was used in the treatment of melancholia by the German psychiatrist Griesinger (1817-1868).[12]

Old cultures used alcohol, nicotine, caffeine, and hashish in a socially approved context for recreational purposes. The oldest seeds of cultivated vines so far discovered, and carbon dated were found in Georgia and belong to the period from 7000 to 5000 BC.[13, 14]

According to Jewish and Christian tradition, one of Noah's first actions after coming out of the Ark was to plant a vineyard; he drank some of its wine and became drunk

(Genesis 9, 20-21). Coffee was primarily used throughout the Islamic world at the end of the fifeteenth century. Its use spread rapidly in Europe, and Europeans introduced coffee plants into their colonies.

Tea's history is much older since the plant was already being harvested in China in 300 BC[15]. Almost all cultures consumed alcohol because manufacturing was easy, and sources (plants containing starch or sugar) were available worldwide.[16]

The negative impact of substance use was recognized far back in history, at least since Alexander the Great's death in 323 BC, precipitated by years of heavy drinking. Aristotle recorded the effects of alcohol withdrawal and warned that drinking during pregnancy could be injurious.[17-19] The Roman physician Celsus held that dependence on the intoxicating drink was a disease.[20]

Explanations for the phenomenon of "compulsive drinking', which heralded the birth of addictive medicine, may be ascribed to Calvinist theologians.[21]

During the industrial revolution, addiction was considered a public health issue. Medical explanations for loss of control may be credited to the Dutch physician Nicolaes Tulp in 1641. In the eighteenth century, opium's addictive potential was recognized when many Chinese people became addicted, and the Chinese government tried to suppress its sale and use. Around this same time, in Europe, the working classes were threatened by alcoholism.[22]

In the eighteenth century, Benjamin Rush, an American physician, attributed the loss of self-control in compulsive drinking to the drink itself and not the drinker.[23]

The term dipsomania was coined by the German physician Christoph Wilhelm Hufeland in 1819, when, in a preface to an influential book by German-Russian doctor C. von Brühl-Cramer, he translated Brühl-Cramer's term "trunksucht" as "dipsomania”.[24-27]

Emil Kraepelin published the first psychometric data on the influence of tea and alcohol in the early 1890s. He stated that chronic alcoholism provoked cortical brain lesions, leading to permanent cognitive decline.[28] What is interesting is that Kraepelin himself was a moderate drinker and quit after recognizing the adverse effects of alcohol. He also recognized the social and genetic consequences of alcohol.[29]

Sigmund Freud, in 1897, introduced his psychological approach to addiction. He hypothesized, in his own words, "...it has dawned on me that masturbation is the one major habit, the "primal" addiction and that it is only as a substitute and replacement for it that the other addictions - for alcohol, morphine, tobacco, etc. - come into existence"[30].

Of tremendous interest is that some religions, such as Islam and Buddhism, reject alcohol. Other religions, including some branches of Christianity, view any excess alcohol use as immoral. Fourteen centuries ago, at the beginning of the Islamic era, the holy Qur'an warned against both wine (khamr) and gambling (maisir) in the same sura (2,219).

Regarding publications on substance use, the first journal of addiction, *The Journal of Inebriety*, was published in the United States in 1876 by the American Association for the study and cure of Inebriety (AACI),[31] and the British Journal of Addiction was issued in 1884 by the Society for the Study of Addiction to Alcohol and Other drugs.[32]

Changing terminology in addiction

Throughout recorded history until the present, several terms have been used to describe substance use. “Addiction”, “dependence”, “use”, “abuse”, and “misuse” are the more frequently used words. Of these terms, the word “addiction” is one of the most misunderstood. Addiction is a chronic health condition that occurs when someone cannot stop consuming a drug or activity, even if it causes physical or psychological harm or affects an individual's life.[33]

The words: "addiction," “addictus,” "addicere," and other words like "dictation" and "dictionary" were derived from the Latin root word "dicere, “which means “to say, declare, state.” The word “addictus” means to surrender or deliver, first appearing in Plautus' plays from the late third and early second centuries BC. The reflexive use of "addicere" generally denotes self-destructive behavior. Gambling, drunkenness, and binge eating are all behaviors that have the potential to “enslave" someone.

Today, the use of the word “addiction” is linked to harmful behaviors; however, historically, addiction is an auto-antonym, a word with opposite, conflicting meanings. It also describes a habit with more benefits than disadvantages, a "good addiction".[34]

According to the Oxford English Dictionary, the word “addict,” defined as meaning “attached by one's inclination, self-addicted to a practice; devoted, given, inclined to,” has been used since the first part of the sixteenth century. In medical terms, addiction means the “state of being addicted to a drug; a compulsion and need to continue taking a drug as a result of taking it in the past." The word has been in widespread use only since the twentieth century. In medical English, "addiction" replaced older terms, such as "inebriety".[35]

Contemporary usage of the term "addiction" is contradictory and confusing. It is also highly stigmatizing but popularly used to describe almost any strong desire, passion, or pursuit. Since the nineteenth century, the term "addiction" has characterized alcohol and drug consumption in its more common usage. Hence, in four successive editions of the Diagnostic and Statistical Manual of Mental Disorders (DSM), the American Psychiatric Association (APA) removed the word "addiction".[36]

The definition of "addiction" adopted by the American Society of Addiction Medicine (ASAM) in September 2019 is as follows: "Addiction is a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences. People with addiction use substances or engage in compulsive behaviors and often continue despite harmful consequences." Compared to the past, ideas on addiction have changed drastically. They have led to increased public awareness, decreased stigma, increased research, and the development of successful prevention efforts and treatment methods.[37]

Addictive behavior results from the conjunction of a substance and a personality. Addiction is not only a substance but also the way a person uses it.[38]

The other confusing description, which is frequently used interchangeably with the word "addiction", is "dependence." The term has been used in recent decades to refer to uncontrolled drug-seeking behavior. However, the word has an alternative meaning - the physiological adaptation that occurs when medications acting on the central nervous system are ingested with rebound when the medication is abruptly discontinued. These dual meanings have led to confusion and negatively influenced clinical practices related to the under-treatment of pain, as physicians fear creating an addiction by prescribing opioids. To avoid continuing confusion, the DSM-V, which is the most recent edition, changed the chapter to "substance use disorders" [38].

The difference between the terms "dependence" and "addiction" has long been debated. The meaning of these terms among public health professionals can only be understood considering their historical development. In Campbell's psychiatric dictionary, "addiction" is defined as "strong dependence, both physiologic and emotional".[39]

In 1964, the World Health Organization (WHO) recommended that the term "drug dependence" replace "addiction" and "habituation" because these terms had failed to provide a definition that could apply to the entire range of drugs in use. The term "drug abuse" applies when someone uses a drug, even when he/she knows it is harmful to health. It includes taking illegal drugs and using prescription medicine differently from what the doctor prescribes.

Taking illicit drugs like heroin or cocaine is substance abuse. In 1932, the APA created a definition that used legality, social acceptability, and cultural familiarity as qualifying factors: "…as a general rule, we reserve the term drug abuse to apply to the illegal, nonmedical use of a limited number of substances, most of them drugs, which have properties of altering the mental state in ways that are considered by social norms and defined by statute to be inappropriate, undesirable, harmful, threatening, or, at minimum, culture-alien".[40]

In 1966, the American Medical Association's Committee on Alcoholism and Addiction defined abuse of stimulants (amphetamines, primarily): "use" refers to the proper place of stimulants in medical practice; "misuse" applies to the physician's role in initiating a potentially dangerous course of therapy; and "abuse" refers to self-administration of these drugs without medical supervision and particularly in large doses that may lead to psychological dependency, tolerance, and abnormal behavior.

In 1973, the National Commission on Marijuana and Drug Abuse stated: "...drug abuse may refer to any drug or chemical without regard to its pharmacologic actions. It is an eclectic concept with only one uniform connotation: societal disapproval. The Commission believes that drug abuse must be deleted from official pronouncements and public policy dialogue." The term has no functional utility and has become no more than an arbitrary code word for that drug use which is presently considered wrong.[41]

DSM-IV accepted the terminology of DSM-III-R with only minimal changes. Thus, since 1987, the research community has become very comfortable with the term "dependence" for the syndrome of uncontrolled drug seeking defined originally in DSM-III-R. Unfortunately, the consequences of this terminology for general physicians and their patients have become complicated and often confusing.[42]

It is essential to differentiate between "physical dependence," a physiological response that refers to tolerance and withdrawal, and "addiction," which is drug-seeking behavior. Most importantly, the primary reason for the under-treatment of pain with opioids is the fear that the physician will create an addiction when addiction during pain treatment is relatively uncommon. Thus, patients have been made to suffer by receiving inadequate pain medication doses when there is evidence of tolerance or withdrawal symptoms.[43]

Tolerance and withdrawal symptoms are not counted towards the diagnosis when the patient is involved in an appropriate medical treatment program for a problem such as pain, depression, or anxiety. Patients enrolled in such programs can qualify for a substance use disorder only if they have other symptoms of aberrant behavior demonstrating compulsive drug seeking.

Substance use in the DSM series

Crocq stated that in the twentieth century, addiction medicine was enriched by diagnostic classifications and neurobiological and genetic research.[8]

In 1924, a German scientist, Louis Lewin, published his influential classification of drugs and plants according to their psychological effects. The classification included:

- Inebriantia (Inebriants): alcohol and ether.
- Exitantia (Stimulants): nicotine, caffeine-containing compounds such as coffee, tea, mate.
- Euphorica (Euphoriants): cocaine, opiate derivatives such as morphine, codeine, heroin.
- Hypnotica (Tranquilizers), and
- Phantastica (Hallucinogens): lysergic acid diethylamide (LSD), peyote.[44]

Currently, the DSM is regarded as the defining standard for mental health diagnoses, including substance use disorders (SUDs), in America and increasingly abroad.[45]

While the fact that the DSM identifies SUDs as primary mental health disorders may be taken for granted today, it is noteworthy that SUDs were, prior to the third publication of the DSM (1980), primarily conceptualized as manifestations of underlying primary psychopathology.[46]

The first edition of the DSM (published in 1952) grouped alcohol and other drug abuse under "sociopathic personality disturbances," which were thought to be symptoms of more profound psychological disorders or moral weakness.[47]

The publication of the DSM-II, however, did little to change the influence of psychoanalysis and its characteristic descriptions of disorders described in the DSM-I. DSM-I and DSM-II did not employ diagnostic criteria as we understand them today. However, the DSM-II recognized three types of alcoholism: episodic excessive drinking, habitual excessive drinking, and alcohol addiction. Medically prescribed drugs were excluded in that they were taken in proportion "to the medical need".[48]

In the DSM-III (1980), a distinction was made between substance abuse (including drug abuse) as "problematic use with social or occupational impairment" but without withdrawal or tolerance, and substance dependence as tolerance to drugs and withdrawal from them as key components to diagnosis.[49]

In DSM-III, the categories of “substance abuse” and “substance dependence” were adopted. Substance abuse was equated with pathological use (e.g., social or occupational consequences, including legal problems which may arise from car accidents due to intoxication) and substance dependence with physiological dependence (i.e., tolerance or withdrawal).[50] The new terminology appeared devoid of the term "alcoholic" and continued the trend of setting SUDs apart from other mental health conditions.

The APA, during the mid-1980s, formed a committee of addiction experts, with representation from the WHO, to revise the "substance-related disorders" section of DSM-III. Their work was published in 1987 as DSM-III-R (revised). [51]

The committee agreed that the disorder in question was compulsive, uncontrolled, drug-seeking behavior and defined it by a set of criteria that produced excellent inter-rater reliability. The committee argued in favor of using the term “dependence” as a more neutral term.[52]

In DSM-III-R, 1987, the category "psychoactive substance abuse" was defined as "a maladaptive pattern of use indicated by continued use despite knowledge of having a persistent or recurrent social, occupational, psychological or physical problem that is caused or exacerbated by the use (or by) recurrent use in situations in which it is physically hazardous." It was the first definition to give equal weight to behavioral and physiological factors in diagnosis.

Moreover, the DSM-III-R separated "physiological dependence" from the diagnosis of "dependence," explicitly stating that "surgical patients [who] develop a tolerance to prescribed opioids and experience withdrawal symptoms without showing any signs of impaired control over their use of opioids" are not considered to fall in the category of substance dependence[53].

By 1994, the DSM-IV tried to clarify inconsistencies regarding the distinction between physiological dependence and substance dependence by specifying that "Neither tolerance nor withdrawal is necessary or sufficient for a diagnosis of Substance Dependence" and added specifiers "With" and "Without Physiological Dependence".[54]

DSM-1V defined substance dependence as "a syndrome involving compulsive use, with or without tolerance and withdrawal," whereas substance abuse is "problematic use without compulsive use, significant tolerance, or withdrawal." Substance abuse can be harmful to health and may even be deadly in certain scenarios.[55]

By 2000, the text review of the fourth edition of the DSM released by the APA, the "DSM-IV-TR," defined substance dependence as "when an individual persists in use of alcohol or other drugs despite problems related to use of the substance, substance dependence may be diagnosed," along with criteria for the diagnosis.[56]

The DSM-IV-TR also clarified that "the criteria for Substance Abuse do not include tolerance, withdrawal, or a pattern of compulsive use and instead only the harmful consequences of repeated use".

In the DSM-5, substance abuse and dependence have been merged into substance use disorders, and they no longer exist as individual concepts. While substance abuse and dependence were either present or not, substance use disorder has three levels of severity: mild, moderate, and severe.[57]

In 2013, the fifth DSM (DSM-5) was published.[58]

This most recent edition made dramatic alterations. It removed the Abuse-Dependence paradigm and merged them into a single category, "substance use disorders (SUDs)," and made significant revisions to the diagnostic criteria, defining three levels of severity: mild, moderate, and severe. These changes supported several empirical considerations, including psychometric studies reporting the uni-dimensionality of the biaxial abuse/dependence paradigm across several populations.[59] These empirical findings suggest that the criterion items' actuality represents a single continuum-of-severity construct, contrary to categorizing abuse and dependence as more-or-less distinct entities with different severity levels.[60-61]

Changes included the addition of the "craving" criterion," removal of the legality criterion, and a giving new chapter title (substance-related and addictive disorders).

For the first time, the chapter also includes a behavioral addiction (i.e., gambling disorder), suggesting that a behavioral addiction has shared underlying neurological reward systems and a compatible symptom set with SUDs.[57]

The evolution of the DSM illustrates that what is considered "medical" and "scientific" is often not an immutable standard but may be variable across time and culture and contingent upon changes in dominant schools of thought.[62]

Substance use in ICD-11

The new version of the International Classification of Diseases, ICD-11, grouped SUDs under the umbrella of "Disorders due to substance use and addictive behaviors". ICD-11 made significant changes to the category of SUDs. Amongst the changes are an updated and expanded range of substance classes and more specifications of different harmful patterns of substance use, which may be continuous or episodic and recurrent. A new category to denote single episodes of harmful use was included. Also, a category describing the hazardous use of substances as not being considered a disorder. However, it is included in the ICD-11 chapter on factors influencing health status and encounters with health services. The new version simplified diagnostic guidelines for substance dependence.

The introduction of the category of "addictive behavior" and, associated with this, the assignment of "gambling disorder" to the addictive disorders and the inclusion of the new category, "gaming disorder." Furthermore, the new version also adds diagnostic options for early, preclinical phenotypes of addiction disorders termed "Episodic Harmful Use".[63-64]

The new ICD-11 keeps "harmful drug use and "substance dependence" as separate diagnostic categories. However, it squeezed the former six diagnostic criteria of dependence into three pairs, two of which must be fulfilled to diagnose this disorder. Within the pairs, one affirmed symptom or aspect is sufficient for the new criterion to be fulfilled. This change appears to provide advantages as well as disadvantages. The specificity of the diagnosis of substance dependence might get worse compared to ICD-10 because only one symptom of the syndrome pair has to be fulfilled in each newly constructed pair to fulfill the criterion. Therefore, the risk of a false positive diagnosis of substance dependence could increase. This risk is a potential reason for concern because the definition of ICD-10, "persisting substance use despite clear evidence of overtly harmful consequences," is more broadly reworded in ICD-11 as "substance use often continues despite the occurrence of problems." The increase in the diagnosis of substance dependence can be found in the multinational study in 10 countries concerning concordance of diagnostic systems: alcohol dependence was diagnosed approximately 10% more often using ICD-11 compared to ICD-10.[65]

The ICD-11 divides substance use disorders into two categories: harmful patterns of substance use; and substance dependence.[66]

ICD-11 includes a wide variety of disorders that differ in severity (from uncomplicated intoxication and harmful use to apparent psychotic disorders and dementia) but are all attributable to the use of one or more psychoactive substances (which may or may not have been medically prescribed).

Regarding scientific findings in the field of addiction, ICD-11 appears to provide advantages as well as disadvantages. The classification offers diagnostic guidelines to identify the psychoactive substance. The specificity of the diagnosis of substance dependence might get worse compared to ICD-10 because only one symptom of the syndrome pair must be fulfilled in each newly constructed pair to fulfill the criterion. Therefore, the risk of a false positive diagnosis of substance dependence could increase. In the most extensive multinational study in 10 countries concerning concordance of diagnostic systems, alcohol dependence was diagnosed approximately 10% more often using ICD-11 compared to ICD-10. Systematic studies are required to assess whether the new diagnostic criteria are clinically helpful or increase social problems by increasing false positive diagnoses of addiction.[67]

Comparing ICD-11 with DSM-5, ICD-11 retains substance dependence as the “master diagnosis” in contrast to the broader and heterogeneous concept of substance use disorder in DSM-5. There is empirical support for the coherence of substance dependence for alcohol, cannabis, and prescribed opioids. ICD-11 and DSM systems now include gambling disorders in the addictive disorders section, which is transferred from the impulse control disorders section. The new diagnosis of internet gaming disorder is included in DSM-5 as a condition for further study, and gaming disorder is grouped with the substance and gambling disorders in ICD 11.

The disease concept of addiction

The last century witnessed accumulating evidence in support of the notion of the disease concept in addiction. Like any other problem with no solid known psychopathology or well-documented etiology, several perspectives were forwarded to address the question of "why people get addicted." The addiction problem is so complicated that no single theory can give sufficient evidence to gain acceptance from all concerned. Recent advances in neuroscience studies and technology increasingly illustrate activities in specific brain systems that underlie the compulsivity phenomenon in addiction. Although this section focuses on the role of different brain systems, it would be helpful to consider the different perspectives or theories that explain the phenomenon of addiction to drugs or substances. Amongst these perspectives are the moral, sociocultural, psychological, psychodynamic, evolutionary, and the disease perspectives.

The moral perspective holds that the root cause of problematic alcohol and other drug use is an individual's inherent moral weakness and lack of willpower. Recovery is achieved through willpower and discipline and the development of a virtual lifestyle. This view has also been applied to communities and even races of people. There is no evidence for the perspective. While the moral model of addiction is outdated, many still uphold it, and it features in many rehab clinics in America and around the world.[68]

The sociocultural perspective attributes substance use to the cultural standards of any society, specifically, the negative influences of any culture on how individuals behave can cause addiction. For instance, the way drinking is viewed in the US. Not only is drinking, even getting drunk, tolerated, but it is also often a source of amusement.[69]

The psychological perspective includes a variety of psychological approaches to the explanation of drug dependence, including an emphasis on learning and conditioning (behavioral models), cognitive theories, pre-existing behavioral tendencies (personality theories), and models of rational choice. Psychological dependence is primarily referred to as the cognitive and emotional aspects of addiction or withdrawal from drugs and alcohol. Rather than the body's physical change due to drug abuse, the psychological model of addiction is centered on emotions related to using these substances.[70]

The psychodynamic perspective looks at how past events, thoughts, and circumstances shape a patient's present behaviors. It is believed that these factors result in unconscious processes that cause a person to act in a particular manner. For instance, a person abused in the past may exhibit behaviors that get in the way of healthy relationships, despite the individual's expressed desire to form them. These unresolved conflicts and experiences might result in the need or desire to abuse alcohol or drugs. The psychodynamic approach to addiction is thought to be most effective as part of a comprehensive treatment program; it also may be more effective after a person has been sober for some time.[71]

The evolutionary perspective shows an intermediate and fleeting expected gain associated with drug addiction correlated with the conservation in most mammals of archaic neural circuitry, most often being a falsified sense of increased fitness and viability related to the three components of drug use.[72]

According to the evolutionary theory, normal but compelling desires cause people to repeat pleasurable experiences. From an evolutionary perspective, acting on pleasurable desires was once adaptive because it ensured our survival (e.g., eating, and sexual reproduction). In today's modern world, survival is less of a problem than in ancient times. Therefore, acting on every compelling desire for pleasure may no longer be beneficial. These substances or activities can be so compelling that they can override the natural, healthy desire for food, sex, and attachment to people because these instinctive desires have become less rewarding. We are vulnerable to addiction because there has been insufficient time for our bodies to adapt to the availability of addictive substances or activities. Recovery consists of increasing and expanding the rewards associated with relationships and productive activity. Healthier, short-term satisfactions ("having fun") strengthen the ability to eliminate rewards through addictive substances and activities.[73]

The disease perspective identifies drug-seeking behavior as compulsive rather than a conscious choice due to chemical changes in the brain that happen with regular substance use. The National Institute on Drug Abuse (NIDA) compares addiction to other medical diseases, such as heart disease and diabetes.[74] Initiatives from the US National Institutes of Health (NIH) are highlighting the importance of capturing the neurobiological phases of the addictive cycle in clinical diagnosis and assessment.[75] The American Medical Association (AMA) classified alcoholism as a disease in 1956 and included addiction as a disease in 1987. In 2011, the American Society of Addiction Medicine (ASAM) joined the AMA, defining addiction as a chronic brain disorder, not a behavior problem, or just the result of making bad choices.[76]

The core of the brain disease model of addiction is the "brain-hijack theory". It posits that addiction is a brain disease caused by dysfunctional brain systems involved in reward and pleasure-seeking.[77,78] Neuroscience information on addiction is assumed to diminish attribution of free will to people with drug addiction, which could decrease or increase attribution of responsibility, attribution of stigma, and acceptance of treatment.

There are three main points that the disease model of addiction supports: Addiction is either present or it is not; people with addictions cannot control their drug or alcohol use, addiction cannot be cured, but it can be treated.[79]

All addictive substances have powerful effects on the brain. These effects account for the euphoric or intensely pleasurable feelings people experience during their initial use of alcohol or other substances. These feelings motivate people to use those substances repeatedly, despite the risks of significant harm. The brain disease model of addiction has contributed greatly to the current view of substance use disorders. Understanding the neurobiological changes that the brain undergoes has allowed for developing novel intervention and prevention methods while also providing overall stigma reduction. Continued advances in neuroscience research will serve to provide new and effective ways to combat the disease of substance use disorders.[80]

One criticism of the brain disease model of addiction is that it does not reduce the moral stigma attached to addiction and may instead attach a new stigma by using the word “disease”.

Some complain that the disease model is too mechanical or too neat to offer a sound explanation. Others point out that telling individuals with chronic drug problems that they are powerless over their use of drugs and alcohol has led to fewer people overcoming addiction on their own (e.g., reduced rates of spontaneous recovery).[81]

Animal research and functional brain imaging studies in humans have led to the current influential hypothesis that all drugs of abuse share a common property in exerting their addictive and reinforcing effects by acting on the brain's reward system and by conditioning the brain by causing it to interpret drug signals as biologically rewarding or potentially salient stimuli comparable to food or sex. Cues associated with morphine, nicotine, or cocaine activate specific cortical and limbic brain regions. This conditioning involves the prefrontal cortex and glutamate systems. However, in rats, this activation pattern displays similarities to that elicited by conditioning to a natural reward-highly palatable food such as chocolate.[82]

Family, adoption, and twin studies have demonstrated the intervention of genetic factors in addiction, notably alcohol use and dependence. Genetic factors interact in a complex way with the environment.[83- 86]

The brain consists of networks connecting different regions with specific functions that alcohol and drugs can alter. Through this mechanism, drugs and alcohol can drive compulsive use, which triggers addiction. Addiction can be described as a repeating cycle with three stages linked to each other. These include:

- Binge/Intoxication - an individual uses an intoxicating substance and experiences its rewarding or pleasurable effects.
- Withdrawal/Negative Affect - an individual experiences a negative emotional state in the absence of the substance
- Preoccupation/Anticipation - an individual seeks substance use again after a period of abstinence.

The three stages are linked to and feed on each other. However, they also involve different brain regions, circuits (or networks), and neurotransmitters, resulting in specific kinds of changes in the brain. A person may go through this three-stage cycle over weeks or months or progress through it several times a day. There may be variations in how people progress through the cycle and the intensity with which they experience each stage. Nonetheless, the addiction cycle tends to intensify over time, leading to more significant physical and psychological harm.

Three brain regions form the critical components of networks intimately involved in substance use disorder development and persistence. These include:

- The basal ganglia, which control the rewarding or pleasurable effects of substance use and are also responsible for the formation of habitual substance taking.
- The extended amygdala, which is involved in stress and the feelings of unease, anxiety, and irritability that typically accompany substance withdrawal.
- The prefrontal cortex, which is involved in executive function (i.e., the ability to organize thoughts and activities, prioritize tasks, manage time, and make decisions), including exerting control over substance taking.

These brain areas and associated networks are not solely involved in substance use disorders. Indeed, these systems are broadly integrated and serve many critical roles in helping humans, and other animals survive. For example, when people engage in certain activities, such as consuming food or having sex, chemicals within the basal ganglia produce feelings of pleasure. This reward motivates individuals to continue engaging in these activities, thereby ensuring the species' survival. Likewise, in the face of danger, activation of the brain's stress systems within the extended amygdala drives "fight or flight" responses. These responses, too, are critical for survival. As described in more detail below, these and other survival systems are "hijacked" by addictive substances.[87]

Conclusion

The current overview has highlighted the significance of the history of substance use and the chronological development of related descriptive terminologies, nosologies, and conceptualizations. Although substance use disorders are as old as humankind, their recognition as diseases faced challenges that required decades to be solved. For centuries it was attributed to moral weakness, thus managed by punishment and other inhumane measures. Recently, the disease concept has been gaining greater acceptance, and more scientific treatments have been employed. Several perspectives were advanced, and management was planned accordingly.

More in-depth research is required to accurately explore the nature of substance use, and more services should be developed to challenge its widespread impact.

References

1. https://www.niaaa.nih.gov/news-events/news-releases/10-percent-us-adults-have-drug-use-disorder-some-point-their-lives
2. https://ourworldindata.org › drug-us
3. UNODC (2021). World Drug Report 2021. Available at: https://www.unodc.org/unodc/data-and-analysis/wdr2021.html
4. Martin CS, Chung T, Langenbucher JW. Historical and Cultural Perspectives on Substance Use and Substance Use Disorders, in Kenneth J. Sher (ed.), The Oxford Handbook of Substance Use and Substance Use Disorders: 2016 (1):29-49. Oxford Library of Psychology; online edition, Oxford Academic, 1 July 2014), https://books.google.jo/books/about/The_Oxford_Handbook_of_Substance_Use_and.html?id=TeAWDgAAQBAJ&red
5. Oakley K, Charles R (2002). Drugs, society, and human behavior (9th ed.). Boston [u.a.]: McGraw-Hill. ISBN 978-0072319637.^ (2002).
6. Mosby's Medical, Nursing & Allied Health Dictionary. Sixth Edition. Drug abuse definition, p. 552. Nursing diagnoses, p. 2109. ISBN 0-323-01430-5.http://ceedatrust.org/drug-abuse-and-control/
7. https://sbtreatment.com/addiction/
8. Crocq MA. Historical and cultural aspects of man's relationship with addictive drugs. Dialogues CL Neurosci 2007;9(4):355-361. PMCID: PMC3202501. PMID: 18286796.
9. Stille G Krankheit, und Arznei Die Geschichte der Medikamente. Berlin, Germany: Springer Verlag; 1994 [Google Scholar]
10. Stille G Kräuter, Geister, Rezepturen Eine Kulturgeschichte der Arznei. Stuttgart, Germany: Theiss Verlag; 2004 [Google Scholar]
11. Brownstein MJ. A brief history of opiates, opioid peptides, and opioid receptors. Proc Natl Acad Sci USA1993;90:5391-5393. [PMC free article] [PubMed] [Google Scholar] https://brewminate.com/historical-and-cultural-aspects-of-humanitys-relationship-with-addictive-drugs/
12. Jackson SW. Melancholia and Depression, From Hippocratic Times to Modem Times. New Haven Conn: Yale University Press; 1986 [Google Scholar]
13. Crocq MA. Alcohol, nicotine, caffeine, and mental disorders. Dialogues Clin Neurosci 2003;5:175-185. [PMC free article] [PubMed] [Google Scholar]
14. Johnson H. The Story of Wine. London, UK: Octopus Publishing Group; 1989 [Google Scholar]
15. Austin, GA. Alcohol in Western Society from Antiquity to 1800. A Chronological History. Santa Barbara, Calif: ABC-Clio; 1985 [Google Scholar].
16. Frank JW, Moore RS, Ames GM. Historical and cultural roots of drinking problems among American Indians. Am J Public Health 2000; 90:344-351. [PMC free article] [PubMed] [Google Scholar].
17. Vetulani J. Drug addictions. Part I. Psychoactive substances in the past and present. Pol J Pharmacol. 2001;53:201-214. [PubMed] [Google Scholar]
18. Booth M. Cannabis, A History. London, UK: Doubleday; 2003 [Google Scholar]
19. O'Brien JM. Alexander and Dionysus: the invisible enemy. Ann Scholarship. 1980;1:83-105. [Google Scholar]
20. Berrios G, Porter R, Eds. A History of Clinical Psychiatry The Origin and History of Mental Disorders. London, UK: The Athlone.
21. Wassenberg K. Deutsches Archïv für Temperenz- und Abstinenzliteratur. Available at: www.sgw.hs-magdeburg.de. Accessed August 2007. [Google Scholar].
22. Hubner M. Zwischen Aikohol und Abstinenz, Trinksitten und Alkoholfrage in Deutschen Proletariat bis 1914. Berlin, Germany: Dietz Verlag; 1988 [Google Scholar]
23. Gerritsen JW. The Control of Fuddle and Flash, a Sociological History of the Regulation of Alcohol and Opiates. Leiden, the Netherlands: Brill; 2000 [Google Scholar].
24. Hasso Spode: Die Macht der Trunkenheit. Sozial- und Kulturgeschichte des Alkohols, Opladen 1993, pp. 125ff.
25. Kielhorn FW. The History of Alcoholism: Brühl-Cramer's Concepts and Observations. Addict. 1996;91(1):121-128. PMID 8822020. Archived from the original on 2012-09-10 – via Wiley Online Library.
26. Valverde M. Diseases of the Will. Cambridge: Cambridge University Press. 1998;48. ISBN 978-0-521-64469-3. valentin magnan dipsomania.
27. Peters UH. Lexikon Psychiatrie, Psychotherapie, Medizinische Psychologie. Dipsomania entry at Google Books.
28. Engstrom EJ. Kraepelin E. Psychiatry and public affairs in Wilhelmine, Germany. Hist Psychiatry. 1991;2:111-132. [PubMed] [Google Scholar]
29. Engstrom EJ, Kraepelin E. Leben und Werk des Psychiaters im Spannungsfeld zwischen positivistischer Wissenschaft und Irrationalität. Masters Thesis, University of Munich, 1990. Available at: http://www.engstrom.de/bks.htm. Accessed August 2007. [Google Scholar]
30. 30. Freud S. The Standard Edition. Vol 1. London, UK: The Hogarth Press; 1966;272 [Google Scholar]
31. https://doi.org/10.1111/j.1360-0443.2006.01680.x
32. https://onlinelibrary.wiley.com/journal/13600443
33. https://www.turningpoint.org.au/treatment/about-addiction/what-is-addiction

34. Rosenthal RJ, Faris SB. The etymology and early history of 'addiction,' Addict Res Theory 2019;27:5;437-449. DOI: 10.1080/16066359.2018.1543412
35. http://www.oed.com/viewdictionaryentry/Entry/11125
36. https://www.soberrecovery.com/addiction/the-word-addiction-an-origins-overview/ behavioral" addiction has formal diagnostic recognition for the first time. https://www.helpguide.org › harvard › how-addiction-hija...
37. https://www.researchgate.net/publication/225071634_The_process_addictions_and_the_new_ASAM_definition_of_addiction
38. Diagnostic and Statistical Manual of Mental Disorders: DSM-5 (5th edition) 2014 102 Washington, DC American Psychiatric Association 2013.
39. Campbell RJ. Psychiatric Dictionary. 7th ed. New York, NY: Oxford University Press; 1996 [Google Scholar]
40. Glasscote, R.M., Sussex, J.N., Jaffe, J.H., Ball, J., Brill, L. (1932). The Treatment of Drug Abuse for people like you...: Programs, Problems, Prospects. Washington, D.C.: Joint Information Service of the American Psychiatric Association and the National Association for Mental Health.
41. Second Report of the National Commission on Marihuana and Drug Abuse; Drug Use In America: Problem In Perspective (March 1973), p.13
42. O'Brien CP, Volkow N, Li T.K. What's in a word? Addiction versus dependence in DSM-V. Am J Psychiatry 2006;163:764-65. [PubMed] [Google Scholar]
43. Heit HA, Gourlay DL. DSM-V and the definitions: time to get it right. Pain Med. 2009;10:784–6. [PubMed] [Google Scholar]
44. https://www.asmalldoseoftoxicology.org/lewin
45. Robinson SM, Adinoff B. The Classification of Substance Use Disorders: Historical, Contextual, and Conceptual Considerations. Behav Sci (Basel). 2016 Aug 18;6(3):18. doi: 10.3390/bs6030018. PMID: 27548233; PMCID: PMC5039518.
46. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 3rd ed. American Psychiatric Association; Washington, DC, USA: 1980. [Google Scholar]
47. Diagnostic and statistical Manual: Mental Disorders (DSM-1), Prepared by The Committee on Nomenclature and Statistics of the American Psychiatric Association, 1952.
48. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 2nd ed. American Psychiatric Association; Washington, DC, USA: 1968. [Google Scholar]
49. American Psychiatric Association (1980). Diagnostic and Statistical Manual-111.
50. Spitzer R.L., Williams J.B., Skodol A.E. DSM-III: The Major Achievements and an Overview. Am. J. Psychiatry. 1980;137:151-164. [PubMed] [Google Scholar]
51. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 3rd rev. ed. American Psychiatric Association; Washington, DC, USA: 1987. [Google Scholar]
52. Edwards G. The alcohol dependence syndrome: a concept as a stimulus to inquiry. Br J Addict. 1986;81:171-83. [PubMed] [Google Scholar]
53. Widiger T.A., Smith G.T. Addiction and Nosology. In: Shaffer H.J., LaPlante D.A., Nelson S.E., Shaffer H.J., LaPlante D.A., Nelson S.E., editors. APA Addiction Syndrome Handbook, Vol. 1: Foundations, Influences, and Expressions of Addiction. American Psychological Association; Washington, DC, USA: 2012;49-66. [Google Scholar]
54. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th ed. American Psychiatric Association; Washington, DC, USA: 1994. [Google Scholar]
55. https://ajp.psychiatryonline.org/doi/abs/10.1176/ajp.152.8.1228
56. American Psychiatric Association (1994). Diagnostic and Statistical Manual of Mental Disorders (4th edition). Washington, DC.
57. Diagnostic and Statistical Manual of Mental Disorders: DSM-5 (5th Edition) 2014.
58. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders (DSM-5) 5th ed. American Psychiatric Publishing; Washington, DC, USA: 2013. [Google Scholar].
59. Brown T.A., Barlow D.H. Dimensional Versus Categorical Classification of Mental Disorders in the Fifth Edition of the Diagnostic and Statistical Manual of Mental Disorders and Beyond: Comment on the Special Section. J. Abnorm. Psychol 2005;114:551-556. doi: 10.1037/0021-843X.114.4.551. [PubMed] [CrossRef] [Google Scholar]
60. Krueger RF. The Structure of Common Mental Disorders. Arch. Gen. Psychiatry. 1999;56:921-926. doi: 10.1001/archpsyc.56.10.921. [PubMed] [CrossRef] [Google Scholar]
61. Widiger TA, Simonsen E. Alternative Dimensional Models of Personality Disorder: Finding a Common Ground. J Personal Disord 2005;19:110-130. doi: 10.1521/pedi.19.2.110.62628. [PubMed] [CrossRef] [Google Scholar]
62. Kawa S, Giordano J. A Brief History of the Diagnostic and Statistical Manual of Mental Disorders: Issues and Implications for the Future of Psychiatric Canon and Practice. Philos. Ethics

Humanit Med 2012;7:2. doi: 10.1186/1747-5341-7-2. [PMC free article] [PubMed] [CrossRef] [Google Scholar]

63. https://pubmed.ncbi.nlm.nih.gov/32795136/#enc-abstract
64. https://www.cambridge.org/core/journals/epidemiology-and-psychiatric-sciences/article/aligning-the-icd11-classification-of-disorders-due-to-substance-use-with-global-service-needs/654CF9E388DE23541A0442A1A3808BEE
65. https://pubmed.ncbi.nlm.nih.gov/32795136/
66. World Health Organization, ICD-11 for Mortality and Morbidity Statistics (ICD-11 MMS), 2018 version for preparing implementation, rev. April 2019
67. https://icd.who.int/en/docs/ICD11license.pdf
68. https://www.youthaodtoolbox.org.au › moral-model
69. https://landmarkrecovery.com/the-social-causes-of-addiction/
70. https://www.banyantreatmentcenter.com › 2021/03/23 › t...
71. https://www.caron.org/addiction-101/substance-abuse/psychodynamic-approach-to-addiction
72. https://www.ncbi.nlm.nih.gov › articles › PMC1174878
73. https://www.mentalhelp.net/addiction/evolutionary-model/
74. https://www.hazeldenbettyford.org/education/bcr/addiction-research/brain-disease-model-ru-316
75. doi: 10.1097/YCO.0000000000000332.
76. https://iuhealth.org › thrive › is-addiction-really-a-disease
77. Leshner A. Addiction is a brain disease, and it matters. Science 1997;278;45-47. 10.1126/science.278.5335.45 [PubMed] [CrossRef Google Scholar]
78. Volkow ND, Li TK. Drugs and alcohol: treating and preventing abuse, addiction and their medical consequences. Pharmacol Ther. 2005;108:3-17. 10.1016/j.pharmthera.2005.06.021 [PubMed] [CrossRef] [Google Scholar]
79. https://www.banyantreatmentcenter.com › 2021/04/29 ›
80. https://www.hazeldenbettyford.org/education/bcr/addiction-research/brain- Theories of Addiction:
81. https://www.banyantreatmentcenter.com › 2021/04/29 ›
82. Schroeder BE, Binzak JM, Kelley AE. A common profile of prefrontal cortical activation following exposure to nicotine- or chocolate-associated contextual cues. Neurosci 2001;105:535–545. [PubMed] [Google Scholar] relationship with addictive drugs. Dialogues CL Neurosci 2007;9(4):355-361. PMCID: PMC3202501. PMID: 18286796
83. Ball D. Genetics of addiction. Psychiatry 2006;5:446-447. [Google Scholar]
84. Rhee SH, Hewitt JK, Young SE, Corley RP, Crowley TJ, Stallings MC. Genetic and environmental influences on adolescent substance initiation, use, and problem use. Arch Gen Psychiatry 2003;60:1256-1264. [PubMed] [Google Scholar]
85. Zimmermann US, Blomeyer D, Laucht M, Mann KF. How gene-stress behavior interactions can promote adolescent alcohol use: the roles of pre-drinking allostatic load and childhood behavior disorders. Pharmacol Biochem Behav 2007;86:246-262. [PubMed] [Google Scholar]
86. Gorwood P, Wohl M, Le Strat Y, Rouillon F. Gene-environment interactions in addictive disorders: epidemiological and methodological aspects. C R Biologies. 2007;330:329-338. [PubMed] [Google Scholar]
87. U.S. Department of Health and Human Services (HHS), Office of the Surgeon General, Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health. Washington, DC: HHS, November 2016.

الملخص

تشير المدونات التاريخية إلى لجوء الإنسان لاستخدام المواد منذ ما يقارب العشرة آلاف عام. ولقد عمد الإنسان إلى ذلك في ممارساته الدينية وللأغراض العلاجية والترفيهية... وخلال القرون الماضية من الزمن استخدم المعنيون عبارات عديدة، وبالتبادل، في وصف حالات تعاطي المواد والعقاقير "كالإدمان والاعتماد وسوء الاستخدام أو سوء الاستعمال او الاستخدام". وتبنت أحدث أنظمة التصنيف عبارة "اضطراب استعمال المواد" لتجنب الإشكالات المرافقة للعبارات السالفة. أصبح الإدمان على العقاقير والمواد غير المشروعة مشكلة صحية عامة غير مسيطر عليها في معظم الدول. بهدف الوصول الى التعرف على كنه المشكلة وآليات حدوثها برزت مناهج ونظريات عديدة منها: الأخلاقية والاجتماعية والثقافية والنفسية والتحليلية النفسية والتطورية والبيولوجيا العصبية. وينال النهج البيولوجي العصبي في العقود الأخيرة مقبولية واهتماماً وذلك جراء التقدم الكبير في وسائل تحري الدماغ. وينظر النهج البيولوجي العصبي إلى المشكلة على انها جراء اضطراب في البعض من انظمة الدماغ. يهدف البحث إلى إجراء مراجعة تاريخية لاستعمال المواد والعبارات والمصطلحات العديدة التي استخدمت عبر الزمن الطويل في وصف المشكلة، ومراجعة سريعة للنظريات والعبارات العديدة المعنية بأسباب حدوثها مع التركيز على النظرية البيولوجية العصبية.

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Dissociation and Dissociative Disorders: Fascinating and Contentious Concept

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التفارق والاضطرابات التفارقية

مفهوم رائع ومثير للجدل

سداد جواد التميمي ونهلة فوزي جميل

Abstract

Dissociation is an old concept that is in common use replacing hysteria. Reviewing the history of the concept is essential to understand the changes that took place in mental health. There are trauma and socio-cognitive models offered to explain what is essentially a defence mechanism. The category of dissociative disorders in the new ICD-11 is detailed covering all aspects of dissociation. Dissociative disorders are not exclusive to mental health and managed in neurology under functional neurological disorders. Ten cases are presented illustrating medical and legal challenges.

Key words: Dissociation, dissociative disorders, ICD-11

Declaration of interest: None

Introduction

Dissociation is not a modern concept, and closely related to the ancient concept of hysteria, which has been deleted from current psychiatric literature and psychological sciences. The concept of hysteria dates back to the Ancient Greek describing a single woman with multiple symptomatology such as shortness of breath and body aches with the recommendation for marriage and childbearing as a cure for her ailment. However, the ancient recommendation remains operative in different cultures until now. The scientist, Dover, in the eighteenth century[1] commented on the use of the term hysteria referring to women only while similar symptoms in men are referred to as hypochondriasis.

The psychoanalytical school dominated psychiatric practice in the nineteenth century until the second half of the twentieth century introducing the concept of neurosis, and as a result the concept of hysteria was used widely not only in psychiatric practice but also among the public. Several terms were commonly used such as hysterical neurosis, hysterical personality, hysterical psychopath, and hysterical convulsions. The term hysteria infiltrated all medical specialties and was not exclusive to psychology and psychiatry. One may assume that the beginning of the end of hysteria was a lecture delivered by Slater from the Institute of Neurology, University of London, who concluded that a diagnosis of hysteria is a sign of ignorance and a fertile source of clinical errors. He also referred to male doctors using this diagnosis for female patients as lacking sympathy and understanding of women.[2] The term hysteria gradually disappeared and with the publication of the eleventh edition of the international Classification of Diseases ICD-11 there is only the concept of Dissociation and Dissociative Disorders.[3]

This review discusses the concept of dissociation, dissociative disorders in the ICD-11, current models of dissociative disorders, functional neurological disorders (FND), and at the end presents clinical cases highlighting diagnostic, medical, and legal challenges.

Dissociation

Ego defence mechanisms are unconscious processes that provide a good measure of psychological wellbeing, and generates personality traits, behaviour, and psychiatric symptomatology.[4] They might be classified as mature, neurotic, immature and psychotic, which helps to understand human actions and behaviours, and the use of one defence in a group is often associated with the use of another. As a result, sometime the defences are classified into five main groups which are Turning against others (TAO), Projection (PRO), Intellectualization or Perennialization (PRN), Turning against self (TAS), and Reversal (REV).[5]

Dissociation is classified as a primitive defence grouped with other psychotic and immature defences including splitting, projective identification, projection, denial, idealization, acting out, somatization, regression, and schizoid fantasy.[6] The use of dissociation might be associated with the use of other defences in the group, but it is often noted that there are some similarities between dissociation and splitting. Splitting refers to compartmentalizing experiences of the self and other such that integration is not possible. When the individual is confronted with contradictions in behaviour, thought or affect, she/he regards the differences with bland denial or indifference.[4] The defence prevents conflict stemming from the incompatibility of two polarized aspects of self and others. Dissociation refers to the disruption of one's sense of continuity in the areas of identity, memory, consciousness, or perception as a way of retaining an illusion of psychological control in the face of helplessness and loss of control. In extreme cases it involves alteration of memory for events because of the disconnection of the self from a real or imagined event.[6] Both splitting and dissociation are linked to trauma, but the latter is associated with dissociative disorder and the former with borderline personality disorder.

Dissociation is often differentiated from repression which is the focus of psychoanalytical psychotherapy and dynamic psychiatry in general.[7] In repression the mind is split horizontally into the conscious and the unconscious, and conflicts as well as traumatic experiences are propelled towards the unconscious and hence inaccessible to the conscious mind. However, in dissociation the split is vertical sending traumatic experiences towards a space of lack of awareness where they can be ignored.[4,7] This differentiation between repression and dissociation might be relevant to psychiatrists and legal proceedings because an individual using dissociation cannot be deemed lacking capacity to control his behaviour and absolved of responsibility. Dissociation might be a factor explaining one's action, but it is not a process outside the sphere of human consciousness and control in its entirety.

Dissociative Disorders

Dissociative disorders (DD) in the new ICD-11 are defined as involuntary disruption or discontinuity in the normal integration of one or more of the following: identity, sensations, perceptions, affects, thoughts, memories, control over bodily movements, or behaviour.[3] The disruption or discontinuity may be complete, but is more commonly partial, and can vary from day to day or even from hour to hour. The diagnosis is conditional upon the exclusion of substance use, not explained by another mental, behavioural, or neurodevelopmental disorder, a sleep-wake disorder, a disease of the nervous system or other health condition, and not part of an accepted cultural, religious, or spiritual practice. Finally, it should be sufficiently severe to result in significant impairment in personal, family, social, educational, occupational, or other important areas of functioning.[3] DD are then subclassified as:

1 Dissociative neurological symptoms disorder 6B60

2 Dissociative amnesia 6B61

3 Trance disorder 6B62

4 Possession trance disorder 6B63

5 dissociative identity disorder 6B64

6 Partial dissociative identity disorder 6B65

7 Depersonalization- Derealization disorder 6B66

8 Other specified dissociative disorders 6B6Y

9 Dissociative disorders, unspecified 6B6Z

Dissociative neurological symptoms[3] disorder refers to the presentation of motor, sensory, or cognitive symptoms that imply an involuntary discontinuity in the normal integration of motor, sensory, or cognitive functions. It is not consistent with a recognized disease of the nervous system, other mental or behavioural disorder, or other medical condition. Neurological symptoms could be visual, auditory (including auditory hallucinations), vertigo, non-epileptic seizures, speech, gait, cognitive, and others. In clinical practice they are often referred to as a functional neurological disorder (FND).

Dissociative amnesia[3] is the inability to recall important autobiographical memories, typically of recent traumatic or stressful events, that is inconsistent with ordinary forgetting. Trance disorder[3] is characterized by trance states in which there is a marked alteration in the individual's state of consciousness or a loss of the individual's customary sense of personal identity in which the individual experiences a narrowing of awareness of immediate surroundings or unusually narrow and selective focusing on environmental stimuli and restriction of movements, postures, and speech to repetition of a small repertoire that is experienced as being outside of one's control. The trance state is not characterized by the experience of being replaced by an alternate identity. Trance episodes are recurrent or, if the diagnosis is based on a single episode, the episode has lasted for at least several days. The trance state is involuntary and unwanted and is not accepted as a part of a collective cultural or religious practice. Possession trance disorder is characterized by trance states in which there is a marked alteration in the individual's state of consciousness and the individual's customary sense of personal identity is replaced by an external 'possessing' identity and in which the individual's behaviours or movements are experienced as being controlled by the possessing agent.

Dissociative identity disorder[3] is characterized by disruption of identity in which there are two or more distinct personality states (dissociative identities) associated with marked discontinuities in the sense of self and agency. Each personality state includes its own pattern of experiencing, perceiving, conceiving, and relating to self, the body, and the environment. At least two distinct personality states recurrently take executive control of the individual's consciousness and functioning in interacting with others or with the environment, such as in the performance of specific aspects of daily life such as parenting, or work, or in response to specific situations (e.g., those that are perceived as threatening). Changes in personality state are typically associated with amnesia. Partial dissociative identity disorder refers to the presence of a dominant personality state intruded upon by a non-dominant personality (dissociative intrusion), which does not recurrently take over the executive control of consciousness and functioning.

Depersonalization-derealization disorder[3] is characterized by persistent or recurrent experiences of depersonalization, derealization, or both, and during which reality testing remained intact. Other specified dissociative disorders include Ganser's syndrome while neurasthenia is included under dissociative disorder, unspecified.

The above classification is more detailed and groups all dissociative disorders under one category of DD in comparison with Diagnostic and Statistical manual of the American and Psychiatric Association DSM 5.[8]

Models of Dissociation

There is ongoing debate that remains unresolved about the causes of dissociation and DD. The debate revolves around two models, the first is the trauma model (TM), which explains the source of dissociation as pre-existing trauma in childhood or adulthood, and another model that explains the phenomenon of dissociation resulting from socio-cognitive factors (SC) that may lead to creation of false memories[9]. It was Janet in the nineteenth century, who systematically elaborated on the concept of dissociation, which was viewed as a discontinuous phenomenon observed in patients with hysteria and absent in healthy people.[10] This contrasted with some of his contemporaries who viewed dissociation as dimensional process from normal to pathological. Janet viewed dissociation as the result of traumatic experiences in childhood, an opinion that was put forward first by the French neurologist Charcot who studied hysterical patients. Charcot's views on the origin of hysteria were rejected by his successor Babinski who explained hysteria as a byproduct of suggestion and persuasion exacerbated by hypnosis[9].

Freud was influenced by Janet's views, but he ascribed the memories of childhood sexual trauma to Oedipal fantasies and focused on the mechanism of repression as central to hysteria.[7] The psychoanalytical school dominated psychiatric practice in the first half of the twentieth century, and rejected the TM of dissociation, a view that has not changed significantly until the present time.

Several societal, political, and cultural changes took place before and after the Second World War which probably fueled the debate about several concepts in psychiatry and management of patients with mental health problems, including psychotic disorders and non-psychotic disorders or collectively known as neurotic disorders at that time.[9] One may trace several signposts, such as the publication of a research by the radiologist Kempe in 1962 entitled Battered Baby Syndrome,[11] which refers to injuries sustained by children subjected to abuse and repeated beating by their carers and warned of the dangers of ignoring the phenomenon that might have a lifelong detrimental impact on the victim. Elliot-Slater's research on hysteria referred to above was very influential in Britain and elsewhere on rejecting the concept of hysteria, a disorder that was almost exclusive to women. Feminists' activism accelerated in 1960s and 1970s and focused on treatment of women as second-class citizens in society in all aspects including mental health.[12] The concept of posttraumatic stress disorder (PTSD) was introduced in 1980 with the publication of the Diagnostic and Statistical Manual,[3] which revived the interest into the mechanism of dissociation following trauma, and it was in the fourth edition when the terms dissociative amnesia, dissociative identity disorder, and dissociative fugue were introduced for use in clinical practice.

Dissociative phenomena and disorders were subjected to extensive research in the past few decades helped as well by the introduction of several psychological measures such as the dissociative experience scale (DES), multi-axial dissociative inventory (MDI),[5] and structured clinical interviews based on diagnostic criteria of dissociative disorders of the DSM-IV. Many of the research using the latter measures focused on linking dissociation with history of traumatic experiences supporting the TM, but their use might well explain the discrepancies noted on the published figures of the prevalence of DD in general.[12,13] The prevalence of dissociation ranges from 0.3 to 18.3% in the general population and 12%-40% among patients visiting psychiatric centers. As for dissociative amnesia the figure ranges from 0.2% in China to more than 7% in Turkey. The figures for lifetime prevalence of depersonalization-derealization are even higher ranging from 26-74%.[12] These figures raise question about the accuracy of defining human experiences as dissociative as well as the diagnosis of DD using the above instruments.

As for dissociative amnesia, it could be said that the traumatic memories are difficult to erase from the human brain, and resistant to deletion. It is quite plausible that people who attribute their amnesia to traumatic experiences are rather disinclined to talk about them voluntarily.

The TM of dissociation is widespread, and extends not only to DD, but also to the interpretation of borderline personality disorder which is commonly associated by multiple dissociative symptoms and experiences in more than 50% of patients.[14] The TM explains the dissociative process as avoidance of psychological pain resulting from isolating the trauma memories. The SCM[12] emphasise that many trauma memories are fake resulting from vulnerability and proneness to suggestibility and are often suggested by the therapists and carers. Individual factors such as proneness to fantasy, abnormal illness behaviour, and communication across social media might explain the reporting of past trauma as well.

Functional Neurological Disorders

DD are not exclusive to mental health, but frequently encountered in medical and neurological practice and referred to as Functional Neurological Disorders (FND).[15] It focuses on the dysregulation of brain functions and often formulated using a more traditional model of predisposing, precipitating, and perpetuating factors. Predisposing factors refers to psychosocial adversity, presence of a physical illness, and exposure to a specific disease pattern in close relatives. The illness is often precipitated by a physical illness or injury, and the symptoms become entrenched due to social isolation and one's own personal belief system.

Scientific research into FND reveals the incompatibility between subjective and objective responses during an emotional process associated with heightened reactivity of the autonomic nervous system. Radiological findings point towards increased amygdala activity, increased motor circuitry activity, changes in prefrontal responses, enhanced limbic system functional connectivity.[16] There is hyperactivity of the frontal lobe in DD with inhibiting of the limbic system, the opposite of what is observed in PTSD which manifests in hyperarousal.

Research into FND is focused on the medical model of mental disorders moving away from the social, psychodynamic, and behavioural models providing the patient with an explanation of their symptoms that is less ambiguous than TM and SCM.

Management

Dissociation refers to failure of integration of emotion, cognition, memory and somatic control, and treatment simply attempts to restore that integration.[17] There are no universal guidelines on management of DD[18] but generally safety of the individual and crisis management is the norm. Following that there is a need for full assessment of any co-morbid disorder and its treatment, psychoeducation, and psychotherapy tailored according to the individual. Depersonalization-Derealization symptoms require the treatment of the co-morbid mental disorder, and there is no strong evidence that lamotrigine, antidepressant, and naltrexone are specific treatment for depersonalization- derealization disorder.[19]

Cases of DD in Clinical Practice

The following are cases of DD covering various clinical presentations that highlight challenges facing mental health professionals.

Case 1

A young single lady with confirmed history of generalized epilepsy since early adolescence presented with severe pain in both legs and upper arms. All investigations proved inconclusive for a pain that was only relieved by immersion in cold icy water. Parents are divorced, she has one stepbrother and had occasional contact with her biological father. She revealed to her case worker who saw her regularly following the onset of pain, that she was sexually abused by her stepfather. Her stepfather was charged with rape but found not guilty by the Jury.

Case 2

A young single university student presented with recurrent drop attacks with brief loss of consciousness. Epilepsy was excluded, and no clear co-morbid psychiatric disorder was identified, but she was diagnosed with dissociative seizure disorder after revealing that she was traumatized by having sex with a man against her will following brief encounter. Her drop attacks did not change following intensive therapy. Later she was diagnosed with Atrial Septal Defect and mild pulmonary hypertension. Her attacks disappeared following cardiac surgery.

Case 3

A young professional lady presented with vertigo and was diagnosed with functional neurological disorder (FND). She later presented with postnatal depression associated with severe depersonalization and derealization that persisted after recovery from depression and discontinuation of antidepressant. There is no history of trauma and following divorce she managed to care for her daughter despite continued dissociative experiences. She entered a coercive relationship with a new partner that ended amicably, but there has been no change in the degree of her symptoms. She presented after 15 years with a psychotic episode and required treatment with antidepressant & antipsychotic combination. She was always preoccupied with her dissociative symptoms which took the form of an obsessional rumination and failed to benefit from different talking therapies. There has been no change in her symptoms for 20 years.

Case 4

A divorced lady in her late twenties was referred to social services because of safeguarding issues related to the care of her children aged 6-10 years. She was reported to be neglecting them often presenting unkempt and no homework done. Following first contact with social services she was reported wandering around in town leaving her children at home. These episodes were recurrent and lasted a few hours, then she was diagnosed as suffering from Trance Disorder, which was later changed to Possession Trance Disorder. Childcare proceedings were interrupted by complete change of her personality presenting as a teenager talking in different accents and denying that she is a mother, and as a result she was diagnosed suffering from dissociative identity disorder. The court decided that she did not lack capacity to engage in legal proceedings.

Case 5

A married woman who was a victim of domestic abuse stabbed and killed her husband. She was unable to remember the event and was diagnosed with dissociative amnesia. She was convicted of murder. She was diagnosed suffering from PTSD in prison. She was released from prison early because of deteriorating physical health.

Case 6

A married man was referred for psychiatric assessment complaining of persistent depersonalization - derealization following a road traffic accident. He and his wife suffered from mild whiplash injury and recovered spontaneously. His personality changed and he became more isolative complaining that his wife referred to as Christine one died and was replaced by another living with him referred to as Christine two.[20]

Case 7

A married woman and a mother of three children in the fourth decade of life diagnosed with dissociative trance disorder that occurred every few months as she wanders downtown by herself. Six months later she was diagnosed with a manic episode and the diagnosis turned out to be bipolar. After that, a brain map was made, and she was diagnosed with frontal lobe epilepsy eventually controlled by valproate - lamotrigine combination.

Case 8

A single young woman, aged 25, had an established diagnosis of emotionally unstable personality disorder, she spent most of her adult life in secure psychiatric setting in view of her severe self-harm and aggression. She had a history of trauma in childhood though this has not been verified by independent sources. Whilst in hospital, she developed unhealthy attachments to staff and would become anxious if the idea of leaving the institution was discussed or planned. Upon encountering the threat of separation, she would stop taking medication, withdraws from contact with staff then would act out by lashing at fellow patients and staff associated with overactivity and at times manic behaviour. She usually has no recollection of the events leading to and during the disruptive behaviour. She entered a dissociative state to ward off feelings of abandonment and rejection.

Case 9

A middle aged married professional woman developed PTSD when she was faced with the threat of losing her daughter in an accident during a holiday, for two hours she did not know if her daughter was dead or alive. She had severe dissociative symptoms in the form of trance like state that occurred intermittently during therapy. She was also involved in a protracted legal proceeding against the tour company that organized the holiday. EMDR was attempted, however this did not lead to any significant improvement.

Case 10

A thirty-year-old woman presented with dissociative fugue when she would leave her house and wanders off for hours, returning home via police or family. She would have no recollection of her behaviour or the places she visited during these episodes. She was trialed on antidepressants on the assumption that the underlying problem was an untreated depression. Two years later she presented with psychosis manifesting in auditory and visual hallucinations that eventually responded to Clozapine.

Discussion

Dissociation is not necessarily an abnormal process, and dissociative symptoms do not mean the presence of a psychological or neurological disorder unless these symptoms adversely affect the individual's social or occupational performance. It is important to note that the symptoms of dissociation are common in all mental disorders, and their presence or absence does not alter the course or treatment of the primary disorder, but care must be taken not to focus excessively on them instead of other symptoms that are more responsive to treatment. *Case 3* illustrates this, as the patient complained of dissociative symptoms instead of the affective and psychotic symptoms, and this did not help her recovery.

The trauma model dominates the explanation of the phenomenon of dissociation rather than SCM which is referred to sometimes as fantasy model. Care must be taken not to direct psychotherapy towards revealing the cause of dissociation, whether the treatment is provided by a psychotherapist or another mental health worker. Investigating the credibility of the event and the evidence are not a primary duty of a psychiatrist, and the case must be directed towards the legal authorities, as demonstrated is *Case 1*. The stepfather was not convicted, but he separated from his wife and moved away from the city. Similarly, *Case 9* illustrates the interaction between the legal proceedings and maintenance of her symptoms.

The diagnosis of dissociative disorder is fraught with uncertainty, and sometimes discourages the physician from seeking an organic explanation for his/her patient's symptoms. Dissociative non-epileptic seizures are not easy to treat, and there are no special treatment guidelines for them, but there are many organic diseases that may explain the seizures, as illustrated in *Case 2*.

Trance episodes, dissociative amnesia, and dissociative identity disorder arouse curiosity, but they do not absolve a person of taking responsibility for their behaviour. *Case 4* illustrates the accumulation of dissociative disorders and the patient's disavowal of the responsibility of caring for her children. In the end, there are primary and secondary gains that cannot be separated from the dissociation itself and may raise suspicions of the existence of a factitious disorder whose framework is dissociation. The same applies to *Case 5*, which clarifies that a person who is in the state of dissociation, regardless of its cause, has the mental ability to carry out an action and should accept responsibility and bears the consequences. *Case 8* demonstrates that she was able to enter a dissociative state when faced with the threat of rejection, by following similar behaviours leading up to it i.e., she knew what to do to enter the said state.

Cases 6 and 10 illustrate the presence of a serious psychological disorder or psychotic process behind the veil of dissociation. As for *Case 7*, it clarifies the necessity of not rushing to diagnose a DD originating from an organic neurological disease.

Dissociation is an unconscious and primitive defensive process, and the formulation of any case must consider the existence of other defences from this group that may explain the presence of other disorders. It is therefore tempting for professionals to adopt a reductionist model in dealing with a challenging problem rather than combining social, psychological, behavioural, and medical psychiatric models in case formulation which is the way forward to properly deal with dissociation and DD.

References

1. Mullan J. Hypochondria and hysteria: sensibility and physicians. The Eighteenth-Century Vol. 25, No. 2, A Special Issue on British Approaches to Eighteenth-Century Studies (Spring 1984), pp. 141-174 (34 pages). Published By: University of Pennsylvania Press.
2. Slater ET. Diagnosis of ‘hysteria’. BMJ. 1965;1395-9.
3. The ICD-11 Classification of mental and Behavioural Disorder, Diagnostic Criteria for research. 2018. World Health Organisation.
4. Bowins B. Psychological defense mechanism: A new perspective. Am J Psychoanal. 2004;64(1).
5. Ihilevich D, Glesrer G, Defenses in psychotherapy, the clinical application of the defense mechanism inventory. 1991. DMI Associates, Owosso, Michigan.
6. Groh L. Primitive defenses: cognitive aspects and therapeutic handling. Int J Psychoanal Psychotherp. 1980;8: 661-683.
7. Mucci C. Dissociation vs Repression: A New Neuropsychoanalytic Model for Psychopathology. Am J Psychoanal. 2021;81: 82-111
8. Diagnostic and Statistical Manual of Mental Disorders- Fifth Edition DSM-5 2013;291-307. American Psychiatric Publishing Washington DC.
9. Lowenstein R. Dissociation debates: everything you know is wrong Dialogues Clin Neurosci. 2018;20(3): 229-242.
10. Spitzer C, Barnow S, Freyberger H, GRbe HJ. Recent developments in the theory of

dissociation. World Psychiatry. 2006;592: 82-86.

11. Kempe CH, Silverman FN, Steele BF, Droegemuller W, Silver HK. 'The Battered Child Syndrome', Child Abuse Negl. 1985;9: 143, originally published in J Am Med Assoc. 1962181: 17-24.
12. Merckelbach H, Muris P. The causal link between self-reported trauma and dissociation: a critical review. Behav Res Ther. 2001;39: 245-254
13. Sar V. Epidemiology of dissociative disorders: An overview. Epidemiol Res Int. 2011;1-8.
14. Ross C. Borderline personality disorder and dissociation. J Trauma Dissociation. 2007;8(1): 71-80.
15. Pick S, Goldstein L, Perez D, Nicholson T. Emotional processing in functional neurological disorder: a review, biopsychosocial model, and research agenda. J Neurol Neurosurg Psychiatry. 2019; 90: 704-711.
16. Blihar D Delgado E Buryak M, Gonzalez M, Waecher Randall. A systematic review of the neuroanatomy of dissociative identity disorder. Eur J Trauma Dissoc. 2020;4(3) Internet Publication.
17. Brand B, Schielke H, Putnam K et al. An Online Educational Program for Individuals with Dissociative Disorders and Their Clinicians: 1-Year and 2-Year Follow-Up 2019. J Traum Stress. 2019;32: 156-166.
18. Hunter E, Charlton J, David A. Depersonalisation, and derealisation: Assessment and Management. BMJ. 2007; 356. Online Publication.
19. Gentile J, Dillon K, Gillig P. Psychotherapy and Pharmacotherapy for Patients with Dissociative Identity Disorder. Innov Clin Neurosci. 2013;10(2): 22-29.
20. Clinical case of the author published in national newspaper https://www.theguardian.com/uk/1999/mar/05/ameliagentleman

ملخص

التفارق مفهوم قديم شائع الاستخدام في الوقت الحاضر بدل الهستيريا. دراسة تاريخ المفهوم ضرورة لفهم التغييرات التي حدثت في الصحة العقلية. يتم تقديم نموذج الصدمات ونموذج الاجتماعية المعرفية لشرح ما هو في الأساس آلية دفاع. تم تفصيل جميع جوانب التفارق في فئة الاضطرابات التفارقية في الإصدار الحادي عشر الجديد من التصنيف الدولي للأمراض. لا تقتصر الاضطرابات التفارقية على الصحة العقلية ويتم إدارتها في اختصاص الامراض العصبية في ظل الاضطرابات العصبية الوظيفية. تم عرض عشر حالات توضح التحديات الطبية والقانونية.

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Cortisol reactivity in war-exposed adolescents living in Baghdad: A pilot randomized control trial. of a writing intervention for posttraumatic stress

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إعادة تنشيط الكورتيزول في المراهقين الذين يعيشون في بغداد والذين تعرضوا للحرب: دراسة منضبطة عشوائية ريادية في تدخل كتابي لاضطراب شدة ما بعد الصدمة

نعمان سرحان علي وتوري سنيل

Abstract

Background: Findings are from a pilot randomized control trial in 2010 of a larger RCT evaluating a group intervention (Writing for Recovery - WfR) for PTSD in war-exposed adolescents living in Baghdad since 2003. **Objectives:** Feasibility of cortisol measurement during ongoing political violence was explored as part of evaluating the association between PTSD and cortisol changes in response to intervention; adherence to intervention protocols. **Method:** N=20 students (10 boys, 10 girls) ages 14 to 16 years were randomized to write about their most traumatic experiences or neutrally about their day. Demographic characteristics, trauma history, BMI, PTSD symptoms were obtained; saliva samples were collected for radioimmunoassay at five measure points. **Results:** Sixteen students completed the pilot. No significant logistical barriers arose although researchers deflected pressure to reveal certain students' writings. Further, on the morning of the post-test, a fatal car bomb was detonated in the neighborhood. Students proceeded with the tests, which demonstrated a dramatic increase from their baseline average of M=4.3 to M=63. Significantly, this was three times lower for the WfR group. PTSD symptom reduction was in both groups, but statistically significant for the WfR group. **Conclusion:** Cortisol salivary measurement was viable and demonstrated sensitivity to new stressors. A similar study found expressive writing reduced neuroendocrine responses to trauma-related memories and improved self-regulation. Low cortisol in response to the car bomb alongside reduced PTSD symptoms may suggest memory consolidation/habituation and new adaptive coping skills. WfR instructions are needed on risk management of often highly sensitive writings by vulnerable adolescents in war zones.

Keywords: adolescents, war, salivary cortisol, psychosocial intervention, randomized control trial, posttraumatic stress disorder

Declaration of interest: The second author is a former Board member of the Children and War Foundation, and the research was supported by a grant from the Foundation.

Introduction

The current paper reports on a pilot randomized control trial for a larger RCT in Baghdad that assessed salivary cortisol levels in war-exposed adolescents during a writing intervention for posttraumatic stress disorder (PTSD).[1,2] The approach followed an earlier study that examined cortisol reactivity in participants randomized to write about their traumatic experiences or about a neutral topic, which found expressive writing reduced neuroendocrine responses to trauma-related memories.[3] The pilot was in late March 2010 when Iraq was still under occupation by US-led forces. By the end of that year, approximately 460,000 Iraqi men, women and children had died as a direct or indirect result of the invasion with an estimated 60% of deaths directly attributable to violence, including aerial bombardment and shelling.[4] In Baghdad, a generation of children and adolescents had known little else.[5,6,7] Intimidating acts, such as house searches by occupying forces persisted. Car bombs, small arms fire, kidnappings, and targeted killings - frequently carried out in public spaces heedless of the toll on peoples' lives - made providing psychosocial support difficult.

Effective psychosocial interventions to help children and adolescents exposed to war and political violence in low- and middle-income countries (LMIC) were scarce at the time.[8] The evidence-base was often weak, heavily reliant on anecdotal information, and characterized by a serious lack of rigor at the evaluative phases[9] Those targeting psychological symptoms, such as PTSD, anxiety and depression were seen to be more robust although recent evidence suggests many studies on such interventions have had no effect and, where randomized controlled trials were involved, symptom reduction was reported in both experimental and control conditions.[10,11] However, promising results from a current meta-analysis support the use of group (particularly CBT-based) interventions for PTSD in this population.[12]

A group intervention, Writing for Recovery – WfR, which was the focus of the 2010 pilot had been evaluated by the current authors in one-armed trials with displaced Iraqi children living in Jordan through their work with Care International and the Nippon International Cooperation for Community Development (NICCOD) from 2007-2008[13] with good results. This led to an RCT in 2009 with adolescents in Baghdad, which demonstrated PTSD symptom reduction in the experimental and control conditions, but this was statistically significant for those receiving WfR.[14] Subsequently, other studies of WfR reported mixed results.[15,16,17]

Designed for groups of adolescents exposed to large-scale traumatic incidents, such as war and disaster, WfR can be delivered by paraprofessionals after a brief training. In resource scarce Iraq this was an important factor. Facilitators guide participants through six writing exercises across three days (consecutive or weekly): two 15-minute sessions per day with a 10-minute break in-between. Based on a widely researched expressive writing paradigm[18] that has demonstrated health and psychological benefits for participants disclosing their most difficult experiences, WfR extends the approach by using narrative and cognitive behavioral (CBT) techniques. Writing exercises progresses from general emotions relating to somatic and sensory memories of traumatic experiences to structured guidance to develop a strength- focused narrative. Therapeutic effects of writing in this way include engagement with difficult memories, emotional self-regulation and resilience building. A primary aim of CBT based interventions for PTSD is supporting survivors of trauma to approach (rather than avoid) increasingly detailed and distressing memories.[19]

For the young students recruited to the 2010 pilot, the daily risk of exposure to war/conflict related trauma had been a common experience since the US-led invasion in March 2003. Indeed, testimony from educators within their schools suggested it had been difficult to identify any students unaffected by such violence given it remained widespread in the ensuing seven years. Disruption to their education and family life was also common. The cumulative effects of such stressors have been shown to negatively impact on children's physical health and domains relating to cognitive, emotional and social functioning with common reactions such as externalizing behaviors and posttraumatic stress disorder PTSD.[20,21]

The purpose of the 2010 pilot was to assess adherence to the intervention protoco[12] and to establish feasibility for salivary cortisol testing when political violence across Baghdad remained ongoing. This posed logistical challenges for the research team, which also needed to be explored. Checkpoints, traffic bans, and daytime curfews were a way of life in the city at the time; nevertheless, a test run of the procedure for freezing the saliva samples and transporting them each time to the local laboratory was necessary. Salivary cortisol measurement was used to examine if imaginal exposure could account for the beneficial effects of WfR found in the 2009 study[14]. A further important aspect was to establish whether participants would be amenable to providing saliva samples.

Ethics

In accordance with Inter-Agency Standing Committee (2007)[22] guidelines, overall responsibility for the research and interventions remained with local mental health professionals from the Baghdad Teaching Hospital. Ethical review was from ethics boards within the Iraq Ministry of Health and Iraq Ministry of Education in Baghdad.

Methods

Design

A parallel two-group RCT was used with participants randomized to either WfR (intervention group) or a neutral writing condition (control group). An audit of the fidelity, quality of implementation, safety risks considering the ongoing violence, and cost-effectiveness of the approach was conducted alongside an assessment of the views and experiences of the participants and professionals involved. A mental health team from the Baghdad Teaching Hospital were trained by the current authors for the cortisol sampling procedures, including a one-day training on WfR with a further day spent on its application in the context of using a neutral writing protocol[23] with the control group. School counselors were available each day to provide support to students if needed.

Setting

The pilot was conducted in late March 2010 in two single sex schools in Baghdad across three consecutive days, referred to as Day One, Day Two, and Day Three. The schools were situated in Al-Rusafa, which is east of the Tigris River.

Participants

Twenty students, aged 14 to 16 (M=14.9, SD=0.53), were randomized to either write about their most traumatic experiences (n=10; 5 boys and 5 girls) or neutral writing about what they did before bed and when they woke up that morning (n=10; 5 boys and 5 girls). All had lived in Baghdad since 2003.

Consents and confidentiality

Informed consent and study purpose was sent to families from the selected schools/year groups. Participants were assigned a code, which was used instead of their names. The primary researcher (first author) held the main list. One aspect of the WfR protocol that “no one except members of the research team will see what they have written”2 was discussed with participants. It was explained that the writings would be seen by two people (current authors) and retained until study publication. Following the intervention, the students were asked their ideas for what do with the writings given other young people in their situation might receive the intervention in future. Feedback was shared with the intervention developers.

Saliva sample and testing

Participants were instructed not to smoke, eat, chew gum or drink one hour prior to the intervention. Timing for saliva collection was designed to consider a 20-minute time to peak reactivity for cortisol.[24] Samples were taken at five measure points. The first four were during the intervention: (T1) baseline, which was the start of Day One, (T2) 20 minutes post-writing on Day One, (T3) start of Day Three, (T4) 20 minutes post-writing on Day Three. A fifth measure point (T5) was at two weeks post-intervention. For pre-writing (T1 and T3) this was at 10am and for post-writing was at noon.

Saliva was absorbed into a cotton pad and expressed through a plastic tube into a sterile vial. Cortisol levels were determined by radioimmunoassay using a commercially available kit from Beckman Coulter (Turkey). Standards ranged in concentration from 168 - 736 nMol/ L. Samples were immediately frozen at -20C and transported to a local laboratory for analysis within two hours of collection from both schools.

Intervention and measures

All materials were administered in Arabic. The recommended translation/back translation procedure followed International Test Commission (ITC) guidelines alongside a committee approach[25] with support from the Baghdad Teaching Hospital.

Experimental and control group protocols

The protocols for randomization were:

- Experimental group: Writing for Recovery: A Manual for Structured Writing after Disaster and War[2]
- Control group: Neutral Instructions for Written Disclosure[23]

The neutral instructions were designed with a single, unstructured task involving non-emotional, or neutral, writing that could be repeated on successive days. It was modified to reflect the three-day (two writing tasks per session) structure of WfR. Participants were guided to write neutrally about experiences after school the previous day and from the time they woke up to the point of reaching the classroom.

In both conditions, participants were instructed to place their writings into a sealed box. In accordance with the WfR protocol, participants were told their writings would not be read by anyone apart from the research time. In the context of the 2010 pilot this involved the current two authors only. The research team added an assurance during the brief, the intervention instructions, and the de-brief for all participants that the writings would be kept secure. The writings remain secure at the time of the current report (second author).

Measures

Demographics and traumatic events

Basic demographic data and lifetime trauma events were assessed using the 27-item Baghdad Life Events Checklist,[26] which was adapted by the current authors from the Childhood War Trauma Questionnaire[27] and consists of questions relevant to the US-led invasion and subsequent events. The adapted version includes one open-ended question: "describe anything else that happened to you that bothered you".

Posttraumatic stress disorder (PTSD)-related symptoms

Children's Revised Impact of Events Scale (CRIES-8)[28] screens children at risk for PTSD. Internal consistency for the two subscales was found to be good with an identical Cronbach's score of 0.82.[29]. It was originally adapted from the Impact of Events Scale.[30] In the 2010 pilot, the Cronbach's alpha for CRIES-8 (.77) was satisfactory. A score of 17 or above on the eight intrusion and avoidance items was the most effective cut-off point for screening cases of PTSD with a misclassification rate of 10%.[31]

Data analysis

Repeated measures ANOVAs were conducted to assess task-related change in cortisol and posttraumatic stress over the five time points. Violations of sphericity were addressed using the Greenhouse-Geisser correction and Tukey HSD to examine differences between baseline, post-test, and follow-up measures.

Results

Baseline conditions

Of the 20 students recruited to the 2010 pilot, four participants were dropped from the analysis (20%). One girl declined to provide saliva samples while two others provided samples for Day One only. One boy in the control group was removed as an outlier due to his extremely high cortisol level (10.9 against the group mean of 4.5, SD=4.5) and his BMI (24.9 compared with a group mean of 18.8 SD=2.6).

Sample characteristics

Tests were run to examine whether there were significant baseline differences between participants randomized to the experimental (WfR) and control (neutral writing) groups. No significant differences were found for age, gender, trauma exposure or time since trauma. There were no significant differences between completers and non-completers. Participant characteristics are shown in Table 1.

Table 1. Participant baseline characteristics

Variable	**WfR Group (*n*=9)**	**Neutral Writing Group (*n*=7)**
Age (in years)		
Boys (*n* = 5 + 4)	***M*=14.9 (*SD*=0.57)**	***M*=14.8(*SD*=0.54)**
Girls (*n* = 4 + 3)	***M*=14.9 (*SD*=0.35)**	***M*=15.2(*SD*=0.56)**
Average number of significant traumatic events	***M*= 6.4 (*SD*=1.92)**	***M*= 6.77 (*SD*=2.30)**
Time since most recent significant traumatic events (months)	***M*=4.78 (*SD*=2.68)**	***M*=5.43 (*SD*=4.58)**

For participants in both conditions, the mean time since the most recent significant traumatic event was 5.0 months. The present pilot study was conducted from late March to April 2010, which places November 2009 for the mean most recent exposure to a significant psychosocial stressor.

For 31%, the most recent exposure was within three months prior to baseline assessment, 50% within 3-6 months, 13% within 6-12 months and the remaining 6% more than 12 months. The minimum number of significant traumatic events for both writing groups was three. All participants reported significant, multiple exposure: 63% reported having seen a body of someone who had been killed, 13% had touched or handled the body of someone who had been killed; 50% had suffered personal trauma (been injured, kidnapped, or had had experiences that led them to fear for their own lives); 44% had a close family member or friend killed due to war-related violence; and 38% had been forced to move from their homes. Witnessing explosions, shelling and other acts of violence was a common experience for all but one participant.

Cortisol and PTSD symptom levels

Baseline data (pre-writing on Day One)

Baseline measure for cortisol did not significantly differ between the two groups, whether equal variances were assumed. For CRIES-8, the neutral writing (control) group scored a lower mean than the WfR (experimental) group. This was a consequence of the small sample size with one participant in neutral condition reporting a CRIES-8 score of 3. Frequency analysis suggested 28.5% in the neutral writing (control) group and 77.8% for WfR (experimental) group scored above the clinical cutoff.

The baseline data are summarized in Table 2.

Table 2. Baseline date for body mass index (BMI), cortisol salivary, posttraumatic stress symptoms (CRIES-8)

Measurement	**Group**	***n*=**	Mean	Std. Deviation	Std. Error Mean
BMI	Neutral writing	7	18	1.21	0.4
	WfR	9	18.3	2.14	0.7
Cortisol baseline	Neutral writing	7	4.0	1.63	0.6
	WfR	9	4.2	1.22	0.6
CRIES-8 baseline	Neutral writing	7	12.79	5.46	2.06
	WfR	9	15.73	3.48	1.16

Changes during treatment: salivary cortisol

After screening for missing data and outliers as above, the total sample of 16 for the main salivary cortisol analysis included 9 participants (4 girls, 5 boys) from the experimental group (WfR) and 7 participants (3 girls, 4 boys) from the control group (neutral writing). It had been hypothesized that the cortisol measure would show a relatively high degree of sensitivity to any group differences and other factors. Raw changes in the measure over the four initial timepoints (from baseline/pre-writing on Day One to a post-writing measure on Day Three) are shown in Figure 1, by gender and group.

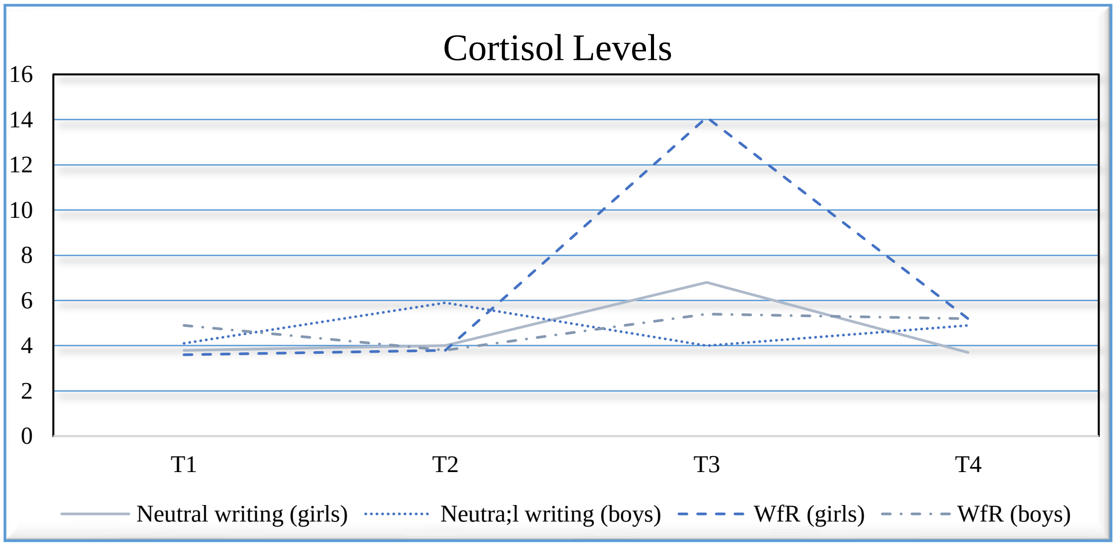

Figure 1. Cortisol salivary levels at baseline/pre-writing Day One (T1), post-writing (Day One), pre-writing (Day Three) and post-writing (Day Three) for both groups

Figure 1 shows that while boys in both groups experienced modest change across the four measure points, girls showed a sharp spike in their cortisol levels just before the first writing exercise on Day Three, particularly in the WfR group which shot up to three times its previous level. No external stressors or school-related pressures were reported on that day.

Levene's test of equality of error variances showed that this divergence of scores (apparently affecting the within- and between-group variances as well as the means) was statistically significant at T3 (F(3,12)=6.25, p<.01), and also more weakly at T4 (F(3,12)=5.7, p<.05), though not at other time points. Similarly, Mauchly's test of sphericity showed strong significance (W=.11, chi-square~=24.1 (5 d.f.), p<.001), implying non-constant variance between the groups.

Given these statistics and the presence of missing data (resulting in <5 cases in some cells), a repeated-measures ANOVA needs to be treated with extreme caution - particularly regarding the likelihood of Type II error due to low power. Nevertheless, using the most conservative Greenhouse-Geisser correction, a tentative ANOVA suggested significant effects of time (F(1.8, 21.1)=16.0, p<.001), time x group (F(1.8, 21.1)=7.9, p=.004), and time x gender (F(1.8, 21.0)=16.0, p<.001), although the three-way interaction failed to reach significance after correction (p=.071).

Indications thus suggest that the cortisol measure was indeed highly sensitive to changes and differences within the groups, as well as between them.

Changes from pre-test to follow-up: cortisol + posttraumatic stress (CRIES-8)

Post-test at two weeks was preceded by a fatal car explosion in the local neighborhood on the morning of the final assessment. As Figure 1 demonstrates, cortisol levels increased around tenfold on average at this point (M=63.9, SD=24.6), necessitating a separate analysis from the earlier time points. The laboratory also assayed all samples three times on that day with no change to results. Once again, salivary cortisol is shown to be highly sensitive to recent or current stressors.

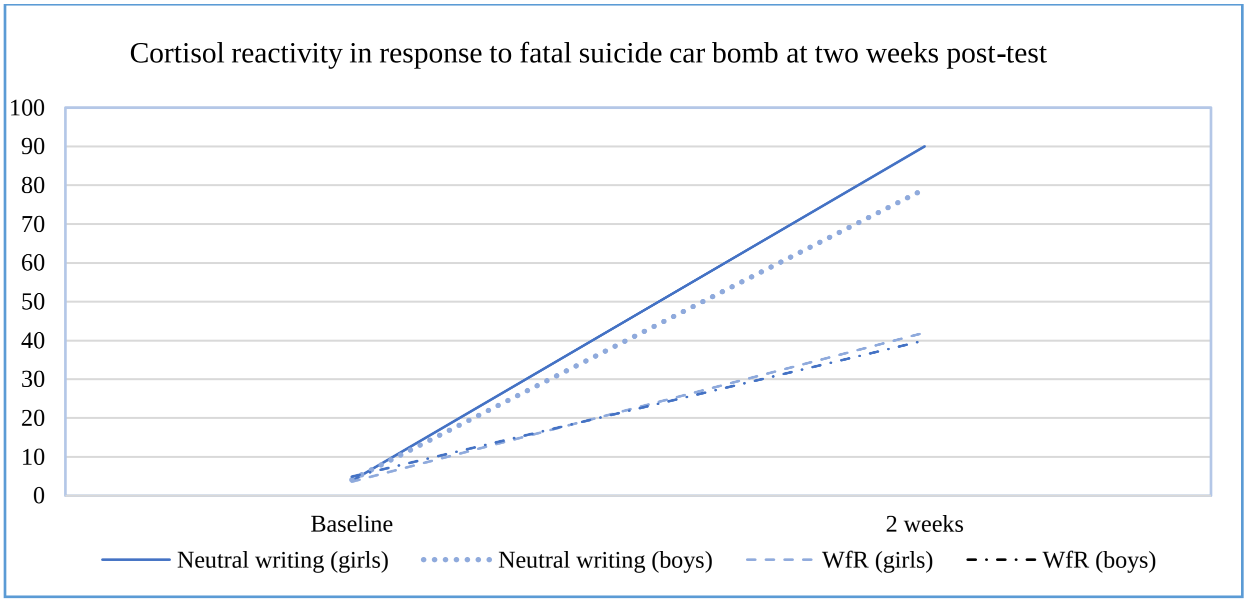

Figure 2. Cortisol levels for all participants following April 2010 suicide car bomb in Al-Rusafa

As shown in the above graph, cortisol levels increased following the explosion for the those receiving WfR much less when compared with those in the neutral writing group. By contrast, the posttraumatic stress symptoms (CRIES-8 scores) of most participants had fallen from their original baseline levels, despite the incident as Figure 2 demonstrates.

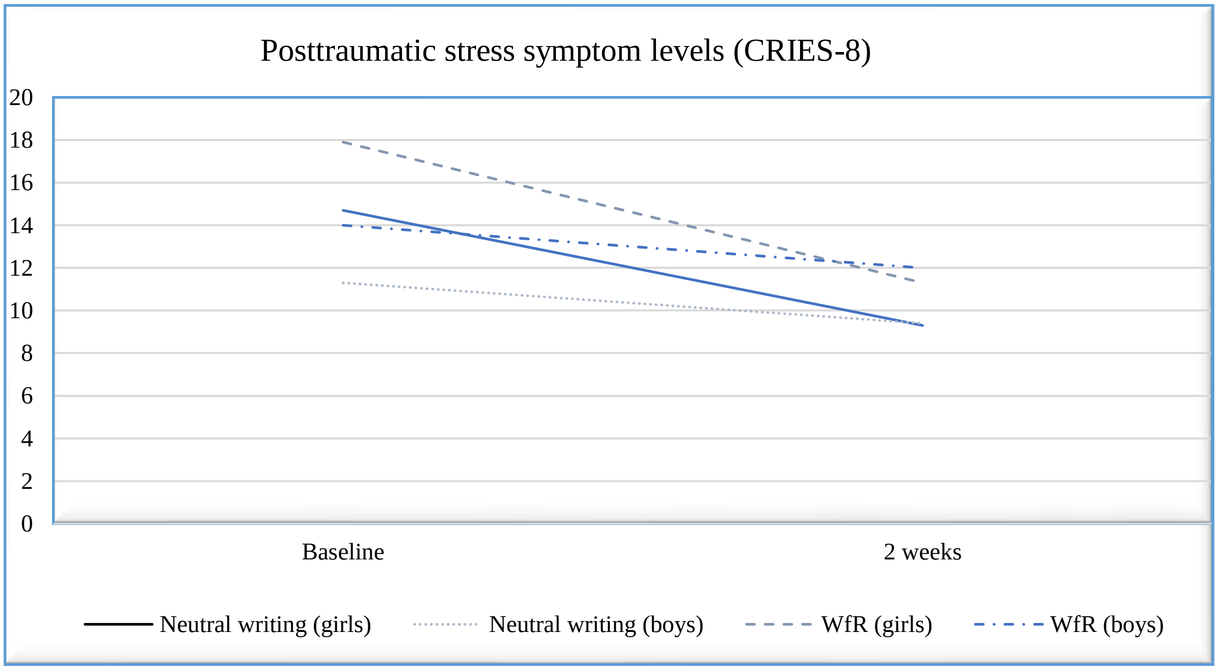

Figure 3. Posttraumatic stress symptom levels (CRIES-8) from baseline to two weeks post-test

CRIES-8 scores at two-weeks post-test reflect a gradual decline in longer-term posttraumatic stress symptoms for both writing conditions: this despite exposure to a new trauma on the morning of the post test, which was taken at noon,

For the cortisol measure Levene's test of equality of error variances suggested that the variance between and within groups increased greatly alongside the mean (F(3,11)=4.7, p<.05), making ANOVA risky (and again, small cell sizes added to this risk). Nevertheless, as is obvious from Figures 2 and 3, comparing the two time points gave highly significant results for both measures (in opposite directions): for cortisol, Greenhouse-Geisser F(1,11)=291.0, p<.001; for the posttraumatic stress related symptoms via CRIES-8, F(1,11)=12.4, p=.005 (see Tables 3 and 4).

Table 3.

Control Group (Neutral Writing)					
Source	Sum of Squares	df	Mean Square	F	Sig
Between-treatments	44.6429	1	44.6429	*F* = 1.95313	0.187
Within-treatments	274.2857	12	22.8571		

Table 4.

Experimental Group (WfR)					
Source	Sum of Squares	df	Mean Square	F	Sig
Between-treatments	174.222	1	174.222	*F* = 14.15801	0.017*
Within-treatments	196.8889	16	12.3056		

*The mean difference is significant at 0.05

Table 5 shows the salivary cortisol baseline and means ranges for participants in both writing conditions.

Table 5. Salivary cortisol baseline ranges and means for T1 – T4

Salivary Cortisol Baseline Ranges and Means				
Condition	**WfR**		**Neutral Writing Group**	
	Range	M	Range	M
All participants	2.9 – 8.3	4.0	2.5 – 6.8	4.22
Boys	3.2 – 6.4	4.1	3.9 – 6.8	4.9

Girls	2.9 – 8.3	3.8	2.5 – 6.3	3.6

Participant feedback

On the final day of writing (T4), participants were asked their views of the experience. For 85.6%, providing saliva samples was acceptable although some found it strange to do this in front of peers and adults. Participants in the WfR described the experience of writing about their feelings a “relief” and as being “helpful” for them although one said he did not want to remember what he had gone through; two girls said they “did not like” the experience of writing about the past. Several participants in the neutral writing group described enjoying the opportunity to write about their day although one stated he found the task “boring”. The research team explored ideas from the students about what to do with the writings in real life settings. Some suggested keeping them for the next generation to read; others said to burn the writings and “let them go into the air”.

Discussion

The current paper reports on a pilot RCT from 2010 with twenty war-exposed adolescents living in Baghdad since the US-led invasion in 2003. It was in preparation for a larger RCT1 to evaluate WfR, which is among a very few group interventions designed to reduce PTSD symptoms in adolescents after large-scale traumatic events, such as war and disaster.12 There remains limited evidence as to the effectiveness of such interventions for children and adolescents in countries considered as LMIC in the Middle East.[11] Despite the passage of time, it was felt that the findings from the 2010 pilot may contribute to the existing knowledge base.

Participants were largely accepting of saliva testing. Review of writings in both groups demonstrated clear evidence of participants having understood and followed the instructions. Ongoing violence in Baghdad posed genuine challenges, including checkpoints, traffic bans, daytime curfews and, of course, the suicide bomb that detonated in the Al-Rusafa district on the morning of the post-intervention measure point. In the end, sixteen participants completed the study. The research team were able to establish an effective procedure for obtaining and freezing the saliva samples for rapid delivery to a nearby laboratory for radioimmunoassay.

Interpretation of the findings is limited due to the small number of participants; however, it is clear from results that the cortisol measure was acutely sensitive to stressors. Cortisol levels following the car explosion were three times lower in the WfR group. Studies on high/low cortisol response to traumatic incidents are equivocal with some stating elevated cortisol predicts PTSD.[32,33] In the 2010 pilot, a correlation between reduced PTSD symptoms and low reactivity may suggest an experience of habituation/consolidation of trauma memories and/or newly acquired adaptive coping skills possibly gained from the guided writing process were beneficial. An RCT using cortisol salivary to measure the effects of the original writing paradigm on which WfR is based found expressive writing greatly attenuated cortisol responses to trauma-related memories. Although participants continued to exhibit core features of PTSD, lower cortisol levels in response to trauma stimulus suggested an improved ability to emotionally self-regulate.[3]

In the 2010 pilot, PTSD symptom levels decreased in both conditions: 29.3% reduction for the WfR group was significant (p=0.05) compared with 26.5% in the neutral writing group, which supports findings in other RCTs of interventions for war affected children and adolescents in the Middle East which reported symptom reduction in both experimental and control conditions. However, the mean baseline levels in the current study were below the CRIES-8 cut-off for PTSD diagnosis. This is despite participants reporting an average of six war related stressors with 63% having seen a body of someone who had been killed; 50% having suffered personal trauma (been injured, kidnapped, or had had experiences that led them to fear for their own lives); 44% having had a close family member or friend killed due to war-related violence. It is worth considering the current focus in many western countries on trauma informed care, which assumes most people will have experienced some form of trauma in their lives. Many influential studies have provided good evidence that children and adolescents are exposed to and directly witness many horrors associated with such violence.[27,34,35] Simpler, less probing screening approaches may be enough to establish trauma exposure in this population.

As a group intervention, WfR has an emerging evidence-base, which includes positive feedback from many war-affected young people.[13-17] Its potential to be a useful resource for LMICs after war or large-scale natural disaster remains promising and, with a minimum one-day training, WfR can be delivered by paraprofessionals without mental health experience. Nevertheless, it is important to consider certain risks that may arise.

The WfR manual understandably remains focused on evaluation. Group facilitators are advised to reassure participants the intervention is a "private experience" and that only the research team will see the writings. At the end of each day of writing, participants are asked to put their papers into a box, provided as part of the intervention, and are told "as you do, feel that you are letting go of some of these painful experiences". From an ethical and safeguarding standpoint, it is important to consider what happens when those who are entrusted to read the writings learn that a participant or someone known to the participant is or may be at risk of harm. Adolescents have disclosed experiences of sexual exploitation, radicalization, and suicidal ideation, which in all cases were immediately addressed by the research teams involved and feedback provided to the intervention developers.[13,14] Adults in positions of authority e.g., teachers and parents, have applied pressure to review the writings of certain participants. The recommendation remains that the WfR manual should be clear about these risks.

Views from young people on what happens to their writings should also be explored. Iraqi adolescents in the Amman and Baghdad field trials suggested burning them; others asked for them to be shared with the wider world.[13,14] What is clear is that young people wished to know what would happen to their writings. Advising researchers/facilitators to provide transparency for participants about how their writings are stored, where and for how long can only strengthen the WfR protocol. Such guidance may happen within integrated care models; however, with more fragmented (or episodic) approaches there is less certainty. Considered within the context of war, civil conflict and sectarian violence, detailed writings of participants' innermost thoughts and feelings about traumas witnessed and experienced do risk being used for purposes other than how the intervention intends for them to be used. Identifiable information is possible to establish despite anonymizing methods, such as coding. A recent recommendation that delivery of WfR should be within a comprehensive scaled service model is supported by the findings highlighted in the current paper.[17]

Conclusion

The need for effective interventions applicable to adolescents in war-torn settings remains a priority.[11,12] Novel findings from a 2010 pilot RCT of WfR with war-exposed adolescents living in Baghdad since the start of the US-led invasion in 2003 are shared due to their potential to contribute to the existing knowledge base. Cortisol salivary measurement was established as a viable option for evaluating the association between PTSD and cortisol changes in response to the intervention. The approach was used for a larger RCT evaluating WfR.[1] Low cortisol reactivity alongside reduced PTSD levels in the intervention group may suggest early benefits possibly linked to newly acquired coping skills; however, without further measure points it was not possible to assess the long-term benefits. WfR is an easy to administer, group intervention for PTSD in adolescents exposed to war that merits evaluation against a comparator. Further versions of WfR, should discuss risk management of often highly sensitive writings by vulnerable adolescents in war zones.

References

1. Ali N, Snell T. A randomised controlled trial: evaluation of the effectiveness of a writing intervention for posttraumatic stress in war-exposed adolescents living in Baghdad. (Unpublished, 2010).
2. Yule W, Dyregrov A, Neuner F, Pennebaker JW, Raundalen M, Emmerik A. Writing for Recovery: A Manual for Structured Writing after Disaster and War. Children and War Foundation, 2005 (http://www.childrenandwar.org/wp-content/uploads/2017/08/Writing-manual-2011.pdf).Google Scholar
3. Smyth JM, Hockemeyer JR, Tulloch H. Expressive writing and post-traumatic stress disorder: Effects on trauma symptoms, mood states, and cortisol reactivity. Br J Health Psychol. 2008;13;85-93.
4. Hagopian A, Flaxman AD, Takaro TK, Al Shatari SAE, Rajaratnam J, Becker S et al. Mortality in Iraq Associated with the 2003-2011 War and Occupation: Findings from a National Cluster Sample Survey by the University Collaborative Iraq Mortality Study. PLoS Med 2013;10(10); ttps://doi.org/10.1371/journal.pmed.1001533
5. Al-Shawi A, Al-Hemiary N, Al-Diwan JK, Tahir D. Post-Traumatic Stress Disorder among University Students in Baghdad: A Preliminary

Report. Iraqi J Comm Med. 2011;24(4): 287-290,

6. Al-Hadethe A, Hunt N, Thomas S, Al-Qaysi A. Prevalence of traumatic events and PTSD symptoms among secondary school students in Baghdad. Eur J Psychotraumatol. 2014;5: 10.3402/ejpt.v5.23928. Published online 2014 Nov 11. doi: 10.3402/ejpt.v5.23928
7. Razokhi AH, Taha IK, Taib NI, Sadik S, Gasseer NA. Mental health of Iraqi children. The Lancet. 2006;368(9538): 838-839.
8. Peltonen K, Punamaki R-L. Preventative interventions among children among children exposed to trauma of armed conflict: A literature review. Aggress Behav. 2010;36: 95-116.
9. Jordans MJD, Tol WA, Komproe IH, De Jong JV. Systematic review of evidence and treatment approaches: psychosocial and mental health care for children in war. Child Adolesc Ment Health. 2009;14(1):2-14.
10. Miller KE, Rasmussen A. War exposure, daily stressors, and mental health in conflict and post-conflict settings: bridging the divide between trauma-focused and psychosocial frameworks. Soc Sci Med. 2010;70:7-16.
11. Alzaghoul A, McKinlay A, Archer M. Post-traumatic stress disorder interventions for children and adolescents affected by war in low- and middle-income countries in the Middle East: Systematic review. BJPsych Open. 2022;8(5):E153.
12. Davis RS, Meiser-Stedman R, Afzal N, Devaney J, Halligan SL, et al. Meta-analytic Review: Group-Based Interventions for Treating Posttraumatic Stress Symptoms in Children and Adolescent. J Am Acad Child Adolesc Psychiatry. 2023 Pre-Proof https://doi.org/10.1016/j.jaac.2023.02.013
13. Snell T. Writing for Recovery: A field test with Iraqi adolescents living in Jordan. Workshop with Yule W, Dyregrov A, Yasmy T. 10th European Conference on Traumatic Stress (ECOTS). 2007. Opatija, Croatia.
14. Snell T. A randomised controlled trial of an intervention for war exposed adolescents in Iraq [doctoral dissertation]. 2011. Leicester (UK), University of Leicester.
15. Nielsen II, Kolltveit S, Aziz A, Thabet M, Dyregrov A, Pallesen S, et al. Short-term effects of a writing intervention among adolescents in Gaza. J Loss Trauma. 2012;17: 403-22.
16. Kalantari M, Yule W, Dyregrov A, Neshatdoost H, Ahmadi SJ (2012). Efficacy of Writing for Recovery on traumatic grief symptoms of Afghani refugee bereaved adolescents: a randomized control trial. OMEGA. 65(2)139-150.
17. Getanda EM, Vostanis P. J Ment Health. Feasibility evaluation of psychosocial intervention for internally displaced youth in Kenya. 2022;31(6): 774-782. doi: 10.1080/09638237.2020.1818702. Epub 2020 Sep 11.
18. Pennebaker JW, Beall SK. Confronting a traumatic event: Toward an understanding of inhibition and disease. J Abnorm Psychol. 1986;95;274-281.
19. Murray LK, Cohen JA, Mannarino AP. Trauma-Focused Cognitive Behavioral Therapy for Youth Who Experience Continuous Traumatic Exposure. Peace Confl. 2013;19(2):180-195.
20. Thomas FC, Puente-Duran S, Mutschler C, Monson CM. Trauma-focused cognitive behavioral therapy for children and youth in low and middle-income countries: A systematic review. Child Adolesc Ment Health. 2022;27(2):146-160.
21. Samara M, Hammuda S, Vostanis P, El-Khodary B, Al-Dewik N. Children’s prolonged explosure to the toxic stress of war trauma in the Middle East. BMJ. 2020;371:m3155 | doi: 10.1136/bmj.m3155
22. Inter-Agency Standing Committee (IASC). IASC Guidelines on Mental Health and Psychosocial Support in Emergency Settings. Geneva: IASC. 2007.
23. Pennebaker, J. W. (1994). Hints on running a writing experiment. Unpublished manual (personal communication).
24. Kelly SJ, Young R, Sweeting H, Fischer JE, West P. Levels and confounders of morning cortisol collected from adolescents in a naturalistic (school) setting. Psychoneuroendocrino. 2008;33(9):1257-1268.
25. International Test Commission. The ITC Guidelines for Translating and Adapting Tests (Second edition). 2007 [www.InTestCom.org]
26. Ali N, Snell T. Baghdad Life Events Checklist. 2008 (unpublished).
27. Mackoud MS, Aber JL. The war experiences and psychosocial development of children in Lebanon. Child Dev 1996;67(1);70-88.
28. Perrin S, Meiser-Stedman R, Smith P. The children’s revised impact of event scale (CRIES): validity as a screening instrument for PTSD. Behav Cogn Psychother 2005;33;487-498.
29. Giannopoulou I, Smith P, Ecker C, Strouthos M, Dikaiakou et al. Factor structure of the Children’s Revised Impact of Event Scale

(CRIES) with children exposed to earthquake. Pers Indiv Dev 2006;40(5);1027-1037.

30. Horowitz M, Wilner M, Alvarez W. Impact of Event Scale: A measure of subjective stress. Psychosom Med. 1979. 41;209-218.
31. Dyregrov A, Yule W. Screening measures: the development of the UNICEF screening battery. Paper at the Fourth European Conference on Traumatic Stress. Paris. 1995.
32. Dekel S, Ein-Dor T, Rosen JB, Bonanno GA. Differences in Cortisol Response to Trauma Activation in Individuals with and without Comorbid PTSD and Depression. Front Psychol. 2017;8(1):797. doi:10.3389/ fpsyg.2017.00797. http://dx.doi.org/10.3389/fpsyg.2017.00797.
33. Elzinga BM, Schmahl CG, Vermetten E, van Dyck R, Bremner JD. Higher cortisol levels following exposure to traumatic reminders in abuse-related PTSD. Neuropsychopharmacol. 2003;28:1656-1665.
34. Mollica RF, Caspi-Yavin Y, Bollini P, Truong T, Tor S, Lavelle J. The Harvard Trauma Questionnaire. Validating a cross-cultural instrument for measuring torture, trauma, and posttraumatic stress disorder in Indochinese refugees. J Nerv Ment Dis. 1992. 180(2):111-6.
35. Machel G. The impact of armed conflict on children: report of the expert of the secretary general of the United Nations. New York: United Nations; 1996.

الملخص

الخلفية: النتائج هي لدراسة عشوائية تجريبية مسيطرة كجزء من دراسة واسعة في عام 2010 لتقييم تداخل جمعي (الكتابة للتعافي) لاضطراب إجهاد ما بعد الشدة على مجموعة من الأحداث المتعرضين للحرب والقاطنين في بغداد من عام 2003 .**الأهداف:** دراسة جدوى قياس مستويات الكورتيزول خلال أحداث العنف المستمرة كجزء من دراسة لتقويم العلاقة ما بين اضطراب ما بعد الشدة والتغيرات التي تحصل استجابة للتداخل والالتزام في بروتوكول التداخل .**طريقة البحث:** تألفت العينة من 20طالب (10 ذكور و10 إناث) ما بين 14-16 سنة من العمر تم توزيعهم عشوائيا إلى مجموعتين الأولى تكتب عن أهم التجارب المؤلمة والثانية تكتب عن أشياء حيادية تخص كيفية قضاء يومهم وقد تم اخذ الخصائص الديموغرافية لهم وتاريخ الأحداث المؤلمة ومؤشر كتلة الجسم إضافة إلى أعراض اضطراب ما بعد الشدة وقد أخذت عينات من اللعاب منهم لغرض فحص نسبة الكورتيزول خمس مرات .**النتائج:** أكمل 16 طالبا البحث ولم تكن هناك صعوبات لوجستية وواجه الباحثان وجود ضغوط لمعرفة ما كتبه بعض الطلبة إضافة إلى انه وفي صباح احد أيام الكتابة انفجرت سيارة مفخخة في المنطقة. استمر الطلبة بالمشاركة بالبحث وقد تبين وجود ارتفاع كبير في نسبة الكورتيزول عن القراءة الأساسية من معدل 4.3 إلى 63، ولكنه كان ثلاث مرات اقل بين المجوعة التي كانت تكتب عن الإحداث المؤلمة.

انخفضت مستويات أعراض إجهاد ما بعد الشدة، ولكنها كانت إحصائياً مهمة لمجموعة الكتابة للتعافي .**الاستنتاج:** قياس نسبة الكورتيزول في اللعاب قابل للتطبيق وكان حساساً للضغوط الحديثة. هناك دراسة مماثلة لاحظت أن للكتابة التعبيرية قللت استجابات الغدد الصماء إلى الذكريات المرتبطة بالشدة وأدت إلى تحسن تنظيم الذات .ان الاستجابة الضعيفة للكورتيزول لحادث انفجار السيارة وبالتزامن مع انخفض أعراض اضطراب ما بعد الشدة قد تعكس تصلب الذاكرة او التعود. نحتاج إلى إرشادات أقوى في تعليمات الكتابة للتعافي عن كيفية التعامل مع المخاطر كون المعلومات في غاية الحساسية وتكتب من قبل مجموعة من الأحداث غير المحصنين في مناطق الحروب. **الكلمات الدالة:** الأحداث، الحرب، الكورتيزول في اللعاب، التداخلات النفسية، دراسة عشوائية مسيطرة، اضطراب إجهاد ما بعد الشدة.

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Cyberbullying and Cyber Victimization: A Pilot Study with Adolescents Living in Egypt

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التنمر الالكتروني وضحاياه: دراسة اوليه في مراهقي مدينه المنصورة (مصر)

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Abstract

Introduction: Cyberbullying is a serious public health phenomenon that affects all countries and all ages, but adolescents are considered a high-risk group. **Aims:** The current study examined the nature of cyberbullying among Egyptian adolescents together with the impact of age, gender, and chronotype on the magnitude of the problem. **Method:** Demographic data was collected for N=475 Egyptian adolescents via an electronic, and paper, survey method together with the Revised Cyber-Bullying Inventory (CBIR) and the Morningness-Eveningness Questionnaire (MEQ). **Results:** The numbers and frequencies of cyberbullying behaviors were calculated; the frequency of cyberbullying victimization was higher than that of the bullying behaviors. It was also found that chronotype and education year correlated with a statistically significant impact on the cyberbullying behavior. **Conclusion:** Detecting the pattern of cyberbullying and its risk factors is an important consideration when designing antibullying preventive programs.

Keywords: Cyberbullying, cyber-victimization, chronotype, adolescents

Declaration of interest: None

Introduction

The Internet has created a new communication tool, particularly for young people whose use of e-mail, websites, instant messaging, webcams, chat rooms, social networking sites and text messaging is escalating worldwide.[1]

Cyberbullying is a relatively recent form of peer bullying defined as "an aggressive, intentional act carried out by a group or individual, using electronic forms of contact, repeatedly and over time against a victim who cannot easily defend him or herself".[2] Some forms of cyberbullying include sending a hurtful/embarrassing short message, stealing email passwords, spreading rumors about someone on the Internet, and violating someone's privacy via a webcam.[3] Cyberbullying among teenagers can be defined as the intentional and frequent harm from one or more associates that occurs in cyberspace through the use of computers, smartphones, and other electronic devices.[4]

There are some unique features of cyberbullying that might increase its impact on teens including the potential for reaching a large audience, continuous access, permanence of the online content, the ease of copying material and distributing it widely. The inability to view the emotional reaction of the target makes perpetrators unable to feel empathy or regret.[5]

According to the 2017 United Nations International Children's Emergency Fund (UNICEF) international report on violence towards children and adolescents, one-third of youth between 13 and 15 years of age experience bullying. Both genders are at risk of bullying and being bullied. Victims of cyberbullying complain of depression, anxiety, stress, suicidal thoughts, and, in extreme cases take their own lives. This is especially a significant problem among adolescent girls.[6]

The limited prevalence studies on school bullying in the Arab world suggest varying rates with 20.9% of middle-school adolescents reporting bullying in the

United Arab Emirates, 31.9% in Morocco, 33.6% in Lebanon, 39.1% in Oman, and 44.2% in Jordan; boys typically endorsing more engagement in peer victimization than girls.[7]

Chronotype or circadian preference is related to the endogenous circadian clock that synchronizes to the 24-hr day.[8] Individuals' circadian preferences can be grouped into three categories as "morning type," "neither type," and "evening type." Morning types wake up early in the morning, feel exhausted in the early evening hours, and quickly fall asleep, usually waking up fresh in the early morning. Evening types go to sleep late at night and wake up late the next day, often with a worse feeling in the morning.[8]

Research suggests that morning persons are inclined toward using traditional media in traditional environments, whereas night persons reported significantly higher preference for and use of new media in more varied locations. Evening-type students have been found to show significantly higher scores on a cyberbullying scale than neither-type students and morning-type students.[9] This recent study also reported that, when controlling for gender, the "Big Five" personality traits, and sleep quality, eveningness was a predictor of cyberbullying.[10]

There is no available data about the extent of cyberbullying as a problem in Egypt. Little is known about children's use of electronic technologies for bullying one another. The current study aims to examine adolescent experiences in relation to age and gender differences in order to better understand the nature and prevalence of electronic bullying among aadolescents living in Egypt.

Materials and Methods

Purpose

The aim of the present study is to examine the nature of cyberbullying among adolescent students. It seeks to understand how gender and the level of internet activity can predict cyberbullying and cyber-victimization. Adolescent chronotype (or, circadian pattern) is also investigated for its association with cyberbullying.

Design

Hypothesis

The current study assumed that evening-oriented teens would be more prone to cyberbullying and have more problematic use of technology than those more orientated to a morning or a more neutral circadian pattern.

The study took place between 2018 and 2019.

Sample size

Sample size was calculated based upon the prevalence of cyberbullying reported on previous studies with a margin of error around 8% and Confidence Interval (CI=92%). Power was found to require a minimum 200 participants. A total of 475 subjects (143 boys and 332 girls) were recruited.

Methods

Prior to commencement of the study, ethical review was by the local Institutional Review Board (approval number #R.18.06.218). An online form was posted to adolescent Facebook (FB) groups and school websites. A paper version of the survey questions was printed out and completed as an alternative for those participants who preferred. Participants were advised about their right to withdraw from the study at an time and their confidentiality and anonymity was assured.

Participant demographic information included gender, age, academic year. Their level of activity level on the internet was assessed e.g., amount of time completeing homework, playing online games, chatting, and scrolling through social media.

Sampling

Four preparatory schools (two boys' and two girls' schools) in the eastern and western districts of Mansoura were chosen as representative, geographically, of the city. The paper form of the survey was distributed by the research team in those four schools. The team explained the questions and aims of the research and were there if the adolescents had any queries while answering. Additionally, a link to the electronic version of the survey was distributed through social workers and psychologists working in other schools across Mansoura with the aim of covering a wider geographic area and to achieve the required sample size. Fifty incomplete forms were excluded from the statistical analysis.

Revised Cyber-Bullying Inventory

The Cyber-Bullying Inventory (CBI), originally developed by Topcu and Erdur-Baker, was revised and renamed Revised Cyber-Bullying Inventory (RCBI).[11] The RCBI comprises 14 items and participants rate themselves on each item twice: once to measure cyber-victimization in an “It happened to me” column, and once to measure cyberbullying in an “I did it” column on a 4-point rating scale (1 = never, 2 = once, 3 = twice or three times, 4 = more than three times). A sample item from the RCBI is, “Threatening in online forums (like chat rooms, Facebook, or Twitter).” The lowest possible score was 14 and the highest possible score was 56, where higher scores indicated more frequent cyberbullying and cyber-victimization experiences. Confirmatory factor analysis (CFA) results showed that both cyberbullying and cyber-victimization forms have a one-factor structure and the internal consistency coefficients of the RCBI were .82 for the cyberbullying form and .75 for the cyber-victimization form.[11]

Horne and Ostberg Morningness-Eveningness Questionnaire

The individual’s circadian phase has been widely assessed via the Morningness-Eveningness Questionnaire (MEQ).[12] For evaluation, an abridged version of the morningness-eveningness questionnaire (MEQr) was used.[13,14,15] The multiple choice questionnaire is on a 4-5-point Likert scale. Sum scores range from 16 to 86. Scores of 41 and below indicate "evening types", scores of 59 and above indicate "morning types", scores between 42-58 indicate "intermediate types."

Statistical analysis

All raw data were tabulated and entered in the Statistical Packagae for Social Sciences version 20 (SPSS v 20.0) for calculation and analysis. Correlation between cyberbullying and chronotype was measured to detect the associations of the phenomena and possible precipitating factors.

Results

The numbers and frequencies of the cyberbullying behaviors were calculated and listed in Tables 1-3 (below).

Table 1 shows the majority of the sample reported that cyberbullying never happened to them. However, a different picture emerged when they responded more specifically to the questions within the survey, which indicated a frequency of cyberbullying behaviors as follows: being insulted by someone had the highest frequencies among other behaviors with 8% indicating that it happened to them at least one, 4.4% stating it happened two to three times and 7% stating this was more than three times. Taking over someone’s password once was reported by 6.4%, threatening someone (6%) and sharing secrets with others once (5.8%).

Table 1. Frequency of cyberbullying in the recruited sample

Cyberbullying incident/frequency	Never	Once	Twice - three times	More than three times
	N(%)	**N(%)**	**N(%)**	**N(%)**
1. Taking over the password of someone's account	419(84.3)	32(6.4)	9(1.8)	15(3)
2. Using someone's account without his/her permission and publishing humiliating posts	456(91.8)	10(2)	2(0.4)	7(1.4)
3. Threatening someone	433(87.1)	30(6)	7(1.4)	5(1)
4. Insulting someone	378(76.1)	40(8)	22(4.4)	35(7)
5. Sending embarrassing and hurtful messages	131(86.7)	19(3.8)	9(1.8)	16(3.2)
6. Sharing an inappropriate photo or a video of someone without his/her permission	450(90.5)	8(1.6)	7(1.4)	10(2)
7. Sharing a secret with others without the permission of the owner	410(86.3)	29(5.8)	15(3)	21(4.2)
8. Spreading rumors	439(88.3)	21(4.2)	6(1.2)	9(1.8)
9. Creating an account on behalf of someone without letting him/her know and acting like the account's owner	472(95)	92(10.4)	1(0.2)	0

Table 2 summarizes the numbers and frequencies of cyber-victimization incidents. It was noted that the frequencies were higher than that of cyberbullying incidents. The experience of having an inappropriate photo or video shared without permission being the highest complaint (10% experienced it three times) followed by being insulted by someone at least three times (8.7%). The lowest concern reported was having an account created on their behalf with 1% reporting this happened to them three times.

Table 2. Frequency of cyber-victimization in the recruited sample

Cyber-victimization incident / frequency	Never	Once	Twice - three times	More than three times
	N(%)	**N(%)**	**N(%)**	**N(%)**
1. Victim of taking over the password of your account	262(52.7)	139(28)	54(10.9)	20(4)
2. Victim of using your account without permission and publishing humiliating posts	406(18.7)	42(8.5)	16(2)	11(2.2)
3. Victim of being threatened by someone	387(77.9)	53(10.7)	22(4.4)	13(2.6)
4. Victim of being insulted by someone	326(65.6)	57(11.5)	49(9.9)	43(8.7)
5. Victim of being sent embarrassing and hurtful messages	320(64.4)	59(11.9)	46(9.3)	50(10.1)
6. Victim of sharing an inappropriate photo or a video of you without your permission	418(84.1)	40(8)	10(2)	7(1.4)
7. Victim of sharing a secret with others without the permission you	390(78.5)	37(7.4)	17(3.4)	31(6.2)
8.Victim spreading rumors	383(77.1)	46(9.3)	27(5.4)	19(3.8)
9. Victim of creating an account on behalf of you without letting you know and acting like the account's owner	458(92.2)	10(2)	2(0.4)	5(1)

Table 3 associates the various demographic variables with the severity of cyberbullying extracted from the total score of RCBI. The academic year of the adolescents and chronotype (circadian pattern) were significantly associated with cyberbullying severity (p=0.002, 0.008 respectively). The residency of the adolescent and whether she/he uses internet before sleep was insignificant (p=0.08) but suggested a trend towards having an effect on cyberbullying severity. There was no difference regarding gender or nationality.

Table 3. Degree of cyberbullying severity in sample demographic groups

Variables		**Cyberbullying Degree**				
		Mild	**Moderate**	**Severe**	**Very severe**	**p-value**
		score14-25	score 25-35	score 35-45	score 45-56	
		N(%)	N(%)	N(%)	N(%)	
Residence						
	Urban	231(48.6)	95(20)	20(4.2)	6(1.3)	**0.08**
	Rural	69(14.5)	39(8.2)	14(2.9)	1(0.2)	
Nationality						**0.5**
	Egyptian	296(62.3)	130(27.4)	34(7.2)	7(1.5)	
	Others	4(0.8)	4(0.8)	0	0	
Gender						**0.9**
	Males	89(18.7)	40(8.4)	12(2.5)	2(0.4)	
	Females	211(44.4)	94(19.4)	22(4.6)	5(1.1)	
Academic Year						**0.002**
	Primary	20(4.2)	1(0.2)	0	1(0,2)	
	Preparatory	104(21.9)	35(7.4)	8(1.7)	1(0.2)	
	Secondary	115(24.2)	48(16.1)	14(2.9)	4(0.8)	
	University	61(12.8)	50(10.5)	12(1.2)	1(0.2)	
Chronotype						**0.008**
	Definitely morning	10(2.1)	3(0.6)	1(0.2)	2(0.4)	
	Moderately morning	42(8.8)	19(4)	3(0.6)	0	
	Neither	137(28.8)	47(9.9)	13(2.7)	1(0.2)	
	Moderately evening	86(18.1)	45(9.2)	13(2.7)	4(0.8)	
	Definitely evening	25(5.3)	20(4.2)	4(0.8)	0	
Using the internet before sleeping						**0.08**
	No	47(9.9)	10(2.9)	5(1.1)	0	
	Yes	235(53.5)	124(26.1)	29(6.1)	7(1.5)	

Discussion

Bullying is a major health problem especially among young people, according research. The Cyberbullying Research Center reports a prevalence of around 25-72% of adolescents are exposed to bullying at some time in their lives.[16] The widespread apps of social media have led to cyberbullying becoming a public health problem. Cyberbullying can be seen as more serious than real life bullying for several reasons: first cyberbullying acts can reach the victim anywhere and anytime so the victim is never left alone from the harm of the person bullying him/her and has no time for relief or recovery; second, cyberbullying doesn't need repetition as the single cyberbullying event can be reposted and forwarded numerous times and it can remain online for so long and visualized by numerous others; third, the bullying person can remain anonymous and thus the cruel acts are made easier.[17] Cyberbullying can lead adolescents into cybercrimes or abuse by cybergangs. Sexual harassments is also more easily achieved online and electronically.

Although cyberbullying has yet to be included in the current classification system for mental disorders, it can lead to several mental health disorders.[18] As relates to internalizing and externalizing behaviors disorders, cyberbullying victims are at higher risk of depressive symptoms and suicidal thoughts and these adverse effects can persist for long periods.[19] In comparison with victims of more traditional forms of bullying, people who are bullied online are reported to demonstrate greater levels of depression, anxiety, and loneliness. Self-esteem problems and school absenteeism have also proven to be related to cyberbullying, which can negatively affect academic achievement during adolescence and risk leading to conduct disorders.

The lack of consensus about a clear definition of cyberbullying in various studies makes it difficult to assess the magnitude and aspects of the problem. The current study used the Revised Cyber Bullying Inventory (RCBI), a self-report questionnaire, to detect bullying and victimization acts. The measure was proven as a psychometrically sound instrument for assessing cyberbullying experiences. It also aided in detecting how frequently adolescents engage in cyberbullying and which acts of cyberbullying are more among in the study sample.

There is a paucity of research in the Arab world about the magnitude of the problem. Most studies appear only to relate to how to prevent the problem electronically and through psychoeducation and more secure online learning platforms. Such research, of course, formed the basis of the current research.

The opinions and experiences of 475 adolescents in the current study are from what is considered to be high-risk group due adolescence being an impressionable time. Their responses provide an idea about the most practiced cyberbullying behaviors experienced by their age group. Thirty five percent of of respondents revealed that insulting others was the highest bullying activity followed by sharing other people's secret (21%) and receiving embarrassing hurtful words from others (16%). In the current study, girls reported being cyberbullied more than boys although the difference was not statistically significant. Higher levels of reporting may reflect the sensitivity of girls from middle eastern cultures in relation to cultural norms around sexual or blackmailing behaviours and may also highlight their growing experience of having their privacy invaded via social media; in contrast with western societies, this is becoming more frequent.

It should also be a concern that 50% of participants reported being sent embarrassing and hurtful messages more than three times. Students at secondary school level reported the highest level of cyberbullying severity compared with primary and preparatory grades. The secondary school years are during a transitory period of adolescence leading to young adulthood and is a particularly vulnerable time for many. The current findings should be considered as an important reminder to government and public health authorities that more work is needed in relation to preventive strategies that ensure school environments do not become havens for cyberbullies. Adolescent circadian patterns (or, chronotype) are another important consideration and the current study found statistically significant correlation with the degree of cyberbullying for adolescents with morning or 'neutral' chronotypes in that young people in both categories reported less frequent bullying. Boys and evening-oriented adolescents scored higher on cyberbullying and cyber-victimization, which is also supported in other studies.[6,20]

Strengths and Limitations

Data about cyberbullying from low-income middle eastern countries is scarce. The current study contributes to the existing literature on cyberbullying, which is considered a relatively new field of research. Adolescents are a high-risk group for cyberbullying. The problem is considered to be a serious public health issue for this age group.[21] Information about the experiences of young people in relation to cyberbullying and cyber-victimisation can be used for preventive action and for the creation of better online screening programmes to help educate young people about the risks. There are wide cultural differences in attitudes about bullying and about the types of activities that may be considered as bullying.

Providing a middle eastern perspective through an Egyptian lens is a positive achievement that can be used to inform better screening methods.

The popularity of social media platforms among the young people have exacerbated this situation with most children and adolescents experiencing cyberbullying or online victimization during their lives.[22] The current study has several limitations. For example, it relied on self-report questionnaires to screen for cyberbullying and cybervictimization. Clinical interview no doubt would have provided more robust findings, including about the psychological consequences of cyberbullying. Further, risk factors relating to family life may have provided additional insights to help explain why some young people are more vulnerable than others to being bullied in this way.

Despite the limitations, the current study provides an important baseline for prevalence rates of cyberbullying acts and its relationship to the chronotype of adolescents, which could be used to guide antibullying policy.

Adolescents in the Arab world will mostly suffer from different forms of bullying in silence without reporting it, due to social and cultural constraints, and fear of further stigmatization. Findings from the current study can be used to help normalize what is happening to young people, which may support them to speak up when it happens to them or to others. Better guidance is needed that supports victims to reach out for help without feeling scared. Important considerations, such as privacy and confidentiality would suggest that establishing can be helpful. Finally, raising awareness in schools and through parental education programmes that teach better ways of disciplining and supporting young people are all suggested procedures that can help with fighting this negative and psychologically damaging phenomenon.

Conclusion

Cyberbullying and cybervictimization is a growing problem across the Middle East. As evidenced by the findings from the current study, more research is needed, including study of clinical criteria for thresholds of bullying and of victimization. Preventive interventions should focus on how to reduce bullying behavior to prevent its mental health consequences. Cross-cultural understanding of the differences in victimization between genders as well as understanding context within which the bullying is happening might better inform the design of culture specific programs that fit our middle eastern region.

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References

1. Qualman E. (2010). Socialnomics: How social media transforms the way we live and do business. John Wiley & Sons.
2. Slonje R, Smith PK, Frisé NA. The nature of cyberbullying, and strategies for prevention. Comput Hum Behav. 2013;29(1): 26-32.
3. Asanan ZZT, Hussain IA, Laidey NM. A Study on Cyberbullying: Its Forms, Awareness and Moral Reasoning Among Youth. Int J Inf Comm Sci. 2017;2(5): 54.
4. Zhu C, Huang S, Evans R and Zhang W. Cyberbullying Among Adolescents and Children: A Comprehensive Review of the Global Situation, Risk Factors, and Preventive Measures. Front. Public Health 2021;9:634909. doi: 10.3389/fpubh.2021.634909
5. Campbell M, Bauman S. Cyberbullying: Definition, consequences, prevalence. Reducing Cyberbullying in Schools: International Evidence-Based Best Practices, 1. 2017.
6. Tosuntaş ŞB, Balta S, Emirtekin E, Kircaburun K, Griffiths MD. Adolescents'

eveningness chronotype and cyberbullying perpetration: the mediating role of depression-related aggression and anxiety-related aggression. Biological Rhythm Research. 2018;1-11.

7. Kazarian SS, Ammar J. School Bullying in the Arab World: A Review. Arab J Psychiatr. 2013;44(473): 1-18.
8. Adan A, Archer SN, Hidalgo MP, Di Milia L, Natale V, Randler C. Circadian typology: A comprehensive review. Chronobiology International. 2012;29(9):1153-1175. doi:https://doi.org/
9. Nimrod G. Early birds and night owls: Differences in media preferences, usages, and environments. Int J Comm. 2015;9: 21. View Full Reference List
10. Kırcaburun K, Tosuntaş ŞB. Cyberbullying perpetration among undergraduates: evidence of the roles of chronotype and sleep quality. Biological Rhythm Research. 2018;49(2): 247-265.
11. Topcu Ç, Erdur-Baker Ö. The revised cyber bullying inventory (RCBI): Validity and reliability studies. Procedia-Soc Behav Sci. 2010;5: 660-664.
12. Horne JA, Östberg O. A self-assessment questionnaire to determine morningness-eveningness in human circadian rhythms. Int J Chronobiol. 1976.
13. Adan A, Almirall H. Horne & Östberg morningness-eveningness questionnaire: A reduced scale. Pers Individ Dif 1991;12:241-53. https://doi.org/10.1016/0191-8869(91)90110-W.
14. Chelminski I, Petros TV, Plaud JJ, Ferraro FR. Psychometric properties of the reduced Horne and Ostberg questionnaire. Pers Individ Dif. 2000;29: 469-78. https://doi.org/10.1016/S0191-8869(99)00208-1.
15. Natale, Esposito M, Martoni M, Fabbri M. Validity of the reduced version of the Morningness-Eveningness Questionnaire. Sleep Biol Rhythms 2006;4:72-4. doi: 10.1111/j.1479-8425.2006.00192.x.
16. Patchin J. Cyberbullying Data 2015
17. Landstedt E, Persson S. Bullying, cyberbullying, and mental health in young people. Scandinavian journal of public health. 2014;42(4): 393-399.
18. Vismara M, Girone N, Conti D, Nicolini G, Dell'Osso B. The current status of Cyberbullying research: A short review of the literature. Curr Opin Behav Sci. 2022;46: 101152.
19. Maurya C, Muhammad T, Dhillon P, Maurya P. The effects of cyberbullying victimization on depression and suicidal ideation among adolescents and young adults: a three-year cohort study from India. BMC Psychiatr. 2022;22(1): 1-14.
20. Horzum MB, Ayas T, Randler C, Düşünceli, B. The effects of empathy and circadian preference on cyberbullying of adolescents in Turkey. Biol Rhythm Res. 2021;52(5): 781-794.
21. Wendt GW. Associations between cyberbullying victimization and depressive symptoms in early adolescence. J Brasileiro de Psiquiatria. 2022;70: 157-161.
22. Paakkari L, Tynjälä J, Lahti H, Ojala K, Lyyra N. Problematic social media use and health among adolescents. Int J Env Res Pub Health 2021;18(4): 1885

الملخص

مقدمة: ان التنمر الالكتروني يعتبر ظاهرة خطيرة علي الصحة العامة كما انه منتشر في كل البلدان ويؤثر علي كل الاعمار، ولكن يعد سن المراهقة من المجموعات الاكثر عرضه للمشكلة. **الهدف:** دراسة ظاهرة التنمر الالكتروني في عينة من المراهقين المصريين وتحديد مدي تأثير العمر والجنس والكرنوتايب علي ذلك. **العينة وطرق البحث:** تم تصميم نموذج البحث الكترونياً وورقياً واحتوى علي مقياس ضدة التنمر ومقياس نوع الكرو وتايب كما احتوي علي البيانات الديموغرافية للعينه التي احتوت علي 475 مراهقاً مصرياً. **النتائج:** تم الحصول علي عدد ونسب سلوكيات التنمر الالكتروني، كما لوحظ ان نسبة ضحايا التنمر اعلي من نسبه المتنمرين. كما وجدنا ان التنمر الإلكتروني يتأثر بالعمر والجنس والكرونوتايب . **الخلاصة:** دراسة طبيعة التنمر الالكتروني مهم في تصميم برامج الحماية من التنمر.

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Study of Psychiatric Morbidity in Women Attending Medical School in Cairo

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دراسة المراضة النفسية بين طالبات كلية الطب في جامعة الأزهر للبنات

رضا م. اسماعيل، زينب ن. سعيد، اسماء م. العايدي

Abstract

Background: Medical education is perceived as being stressful, with negative effects on students' mental health. and subsequently has a negative effect on their cognitive functioning and learning. The current study aims to assess psychiatric morbidity at medical school entry and later among students of new medical program (Integrated Credit Hours/Points program) at the Faculty of Medicine, Al-Azhar University, Girls Branch, in Cairo. **Methods:** A cross-sectional study was conducted for new entrants to the medical program and in the second semester of the academic years 2018/19 and in academic year 2019/20. All were assessed using the Arabic version of the General Health Questionnaire (GHQ). Psychiatric assessment was during the pre-entry orientation week **Results:** N=453 medical students were assessed at the point of entry and in the second semester (*n*=229 for the academic year 2018/2019; *n*=224 for the academic year 2019/20). Findings suggest that 44.3% reported psychiatric morbidity at school entry with this rising to 82.8% by the second semesters, which differed significantly from what was reported by the intake for the next academic year (2019/20), which was 27.1% and 49.02%, respectively **Conclusion:** Psychological distress is very common among medical students especially during the first year of study.

Keywords: Medical students, Al-Azhar University, women, psychiatric morbidity

Declaration of interest: None

Introduction

Medical education is considered stressful because it is characterized by competition, lacking time for leisure activities or social contacts; it involves intense workloads and places significant academic demand on those choosing to this course of study, which can negatively affect the well-being and mental health of medical students.[1] Medical students also experience a high incidence of psychological distress during the undergraduate course which may negatively affect their performance.[2] High levels of depressive and anxiety symptoms were found to be highly prevalent among medical students with a decrease in life satisfaction and suicidal ideations.[3] In a large meta-analysis, the estimated prevalence of depressive symptoms among medical students varies across studies from 1.4% to 73.5% which may vary by undergraduate year, gender, or other characteristics.[4] It follows that medical educators need to be aware of the prevalence and causes of student distress, which not only affects students' health but also their academic performance and achievement at different time points during their education.[5]

Egypt implemented a new medical program (Integrated Credit Hours/Points program), where the medical school conducted an orientation week for the newcomers about the new program, ways of teaching, learning and assessment and how to be an independent self-learner. The aim of the current study was to assess the prevalence of psychiatric morbidity among students enrolled in the new medical program within the Faculty of Medicine (Girls Branch), Al-Azhar University using the Arabic version of The General Health Questionnaire (GHQ-28).

Participants and Methods

Study Design and Settings

The current study involved a cross-sectional design and was conducted within the Faculty of Medicine at the Al-Azhar University, Girls Branch, in Cairo. The study was with women starting their first year of medical school in the academic years 2018/19 and 2019/20. N=553 were assessed at entry (*n*=229 for academic year 2018/2019; *n*=224 for academic year 2019/20). All were assessed again during the second semesters (229 but only 102) for the academic year 2018/19 and 2019/20, respectively.

An intervention was carried out for the academic year 2019/20, where a psychiatric session was included in the students' orientation week program to reduce stress and enhance their coping ability. Face-to-face interviews were superceded by an online questionnaire were during the second semester of the academic year 2019/20 due to lockdown associated with the Covid-19 pandemic.

Sociodemographic data were collected via semi-structured interview prepared by the psychiatric department. Students were asked to complete the Arabic version of the 28-item General Health Questionnaire (GHQ-28), which is a self-report screening tool that assesses probable psychiatric morbidity (somatic symptoms, anxiety, and insomnia, social dysfunction, and depression). It screens for psychiatric disorders in the general population and within the community or non-psychiatric clinical settings, such as primary care or general medical out-patients. It is suitable for all ages from adolescents upwards – not children, and assesses the respondent's current state to establish if it differs from her/his usual state. It is therefore sensitive to short-term psychiatric disorders but not long-standing difficulties a respondent might be experiencing.[6]

The GHQ-28 focuses on two major areas:

- The inability to carry out normal functions
- the appearance of new and distressing phenomena,

Scores are on a Likert scale ranging from 0 to 3 with a maximum score of 84. Higher scores indicate higher levels of distress. Participants with total scores of < 23 are classified as non-psychiatric while participants with scores > 24 are classified as psychiatric, but this score is not an absolute cut-off. It is recommended that each researcher derive a cut-off score based on the mean of their respective sample.[7] The cut-off score in the present study was >7.

Ethical Considerations

Oral consent was taken from students after discussing with them the aim of the study. Only those who agreed to participate in the study were enrolled. Students were assured that participation would not affect their academic progress. Incomplete questionnaires were not included in the study.

The research was ethically approved by the Ethical and Scientific Committee of the Psychiatry Department, Faculty of Medicine, Al-Azhar University.

Statistical Analysis

Data were coded, verified, and analyzed using the Statistical Package for the Social Sciences version 22 (SPSS v.22). Descriptive statistics were applied in the form of frequency and percentage for categorical variables while the mean and standard deviation was utilized for the description of continuous variables.

The Chi-square test was applied to test for the association and/or difference between categorical variables. Other statistical tests were used whenever appropriate. A p-value of equal or less than 0.05 was considered statistically significant.

Results

The current study used a cross-sectional study to assess the experiences of women in their first year of a new medical program within the Faculty of Medicine, Al-Azhar University, Girls Branch, in Cairo upon admission and during the second semester of the academic year 2018/19 and during 2019/20.

N=553 were recruited (*n*=229; *n*=224 for two consecutive academic years). Most students were of middle socioeconomic status (see Table 1).

Using a suggested cut-off score on the GHQ-28 of 7 or above to indicate probable psychiatric morbidity. At the start of the academic 2018/19 academic year, it was 44.3% reported psychological distress, mainly anxiety compared with 82.8% in the second semester, which was around exam time. For the academic year 2019/20, intervention included a psychiatric session for the newcomers during the orientation week, which helped alleviate some of the psychological distress the students were experiencing (p-value <0.001), particularly where a significant difference was detected and 27.1% reported psychiatric morbidity. These symptoms increased to 49.02% by the second, which may have been linked to Covid-19 (see Table 2 and Figure 1). Regarding the severity of psychiatric morbidity according to GHQ-28 scores and cut points of 7 or above, there was a significant statistical relationship during academic years 2018/19 and 2019/20 as shown in Table 3.

Table 1. Socio-demographic data of all participants

Characteristics	**Academic year 2018/19**	**Academic year 2019/20**
	No (%) **229**	**224**
Age (mean±SD)	18.1±1.25	17.9±1.24
Residence		
Rural	108 (47.2%)	109(48.67)
Urban	121 (52.8%)	115(51.33)
Socioeconomic status		
High	79 (34.5%)	77(34.38)
Middle	121 (52.8%)	123(54.91)
Low	29(12.7%)	(10.71)24

Table 2. Psychiatric morbidity among the total sample

GHQ-28 score	**1st semester 2018/19**	**2nd semester 2018/19**	**1st semester 2019/20**	**2nd semester 2019/20**	**p value**
Score < 7 (No psychiatric Morbidity)	113 (55.7%)	38 (17.2%)	154 (72.9%)	52 (50.98%)	<0.001
Score >7 (Psychiatric Morbidity)	90 (44.3%)	183 (82.8%)	57 (27.1%)	50 (49.02%)	<0.001

Table 3. Severity of psychiatric morbidity according to GHQ-28 Scores

GHQ Scores	1st semester 2018/19 *n*=229	2nd semester 2018/19 *n*=229	1st semester 2019/20 *n*=224	2nd semester 2019/20 *n*=224
0-6	113 (55.7%)	38 (16.6%)	154 (72.9%)	52 (50.98)
7-9 (mild)	57 (28.1%)	97 (43.8%)	31 (14.7%)	30 (29.42)
10-20 (moderate)	21 (10.3%)	54 (24.4%)	17 (8.1%)	11 (10.78)
21-30 (severe)	12 (5.9)	32 (14.5%)	9 (4.3%)	9 (8.82)
Total	203	221	211	102
Drop out	26 (11.3%)	8 (3.5%)	13 (5.8%)	122 (54.4%)

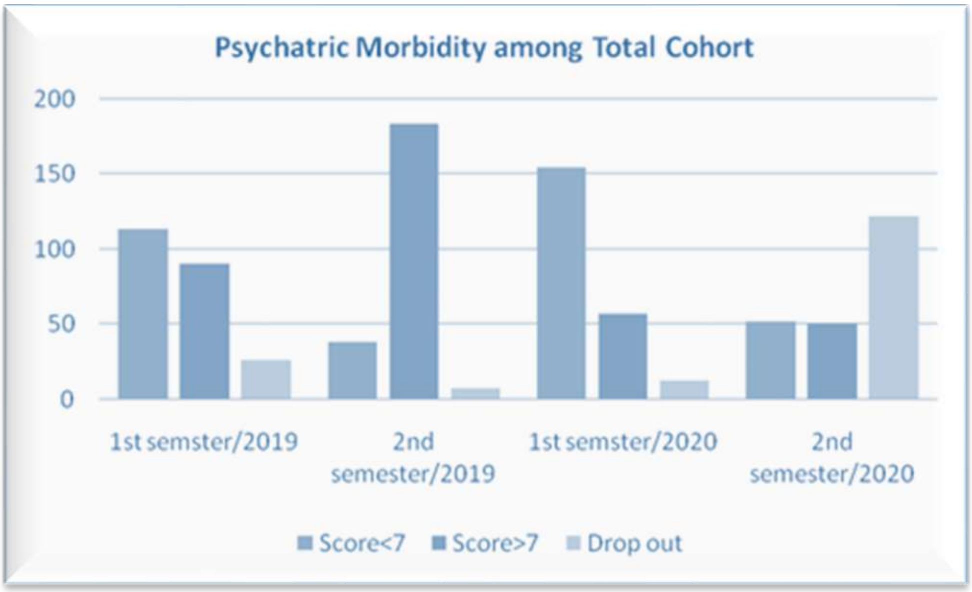

Figure 1. General Health Questionnaire Analysis 2018/19 and 2019/20

Discussion

Mental health among university students is an essential public health concern for which epidemiological data is required and should be addressed as a priority.[8] The current cross-sectional study was conducted in the Faculty of Medicine, Al-Azhar University, Girls Branch in Cairo with women who were in their first year of medical school Interview points were at admission and during second semester in the academic years 2018/19 and 2019/20. The current study aim was to assess the prevalence of psychiatric morbidity among students of attending a new medical education program. General levels of distress were assessed using the 28-item General Health Questionnaire (GHQ-28) with a cut-off >7.

The current study revealed that the prevalence of psychiatric morbidity was 44.3% at the point of admission in the first semester of the academic year 2018/19. This high prevalence of psychiatric morbidity at admission could be explained by several emotional difficulties caused by initial adjustment and engagement in a new cultural environment, changed living conditions and new requirements for educational adjustment. An important role is played by relocation stress associated with the absence of a familiar environment and lack of support from relatives since nearly half of the students were from rural areas outside Cairo.

Findings are supported another study that observed severe psychological distress in 33.8% of medical students, with a higher incidence in women, especially in the first year.[9] A similar study among women in medical students in Pakistan reported higher rates of psychological distress (43.7%).[10] A higher prevalence of stress during the first three years of study, with a gradual decrease from 58.3% to 56.6% by the 4th and 25% by the 6th year was also reported.[11]

However, Egyptian studies of medical students revealed much higher rates than the current study; for example, the prevalence of depression, anxiety, and stress for medical students at Menoufia University was 63.3, 78.4, and 57.8%, respectively.[12]

For the current study, prevalence of psychiatric morbidity reached 82.8% during the second semester of 2018/19. This may be explained by the fact that assessment was during the midterm exam season. This result was proven by many researchers who suggest that examination periods are the most significant stress situations for medical students and the main sources of stress are academic factors such as pressure from family, competition between students, an increase in study load before examinations, and lack of time for revision. It was also reported that exam anxiety is a set of responses that includes excessive worry, nervousness, and irrelevant thinking to a class of stimuli from an individual's experience of assessment/test and outcome.[13]

In the current study, the prevalence of psychiatric morbidity was 27,1% during the first semester of the academic year 2019/20, this relatively low rate was because of attendance psychological orientation program sessions organized by the faculty’s administration with sharing of professors from psychiatry department and medical education unit to resolve student stress and to enhance coping strategies. This program involved teaching skills, such as communication skills, time management and problem-solving.

Research suggests that students who are taught coping strategies are better able to adapt, resulting in better social and academic outcomes and lower levels of psychological distress.[14] For the current study, such support appeared to have short-term benefits as evidenced by students reporting an 49.02% increase in their distress levels during the second semester of the academic year 2019/20. Their experience may have been influenced by the outbreak of Covid-19 and the fact that Egypt, like the rest of the world was going into lockdown – a conclusion that was reached in another similar study.[15] Stress reactions relating to their response to the Covid-19 included changes in concentration, irritability, anxiety, insomnia, reduced productivity, and interpersonal conflicts. This may have be true for the general population, but was widely observed in health care personnel and medical students across the world.

According to the severity of psychiatric morbidity, students in the current study exhibited psychological distress at varying levels, especially during the second semester of the academic year 2018/19 when midterm exam were scheduled – the levels reflected mild (43.8%), moderate (24.4%) and severe (14.5%) responses to stress. During the second semester of the academic year 2019/20, which marked the start of Covid-19, self reported psychological distress was mild (29.42%), moderate (10.78%), and severe (8.82%), which was high compared with one study reporting that 21% were mildly stressed, 39% were moderately stressed and 13% severed.[16] Another study found that the frequency of stress among medical students was around 57%, with 21% having mild stress, 16% having moderate stress, and 20% having severe stress.[17] The many differences that may have existed for women studying medicine in Cairo mean the findings are not generalizable to other studies.

Limitations

This study was conducted with women only, which makes it less likely to be generalizable. Further, the outbreak of Covid-19 added an additional layer of stress that had not been anticipated and, finally, when assessing students during exam times, it might naturally be expected that their stress levels would increase.

Conclusion

Medical students are likely to experience considerable stress, particularly in their first few years of study. Interventions are needed to tackle stress and improve their physical and psychological well-being.

Recommendation

Raising awareness about the vulnerability of medical students to high levels of stress and supporting them to reduce their burden through leisure activities and better coping skills and focusing on students at high risk of experiencing stress during their studies should be adopted to improve their studies and foster their well-being. The need for establishing basic counseling and preventive mental health services is an integral part of routine clinical services that should be provided to medical students as part of screening new entrants medical school.

References

1. Vinkers CH, van Amelsvoort T, Bisson JI, Branchi I, Cryan JF, Domschke K, Howes OD, Manchia M, Pinto L, de Quervain D, Schmidt MV. Stress resilience during the coronavirus pandemic. Eur Neuropsychopharmacol. 2020;1;35: 12-6.
2. Abolmagd S, Adel A, El Tabei D, Salah H, Emadeldin M, Khalil MA. Psychiatric morbidity among medical students: An Egyptian study. Egypt J Psychiatr. 2018; 39(1): 48.
3. Baykan Z, Naçar M, Cetinkaya F: Depression, anxiety, and stress among last-year students at Erciyes University Medical School. Acad Psychiatry. 2012;36(1): 64-5.
4. Rotenstein LS, Ramos MA, Torre M, Segal JB, Peluso MJ, Guille C, Sen S, Mata DA. Prevalence of depression, depressive symptoms, and suicidal ideation among medical students: a systematic review and meta-analysis. Jama. 2016;316(21): 2214-36
5. Abdulghani HM. Stress and depression among medical students: A cross-sectional study at a medical college in Saudi Arabia. Pak J Med Sci. 2008;24(1):12.
6. Goldberg DP, Hillier VF. A scaled version of the General Health Questionnaire. Psychol Med. 1979;(1): 139-45.
7. Goldberg DP, Oldehinkel T, Ormel J. Why GHQ threshold varies from one place to another? Psychol Med. 1998;28(4): 915-21.
8. Eisenberg D, Hunt J, Speer N. Mental health in American colleges and universities: variation across student subgroups and campuses. J Nerv Ment Dis. 2013;201(1): 60-7.
9. Saeed AA, Bahnassy AA, Al-Hamdan NA, Almudhaibery FS, Alyahya AZ. Perceived stress and associated factors among medical students. J Fam Community Med. 2016;23(3): 166.
10. Rab F, Mamdou R, Nasir S. Rates of depression and anxiety among female medical students in Pakistan. EMHJ-East Mediterr Health J. 2008;14(1): 126-133.
11. Melaku L, Mossie A, Negash A. Stress among medical students and its association with substance use and academic performance. J Biomed Educ. 2015;2(4): 1-9.
12. Abdallah AR, Gabr HM. Depression, anxiety, and stress among first-year medical students in an Egyptian public university. Int Res J Med Med Sci. 2014;2(1): 11-9.
13. Hashmat S, Hashmat M, Amanullah F, Aziz S. Factors causing exam anxiety in medical students. J Pak Med Assoc. 2008; 58(4): 167.
14. Dyrbye LN, Thomas MR, Shanafelt TD. A systematic review of depression, anxiety, and other indicators of psychological distress among US and Canadian medical students. Acad Med. 2006;81(4): 354-73.
15. Vinkers CH, van Amelsvoort T, Bisson JI, Branchi I, Cryan JF, Domschke K, Howes OD, Manchia M, Pinto L, de Quervain D, Schmidt MV. Stress resilience during the coronavirus pandemic. Eur Neuropsychopharmacol. 2020;35: 12-6.
16. Daud SE, Shaikh RZ, Ahmad MU, Awan Z. Stress in medical students. Pak J Med Health Sci. 2014;8(3): 503-7.
17. Abdulghani HM, AlKanhal AA, Mahmoud ES, Ponnamperuma GG, Alfaris EA. Stress

and its effects on medical students: a cross-sectional study at a college of medicine in Saudi Arabia. J Health Popul Nutr. 2011;29(5): 516.

الملخص

يُنظر إلى التعليم الطبي على أنه مرهق، وله آثار سلبية على الصحة النفسية للطلاب، حيث أفادت العديد من الدراسات أن طلاب الطب يعانون من ارتفاع معدل الإصابة بالقلق أثناء دراستهم الجامعية مما قد يكون له تأثير سلبي على فهم المنهج الأكاديمي وبالتالي يكون له تأثير سلبي على الصحة النفسية والأداء المعرفي والتعلم. الهدف من الدراسة الحالية هو تقييم الاعتلال النفسي عند دخول كلية الطب ومرة أخرى لاحقاً اثناء دراسة الطب.

الطريقة: تم إجراء دراسة على طالبات الطب الجدد في جامعة الازهر عند دخول الكلية ولاحقا اثناء الفصلين الدراسيين الثانيين من العامين الأكاديميين 2019/2018 و2020/2019، في كلية الطب للبنات، جامعة الأزهر. تم تقييمهم باستخدام المقابلة النفسية الإكلينيكية وباستخدام النسخة العربية من استبيان الصحة العامة (GHQ). النتائج: تم تقييم ما مجموعه 453 طالبًا في كلية الطب عند دخول المدرسة وخلال الفصل الدراسي الثاني (229 طالبًا في الفصل الدراسي الثاني). العام الدراسي 2019/2018 و224 طالبًا للعام الدراسي 2020/2019) بالنسبة للعام الدراسي 2019/2018، كان 44.3٪ مقابل 82.8٪ من الطلاب قد دخلوا المدرسة في أمراض نفسية وفي الفصل الثاني على التوالي. أظهرت هذه النسبة انخفاضًا ملحوظًا للعام الدراسي 2020/2019 لتصل إلى 27.1٪ و49.02٪ عند الالتحاق بالكلية وفي الفصل الثاني على التوالي.

توصية: الاهتمام بطلاب الطب، ومحاولة التخفيف من الضغوط الأكاديمية، وإدماجهم في الأنشطة الترفيهية، وتحسين أدوات التقييم، والتركيز على الطلاب المعرضين لخطر كبير لإدراك الإجهاد الكبير. الحاجة إلى إنشاء خدمات الإرشاد النفسي وخدمات الصحة النفسية الوقائية كجزء لا يتجزأ من الخدمات السريرية الروتينية المقدمة لطالبات الطب، ويجب أن يكون هذا جزءًا من نظام الفحص الطبي كل عام للطالبات.

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Patients' Experience of Mental Health Services with Telepsychiatry in Qatar

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تجربة المرضى في خدمات الصحة النفسية في قطر مع الطب النفسي عن بعد

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Abstract

Telepsychiatry has been established for many years with evidence of efficacy as well as challenges. In the Middle East, it remains underutilized. This is despite the high stigma associated with mental illness being a major barrier to access to specialized mental health care. With the onset of the COVID-19 pandemic, there was a worldwide urgent need to establish services that provided the care needed without direct contact. Qatar, like other countries in the region, had to provide telemedicine, including telepsychiatry, within a very short period to address the growing demand for mental health during a time when face-to-face clinical care was minimized. In this brief communication, we describe the experience in Qatar, and the outcome of a survey of strengths and challenges reported by service users.

Keywords: Telepsychiatry, patients, Qatar, satisfaction, Middle East

Declaration of interest: None

Introduction

The impact of technology on patients' health and the continuity of treatment is well recognized. Of the many technological advances, telemedicine is one with a significant positive impact. Telepsychiatry is a two-way, real time, interactive specialized communication technology, often through the telephone or videoconferencing, in the assessment and delivery of psychiatric care and education to patients. It is one form of telemedicine that can be an alternative to face-to-face consultation. Easier access to care facilitates regular follow-up of patients and greater adherence to appointments.[1]

Traditionally used in areas where accessibility to minimized listed services may be an issue, such as in rural and remote communities, or in forensic psychiatry where the timing and access to the right specialized service are crucial, telepsychiatry has since gained popularity and is rapidly growing as an intervention alternative to an additional clinic visit. The clinical effectiveness of telepsychiatry compared to traditional face-to-face consultation real-time has been established, particularly in relation to diagnostic accuracy and treatment.[2] Several studies cited telepsychiatry is as cost effective as face-to-face consultation depending on the volume of cases[3-5] and travelling cost considered.[5] Patients' and psychiatrists' satisfaction with their experience in using telepsychiatry has been reported in several studies.[4,6, 7]

However, the use of telepsychiatry is not without its challenges. Patients who are visually or hearing impaired or those with intellectual disabilities may have difficulties in using such technology. Clinical nuances such as the establishment of rapport and trust or picking up non-verbal communication may be missed. Conditions requiring physical examination cannot be assessed virtually. Other challenges may include technology illiteracy and "digital poverty"; not having the access to a smartphone or computer or a good internet connection. Despite the challenges, the advantages of telepsychiatry have long been recognized. The use of telepsychiatry is endorsed by organizations such as the American Psychiatric Association (APA) and the Royal Australian and New Zealand College of Psychiatrists (RANZCP) with the provision that its use is in line with the set ethical principles, set standards, and the governing law.[8,9] The Royal College of Psychiatrists in the United Kingdom (RCPsych) stipulated that telepsychiatry does not replace face-to-face consultation; but since the COVID-19 pandemic, the RCPsych recommended the use of remote consultations to reduce the risk of infection transmission. The use of telepsychiatry is also noted to have led to the increased rate of patients' engagement in their first psychiatric appointments, in follow-up appointments, and in reducing the non-attendance (no-show) rate.[10] It has partially addressed the stigma of accessing help for mental health problems.

Yet, telepsychiatry is not very common in the Middle Eastern region. Cultural, technical, financial, and regulatory factors have been cited as barriers to telepsychiatry in the Middle East.[11, 12] However, with the onset of the COVID-19 pandemic, there was an urgency in ensuring access to services for patients with mental health issues while adhering to safety requirements of distancing, lockdown, and other measures taken to control the spread of the pandemic. It is projected that the mental health effects of the pandemic will continue to be on the increase worldwide. Thus, it is particularly important to ensure accessibility to mental health help.

The situation in Qatar

Qatar has a population of 2,930,528, which is predominantly male (72% of the population). Less than 15% of the population are Qataris, 13% are from other Arab countries and the other 72% of the population are from other regions of the world, the majority are from other Asian countries. The population is made up of diverse multicultural backgrounds and people with a different attitude toward modern technology, confidentiality, and social considerations. Understanding these variations is crucial for better delivery of mental health care to those who most need it.

The health service in the country had been structurally ready to adopt a telemedicine approach prior to the COVID-19 pandemic. The two largest healthcare providers in Qatar, Hamad Medical Corporation (HMC) and Primary Health Care Corporation (PHCC), have been using e-records, with robust Information, Communication Technology (ICT) expertise and policies to regulate confidentiality. Mobile health is used for sending text message reminders to users about their upcoming hospital appointments.

Like other parts of the world, Qatar had to quickly adapt to an alternative form of consultation because of the COVID-19 pandemic. Since mid-March 2020, Hamad Mental Health Service (MHS) has been offering patients the option of telephone or video-conference consultations. In the four months following the introduction of telepsychiatry in the MHS, there was an increase of 36.5% of patients accessing the mental health service compared to the same period in 2019.[13] During this period, HMC made other changes to improve patient care such as setting up a medication delivery service and streamlining the booking system.

Survey on patients' experience with telepsychiatry during the COVID-19 pandemic

A survey was conducted among patients who had their consultation at the Mental Health Hospital outpatient clinics between March and Mid July 2020. A random sample was selected by simple randomization. From our list, 112 candidates had a phone as well as face to face consultation, and 20 had a video consultation.

Out of the 112 respondents; 57 (51%) were women and 55 (77%) were non-Qatari. Seventy-three (65%) were adults between the ages of 26-47 years, 23 (21%) between the ages 48-60 years, 12 (11%) between the ages 18-25 years, and 4 (4%) above the age of 60 years. The most common ICD-10 diagnoses among participants were Major Depressive Disorder 28 (25%) and anxiety disorders 28 (25%), followed by Bipolar Affective Disorder 17 (15%), obsessive compulsive disorder 12 (11%) and Schizophrenia 10 (9%).

The employment status was similar between employed and unemployed; 53 (47%) were employed, and 59 (45%) unemployed. The latter included those who were students, jobless, retired or housewives. Only 9 (8%) were students and 1 (1%) were laborers. Among the respondents, 52 (46%) had at least a university degree, 45 (40%) had high school degree and 15 (13%) did not complete school years (Table 1).

Table 1. Participants' demographic data

	Number (=112)	Percentage (%)
Age		
18-25	12	11
26-36	44	39
37-47	29	26
48-60	23	21
Over 60	4	4
Gender		
Male	55	49
Female	57	51
Nationality		
Qatari	26	23
Non-Qatari	86	77
Educational Level		
University degree	44	39
Completed high school	35	31
Did not complete high school	15	13
Diploma	10	9
Postgraduate	8	7
Occupational Status		
Professional	52	46
Unemployed	29	26
Housewife	17	15
Student	9	8
Retired	4	4
Laborer	1	1
Psychiatric Diagnosis		
Depressive Disorder	28	25
Anxiety	28	25
Bipolar Disorder	17	15
OCD	12	11
Schizophrenia and other psychotic diagnosis	14	13
Intellectual disorder	6	5
Autism Spectrum	2	2
Other	5	4

Patients' experience with telepsychiatry during the COVID-19 pandemic

Seventy-eight participants were asked about their preference, from those 38 (49%) preferred face-to-face consultation as they stated that it provided better interaction with their psychiatrists. Participants stated they could do multiple tasks if they are physically present at the facility such as obtaining their prescribed medications and arranging their own follow-up appointments. Despite their preference for in-person consultations, 55 (50%) of all respondents described challenges in attending their appointments. The challenges were mostly related to the stigma associated with having to attend a psychiatric facility 17 (31%), access to the facility 33 (60%), time demand 34 (62%) and its impact on their work 15 (27%).

When asked about the benefit of their telephone consultations, 60 (42%) of participants stated that telephone consultation allowed them to have more flexibility with their time and 72 (51%) that it saved them travel time, whereas 9 (6%) did not need to take time off from work. Eighty percent of participants found it easy to talk over the phone about things that matter to them and their management plan, and 76% felt able to discuss their concerns with their doctor. In contrast to other published findings, they did not feel the telephone consultation negatively affected their rapport with their doctor. Overall, 78% of participants were satisfied with the telephone assessments and they would recommend future phone appointments (Table 2).

Table 2. Satisfaction with tele psychiatry assessment

	Phone Assessment		**Video Assessment**	
	Frequency (110)	Percentage (%)	Frequency (20)	Percentage (%)
Highly satisfied	55	50	10	50
Satisfied	31	28	5	25
Neutral	6	5	2	10
Dissatisfied	14	13	3	15
Highly dissatisfied	4	4	0	0

Those who had video consultations (20) were mostly satisfied with their experience 13 (65%). They are more likely to recommend future video consultation 15 (75%), however, half of them preferred direct face-to-face consultation over video assessments. There were others who were skeptical about video consultations due to the lack of privacy within their own surroundings while at home or at work.

Discussion

The introduction of video consultation faced several technical challenges for both patients and healthcare providers. Subsequently, only a minority of the participants managed to secure video consultation. This was eventually dropped, and the service relied on phone consultations only. The very low percentage of students and labor workforce in our sample is attributed to the presence of community mental health hubs in the universities and a hospital in the industrial area which is a closer location for the labor workforce.

Our survey found that patient satisfaction with telepsychiatry was between good and excellent. From 78 of our participants who responded to the question about their preferred method of psychiatry consultation, 38 (49%) preferred face-to-face appointments, 27 (35%) phone consultations, and 13 (17%) preferred video consultations.

Clinical considerations and the way forward

There is a need to be innovative and explore how best to use technology and telehealth to support the management of all patients with mental illness, not just in an outpatient setting but also in the community.[14]

Ideally, the implementation of a telepsychiatry project requires better planning and this includes an assessment of e-Health readiness.[11] Although such pre-planning was not possible in this case, it is still important for the psychiatric service to assess the care accessibility, quality, coordination, and service users' experience in telepsychiatry in the local context. The use of technology in health was accelerated due to the COVID-19 pandemic public health emergency. Thus, the implementation was challenging not just to the patients, especially those with digital poverty, lack of technical know-how, and limited internet access, but also to the healthcare providers. The latter may have variations in their clinician digital competency, and difficulty in recognizing patients' non-verbal cues and the severity of their mental state disturbance.

In our community where accessibility is not a major issue for most of the population, acceptance of video consultation and concerns about privacy are major challenges and may explain the small number of participants in a video consultation. Furthermore, we found that our patients did not seem ready for the change to telepsychiatry with the majority preferring face-to-face consultation. This might be related to the therapeutic alliance that can be better established during face-to-face visits. The finding is shared in other studies where patients preferred face-to-face consultations over telepsychiatry methods as they feel confident about their privacy, the ability of the doctor to diagnose correctly and having direct contact[15]. However, there is evidence of engagement readiness in our sample as patients were ready to adopt telepsychiatry. They did not encounter technical challenges setting up the video consultations; those who tried it were satisfied. Unfortunately, the video consultations had to be stopped in the MHS due to system challenges within the service.

Recommendations

Increasing awareness about the importance of different types of telepsychiatry is necessary to go forward and improve this service. More studies are required locally to explore the clinical outcome and effectiveness of methods used in telepsychiatry, focusing on trust and therapeutic relations, safety, and confidentiality. Research already showed that phone consultation is effective for monitoring adherence to therapy,[14] and there is a possibility of it yielding other advantages that can enhance better patient care.

We speculate that for first-visit appointments with outpatients and for patients who are acutely disturbed, face-to-face interaction may be better than the telepsychiatry option. For outpatient reviews and consultations, having the flexibility and option to switch between face-to-face, telephone, and video consultations could overcome some of the technical and clinical challenges. With proper service planning, telepsychiatry can be further utilized to complement the current mental health service across different types of conditions to monitor adherence to therapy, reduce admission rates, and deliver psychological therapies and patient education where applicable.[14]

References

1. Hubley S, Lynch S, Schneck C, Thomas M, Shore J. Review of key telepsychiatry outcomes. World J Psychiatry 2016;6(2):269.
2. Snoswell C, Chelberg G, De Guzman K, Haydon H, Thomas E, Caffery L et al. The clinical effectiveness of telehealth: A systematic review of meta-analyses from 2010 to 2019. J Telemed Telecare 2021
3. Doze S, Simpson J, Hailey D, Jacobs P. Evaluation of a telepsychiatry pilot project. J Telemed Telecare 1999;5(1):38-46
4. Modai I, Jabarin M, Kurs R, Barak P, Hanan I, Kitain L. Cost Effectiveness, Safety, and Satisfaction with Video Telepsychiatry versus Face-to-Face Care in Ambulatory Settings. Telemed E-Health. 2006;12(5): 515-520.
5. Hyler S, Gangure D. A Review of the Costs of Telepsychiatry. Psychiatric Services [Internet]. 2003;54(7): 976-980.
6. Hyler S, Gangure D, Batchelder S. Can Telepsychiatry Replace In-Person Psychiatric Assessments? A Review and Meta-Analysis of Comparison Studies. CNS Spectrums. 2005;10(5): 403-415.
7. Mair F, Whitten P. Systematic review of studies of patient satisfaction with telemedicine. BMJ. 2000;320(7248): 1517-1520
8. Best practices in videoconferencing based Telemental Health. www.psychiatry.org. 2018
9. The Royal Australian and New Zealand College of Psychiatrists. Professional Practice Standards and Guides for Telepsychiatry. 2013;10 (5): 403-413.
10. Chen J, Chung W, Young S, Tuttle M, Collins M, Darghouth S et al. COVID-19 and telepsychiatry: Early outpatient experiences

and implications for the future. Gen Hosp Psychiatry. 2020;66: 89-95.

11. Alajlani M. Issues facing the application of telemedicine in developing countries: Hashemite Kingdom of Jordan and Syrian Arab Republic. Ethos.bl.uk. 2010
12. Jefee-Bahloul H. Telemental Health in the Middle East: Overcoming the Barriers. Front Public Health. 2014;2: 86.
13. Karim M, Wadoo O, Reagu S, Amro R, Abdulla M. Telepsychiatry in the Arabian Gulf region - Implications beyond the Covid-19 pandemic. Asian J Psychiatr. 2020;54: 102397.
14. Lawes-Wickwar S, McBain H, Mulligan K. Application and effectiveness of telehealth to support severe mental illness management: Systematic Review. JMIR Ment Health. 2018;5(4).
15. Sehlo M, Youssef U, Elshami M, Elrafey D, Elgohari H. Telepsychiatry versus face to face consultation in COVID-19 Era from the patients' perspective. Asian J Psychiatr. 2021;59:102641.

الملخص

تأسس الطب النفسي عن بعد منذ سنوات عديدة مع دلائل لفعاليته وكذلك لتحديات مصاحبة له. الا أن استخدامه محدود في منطقة الشرق الأوسط. هذا بالرغم من كون الوصمة المرتبطة بالمرض النفسي تشكل عائقاً رئيسياً أمام اللجوء الى الرعاية النفسية المتخصصة. مع بدء جائحة كوفيد-١٩، ظهرت حاجة ملحة في العالم لتوفير الخدمات الصحية المطلوبة دون التواصل المباشر. قطر، كما هو الحال في باقي دول المنطقة، اضطرت الى توفير الخدمات الطبية عن بعد، بما فيها خدمات الطب النفسي، خلال فترة وجيزة جداً حتى تتمكن من مجاراة الحاجة المتكاثرة لخدمات الصحة النفسية في وقت التزمت فيه الدول بتقليل التواصل السريري المباشر. في هذا المقال المختصر، نقدم وصفاً وجيزاً لتجربة الطب النفسي عن بعد في قطر، ونتيجة استبيان القوى والتحديات مع مستخدمي هذه الخدمات .

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Relationship between Psychological Distress and Perceived Stigma on Mental Well-Being in People with Epilepsy: Self-Compassion as a Moderator

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العلاقة بين الضيق النفسي والوصمة المدركة على الصحة العقلية بين الأشخاص المصابين بالصرع: التعاطف مع الذات كمشرف

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Abstract

Objective: The current research examined the relationship between self-compassion, perceived stigma, psychological distress and mental well-being in people with epilepsy. It also investigated the moderating role of self-compassion on perceived stigma relationship with mental-well-being. **Methods**: Using a survey design, a convenience sample N=200 (59.1% men; 40.9% women) patients diagnosed with epilepsy who were attended a follow-up clinic in the neurology unit, Federal Medical Centre, Lokoja aged 18 to 59 years (M=36.75, SD=10.95). The data for this study was collected using the Neff's Self-Compassion (SCS) scale for self-compassion, The Kessler Psychological Distress Scale (K10) for psychological distress, the distress stigma scale of Epilepsy (SSE) for the perceived stigma and Warwick Edinburgh Mental Well Being Scale (WEMWBS) for men well-being. Data were analyzed through Pearson multiple correction as well as model 1 of moderation Process macro. The analyses were executed with PROCESS Marco for IBM/SPSS version 25.0 **Results**: The results showed a significant correlation between self-compassion and mental well-being (r = .250). The study results further revealed significant correlation between psychological distress and mental well-being (r = 293), and there is significant correlation between the perceived stigma and mental well-being (r =.320). The results revealed expressive direct relationship between perceived stigma and mental well-being and further revealed that self-compassion significantly moderates direct relationship between perceived stigma and mental well-being. **Conclusion:** perceived stigma and self-compassion is associated with mental well-being and self-compassion may play important role on the relationship between perceived stigma and mental well-being among persons living with Epilepsy.

Keywords: Self-compassion, psychological distress, perceived stigma and mental well-being

Declaration of Interest: None

Introduction

The World Health Organization (WHO) identified epilepsy as an inveterate non transmittable disease of the brain that affects about fifty million people globally.[1] It's a frequent health condition that is common and affects individuals regardless of age and particularly those who live in rural regions where neurological disorder can be over three times that of the overall population.[1, 2]

In many parts of the world, individuals with epilepsy may experience many challenges, including stigma which can impact upon their physical health and their mental well-being. Factors that may affect mental well-being include the following frequency of epileptic seizures, nervousness and depression, perceived impact of epilepsy and perceived stigma. Marital and employment status may also affect the mood and cognitive functioning of persons with epilepsy. Previous studies suggest epilepsy contributes to distressing life disturbance and morbidity among those with the condition, including reduced opportunities to socialize and compromised cognitive functioning, which in turn contribute to a lower quality of life for the affected individuals.[3, 4]

Mental well-being substantially influences neurological conditions like epilepsy. Mental wellbeing is characterized by contentment and a positive sense of self even when the person is apprehensive about establishing trusting and warm interpersonal partnerships, capability to influence one's own life so as to satisfy his/her necessities and desires, the capacity to be autonomous and discover a purposeful life whilst managing the difficulties associated with the condition.[5]

Perceived stigma is another factor that can affect many the lives of people with epilepsy. Generally, perceived stigma relates to reduced wellness and wellness behaviour and restricts a sense of self-control.[7] Research suggests that people who experience stigma describe higher adversity when treating epilepsy, have poorer treatment outcomes due to poor adherence and receive a lower quality of pharmaceutical care.[8]

The current study examined stigma as predictor of health-related quality of life impairment, psychological distress, and bodily symptoms in acne victims and results of the findings suggest that the perceived stigma significantly predicts the psychological distress.[9]

It is well established in the literature that people with epilepsy experience higher levels of psychological distress.[10] This may not be surprising given psychological distress is associated epilepsy. The correlation between the psychological distress, the perceived stigma, and managing among caregivers has been examined in cases with schizophrenia, which found 31.5% of caregivers reported experiencing psychological distresss.[11] Another study conducted on the body image demonstrated that internalized stigma and enacted stigma predict psychological distress in women with breast cancer. The impact of stigma and psychological distress was mediated through body image.[12]

Self-compassion may be characteristed by the ability to be adaptive which in turn explains better well-being. Self-compassion involves being caring and compassionate towards oneself in the countenance of difficulty. Three features for self-compassion are: self-kindness, a sense of common humanity, and awareness.[13] That is, the ability to face hurting thoughts and feelings, but without magnification, drama, or self-pity.[14] Also, research by Wong, et al., investigated the underpinning mechanisms through which self-compassion may cushion the effects of the public stigma on self-stigma and the associated negative outcomes. The study reported that self-compassion has relationship with adaptive cognitive, emotional, and social processes, and these processes may in turn; head off individualities with stigmatized identity from unfolding self-stigma and other health results.[15]

A recent study examined self-compassion as a stress moderator and found that self-compassion moderated the association between stress and burnout in nurses. The study results showed that self-compassion moderated the relationship between stress and burnout in nurses.[16] Previous research investigated the roles of self-compassion and mindfulness in moderating the associations of self-stigma, content, and process with subjective well-being of people with HIV. Findings of the study reported that the Self-compassion moderated the relationship between self-stigma content and life satisfaction in the population, while mindfulness moderated the relationship between self-stigma process and life satisfaction among people with mental illness.[17]

Hypotheses

1. There will be no significant relationship between self-compassion, perceived stigma, psychological distress, and mental well-being among persons with Epilepsy.
2. There is no significant moderating role of self-compassion on the relationship between perceived stigma and mental well-being among persons with epilepsy.

Methods

Design

The current research used a survey method. Primary data was obtained through psychological measures. A convenience sampling method was used to select the study population.

Participants

A convenience sample was selected, which comprised N=200 people diagnosised with epilepsy attending clinic visits in the Neurology Department of Federal Medical Centre, Lokoja Kogi State.

Inclusion criteria

Inclusion criteria were for participants

- with a confirmed of epilepsy
- who provided consent to take part in the study
- without any other health condition
- were between the ages of 18 to 65 years
- attended regular clinical follow up

Exclusion criteria

Exclusion criteria were for participants

- with a significant medical condition (such as hypertension, diabetes)
- who did not give consent to to participate
- with history of inpatient admission three prior
- with duration of epilepsy less than one year

Measures

Self-Compassion Scale - Short Form (SCS-SF)[18] is a 12-item self-report measurement with six subscales: self-kindness, self-judgment, common humanity, isolation, mindfulness, and over- identification. Each item is rated on a 5-point Likert scale (from 1=almost never to 5=almost always). Constructive validity findings indicated that there are correlations between the total scores of the list and every domain score. Values ranged 0.77, 0.73, 0.76, 0.78, 0.79, and 0.81 for six subscales, respectively.

The Kessler Psychological Distress Scale (K10)[19] is a 10-item scale measuring psychological distress, including level of stress, anxiety, and depressive symptoms experienced in the past four weeks. For the present study, it was used to measure psychological distress. The response categories for each of the 10-items are: (1) all the time, (2) most of the time, (3) sometime, (4) a little of the time, (5) none of the time. Some of sample items include: Did you feel tired out for no good reasons? Did you feel nervous? Did you feel so nervous that nothing could calm you down. Values of the kappa and weighted kappa scores ranged from 0.42 to 0.74, which indicates that K10 is a moderately reliable instrument. Internal reliability of the scale was excellent (Cronbach's α = 0 .89). Report of reliability coefficient alpha of .80 using a Nigerian sample was obtained.[20] Another reliability coefficient alpha of .70 was reported using a Nigerian sample.[21]

The Stigma scale of Epilepsy (SSE)[22] the 24-item scale uses 5 statements to measure self-perceived stigma. Rating is on a four-point Likert scale (not at all = 1, a little = 2, a lot = 3, totally = 4) with no reverse coding. It is designed to measure stigma in people with and without epilepsy. Total scores range from 0 to 100, with higher scores indicating stigma towards epilepsy and no stigma towards epilepsy for lower scores. Internal consistency and content validity (Cronbach's α = 0.88 and 0.81) individuals with epilepsy and for those without epilepsy, respectively.

The Warwick Edinburgh Mental Well Being Scale (WEMWBS)[23] is a 14-item scale measuring mental well-being. relate to an individual's state of mental well-being (thoughts and feelings) in the previous two weeks. Responses are scored from 1 (none of the time) to 5 (all of the time) with total scale score calculated by summing 14 individual item scores. The minimum score is 14 and the maximum is 70.

Procedure and Ethical Consideration

Ethical review was from the Health Research Ethics Committee of the Federal Medical Centre, Lokoja. The purpose of the study was explained to participants and consent obtained with confidentiality assured.

Questionnaires were distributed to 200 respondents and 196 were returned (193 were fully completed giving a response rate of 92.3%).

Data analysis

Data analyses was done using Pearson multiple correction as well as model 1 of moderation Process macro. The analyses were executed with PROCESS Marco for IBM/SPSS version 25.0 edition.

Results

A total of 193 participants were included in the current study: 113 men (58.5%) and 80 women (41.5%) age from 18-60 years (M=37.93, SD=10.78). From the results, 81 (42.0%) were single, 41 (21.2%) were married and 39 (20.2%) were separated. A further 32 (16.6%) were divorced or widowed. Most were unemployed (72, or 37.3%), 60 (31.1%) were student, 33 (17.1%) were self-employed, 16 (8.3%) were retired, 7 (3.6%) were civil servants and 5 (2.6%) were artisans. In terms of epileptic seizures, 80 (41.5%) reported not having any, 53 (27.5%) said these happen most of the time, 39 (20.2%) said some of the time and 21 (10.9%) described having seizures all of the time.

Table 1. Sociodemographic characteristics for N=193

Variables	Groups	Frequency	Percentages (%)
Gender	Male	113	58.5
	Female	80	41.5
Marital Status	Single	81	42.0
	Married	41	21.2
	Divorced/ Widowed	32	16.6
	Separated	39	20.2
Occupation	Unemployed	72	37.3
	Artisan	5	2.6
	Student	60	31.1
	Self Employed	33	17.1
	Civil Servant	7	3.6
	Retired	16	8.3
Experiencing seizures	Not at all	80	41.5
	Not most of the time	39	20.2
	Most of the time	53	27.5
	Always	21	10.9

Table 2 (below) presented descriptive analysis of the study variables. The results showed that self-compassion had mean and standard deviation ($\bar{X}$ = 47.7, SD = 27.5) and variance of 759.4. Psychological distress had mean and standard deviation ($\bar{X}$ = 25.3, SD = 11.0) and variance of 121.7 while perceived stigma had mean and standard deviation ($\bar{X}$ = 40.3, SD = 27.9) and variance of 779.9 and finally, mental well-being had mean and standard deviation ($\bar{X}$ = 38.3, SD = 16.2) and variance of 264.1.

Table 2. Descriptive statistics of variables (N=193)

Measure	N	Mean	SD	Variance
Self-compassion	193	47.7	27.5	759.4
Psychological distress	193	25.3	11.0	121.7
Perceived stigma	193	43.0	27.9	779.9
Mental well-being	193	38.3	16.2	264.1

Table 3. Summary of multiple Pearson Correlation between variables (N=193)

Variables	Mean (SD)	SC	PD	STIGMA	MWB
SC	47.71 (27.55)	1			
PD	25.37 (11.03)	.847**	1		
STIGMA	43.08 (27.92)	.638**	.360**	1	
MWB	38.38 (16.25)	.320**	.293**	.250**	1

Note: ** Correlation is significant at the 0.05 level (2-tailed)

Table 4. Summary of moderation analysis self-compassion and perceived stigma on mental well-being (model 1 of PROCESS macro; N=193)

Explained Variables								
Model	**Self-compassion**				**Mental well-being**			
	B	***SE***	***T***	**95% CI**	**B**	***SE***	***T***	**95% CI**
				LLCI (ULCI)				**LLCI (ULCI)**
Constant	21.84**	3.23	6.76	15.47(28.22)	8.56 *	3.68	2.33	1.30(15.81)
Perceived stigma	0.28**	0.09	3.03	0.10 (047)	0.18**	0.03	5.47	0.12(0.25)
Self-compassion					0.30*	0.16	1.86	-0.02 (0.62)
	R	0.38			R	0.49		
	R^2	0.15			R^2	0.18		
	F(df)	*F*(1, 191) = 145.74**			*F(df)*	*F*(4, 188) = 44.64**		

LL, a low limit; the UL, upper limit; CL, confidence interval, *p< 0.05, **p< 0.01

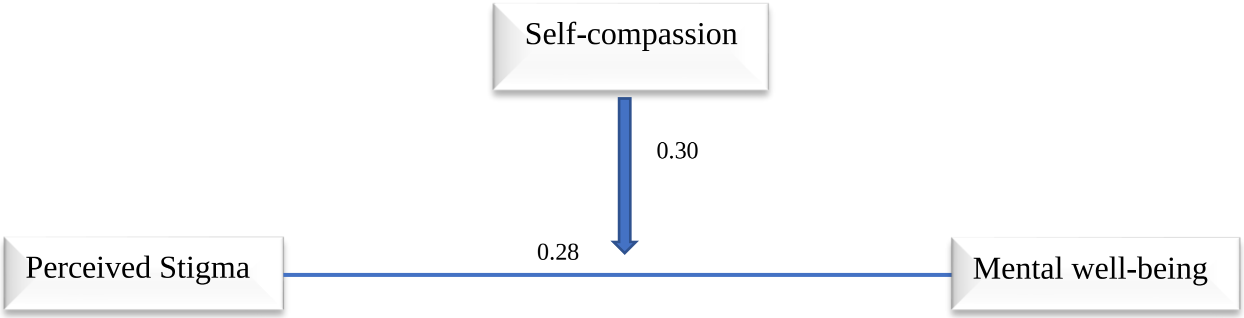

Figure 1. Theoretical research model with standard coefficients

Results

Table 3 presents the summary of the multiple Pearson correlation, which examines the hypothesis that there will be no significant relationship between self-compassion, perceived stigma, psychological distress, and mental well-being for people with epilepsy. The results showed a significant correlation between self-compassion and mental well-being (r=.250). Study results suggest a significant correlation between psychological distress and mental well-being (r=293), and there is significant correlation between the perceived stigma and mental well-being (r=.320).

Moderating analysis

Table 4 presents results examinging the hypothesis that there is no significant moderating role of self-compassion on the relationship between perceived stigma and mental well-being for people with epilepsy. This hypothesis was tested with Model 1 mediation, moderation, and conditional process analysis.[24] Self-compassion in people with epilepsy was explained by the model at a rate of 15% of the total variance of perceived stigma, (F1, 191) 145.74, p<0.05. Also, the prevalence rate for mental well-being was 18% of the total variance of depression and diabetes, (F1, 191) 44.64, p<.05.

Moderation analysis presented in Table 4 revealed suggestive and positive direct relationship between perceived stigma and self-compassion (β = 0.28, p< 0.05), [95% CI: (0.10, 047)]. Results also showed significant and positive direct relationship between perceived stigma and mental wellbeing (β = 0.18, p< 0.05), [95% CI: (0.12, 0.25)]. The results further revealed suggestive indirect relationship between perceived stigma and mental well-being is moderated by self-compassion in people with epilepsy ($\beta = 0.30$, $p< 0.05$), [95% CI: (-0.02, 0.62)].

Discussion

The present study examintheed relationship between self-compassion, perceived stigma, psychological distress, and mental well-being in people with epilepsy and investigated the moderating role of self-compassion on perceived stigma and its correlates with mental well-being in people with epilepsy in Federal Medical Centre, Lokoja Nigeria.

For the current study, the primary hypothesis was to examine the relationship between self-compassion, perceived stigma, psychological distress, and mental well-being in people with epilepsy. Findings revealed a significant relationship between self-compassion, perceived stigma, psychological distress, and mental well-being, which is consistent with a study that found self-compassion to be significantly correlated with subjective well-being.[24] A similar finding indicated that self-compassion had a significant association with distress and well-being in adults with chronic medical conditions.[25]

A secondary hypothesis in the current study investigated the moderating role of self-compassion on the relationship between perceived stigma and mental well-being in people with epilepsy.

Results suggested that self-compassion significantly moderates the direct relationship between perceived stigma and mental well-being, which is not congruent with research that shows self-compassion is not significantly moderates the relationship between public and self-stigma.[26] This might not be surprising because the population studied were student athletes. The study is in consistent with the research of Nguyen and Ngoc which found that high self-regard significantly moderated the relationship between self-coldness and perceived stress.[27] Current results also support a finding that self-compassion moderated the relationship between self-stigma content and life satisfaction among HIV population.[28] Cheraghian, et al., study found self-compassion as a moderator in the relationship between academic burnt out and mental health which is consistent with the findings of the current study.[29] The study results were not similar to previous research, which suggested self-compassion did not moderates the relationship between enacted stigma and psychological distress.[30]

Limitation

When interpreting the current results, there are certain limitations to consider: (1) the sample size is relatively small and clearly not representative; (2) people with epilepsy who could not read and write English were excluded from the study because it was not possible to translate the instruments into local languages; and, (3) it was not always easy for researchers to engage participants to complete and return the questionnaires.

Conclusion

In conclusion, the current study has demonstrated the relationship between self-compassion, perceived stigma, psychological distress and mental well-being, which would suggest that self-compassion may play important an role in the relationship between perceived stigma and mental well-being for people living with epilepsy.

References

1. World Health organization. Epilepsy: a public health imperative.

https://www.who.int/mental_health/neurology/epilepsy/report_2019/en/. 2019: accessed 12 sept 2021.

2. Nguni AK, Bottomley C, Kleinschmidt I, Sander JW, Newton CR. Estimation of the burden of active and lifetime epilepsy: A meta-analytic approach. Soc Psychiatry Psychiatr Epidemiol. 2010;39: 208-211.
3. Baker GA, Jacoby A, Buck D, Staglis C, Monnet D. Quality of Life of Epilepsy: A European Study. Epilepsia. 1997;38: 353-362.
4. Jacoby A, Baker GA, Steen N, Potts P, Chadwick DW. The Clinical Course of Epilepsy and Its Psychological Correlates: Findings from a UK Community Study. Epilepsia. 1996;37: 148-161.
5. Keldal G. Warwick-Edinburgh Mental İyi Oluş Ölçeği'nin Türkçe Formu: Geçerlik ve Güvenirlik 2015.
6. Davis KL, Candrilli SD, Edin HM. Prevalence and cost of nonadherence with antiepileptic drugs in an adult managed care population. Epilepsia. 2008;49(3): 446-54.
7. Pascoe EA, Smart RL. Perceived discrimination and health: a meta-analytic review. Psychology Bulletin 2009;135(4): 531-54.
8. DiIorio C, Osborne SP, Letz R, Henry T, Schomer DL, Yeager K. The association of stigma with self-management and perceptions of health care among adults with epilepsy. Epilepsy Behav. 2003;4(3): 259-67.
9. Davern J, O'Donnell AT. Stigma predicts health-related quality of life impairment, psychological distress, and somatic symptoms in acne sufferers. PLoS ONE. 2018;13(9):e0205009.
10. Cummins J. Life with Epilepsy, Report. Joint Epilepsy Counsel of Australia 2001; Australian Chapter of the International Bureau for Epilepsy. 2001.
11. Ong H, Ibrahim N, Wahab S. Psychological distress, perceived stigma, and coping among caregivers of patients with schizophrenia. Psychol Res Behav. 2016;9: 211-218.
12. Amini-Tehrani M, Zamanian H, Daryaafzoon M, Andikolaei S, Mohebbi M, Imani A, Tahmasbi B, Foroozanfar S, Jalali Z. Body image, internalized stigma and enacted stigma predict psychological distress in women with breast cancer: A serial mediation model. J Adv Nurs. 2021;77: 3412-3423.
13. Neff KD. Self-compassion: An alternative conceptualization of a healthy attitude toward oneself. Self Identity. 2003;2(2): 85-102.
14. Bluth K, Blanton PW. The influence of self-compassion on emotional well-being among early and older adolescent males and females. J Posit Psychol. 2015;10(3): 219-230.
15. Wong C, Knee R, Neighbors, Zvolensky M. Hacking Stigma by Loving Yourself: a Mediated-Moderation Model of Self-Compassion and Stigma. Mindfulness. 2019; 10: 415-433.
16. Dev V, Fernando AT, Consedine NS. Self-compassion as a Stress Moderator: A Cross-sectional Study of 1700 Doctors, Nurses, and Medical Students. Mindfulness. 2020;11: 1170-1181.
17. Yang X, Mak WWS. The Differential Moderating Roles of Self-Compassion and Mindfulness in Self-Stigma and Well-Being Among People Living with Mental Illness or HIV. Mindfulness. 2017;8: 595-602.
18. Raes F, Pommier E, Neff KD, Gucht DV. Construction and factorial validation of a short form of the self-compassion scale. Clin Psychol Psychother. 2010;18: 250-255.
19. Kessler RC, Barker PR, Colpe LJ, Epstein JF, Gfroerer JC, Hiripi E. Screening for serious mental illness in the general population. Arch Gen Psychiatry. 2003;60(2): 184-9.
20. Akram B, Khuwaja F. A study on depression among working and non- working women of Gujrat, Pakistan. Eur J Acad Res. 2014;1(10): 2948-2962.
21. Aber JL, Jones S, M, Raver CC. Poverty and child development: New perspectives on a defining issue. In J. L. 2007.
22. Fernandes P, Salgado P, Noronha A, Sander J, Li, L. Stigma scale of epilepsy: validation process. Arquivos De Neuro-Psiquiatria. 2007; 65(suppl 1): 35-42.
23. Ngozi S, Richars E, Martins O. Mental Wellbeing among Undergraduates in Eastern Nigeria: A Function of Academic Stress, Substance Abuse and Age. Int J Health Psychol. Res 2018;6(2): 36-43.
24. Sarı T, Conoley C. The relationship between self-compassion and well-being: A comparison of Turkish and US university students. Int J Res Psychol. 2019;8(2): 51-66.
25. Karina P, Rees C, Finlay Jones A. Self-Compassion, Wellbeing, and Distress in

Adolescents and Young Adults with Chronic Medical Conditions: The Mediating Role of Emotion Regulation Difficulties. Mindfulness. 2021;12:2241-2252.

26. Hilliard RC, Redmond LA, Watson JC. The Relationships among Self-Compassion, Stigma, and Attitudes toward Counseling in Student-Athletes. J Clin Sport Psychol. 2019: 1-13.
27. Nguyen PC, Ngoc QA. Self-Compassion and Wellbeing among Vietnamese Adolescents. Int J Psychol Psychological Ther. 2020;20(3): 327-341.
28. Fernando AT, Consedine N.S. Self-compassion as a Stress Moderator: A Cross-sectional Study of 1700 Doctors, Nurses, and Medical Students. Mindfulness 2020;170-1181.
29. Cheraghian H, Faskhodi BZ, Heidari N, Sharifi PY. Self-Compassion as a Relationship Moderator between Academic Burnout and Mental Health in Students. Int J Acad Res Prog Educ Dev. 2016;5(2): 111-121.
30. Fiona JR, Eccles, Natalie S, Terry S, Nicolò Z, Jane S. Stigma, self-compassion, and psychological distress among people with Parkinson's. Disabil Rehabil. 2022;DOI: 10.1080/09638288.2022.2037743.

الملخص:

غاية: درس البحث العلاقة بين التعاطف الذاتي، وصمة العار المتصورة، والضيق النفسي والرفاه العقلي بين الأشخاص الذين يعانون من الصرع، وكذلك التحقيق في الدور المعتدل في التصنيف الذاتي على علاقة وصمة العار المتصورة مع البئر العقلي بين الأشخاص الذين يعانون من الصرع. **طرق:** اعتمدت البحث تصميم المسح. عينة مريحة من 200 (59.1 ٪ من الذكور * 40.9 ٪ من الإناث) مرضى الصرع الذين كانوا يحضرون عيادة المتابعة في وحدة علم الأعصاب، المركز الطبي الفيدرالي، لوكوجا تتراوح أعمارهم بين 18 و59 سنة(M = 36.75 ، SD = 10.95). تم جمع بيانات هذه الدراسة باستخدام مقياس التعاطف الذاتي في NEFF (SCS) من أجل التعاطف الذاتي، ومقياس الضيق النفسي Kessler (K10) من أجل النطاق النفسي، وصمة العار من الصرع (SSE) للوصمة المتصورة و Warwick Edinburgh Mentalالرفاهية (WEMWBS) للرفاه العقلي. وقد تم تحليل البيانات من خلال تصحيح بيرسون المتعدد وكذلك النموذج 1 من الماكرو لعملية الاعتدال. تم تنفيذ التحليلات مع Process Marco لـ IBM/SPSS الإصدار 25.0 **نتائج:** أظهرت النتائج وجود علاقة كبيرة بين التعاطف الذاتي والرفاه العقلي (ص = .250). كشفت نتائج الدراسة كذلك عن وجود علاقة كبيرة بين الضيق النفسي والرفاه العقلي (ص = 293)، وهناك علاقة كبيرة بين وصمة العار المتصورة والرفاه العقلي (ص = .320). كشفت النتائج عن العلاقة المباشرة التعبيرية بين وصمة العار المتصورة والرفاه العقلي وكشفت كذلك أن التصنيف الذاتي يعدل بشكل كبير العلاقة المباشرة بين وصمة العار المتصورة والرفاه العقلي. **الخلاصة:** ترتبط وصمة العار المتصورة والتعاطف الذاتي بالرفاه العقلي والتجمع الذاتي قد تلعب دورًا مهمًا في العلاقة بين وصمة العار المتصورة والرفاه العقلي بين الأشخاص الذين يعيشون مع الصرع.

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Assessment of Psychological Needs in an Egyptian Sample of Healthcare Providers during the COVID-19 Pandemic

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تقييم الاحتياجات النفسية لعينة من مقدمي الرعاية الصحية المصريين أثناء جائحة الكوفيد-19

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Abstract

Objectives: The current study aims to identify the psychosocial needs of frontline Healthcare Workers (HCWs) during the COVID-19 pandemic and investigate the factors contributing to their psychosocial well-being. Methods: We conducted a cross-sectional study using an online survey designed specifically for the aim of this study. Data was collected from 315 frontline healthcare workers during the COVID-19 pandemic. **Results:** Up to 90 % of the responders reported a range of symptoms related to psychological distress such as worry, insomnia, lack of motivation, negative thoughts, inability to achieve goals, and burnout. Psychological support, religion-based support, communicating with family, and good sleep are among the stress-relieving factors most mentioned by HCWs. The change in work conditions and increased awareness of the need to use different strategies to overcome stress was associated with decreased levels of perceived stress among health care providers. **Conclusion:** The change in work conditions, the increased awareness of HCWs to their needs, and the use of different strategies to overcome were associated with decreased levels of perceived stress among HCWs. The increased number of working hours per day and younger age of the participants were the only significant independent variables detecting the need for psychological support. This research is a call for designing and implementing tailored needs-based interventions that address the different aspects of HCWs' well-being during public health emergencies.

Keywords: Needs assessment, COVID-19, mental health, healthcare workers, psychological support

declaration of interest: None

Background

On the 30th of January 2020, the World Health Organization (WHO) declared the novel coronavirus (COVID-19) as a public health emergency of international concern.[1] Since then, COVID-19 has been having unprecedented effects on all aspects of people's lives. The impact of the pandemic goes beyond the physical effects to impact the psychological and social well-being of the population. Several studies reported an increased prevalence of mental health problems such as depression, anxiety, and psychological distress.[2]

Health systems around the globe have been heavily affected by the pandemic and have become overwhelmed due to the huge numbers of infections and deaths and the great demand for healthcare services. The situation was worse in fragile health systems where most of the population did not receive usual care for their illnesses as there was a shift for most of the resources to the treatment of COVID-19 patients. In a survey by the WHO, 93% of countries worldwide reported that the COVID-19 pandemic disrupted or halted their mental health services.[3] In addition to increased demand for health services, there was a continuous decrease in the human resources available for providing healthcare services. About 10% of the COVID-19 infections were among healthcare workers (HCWs)[4] and tens of thousands who lost their lives due to COIVD-19 infection. The WHO estimated that between 80 thousand and 180 thousand HCWs could have died from COVID-19 in the period between January 2020 to May 2021.[5]

Healthcare professionals have been working under challenging conditions during the pandemic. There was a lack of resources such as personal protective equipment (PPE), making them susceptible to being infected or transmitting the infection to their families and close ones. Furthermore, with the lack of training and long hours of work under stressful conditions, HCWs are at the risk of developing psychological problems.[6-8]

Many studies found that COVID-19 has a considerable impact on the psychological well-being of frontline hospital staff, especially nurses who might be at higher risk of adverse mental health outcomes during this pandemic. Risk factors identified include underlying physical illness, gender (female), fear of infection or infecting family members, lack of PPE, and being in close contact with COVID-19 patients. Organizational support, adequate knowledge, training, and resilience were identified as factors protecting against adverse mental health outcomes.[9]

Health care workers in Egypt were not an exception. A systematic review and meta-analysis that examined the prevalence of mental health problems among Egyptian HCWs during the COVID-19 pandemic found that anxiety was the most commonly reported mental health issue among HCWs, with a prevalence of 71.8% (95% confidence interval [CI], 49.4 to 86.9), followed by stress (66.6%; 95% CI, 47.6 to 81.3), depression (65.5%; 95% CI, 46.9 to 80.3), and insomnia (57.9%; 95% CI, 45.9 to 69.0).[10]

Healthcare workers are the pillars of health systems. Considering their needs and concerns will help them perform better and provide a better service to their patients. The current study was conducted as a part of the General Secretariat of Mental Health and Addiction Treatment's (GSMHAT) strategy to provide psychosocial support services for HCWs during the pandemic. While other studies conducted in Egypt focus on the psychological impact of COVID-19 on HCWs, our study aims to explore the psychological needs of HCWs and how they coped with the change in the work conditions during COVID-19. Results of the current research were used to inform the GSMHAT's efforts to support HCWs on the frontline and thereby mitigate the impact of the COVID-19 crisis on their Mental Health. We hypothesized that the changing work conditions during COVD-19 affected the psychosocial needs of HCWs.

Methods

Study design, setting, and participants

A cross-sectional survey-based study design was used to collect data at three different time points. The first round of dissemination was in March 2020, and it was used to pilot testing the survey, the second was in May 2020, and the third was in September 2020. The first and second rounds coincided with the first wave of the COVID-19 pandemic, while the third round coincided with the second wave. Dissemination was done through snowballing technique by contacting focal persons inside the target hospitals and asking them to send the survey to frontline HCWs working in the selected hospitals. The survey was then sent to HCWs in the target hospitals through WhatsApp. Thirteen hospitals were included in the sample. The selected hospitals were among the first hospitals dedicated to COVID-19 patients in Cairo, Helwan, Aswan, Marsa Matrooh, Luxor, Alexandria, Asyout, Al-Qalubia, Al-Menia, Al-Behera, and Al-Gharbia. They included both Governmental and University Isolation Hospitals. One fever hospital (Hommiat Aswan) and one chest hospital (Al- Maamora) were also included. The dissemination was done as a part of the General Secretariat of Mental Health and Addiction Treatment's (GSMHAT) strategy to support HCWs during the pandemic.

The sample included physicians, nurses, and laboratory technicians. We also targeted those who were responsible for planning and managing health services amid this crisis. Paramedics were included in the dissemination process, but very few responses were received from this group. The total responses received were 20 in the first pilot round of dissemination, 207 in the second round, and 108 in the third round.

Data collection tools

For the current study, we designed a survey to assess the hypothesized needs and resources required for frontline HCWs. Many of the items included in the survey were based on the initial reports we received from mental health professionals providing support to frontline HCWs. The survey structure was guided by the WHO tool for developing needs assessments in emergencies.[11] The survey was in Arabic and included 30 questions, most of them were close-ended questions to facilitate the data analysis process. The first section of the survey explained the aim of the study and obtained informed consent from participants. Other sections covered the sociodemographic data, work conditions, the available resources, and the precepted psychosocial needs of the frontline HCWs. For face validity, the survey was revised by four psychiatry consultants who were in contact with frontline HCWs and aware of the working environment during the pandemic. Internal consistency reliability was measured by calculating Cronbach alpha Coefficient (0.79). The survey was designed as a google form to facilitate its dissemination and decrease the use of paper and pencil forms to reduce the transmission of infection.

To ensure validity and acceptability, we sent the survey to online groups of frontline HCWs and received twenty responses. The mean age of the responders was 32 years; 40% were women, 70% worked as physicians, and 20% were working in managerial positions. Concerning their needs, 55% of responders mentioned that medical equipment is sufficient and 60% mentioned receiving adequate training, and the food provided was satisfactory to half of the responders. Other needs included more sleep (60%) and a better internet connection (75%). The most experienced psychological symptoms were lack of motivation, burnout, anxiety, and insomnia. The survey language and content were accepted by the participants, and there were no complaints about any vagueness or complexity of the questions.

Statistical analysis

Data were analyzed using the Statistical Package for the Social Sciences version 21 (SPSS 21). Means and standard deviations were used to describe the continuous data, while number and percentage described the categorical data. Inferential statistics were done to compare the second and third rounds of data collection. Comparisons between groups of categorical data were made using the chi-square test. Multivariate Logistic Regression analysis was performed to detect predictors of the need for psychological support among the participants. The statistical Significance level was considered P<0.05.

Results

A total number of 315 responses were received in the second (207) and third rounds (108), 48.9% (n=154) of them were females. The mean age of the sample was 35.6±7.9 SD. Physicians represented most of the sample (62.5%, *n*=197), followed pharmacists (13.7%, *n*=43), nurses (9.8%, *n*=31), managerial staff (9.2%, *n*=29), and technicians (1.3%, *n*=4). About one-third of the respondents work in isolation hospitals (34.1%, *n*=107).

Table 1. Comparison between rounds 2 and 3 regarding sociodemographic data and work conditions

Demographics		**Round 2**		**Round 3**		**X^2**	**P**
		N (207)	%	N (108)	%	2.92	.087
	Male	113	54.6	48	55.6		
	Female	94	45.4	60	44.4		
Profession	Clinical Physicians	139	67.1	58	53.7	17.12	.004
	Nurses	16	7.7	15	13.9		
	Pharmacists	26	12.6	17	15.7		
	Technicians	2	1	2	1.9		
	Managers	13	6.3	16	14.8		
	Other	11	5.3	0	0		
Workplace	General Hospital	51	24.8	25	23.1	23.41	.001
	Isolation Hospital	57	27.7	50	46.3		
	PHCs	11	5.3	4	3.7		
	Chest Hospital	14	6.8	14	13		

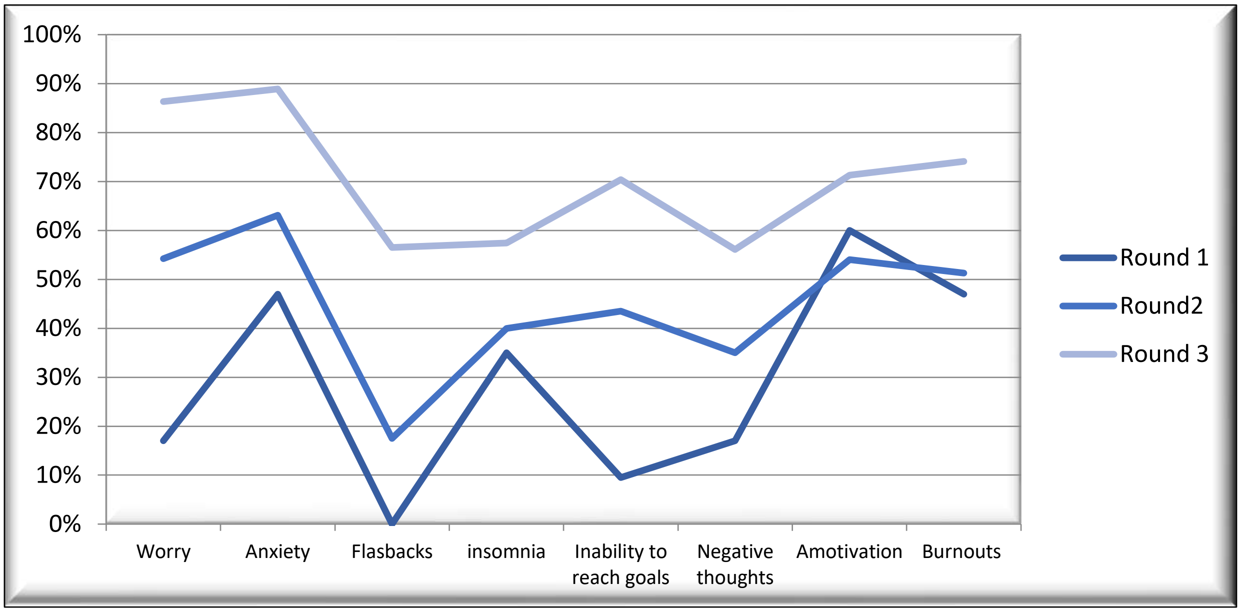
	Fever Hospital	16	7.8	3	2.8		
	Central Managerial Unit	30	14.6	4	3.7		
	Others	27	13.1	8	7.4		
Working Days/ Week	≤ 4 days	95	60.5	44	40.7	76.13	<0.001
	> 4 days	62	39.5	64	59.3		
Working Hours/Day	< 8 hours	18	9.1	61	56.5	118.06	<0.001
	8-12 hours	122	62	47	43.5		
	> 12hours	57	28.9	0	0		
Days Off	14 on/14d off	11	5.4	13	12	80.329	<0.001
	3 days/week	14	6.9	38	35.2		
	1 days /week	138	68.3	38	35.2		
	Other	10	5	16	14.8		
	No days off	29	14.4	3	1		
Perceived stress due to work environment	Mild	6	2.9	5	4.6	6.645	.036
	Moderate	90	43.9	62	57.4		
	Severe	109	53.2	41	38		

The mean age of the responders in round three was higher (37.7 ± 8.4 SD) than in round two (34.7 ± 7 SD). We outlined the difference between sociodemographic data and work conditions in the second and third rounds in (Table 1). There was no significant difference between the gender of responders in both rounds. In the second round, responders working in isolation hospitals comprised 27.7 % of the sample, compared to 46.3 % in the third round. This might be an indicator of increasing the workforce in those due to the increasing number of COVID-19 cases.

Concerning work conditions, significant differences were found between the two rounds. In the second round, the majority of HCWs (60.5%) of the sample worked four days/week or less, while the majority of HCWs in the third round (59.3%) worked more than four days /week. When it comes to the working hours per day, HCWs in the second round tend to work more hours (62% of responders work 8-12 hours/day) compared to those in the third round (61% of responders work less than 8 hours/day). Although 66.8% (*n*=205) of responders in both rounds mentioned that the kind of work they do suits them, almost all of them (94.4%, *n*=302) qualified the work environment as moderate to severely stressful.

When HCWs were asked about their feelings and experiences as a part of their work on the frontlines, there were significant differences in their responses across the three rounds. The percentage of responders who experienced flashbacks of patients' scenes or talks increased significantly, from not being experienced at all in the pilot phase to 17% in the second round, then tripled (56.5%) in the third round (X2=46.01, P<0.001). Other symptoms recorded in the second round including worry (54.2%), anxiety (63.1%), insomnia (40.5%), lack of motivation (56%), negative thoughts (37.5%), inability to achieve goals (42.3%) and burnout (51.8%) showed significant increase in the third round to reach 86.1% for worry (X2=30.19, P<0.001), 88.9% for anxiety (X2 =22.29, P=0.00), 57.4% for insomnia (X2=7.56, P=0.006), 70.4% for lack of motivation (X2=5.78, P=0.016), 56.5% for negative thoughts (X2=9.57, P=.002), 71.3% for inability to achieve goals (X2=22.29, P=0.00) and 74% for burnout (X2=13.67, P<0.001) (Figure 1).

Figure 1. Psychological symptoms experienced by the HCWs in the three rounds



Concerning the need for psychological support, almost all participants expressed their need for psychological support. Still, there was a difference in terms of the form of support needed (i.e., whether they need professional help) and the channel through which this support is provided (e.g., in-person or remote) (Table 2).

Table 2. The need for psychological support and the preferred way to receive it

Need for psychological support		**Round 2**		**Round 3**		**X^2**	**P**
		N	**%**	**N**	**%**		
The need to talk to someone about stressful experience		174	87	61	60.4	27.75	<0.001
The need to communicate with psychological support team (professional team)		120	63.5	96	88.9	22.35	<0.001
The preferred way to receive psychological support	Communicate through telephone.	78	46.7	41	38	2.04	.096
	In-person communication	71	42.5	36	33.3	2.24	.081
	Communicate through internet	75	44.9	58	53.7	2.03	.097

Although there was no significant statistical difference in the preferred way to receive psychological support (in-person or remote), the percentage of participants who preferred receiving remote support, whether through phone or internet, increased in the third round.

When we asked HCWs about conditions that can help them seek support, confidentiality came first in both rounds, followed by the reliability of the person who provides support, finding a 'quick fix' to their problems, and talking to a stranger, as factors that can encourage them to seek help (table 3). HCWs who participated in the survey mentioned several ways that might help them recover and reduce work stress (Figure 2).

Table 3. Factors that motivate respondents to seek psychosocial support

	Round 2		Round 3		X^2	P
	N	%	N	%		
Therapist is stranger	68	38.6	38	35.2	.056	.813
Confidentiality	138	74.2	76	70.4	.504	. 478
Reliable (can be trusted)	130	69.9	70	64.8	.368	.368
Offering a quick fix to their problems	96	51.6	59	54.6	.249	.614

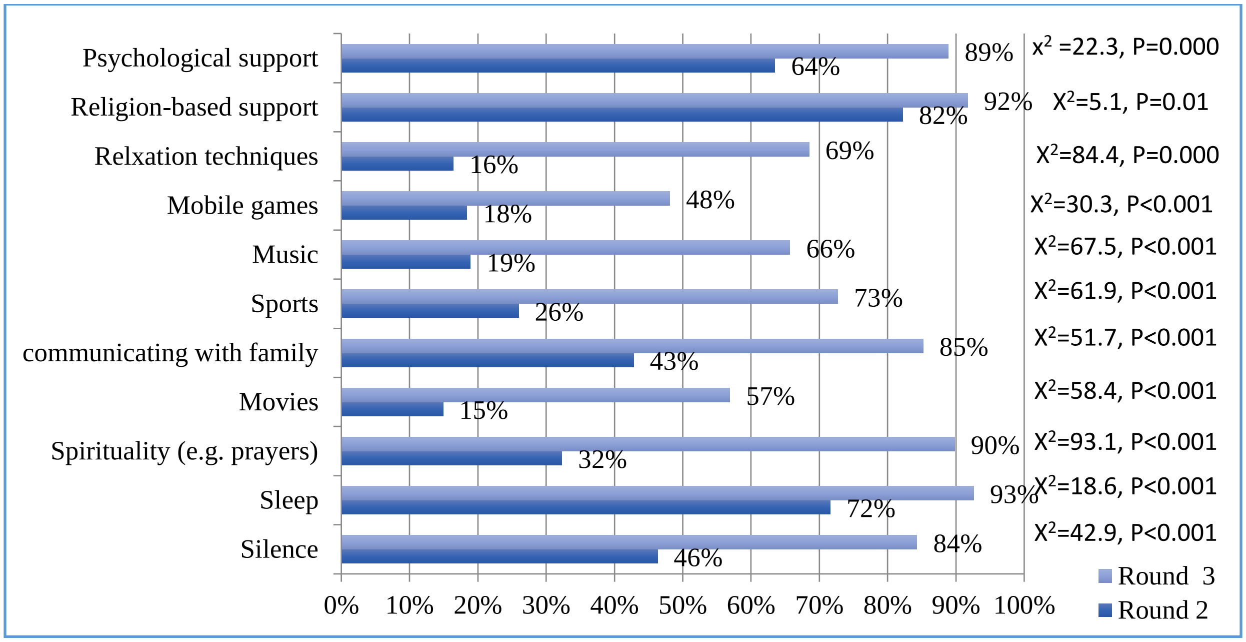


Figure 2. Way to alleviate work stress and help HCWs cope (HCWs' perspective)

Multivariate Logistic Regression analysis was performed to detect predictors for the need for psychological support among the participants (Table 4). The only significant independent variables were the increased number of working hours per day and the younger age of the participants.

Table 4. Regression analysis showing predictors of the need for psychological support

Predictors	B	SE.	Wald	df	Sig.
Working hours day	.448	.173	6.671	1	**.01**
Age	-.050	.023	4.619	1	**.032**
Gender	.270	.377	.515	1	.473
Profession	.051	.128	.158	1	.691
Place work	-.017	.087	.039	1	.844
Stress Load Subjective	.091	.348	.069	1	.793
No shifts per week	-.067	.076	.782	1	.376
Monthly off days	.122	.175	.489	1	.484
Suitable working hours	-.398	.408	.953	1	.329
Availability of Equipments	.584	.409	2.033	1	.154
Pre-Employment Training	.211	.398	.282	1	.595
Food problem	.290	.356	.662	1	.416

B= unstandardized regression coefficient, SE = Standard error, Wald= Wald Chi-squared test, df = Degrees of freedom, Sig. = Significance (p-value)

Discussion

During the COVID-19 crisis, a more comprehensive understanding of the psychological burden among different groups of HCWs is crucial to plan and provide the psychological support needed and to strengthen mental healthcare.[12] The current study uses a cross-sectional design conducted at different time points, attempting to assess the psychological needs of the frontline HCWs during different periods of the COVID-19 pandemic and investigate the factors that may contribute to their need for psychological support and their psychological well-being.

A total of N=315 people participated in the current study with a mean age of 35.5 (±7.89). The mean age was slightly older than another study done in Nepal among health providers during COVID-19, which was 26.01(±4.46) years.[13] Sociodemographic characteristics of the responders in the second and third rounds showed a statistically significant difference, which is probably the result of the sampling procedure being done in the form of snowballing technique. In the third round, there was an increase in the number of responses from isolation hospitals (46.3%) compared to the second round. This might be due to increasing the workforce in isolation hospitals and transferring many hospitals to isolation hospitals with the increase in COVID-19 cases.

Significant differences were observed in the work conditions (e.g., working hours/day, working days/week). In the third round, there was an increase in the working days with a decrease in the working hours compared to the second round. This can be explained by changes in the policy in isolation wards concerning working hours and working days/days off ratio, which was reflected in the perceived stress of the healthcare providers being less in severity in the third round.

The perceived stress reported by most of the HCWs in both rounds was moderate to severe, being more severe in the second round (53.2%) compared to the third round. In comparison, moderate stress levels were reported to be (43.9%) in the second round and (57.4%) in the third round. A similar Egyptian study reported (75.2%) much higher stress levels than average among a sample of HCWs between the 21st of May and the 7th of July 2020, which is the same period of the second round of this study.[14] The levels of stress perceived by HCWs in the current study are higher than the levels of distress reported in Nepal's study, which was mild-moderate stress in 46.5% of the sample and severe stress in 6.7% only.[13] HCWs In China (36.5%)[15] and Saudi Arabia (33.7%)[16] reported mild degrees of distress which is lower compared to the current study. This might be attributed to the difference in methods of measuring stress. In the current study, stress was assessed by one question on perceived stress with Likert answers to mild, moderate, and severe. In contrast, other studies used specific questionnaires to measure the degree of perceived distress. However, it indicates that HCWs worldwide work in stressful work conditions due to the high risk of infection, deficiency in resources, training, as well as vagueness of the disease and heavy workload.

The current COVID-19 pandemic has caused significant threats to people's physical health and provoked a wide variety of psychological problems such as anxiety, depression, and panic disorders.[17] The current study shows evidence of the increased prevalence of psychiatric symptoms, such as anxiety and depression, among HCWs. As noted in early reports during the pandemic from Italy, anxious, cyclothymic, and depressive temperaments were adopted as modalities of behavior. Anxious behaviors were considered protective in nature, while cyclothymic and depressive temperaments indicated worry, negativity, and self-doubt with an enhanced desire for social connection.[18] The rising prevalence of intrusive and recurring memories of patients' talks and experiences was especially evident, the so-called flashbacks. It has been argued that PTSD is the product of indelible traumatic memory, the ability of which to capture events with cinematic and photographic accuracy results in the presence of flashbacks.[19] The phenomena of intrusive memories and flashbacks are core symptoms of posttraumatic stress disorder (PTSD). Although the currenty study did not aim to collect all the diagnostic criteria of PTSD, it was evident that such phenomena took time to appear among participants. HCWs have been disproportionately traumatized during the COVID-19 pandemic. Between rising death tolls, ineffective treatments, and even inadequate personal protective equipment, HCWs have been in survival mode for more than two years.

HCWs mentioned psychological support, spiritual practices (e.g., prayers) and having enough sleep among their top priority needs that can help them cope with the stressful conditions. There was a significant increase in all suggested coping strategies in the third round compared to the second round. This can indicate that HCWs' awareness of the different ways to overcome psychological distress increased over time, which was also reflected in the decrease of the reported levels of stress in third round. In a study conducted in some hospitals in China, medical staff stated they needed more rest and personal protective supplies. They also indicated their need for mental health training or trained staff to assist them when interacting with difficult or aggressive patients.[20] Regarding the channel through which psychological support is provided, the percentage of HCWs who preferred receiving remote support, whether through phone or internet, was increased in the third round, denoting the increased acceptance and expansion of telehealth services overtime during the pandemic.

In the current study, the only independent predictors for the need for psychological support among the participants were the increased number of working hours per day and the younger age of the participants. Shaker *et al.* reported that the younger age of HCWs is associated with higher levels of perceived stress which might be due to the lack of clinical experience in dealing with such stressful situations. However, assigning HCWs to new tasks outside their area of expertise was the only significant independent variable predicting higher stress levels among the participants in their study.[14]

Limitations

Due to restrictions and difficulty collecting data from HCWs during the pandemic, a non-representative sample of HCWs was collected through an online survey. Inferential statistics were conducted on the data collected in the second and third rounds due to the limited responses in the first round, which was considered a pilot.

Conclusions

The change in work conditions, the increased awareness of HCWs to their needs, and the use of different strategies to overcome stress were associated with decreased levels of perceived stress among HCWs. The increased number of working hours per day and younger age of the participants were the only significant independent variables detecting the need for psychological support. Needs assessment is an essential component of any initiative that aims to support HCWs and address their actual needs. The current research is a call for designing and implementing tailored needs-based interventions that address the different aspects of HCWs' well-being during public health emergencies.

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List of abbreviations

GSMHAT: General Secretary of Mental Health and Addiction Treatment

HCWs: Healthcare workers

Ethical approval

Ethical approval was obtained from the ethics committee in the GSMHAT. Informed consent was included at the beginning of the online survey explaining the aim of the study. Confidentiality and anonymity of information were ensured.

Authors' contribution

NS, NMS, and MR conceptualized the study. NMS and NS developed the methodology and data collection tool. MR and SN participated in survey dissemination and data collection. NMS, NS and EN analyzed the data. NS, NMS, and MAA wrote the first draft of the manuscript. All authors reviewed and edited the manuscript and approved the final version. MR was responsible for the supervision of this research project. All authors read and approved the final manuscript.

References

1. World Health Organization. IHR Emergency Committee on Novel Coronavirus (2019-nCoV) [Internet]. 2020 [cited 2021 Jun 9]. Available from: https://www.who.int/director-general/speeches/detail/who-director-general-s-statement-on-ihr-emergency-committee-on-novel-coronavirus-(2019-ncov)
2. Wu T, Jia X, Shi H, Niu J, Yin X, Xie J, et al. Prevalence of mental health problems during the COVID-19 pandemic: A systematic review and meta-analysis [Internet]. Vol. 281, J Affect Disord Elsevier B.V.; 2021 [cited 2021 Mar 19]. p. 91–8. Available from: https://pubmed.ncbi.nlm.nih.gov/33310451/
3. World Health Organization. The impact of COVID-19 on mental, neurological and substance use services: results of
4. World Health Organization. Over 10 000 health workers in Africa infected with COVID-19 [Internet]. 2020 [cited 2021 Mar 22]. Available from: https://www.afro.who.int/news/over-10-000-health-workers-africa-infected-covid-19
5. World Health Organization. The impact of COVID-19 on health and care workers: a closer look at deaths [Internet]. World Health Organization; 2021. (Working paper;1). Available from: https://apps.who.int/iris/handle/10665/345300
6. Song X, Fu W, Liu X, Luo Z, Wang R, Zhou N, et al. Mental health status of medical staff in emergency departments during the Coronavirus disease 2019 epidemic in China. Brain Behav Immun. 2020 Aug 1;88: 60-5.
7. Li R, Chen Y, Lv J, Liu L, Zong S, Li H, et al. Anxiety and related factors in frontline clinical nurses fighting COVID-19 in Wuhan. Medicine (Baltimore) [Internet]. 2020 Jul 24 [cited 2021 Jun 9];99(30):e21413. Available from:

https://journals.lww.com/md-journal/Fulltext/2020/07240/Anxiety_and_related_factors_in_frontline_clinical.103.aspx

8. Maraqa B, Nazzal Z, Zink T. Palestinian Health Care Workers' Stress and Stressors During COVID-19 Pandemic: A Cross-Sectional Study. J Prim Care Community Heal [Internet]. 2020 Aug 27 [cited 2021 Jun 9];11. Available from: https://doi.org/10.1177/2150132720955026
9. De Kock JH, Latham HA, Leslie SJ, Grindle M, Munoz SA, Ellis L, et al. A rapid review of the impact of COVID-19 on the mental health of healthcare workers: implications for supporting psychological well-being. BMC Public Health [Internet]. 2021 Dec 1 [cited 2021 Dec 12];21(1):1–18. Available from: https://bmcpublichealth.biomedcentral.com/articles/10.1186/s12889-020-10070-3
10. El-Qushayri AE, Dahy A, Reda A, Mahmoud MA, Mageed SA, Kamel AMA, et al. A closer look at the high burden of psychiatric disorders among healthcare workers in Egypt during the COVID-19 pandemic. Epidemiol Health [Internet]. 2021 [cited 2022 Apr 17];43. Available from: /pmc/articles/PMC8602011/
11. World Health Organization. Assessing mental health and psychosocial needs and resources: toolkit for humanitarian settings [Internet]. World Health Organization; 2012. 80 p. Available from: https://apps.who.int/iris/bitstream/handle/10665/76796/9789241548533_eng.pdf
12. Bao Y, Sun Y, Meng S, Shi J, Lu L. 2019-nCoV epidemic: address mental health care to empower society. Lancet (London, England) [Internet]. 2020 Feb 22 [cited 2021 Dec 6];395(10224):e37–8. Available from: https://pubmed.ncbi.nlm.nih.gov/32043982/
13. Kafle K, Shrestha DB, Baniya A, Lamichhane S, Shahi M, Gurung B, et al. psychological distress among health service providers during COVID-19 pandemic in Nepal. PLoS One [Internet]. 2021 Feb 1 [cited 2021 Dec 6];16(2):e0246784. Available from: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0246784
14. Shaker NM, Sabry N, Alkasaby MA, Rabie M. Predictors of stress among a sample of Egyptian healthcare providers during the COVID-19 pandemic. Middle East Curr Psychiatry 2021 281 [Internet]. 2021 Nov 17 [cited 2021 Dec 6];28(1):1–6. Available from: https://mecp.springeropen.com/articles/10.1186/s43045-021-00164-y
15. Lai J, Ma S, Wang Y, Cai Z, Hu J, Wei N, et al. Factors Associated With Mental Health Outcomes Among Health Care Workers Exposed to Coronavirus Disease 2019. JAMA Netw Open [Internet]. 2020 Mar 2 [cited 2021 Dec 6];3(3):e203976–e203976. Available from: https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2763229
16. Al-Hanawi MK, Mwale ML, Alshareef N, Qattan AMN, Angawi K, Almubark R, et al. <p>Psychological Distress Amongst Health Workers and the General Public During the COVID-19 Pandemic in Saudi Arabia</p>. Risk Manag Health Policy [Internet]. 2020 Jul 7 [cited 2021 Dec 6];13:733–42. Available from: https://www.dovepress.com/psychological-distress-amongst-health-workers-and-the-general-public-d-peer-reviewed-fulltext-article-RMHP
17. Qiu J, Shen B, Zhao M, Wang Z, Xie B, Xu Y. A nationwide survey of psychological distress among Chinese people in the COVID-19 epidemic: implications and policy recommendations. Gen psychiatry [Internet]. 2020 Mar 6 [cited 2021 Dec 6];33(2). Available from: https://pubmed.ncbi.nlm.nih.gov/32215365/
18. Moccia L, Janiri D, Pepe M, Dattoli L, Molinaro M, De Martin V, et al. Affective temperament, attachment style, and the psychological impact of the COVID-19 outbreak: an early report on the Italian general population. Brain Behav Immun [Internet]. 2020 Jul 1 [cited 2021 Dec 6];87:75. Available from: /pmc/articles/PMC7169930/
19. Ehlers A, Hackmann A, Steil R, Clohessy S, Wenninger K, Winter H. The nature of intrusive memories after trauma: the warning signal hypothesis. Behav Res Ther. 2002 Sep 1;40(9):995–1002.
20. Chen Q, Liang M, Li Y, Guo J, Fei D, Wang L, et al. Mental health care for medical staff in China during the COVID-19 outbreak. The lancet Psychiatry [Internet]. 2020 Apr 1 [cited 2021 Dec 6];7(4):e15–6. Available from: https://pubmed.ncbi.nlm.nih.gov/32085839/

الملخص

الأهداف: تهدف هذه الدراسة إلى تحديد الاحتياجات النفسية والاجتماعية للعاملين في مجال الرعاية الصحية خلال جائحة الكوفيد-19، وفهم العوامل التي تساهم في رفاههم النفسي والاجتماعي. الأساليب: لقد أجرينا دراسة مقطعية باستخدام استطلاع عبر الإنترنت مصمم خصيصًا لهذه الدراسة. تم جمع البيانات من 315 من العاملين في مجال الرعاية الصحية في الخطوط الأمامية خلال جائحة الكوفيد-19. **النتائج:** ما يصل إلى 90٪ من المستجيبين للاستطلاع سجّلوا مجموعة من الأعراض المتعلقة بالضيق النفسي مثل القلق والأرق وقلة الحافز والأفكار السلبية وعدم القدرة على تحقيق الأهداف والإرهاق. يعد الدعم النفسي، والدعم الروحي، والتواصل مع الأسرة، والنوم الجيد من بين عوامل تخفيف التوتر التي ذكرها العاملون في مجال الرعاية الصحية. بينما ارتبط التغيير في ظروف العمل وزيادة الوعي بالحاجة إلى استخدام استراتيجيات مختلفة للتغلب على الإجهاد مع انخفاض مستويات الإجهاد ابين مقدمي الرعاية الصحية. **الخلاصة:** التغير في ظروف العمل، وزيادة وعي العاملين في مجال الرعاية الصحية باحتياجاتهم النفسية، واستخدام استراتيجيات مختلفة للتغلب عليها ارتبطت بمستويات منخفضة من الإجهاد بين العاملين في مجال الرعاية الصحية. زيادة عدد ساعات العمل اليومية والعمر الأصغر للمشاركين كانا هما المتغيران المستقلان المرتبطان بالحاجة إلى الدعم النفسي. هذا البحث هو دعوة لإعداد وتنفيذ تدخلات مخصصة قائمة على الاحتياجات، والتي تستهدف الجوانب المختلفة لرفاهة العاملين في مجال الرعاية الصحية أثناء طوارئ الصحة العامة (مثل الأوبئة والكوارث).

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Psychometric Properties of the Arabic Version of the Nomophobia Questionnaire in Jordan

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مفهوم رهاب فقدان الهاتف النقال "النوموفوبيا": الخصائص القياسية للنسخة العربية Pمن استبيان النوموفوبيا بين طلبة الجامعات في الأردن

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Abstract

Introduction: Nomophobia is one of the modern concepts dealing with the interaction between humans and new technologies especially for Smartphone use. The current study aims to translate (to the Arabic language) and to estimate the psychometric properties Nomophobia questionnaire (NMPQ). **Methods:** The sample consisted of 1005 students (412 males, 593 females) who were registered in the health faculties at the Jordan University of Science and Technology (JUST) for the second semester for the academic year of 2016/2017. NMPQ was translated using forward-backward translation method. Acceptability, items ace validity, construct validity and reliability were evaluated. Excessive smartphone use was also evaluated as a part of nomophobia dimensions. **Results:** The mean (SD) of NMP-Q subscales ranged from 3.7 (1.5) for 'Losing connectedness' to 4.8 (1.5) for 'Not being able to access information'. All item-scale correlations exceeded the minimum correlation of 0.40 for adequate item internal consistency. For all scales, Cronbach's alpha coefficient exceeded the minimum criterion of 0.7. **Conclusions:** This study demonstrated that the Arabic version of the NMPQ is a reliable and valid instrument for measuring nomophobia among university students in Jordan. Nomophobia is affected by the period of smartphone ownership, time spent on a smartphone daily and by having an Internet package or not. **Recommendations:** Studying the effect of nomophobia on the daily human activities, such as academic performance, sleep, and physical activity, is recommended.

Keywords: Nomophobia, internet addiction disorder, problematic mobile phone use, exploratory factor analysis, principal component analysis

Declaration of interest: None

Introduction

The interaction between humans and new technologies is reaching new levels of intimacy and constant use. The smartphone is an important tool to communicate with others. However, the excessive use of smartphones has a strong impact on the human's behavior and on the physical and psychological well-being of the users. It was suggested that smartphone overuse predisposes to musculoskeletal, ophthalmic, psychiatric, and neurological complications that might impair the quality of life and presents a burden on both individuals and society in terms of morbidity, productivity, and economic costs.[1-16]

One of these problems related to Smartphone is nomophobia, which is a new concept describing the human reaction to losing his/her Smartphone. The first use of this term appeared in a study done by the UK Post Office in 2008 to explore anxieties related to the use of mobile phones. The concept is derived from the expression "No Mobile Phobia".[17] The researchers defined nomophobia as a condition referring to the "discomfort or anxiety when out of the mobile phone or computer contact". It is the fear of becoming technologically incommunicable, distant from the mobile phone or not connected to the Web".[18] In short, "it is a psychological fear of losing mobile or cell phone contact".[19]

Yildirim Correia (2015) considered nomophobia a modern age phobia that recently presented as a byproduct of our interactions with mobile phones. On the other hand, some researchers considered nomophobia as part of the broader umbrella of social networking sites (SNS) addiction and considered it as a contributing factor to (SNS) addiction as it can facilitate and enhance the repeated use of SNS, forming habits that may increase the general vulnerability for the experience of addiction-related symptoms because of problematic SNS use.[11, 20]

In Jordan, the use of Smartphone is considerably high and increasing. This is evident by the increase in the number of mobile phone subscribers from 8.9 million in 2012 to 16.7 million in 2016, and the increase in the number of internet subscribers from 1.8 million in 2014 to reach around 9 million in 2016. Reports showed that around two-thirds of the Jordanian population own at least one Smartphone and 93% of the social media accounts in Jordan access internet on daily basis.[21-25] All these figures suggest a changing behavior in the Jordanian community toward using smartphones, which hypothetically makes users more exposed to the pathologies related to the increased use of these new technologies.

In the past years, various tools to measure the technology use, including mobile phone addiction and excessive internet use have been developed. These tools are largely derived from the concept of addiction and are intended to measure the problematic use of technology within a conceptual framework of use-as-pathology. In the literature, few tools were found to target nomophobia as a unique entity and to deal with its concept as the pathological fear, or anxiety provoked by separation from a mobile phone.Yildirim.et al. (2015) developed nomophobia questionnaire (NMP-Q), a 20-item questionnaire, to assess different aspects of nomophobia including the inability to communicate, losing connectedness, inability to retrieve information, and giving up convenience. This questionnaire was generated using a mixed-methods research design, in which the researchers initially qualitatively explored the dimensions of nomophobia through interviews with college students and devised the questionnaire based on these dimensions. Prior to this study, there were no Arabic translations of nomophobia questionnaire or any other instrument dealing with nomophobia. The purpose of this study was to assess the reliability and validity of an Arabic translation of the nomophobia questionnaire (NMPQ) and to assess the relationship between patterns of smartphone use and nomophobia.

Methods

Study population

A convenient sample of 1005 students were selected from those who were registered in the health faculties at the Jordan University of Science and Technology (JUST) for the second semester for the academic year of 2016/2017. A total of 918 participants completed the questionnaire (541 women and 377 men; mean age of 19.8±1.6 years). Of those, 227 were medical students, 121 were dental students, 162 were pharmacy students, 237 were nursing students and 171 were applied medical sciences students. All students gave informed consent. The study was approved by the Human Research Ethics Committees of the Jordan University of Science and Technology (JUST).

Data collection

A questionnaire of three parts was constructed. The first part included information about socio-demographic characteristics, namely age, gender, year of study, major, and college. The second part of the questionnaire sought information about smartphone usage characteristics and it included smartphone possession duration, having internet packages, the daily time spent using smartphone on average, frequency of checking, number of daily phone calls made/received, number of daily text messages sent/received, number of daily email messages sent/received, number of the applications on the smartphone, purposes of smartphone usage, and a situation where the smartphone is used. And the third part sought answers to the NMP-Q. Permission was obtained from lecturers to collect the data from students in the class. The researcher visited students in their classes and invited them to participate in the study. The researcher and lecturer asserted that participating in the study was purely voluntarily. On average, students took approximately 15-20 minutes to fill out the questionnaire.

Translation of and theoretical development of a revised Arabic NMP-Q

The Arabic version of the NMP-Q was developed through a forward/backward translation process conducted by bilingual experts. First, two bilingual translators translated NMP-Q to Arabic language (forward translation). Second, the Arabic version was translated back to English by other two translators (backward translation). Third, the research group with Arabic language professionals and translators revised all the versions to resolve incongruity and to achieve conceptual equivalency. Some formal Arabic terms were replaced by terms selected from commonly used Arabic language to make the approach more accurate. For example, ‘I would panic’ was translated as ‘I will be afraid’ Fourth, researchers suggested adding eight more questions to cover all dimensions of nomophobia. Excessive mobile phone involvement was suggested as a part of the nomophobia concept, and it was assessed by an extra eight questions. The Walsh et al. (2010) criteria for excessive mobile phone involvement were adopted. This contains self-identity, social identity, social motivations and uses and gratifications. These criteria were a result of multi psychosocial theories with a behavioral addiction framework to result in a unique description of the human behavior regarding the use of mobile phones.[26]

Fifth, the developed version of the questionnaire was piloted on 45 university students (29 women and 16 men) to assess the interpretation of the item content. Two questions were rephrased based on the pilot testing. Sixth, a final version was adopted and distributed to the sample population of 1005 students. Data from the pilot study was not used in the final analysis.

Acceptability

The applicability and acceptability were tested by measuring the time taken to complete the Arabic NMP-Q, the response rate, the percentage of missing data, the responders understanding of the questionnaire assessed by the number of questions being asked during filling the questionnaires and the percentage of blurred questions that was difficult to understand.

Face validity

The Arabic translation was also reviewed and validated by a team of local experts consisting of an epidemiologist, a psychiatrist, and psychology experts.

Construct validity

Exploratory factor analysis was used to test the construct validity of this instrument.

Convergent validity

As no gold standard reference is available to compare with and as the whole concept is still under study, convergent validity was assessed by testing the hypothesis on the effect of mobile phone use patterns on the nomophobic behavior which was done by comparing the mean average scores of the Arabic NMP-Q based on the smartphone use patterns, such as having Internet packages, years of smartphone ownership, and the daily time spent using the smartphone. This might provide some extra evidence on the validity of the instrument.

Discriminant validity

To differentiate nomophobia from smartphone overuse, Spearman correlation between the mean average score and the number of each of the smartphone services including the number of daily phone calls made/received, number of daily text messages sent/received, number of daily email messages sent/received, number of the applications on the smartphone.

Reliability

The internal consistency of the Arabic NMP-Q was estimated by Cronbach’s alpha. Values exceeding the cutoff value of 0.7, indicates good reliability.[27]

Statistical analysis

Statistical analysis was performed using IBM Statistical Package for the Social Sciences (SPSS) version 24. Continuous data were represented as means and standard deviations (SDs), while categorical data were expressed as percentages. To investigate the factor structure of the translated questionnaire, an exploratory factor analysis (EFA) was carried out, using the principal component analysis (PCA) approach with varimax rotation performed on the 28 items of the questionnaire. Varimax rotation was chosen since it minimizes factor complexity while, at the same time, maximizing the variance of factor loadings.[28] First, an exploratory PCA was performed on the 20 items of the questionnaire without carrying out any rotation, to (1) check whether PCA could be deemed an appropriate technique for the matrix by examining if the correlations among items were >0.30, and (2) control for the factorability of the correlation matrix using Bartlett’s test of sphericity. In cases of statistical significance, this test enables researchers to reject the null hypothesis (the correlations in the correlation matrix are zero and the matrix is an identity matrix). The Kaiser-Meyer-Olkin (KMO) measure was calculated to assess the sampling adequacy. Ideally, the KMO should be >60.[28]

The likely number of dimensions was determined by the number of dimensions with eigenvalues greater than 1[28, 29] and a visual inspection of the scree plot. After checking the factor loadings, items were deleted in cases of unsatisfactory loading (values less than .45) or loading conflicting with a sound theoretical explanation. Different PCA with varimax rotation runs was, therefore, carried out iteratively until a satisfactory, clearly interpretable solution was finally achieved. Cases of cross-loading were interpreted according to salience and explained variance, with theoretical considerations also being considered. Internal consistency and reliability were computed by calculating the Cronbach alpha coefficient for the scale and for each subscale. P values less than .05 were considered statistically significant.

Results

Participant characteristics

The current study included a total of 918 students (541 women, 377 men) in the health faculties in JUST, aged between 17 and 26 years old with a mean (SD) of 19.8 (1.6). Their demographic and important characteristics are shown in Table 1. Almost one quarter (25.9%) of the participants were first-year students, 25.3% were second-year students, 17.4% third-year students, and 31.3% were final year's students. All students reported using a smartphone. The mean (SD) duration of smartphone ownership was 4.1 years (1.4). The mean (SD) of the daily time spent on a smartphone was 5.9 (3.7) hours.

Table 1. The demographic characteristics of the participants

Characteristics	**n**	**%**
Age (year)		
<20	470	51.2
20+	448	48.8
Gender		
Male	377	41.1
Female	541	58.9
Collage		
Medicine	227	24.7%
Dentistry	121	13.2%
Pharmacy	162	17.6%
Nursing	237	25.8%
Applied Medical Sciences	171	18.6%
Years of Education		
First	238	25.9
Second	233	25.4
Third	160	17.4
Fourth or higher	287	31.3

Acceptability and applicability

A total number of 918 students completed the questionnaire, with a response rate of 91%. Main reasons for not participating in the study were lack of concern in the study and lack of time. Regarding applicability, respondents took around 15 minutes to complete the questionnaire. The purpose of the study was well understood by the students. All students were able to follow the instructions and no complicated questions were reported. Some items showed a very low percentage of missing data.

Face validity

The Arabic NMPQ questionnaire was adapted from an English version Yildirim & Correia (2014). The English version was created based on literature review and different experts' opinions in the field of mobile phones usage. Experts reported that the Arabic NMPQ is clear, and it targets different aspects of nomophobia. Also, the majority of the students were able to understand and answer all the questions without asking for further explanations.

Construct validity and exploratory factor analysis

Table 2 shows the descriptive statistics at the item level. Most of the inter-item correlation matrix for the 28 items in the Arabic NMPQ exceeded 0.3, which is considered a good sign for the appropriateness of applying PCA for the matrix. Furthermore, both partial and bivariate correlations along with the variance nomogeneity of the 28 items matrix were tested using Bartlett’s test of sphericity. Barlett’s test of sphericity indicated that variables are related and therefore suitable for structure detection. As for the adequacy of sampling, the KMO index was 0.96, which is greater than the minimum acceptable value of 0.60. Accordingly, factor analysis deems to be appropriate. According to the rule of eigenvalues and Scree Plot, four dimensions had eigenvalues greater than one. The four dimensions together explain about 60.0% of the total variance. Items loadings on each dimension are shown in Table 3. Seven items loaded on the first dimension, and it is named as "not being able to communicate". Eight items loaded on the second dimension, and it is named "losing Connectedness". Six items loaded on the third dimension, and it is named "not being able to access information". Seven items loaded on the fourth dimension, and it is named "excessive Smartphone involvement"

Table 2. Mean scores with standard deviation for each question of the Arabic NMPQ

Item no.	The question	Mean	SD
1	I would feel uncomfortable without constant access to information through my Smartphone.	5.0	1.9
2	I would be annoyed if I could not look information up on my Smartphone when I wanted to do so.	5.3	1.8
3	Being unable to get the news (e.g., happenings, weather, etc.) on my Smartphone would make me nervous.	3.7	2.1
4	I would be annoyed if I could not use my Smartphone and/or its capabilities when I wanted to do so.	4.9	1.9
5	Running out of battery on my Smartphone would scare me.	4.7	2.1
6	If I were to run out of credits or hit my monthly data limit, I would panic.	4.2	2.1
7	If I did not have a data signal or could not connect to Wi-Fi, then I would constantly check to see if I had a signal or could find a Wi-Fi network.	4.6	1.9
8	If I could not use my Smartphone, I would be afraid of getting stranded somewhere.	4.1	2.1
9	If I could not check my Smartphone for a while, I would feel a desire to check it.	4.8	1.8
10	I would feel anxious because I could not instantly communicate with my family and/or friends.	4.5	1.9
11	I would be worried because my family and/or friends could not reach me.	4.9	1.8
12	I would feel nervous because I would not be able to receive text messages and calls.	4.1	2.0
13	I would be anxious because I could not keep in touch with my family and/or friends.	4.7	1.9
14	I would be nervous because I could not know if someone had tried to get a hold of me.	4.4	1.9
15	I would feel anxious because of my constant connection to my family and friends would be broken.	4.4	2.0
16	I would be nervous because I would be disconnected from my online identity.	3.9	1.9
17	I would be uncomfortable because I could not stay up to date with social media and online networks.	4.0	1.9
18	I would feel awkward because I could not check my notifications for updates from my connections and online networks.	3.4	1.9
19	I would feel anxious because I could not check my email messages.	3.5	2.0
20	I would feel weird because I would not know what to do.	4.0	1.9
21	When I am not using my Smartphone, I usually think of it.	3.7	2.0
22	Usually, I use my Smartphone for no exact reason.	4.6	1.9
23	Others have discussed my Smartphone usage patterns.	4.0	2.0
24	I stop anything in hand when I am using my Smartphone.	3.6	1.9
25	I feel connected with others when I am using my Smartphone.	4.7	1.7
26	I don't track the time I use my smartphone in.	4.7	1.8
27	Thinking of being without my smartphone makes me nervous.	4.1	1.9
28	I am not able to reduce the time I use my Smartphone in.	3.9	2.0

Table 3. Dimension loadings from rotated component matrix: PCA with varimax

Item no.	The question	Dimension 1 Not being able to communicate	Dimension 2 Losing Connectedness	Dimension 3 Not being able to access information	Dimension 4 Excessive Smartphone involvement
13	I would be anxious because I could not keep in touch with my family and/or friends.	0.8	0.1	0.2	0.2
11	I would be worried because my family and/or friends could not reach me.	0.8	0.1	0.2	0.2
10	I would feel anxious because I could not instantly communicate with my family and/or friends.	0.8	0.2	0.2	0.1

15	I would feel anxious because of my constant connection to my family and friends would be broken.	0.7	0.2	0.2	0.2
12	I would feel nervous because I would not be able to receive text messages and calls.	0.6	0.4	0.3	0.1
14	I would be nervous because I could not know if someone had tried to get a hold of me.	0.6	0.3	0.3	0.2
8	If I could not use my smartphone, I would be afraid of getting stranded somewhere.	0.6	0.3	0.2	0.2
18	I would feel awkward because I could not check my notifications for updates from my connections and online networks.	0.3	0.8	0.2	0.1
19	I would feel anxious because I could not check my email messages.	0.2	0.7	0.2	0.1
16	I would be nervous because I would be disconnected from my online identity.	0.4	0.7	0.3	0.2
21	When I am not using my smartphone, I usually think of it.	0.1	0.7	0.1	0.4
17	I would be uncomfortable because I could not stay up to date with social media and online networks.	0.3	0.6	0.4	0.3
24	I stop anything in hand when I am using my smartphone.	0.1	0.6	0.1	0.5
3	Being unable to get the news (e.g., happenings, weather, etc.) on my smartphone would make me nervous.	0.3	0.5	0.5	-0.1
20	I would feel weird because I would not know what to do.	0.2	0.4	0.2	0.3
2	I would be annoyed if I could not look information up on my smartphone when I wanted to do so.	0.2	0.1	0.8	0.1
4	I would be annoyed if I could not use my smartphone and/or its capabilities when I wanted to do so.	0.2	0.2	0.7	0.3
1	I would feel uncomfortable without constant access to information through my smartphone.	0.2	0.2	0.7	0.3
5	Running out of battery on my smartphone would scare me.	0.3	0.3	0.6	0.2
7	If I did not have a data signal or could not connect to Wi-Fi, then I would constantly check to see if I had a signal or could find a Wi-Fi network.	0.3	0.3	0.6	0.2
9	If I could not check my smartphone for a while, I would feel a desire to check it.	0.4	0.2	0.4	0.4
22	Usually, I use my smart phone for no exact reason.	0.1	0.1	0.2	0.7
26	I don't track the time I use my smartphone in.	0.2	0.0	0.3	0.7

28	I am not able to reduce the time I use my smartphone in.	0.2	0.4	0.1	0.6
23	Others have discussed my smart phone usage patterns.	0.1	0.4	0.0	0.6
25	I feel connected with others when I am using my smartphone.	0.3	0.1	0.3	0.5
27	Thinking of being without my smartphone makes me nervous.	0.3	0.4	0.4	0.5
6	If I were to run out of credits or hit my monthly data limit, I would panic.	0.2	0.3	0.3	0.4

Reliability analysis

Cronbach's alpha for the four dimensions were 0.91, 0.89, 0.86, and 0.84, respectively. These values exceeded a cutoff value of 0.7, indicating good reliability. The comparison of the Cronbach's alpha if item deleted to Cronbach's alpha reliability coefficient for internal consistency of the questionnaire (.944) reveals that there is no item whose deletion will result in an increase in the Cronbach's alpha of all items. Based on these two analyses, it was concluded that no item needed to be deleted from the questionnaire.

Factors associated with nomophobia

Table 4 describes the average scores for the four dimensions. The only factors that were found to be associated with nomophobia are shown in Table 5. Gender, having an internet data package, several years owning a Smartphone, and daily time spent on a Smartphone (hour) were significantly associated with nomophobia. There was the statistically significant difference between men and women's students regarding their nomophobic behavior. Men had an average total score of 4.06 while women tended to be more anxious about losing their smartphones with an average score of 4.4. Having an internet data package, increased number of years owning a Smartphone, and increased daily time spent on a Smartphone was significantly associated with a higher score of nomophobia.

Table 4. Statistical description of the four dimensions and the total score of the Arabic NMPQ

Dimensions	Mean	Standard deviation	Minimum	Maximum
Dimension 1 Not being able to communicate (7 items)	4.2	1.3	1.0	7.0
Dimension 2 Losing connectedness (8 items)	4.4	1.5	1.0	7.0
Dimension 3 Not being able to access information (6 items)	3.7	1.5	1.0	7.0
Dimension 4 Excessive Smartphone involvement (7 items)	4.9	1.5	1.0	7.0
Total score (28 items)	4.3	1.4	1.0	7.0

Table 5. The means of the total score and the four dimensions according to each characteristic gender

Characteristic	Total avg score	Dimension 1 Not being able to communicate	Dimension 2 Losing connectedness	Dimension 3 Not being able to access information	Dimension 4 Excessive Smartphone involvement
Gender					
Male	4.2 (1.5)	3.6 (1.5)	4.6 (1.5)	4.1 (1.4)	4.1 (1.3)
Female	4.6 (1.5)	3.8 (1.4)	5 (1.4)	4.4 (1.3)	4.4 (1.2)
P-value	0.000	0.000	0.224	0.000	0.000
Having an internet data package					
Yes	4.3 (1.2)	4.5 (1.5)	3.8 (1.5)	5 (1.4)	4.4 (1.4)
No	3.9 (1.4)	4.1 (1.7)	3.4 (1.5)	4.4 (1.6)	3.9 (1.6)
P-value	0.001	0.005	0.016	0.000	0.000
Number of years owning a Smartphone					
<3	3.7 (1.2)	4 (1.7)	3 (1.3)	4.3 (1.6)	3.9 (1.4)
3-4	4.2 (1.2)	4.4 (1.5)	3.6 (1.5)	4.8 (1.4)	4.2 (1.4)
>4	4.4 (1.2)	4.6 (1.5)	3.9 (1.4)	5 (1.4)	4.4 (1.4)
P-value	0.000	0.000	0.000	0.000	0.003
Dailey time spent on a Smartphone (hour)					
<5	3.8 (1.3)	4.1 (1.6)	3.4 (1.4)	4.4 (1.5)	3.8 (1.4)
≥5	4.5 (1.2)	4.7 (1.4)	4 (1.4)	5.2 (1.3)	4.6 (1.3)
P-value	0.000	0.000	0.000	0.000	0.000

Discussion

The concept of nomophobia is still unclear, and its main psychopathology remains an area for research. Considering nomophobia as part of the general term of mobile phone addiction or dependence and applying the criteria of behavioral addiction to identify nomophobia has been suggested by several researchers. Pavithra MB. et al.[30] used the mobile phone dependence criteria to assess nomophobia among university students in India, while Kuss D et al.[11] considered nomophobia as part of the of social networking sites (SNS) addiction and considered it as a contributing factor to SNS addiction as it can facilitate and enhance the repeated use of SNS, forming habits that may increase the general vulnerability for the experience of addiction-related symptoms as a consequence of problematic SNS use.

Although nomophobia lacks the typical avoidant behavior of the classical phobias, it was classified under the umbrella of anxiety disorders, based on fulfilling the specific phobia criteria. This trend was supported by the suggestion to add nomophobia to the new edition of the DSM[31] and by developing a questionnaire to assess nomophobia as a unique type of phobia.[20]

Even to consider nomophobia as a type of obsessional thinking of Smartphone and being connected through it, that is followed with compulsive acts of checking the phone and keeping it functional, or as an impulse control disorder as nomophobic people might have difficulties in resisting urges to engage in behaviors related to Smartphone that are excessive and/or ultimately harmful to oneself or others.

An Arabic version of the NMP-Q might be useful for research on nomophobia and smartphone behavior in Jordan as well as other Arab countries. The reliability results of the Arabic NMP-Q were like the original questionnaire done by Yildirim[20] and other versions including Spanish version,[32] Turkish version,[33] and the Italian version.[34] Cronbach's alpha in this study exceeds the cut-off level of 0.7 indicating an excellent reliability according to George and Mallery (2011).[29] It is worth noting that the sample size in this study of 918 was higher than that used for the other versions; English,[20] Turkish,[33] Spanish[32] and the Italian.[34]

The exploratory factor analysis results indicated the Arabic NMP-Q items can be loaded on four dimensions (factors). The four-dimensional solution of the NMP-Q was also adopted in other NMPQ versions: English,[20] Turkish,[33] Spanish[32] and Persian.[35] However, the Italian version of the NMPQ adopted a three-dimensional solution, in which "Giving up convenience" was dropped due to lack of loaded items.[34]

The item loading in the current study corresponded partially to that of the original NMPQ, where items 10 -15 loaded on factor 1 not being able to communicate, items 16-20 loaded on factor 2 losing connectedness, items 1-4 loaded on factor 3 not being able to access information and items 5-9 loaded on the fourth factor giving up convenience. Furthermore, the last 8 questions loaded on a new factor that was named "Excessive Smartphone involvement".

The current study showed no significant difference in the total score of the questionnaire between those who aged less than 20 years old and those aged more than 20. The narrow range of ages of the participants might conceal the true effect of age. The study found that the total score of the NMP-Q is statistically different between men and women with women at more risk for nomophobia compared to men. In Turkey in 2016, a statistically significant effect of gender on the nomophobic behavior was reported also.[33] While in India and Italy research results did not show this effect.[30,31] This might be due to social burdens and restrictions on women outside activities, making Smartphone a tempting alternative entertainment device, also the cultural considerations and restrictive parental supervision over women's smartphone particularly on relationships and private photos make females more cautious about their personal devices than males. In the current study, a statistically significant difference was noted in the total average score as well in the dimensions' subscores regarding the period of owning a Smartphone, with the longer the period the higher the score. This effect was not significant in the Turkish study in 2016.[33]

The longer time people spend on their smartphones a day, the higher the risk to have nomophobia. This was proved to be statistically significant as the total average of the Arabic NMP-Q and all the dimensions sub scores were found to be lower for those who use their mobile phones for periods less than five hours a day 3.8 (1.3), compared to those who use it for 5 hours or more per day 4.5 (1.2). A study in India in 2015 reported the same statistically significant effect of this factor.[30]

Conclusion

This study demonstrated that the Arabic version of the NMPQ is a reliable and valid instrument for measuring nomophobia among university students in Jordan; and therefore, it can be used to measure nomophobia among students in Jordan.

The concept of nomophobia still new and uncompleted, its dimensions need further exploratory studies. Excessive Smartphone involvement can be considered as one of the dimensions of the nomophobia concept. Nomophobia is affected by the period of Smartphone ownership, time spent on a Smartphone daily and by having an Internet package or not.

Further validation and studies are needed in the Arab countries to obtain more psychometric proprieties of the Arabic NMPQ. Wider age groups should be studied to discover the effect of age on the nomophobic behavior. Moreover, studying the physical signs and symptoms of nomophobia and its implication on the individual's daily activity, sleep, occupational performance, and social interaction is recommended for future studies.

References

1. Cheever NA, Rosen LD, Carrier LM, Chavez A. Out of sight is not out of mind: The impact of restricting wireless mobile device use on anxiety levels among low, moderate, and high users. Computers in Human Behavior. 2014;37: 290-7.
2. “Human-Technology Interaction.” TU/e Appoints Carmen Van Vilsteren as Director Strategic Area Health, www.tue.nl/en/education/tue-graduate-school/masters-programs/human-technology-interaction/.
3. Kesari KK, Siddiqui MH, Meena R, Verma HN, Kumar S. Cell phone radiation exposure on brain and associated biological systems. Indian Journal of Experimental Biology [Internet]. 2013Mar [cited 2018Apr18]; 51(3):187–200. Available from: https://www.ncbi.nlm.nih.gov/pubmed/23678539.
4. Liu K, Li Y, Zhang G, Liu J, Cao J, Ao L, et al. Association between mobile phone use and semen quality: a systemic review and meta-analysis. Andrology. 2014;2(4): 491-501.
5. Schoeni A, Roser K, Röösli M. Symptoms and Cognitive Functions in Adolescents in Relation to Mobile Phone Use during Night. Plos One. 2015;10(7).
6. Clercq CMPL, Ingen GV, Ruytjens L, Schroeff MPVD. Music-induced Hearing Loss in Children, Adolescents, and Young Adults. Otology & Neurotology. 2016; 37(9): 1208-16.
7. Gustafsson E, Thomée S, Grimby-Ekman A, Hagberg M. Texting on mobile phones and musculoskeletal disorders in young adults: A five-year cohort study. Applied Ergonomics. 2017;58: 208-14.
8. Description of Various Factors Contributing to Traffic Accidents in Youth and Measures Proposed to Alleviate Recurrence Ludovic Gicquel-Pauline Ordonneau-Emilie Blot-Charlotte Toillon-Pierre Ingrand-Lucia Romo - Frontiers in Psychiatry – 2017.
9. Lopez-Fernandez O, Kuss DJ, Romo L, Morvan Y, Kern L, Graziani P, et al. Self-reported dependence on mobile phones in young adults: A European cross-cultural empirical survey. J Behav Addict. 2017; 6(2): 168-77.
10. Kanjo E, Kuss DJ, Ang CS. NotiMind: Utilizing Responses to Smart Phone Notifications as Affective Sensors. IEEE Access. 2017; 5: 22023-35.
11. Kuss D, Griffiths M. Social Networking Sites, and Addiction: Ten Lessons Learned. International J Environ Res Publ Health. 2017;14(3): 311.
12. "Ascher, M.S., Avery, J., & Holoshitz, Y. (2015). Work addiction: Taking care of business. In M.S. Ascher & P. Levounis (Eds.), The behavioral addictions (pp. 199-208). Washington, DC: American Psychiatric Publishing."
13. Wright PJ, Donnerstein E. Sex Online: Pornography, Sexual Solicitation, and Sexting. Adolescent Medicine: State Art Rev. 2014;25(3): 574-89.
14. Karadağ E, Tosuntaş ŞB, Erzen E, Duru P, Bostan N, Şahin BM, et al. Determinants of phubbing, which is the sum of many virtual addictions: A structural equation model. J Behav Addict. 2015;4(2): 60-74.
15. Przybylski AK, Murayama K, Dehaan CR, Gladwell V. Fear of Missing Out Scale. PsycTESTS Dataset. 2013.
16. Swar B, Hameed T. Fear of Missing out, Social Media Engagement, Smartphone Addiction, and Distraction: Moderating Role of Self-Help Mobile Apps-based Interventions in the Youth. Proceedings of the 10th International Joint Conference on Biomedical Engineering Systems and Technologies. 2017.
17. 66% of the population suffer from Nomophobia the fear of being without their phone [Internet]. SecurEnvoy Blog. 2013 [cited 2018Apr18]. Available from: https://www.securenvoy.com/blog/2012/02/16/66-of-the-population-suffer-from-

nomophobia-the-fear-of-being-without-their-phone/.

18. King ALS, Valença AM, Nardi AE. Nomophobia: The Mobile Phone in Panic Disorder with Agoraphobia. Cognitive and Behavioral Neurology. 2010; 23(1):52–4.
19. IBTimes Staff Reporter. Nomophobia: 9 out of 10 Mobile Phone Users Fear Losing Contact, Says Survey [Internet]. International Business Times, India Edition. International Business Times, India Edition; 2013 [cited 2018Apr18]. Available from: http://www.ibtimes.co.in/nomophobia-9-out-of-10-mobile-phone-users-fear-losing-contact-says-survey-473914.
20. Yildirim C, Correia A-P. Exploring the dimensions of nomophobia: Development and validation of a self-reported questionnaire. Computers in Human Behavior. 2015;49: 130-7.
21. Download: Newzoo Global Mobile Market Report 2017 | Light Version [Internet]. Newzoo. 2017 [cited 2018Apr13]. Available from: https://newzoo.com/insights/trend-reports/global-mobile-market-report-light-2017/.
22. Annual report 2016 [Internet]. www.trc.gov.jo. Jordanian Telecommunications Regulatory Commission; [cited 2018Apr13]. Available from: http://trc.gov.jo/EchoBusV3.0/SystemAssets /PDF/AR/التقارير السنوية/TRC English Annual Report low res... Pdf.
23. Caumont A. Pew Research Center's most-read research of 2016 [Internet]. Pew Research Center. 2016 [cited 2018Apr13]. Available from: http://www.pewresearch.org/fact-tank/2016/12/29/pew-research-centers-most-read-research-of-2016/.
24. Facebook most popular social media site in Jordan — report. http://wwwjordantimescom [Internet]. Jordan Times; 2016Jul18 [cited 2018Apr20]; Available from: http://www.jordantimes.com/news/local/facebook-most-popular-social-media-site-jordan-—-report.
25. Fadi Salem. Arab Social Media Report 2017: social media and the Internet of Things - Towards Data-Driven Policymaking in the Arab World: Potential, Limits, and Concerns [Internet]. arabsocialmediareport.com. 2017 [cited 2018Apr13]. Available from: http://arabsocialmediareport.com/.
26. Walsh S, White KM, Young RM. Needing to connect: The effect of self and others on young people's involvement with their mobile phones. Aust J Psychol. 2010; 62(4):194-203.
27. Bollinger M, Power MJ, Aaronson NK, Cella DF, Anderson RT. Creating and evaluating cross-cultural instruments. In: Spilker B, ed. Quality of life and pharmacoeconomics in clinical trials, 2nd edn. Philadelphia: Lippincott-Raven Publishers, 1996: 659–68.
28. Tabachnick BG, Fidell LS. Using multivariate statistics. Boston: Pearson/Allyn & Bacon; 2013.
29. Francis G, Field AP. Discovering statistics using SPSS. London: SAGE; 2011.
30. Pavithra MB, Suwarna Madhukumar, Mahadeva Murthy TS. A Study on Nomophobia - Mobile Phone Dependence, Among Students of a Medical College in Bangalore. Natl J Community Med. [Internet]. 6(3):340-4. Available from: http://www.scopemed.org/?mno=218500.
31. Bragazzi N, Puente GD. A proposal for including nomophobia in the new DSM-V. Psychol Res Behav. 2014;155.
32. Gutiérrez-Puertas L, Márquez-Hernández VV, Aguilera-Manrique G. Adaptation and Validation of the Spanish Version of the Nomophobia Questionnaire in Nursing Studies. CIN: Computers, Informatics, Nursing. 2016;34(10): 470-5.
33. Yildirim C, Sumuer E, Adnan M, Yildirim S. A growing fear. Information Development. 2016;32(5): 1322-31.
34. Adawi M, Bragazzi NL, Villar LA, Boada-Grau J, Vigil-Colet A, Yildirim C, et al. Translation and validation of the Nomophobia Questionnaire (NMP-Q) in the Italian language: insights from factor analysis. 2017.
35. Lin, Chung-Ying, et al. “Psychometric Evaluation of Persian Nomophobia Questionnaire: Differential Item Functioning and Measurement Invariance across Gender.” J Behav Addict. 2018;7(1): 100-108., doi:10.1556/2006.7.2018.11.

الملخص

مقدمة: رهاب فقان الهاتف النقال "النوموفوبيا" هو أحد المفاهيم الحديثة التي تتعامل مع التفاعل بين البشر والتقنيات الجديدة خاصة استخدام الهواتف الذكية. تهدف الدراسة الحالية إلى ترجمة استبيان النوموفوبيا إلى اللغة العربية وتقدير خصائصه السيكو مترية. **الأساليب:** تكونت العينة العشوائية من 1005 طالب (412 من الذكور و593 من الإناث) تم تسجيلهم من الكليات الصحية في جامعة العلوم والتكنولوجيا الأردنية للفصل الدراسي الثاني للعام الجامعي 2017/2016. تمت ترجمة استبيان النوموفوبيا ال NMPQ باستخدام طريقة الترجمة والترجمة الراجعة. وتم تقييم مدى مقبولية البنود، وصلاحية البناء والموثوقية. كما تم تقييم الاستخدام المفرط للهواتف الذكية كجزء من النوموفوبيا. **النتائج:** تراوح متوسط الانحراف المعياري للمقاييس الفرعية من 3.7 (1.5) ل "فقدان الاتصال" إلى 4.8 (1.5) ل "عدم القدرة على الوصول إلى المعلومات" وتجاوزت جميع الارتباطات على نطاق البند الحد الأدنى للارتباط البالغ 0.40 من أجل الاتساق الداخلي الكافي للبند. بالنسبة لجميع المقاييس، تجاوز معامل ألفا كرونباخ الحد الأدنى من المعايير البالغ 0.7. **الاستنتاجات:** أظهرت هذه الدراسة أن النسخة العربية من استبيان النوموفوبيا هي أداة موثوقة وصالحة لقياس رهاب فقدان الهاتف النقال بين طلاب الجامعات في الأردن . تتأثر النوموفوبيا بفترة ملكية الهاتف الذكي، والوقت الذي يقضيه الشخص على الهاتف الذكي يوميا ومن خلال وجود حزمة إنترنت أم لا . **التوصيات:** يوصى بدراسة تأثير رهاب النوموفوبيا على الأنشطة البشرية اليومية، مثل الأداء الأكاديمي والنوم والنشاط البدني.

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Duration of First Admission and Relation to the Readmission Rate in Ibn Rushd Psychiatric Hospital

Moathe Khaleel Ismail

مدة الرقود الاول وعلاقته بعدد مرات الرقود التالية في مستشفى ابن رشد للطب النفسي

معاذ خليل اسماعيل

Abstract

Background: Most mental health illnesses have chronic relapsing course. It is estimated that the readmission rate for discharged patients is approximately 40-50% within one year of their discharge from the hospital. The current emphasis in mental health service is on brief hospitalization and providing community-based services. **Aim:** The purpose of the current study was to explore the relationship between the duration of first admission of all the patients in the hospital and rates of readmission in Ibn Rushd Psychiatric Hospital in Baghdad. **Methods:** A retrospective design was used to collect all patients with a first admission to the hospital between 1st January 2018 to 1st May 2018. Patient records were examined for demographic information, duration of hospital stay, diagnosis, and the number of readmissions for at least three years. Duration of first hospital stay was classified as Group 1: 1-7 days, Group 2: 8 to 14 days, Group 3:15 to 30 days. **Results:** Information from N=200 patients was collected: *n*=133 in Group 1, *n*=53 in Group 2, and *n*=14 in Group 3; approximately 75% were men. Of the sample, nearly half had a primary school education; nearly half were single with 22% of the overall sample having been readmitted within three years of first admission. Around 10.5% from Group 1 had one readmission compared with 22.6% in Group 2 and 22.4% in Group 3. Across all groups, an average of two patients were readmitted. **Conclusion:** The length of the initial hospital stay is likely an important predictor to prevent future hospitalization. No other definite predictors for readmission were identified in the study apart from length of stay at first admission as significantly associated with the number of readmissions.

Key words: First admission, readmission, psychiatric hospital

Declaration of interest: None

Introduction

Most psychiatric illnesses have a chronic relapsing course. It is estimated that the readmission rate for discharged patients is approximately 40-50% within one year of their discharge from hospital.[1]

In the last few decades, changes in how we understand mental illness, besides the improvement in the availability of biological psychiatric treatments, have markedly changed the way psychiatric care is provided. For psychiatric hospitals, this means shifting from chronic care in long-stay asylum admissions to acute care in short-stay general hospital psychiatric beds.[2] There is a worldwide trend towards the closure of psychiatric beds. In many countries, the total number of psychiatric beds is steadily decreasing. In the United States, for example, there were around 525,000 beds in 1970 but fewer than 212,000 in 2002.[3]

The current emphasis in mental health service is on brief hospitalization and providing community-based services. In Iraq, there is very little community care support provided by the mental health care service providers, both in the public and the private sectors.

About 50% of all patients admitted to the psychiatry hospitals are readmissions. Patients who are admitted for longer durations have had appropriate treatment planning, follow-up, and lesser readmission after discharge.[4]

One commonly proposed quality indicator for inpatient psychiatric services is readmission.[5] Hospital readmission, particularly when it occurs within a relatively short time after a previous discharge, is often seen as a failure of the earlier hospital admission. This presupposes that if appropriate care had been taken in stabilizing the patient's psychiatric status and planning for community treatment, return to the hospital would not have occurred. While the logic of this argument is appealing in its coherence and simplicity, there have been no empirical attempts at understanding whether or not hospital readmission actually represents a failure on the part of the initial hospitalization.[6]

Readmission is commonly used as an outcome or quality indicator for inpatient psychiatric services in many countries, including the United Kingdom. Predictors of psychiatric readmission have been widely discussed in literature. An increased likelihood of readmission was observed to be associated with many factors including age, educational level, diagnosis, treatment, mental state upon admission and discharge, prior history of psychiatric hospitalization, disease severity, general medical comorbidity, alcohol and substance use, personality disorder and lower level of patient function at discharge[7,8]. Social factors such as lower socioeconomic status, living alone and receiving a disability or unemployment benefit were reported as significant predictors for early readmission of psychiatric patients.[7,9] A short hospital stay for patients with schizophrenia was found to be associated with early re-hospitalization.[10] In addition, aftercare-related factors such as inadequate community support and ambulatory care visits also predicted psychiatric readmission.[9,8,11]

If readmission is not a quality indicator for hospital care providers, it probably has other meanings within the mental health service system. There are several alternatives. First, readmission to a psychiatric inpatient program may reflect the course of mental illness, since psychiatric disorders vary in their severity, the duration of episodes, and the time between episodes. These patient-specific factors may influence readmission rates.[12] Second, it is possible that readmission rates reflect general admission policies. It has been reported that higher hospital readmission rates are associated with a higher frequency of inappropriate admissions.[13] Thus, rather than indicating a failure of treatment, readmissions might represent a low threshold for hospitalization. In the managed care program study, hospitals with the most inappropriate admissions also have had the highest readmission rates.[12] This suggests that readmission might be, at least partially, a function of hospital admission policy per se. Readmission rates might be an indirect indicator of a problem of over admitting. A more direct quality indicator on this dimension would be an assessment of the medical necessity of all admissions. Finally, readmission may reflect the quality of community services or support.[14,15] Prevention of readmission is likely the responsibility of the community care provider rather than the psychiatric hospital once the psychiatric hospital has organized an initial aftercare plan in collaboration with the community provider.

There is a great likelihood that brief stay patients will be re-hospitalized within 30 days after discharge rather than patients treated for longer periods.[6] An increase in the length of stay from 9 to 26 days was associated with a 55% reduction in the rate of rapid readmission.[16] The patients with above-average length of stay were rarely readmitted and most of the readmissions returned during the first year after discharge.[17] A study by Lieberman et al., showed that the length of stay of the patient had no impact on the improvement of depressive symptoms in depressed patients.[18] Patients with greater impairment in self-care, more severe symptoms, and a more persistent illness were more likely to be readmitted than other patients.[12] Premature discharge was not associated with readmission rates.[12,19] There are no definite predictors for readmission that can be detected, except for the length of initial admission.[20]

Hospitalization is indicated in schizophrenia spectrum disorders for diagnostic purposes; for stabilization of medications; for patients' safety because of suicidal or homicidal ideation; and for grossly disorganized or inappropriate behavior, including the inability to take care of basic needs such as food, clothing, and shelter. Establishing an effective association between patients and community support systems is also a primary goal of hospitalization.[21]

Short stays of four to six weeks are just as effective as long-term hospitalizations, and hospital settings with active behavioral approaches produce better results than do custodial institutions. Hospital treatment plans should be oriented toward practical issues of self-care, quality of life, employment, and social relationships.[21]

During hospitalization, patients should be coordinated with aftercare facilities, including their family homes, foster families, board-and-care homes, and halfway houses. Day care centers and home visits by therapists or nurses can help patients remain out of the hospital for long periods and can improve the quality of their daily lives.[21]

The treatment process of alcohol dependence in inpatient or outpatient setting involves intervention, optimizing physical and psychological functioning, enhancing motivation, reaching out to family, and using the first two to four weeks of care as an intensive period of help. Those efforts must be followed by at least three to six months of less frequent outpatient care.[21]

Discharge plans should include information on everyone involved in a person's care. Plans should include explicit outcomes or expectations and follow-up arrangements, and it must be clear how help will be available in a crisis (e.g. contact numbers or formal relapse management/safety plan). All discharge plans should include a risk assessment and information on how risks will be managed.[22]

Current low bed usage in the UK reflects recently established home treatment and crisis resolution teams, but also a shift in practice. The duration for admissions has steadily reduced over the last four decades. Mean durations are heavily skewed by short (1- to 2- day) crisis admissions, but patients with uncomplicated psychotic relapses usually stay between three and six weeks.[23]

Studies done on readmission rates in American and European psychiatric hospitals, provided information both in favor of brief hospitalization and longer hospitalization and the results seem equivocal. Our literature search did not yield much information on this aspect in Iraq. Many studies using various methodological approaches have shown that marital status, unemployment,[7,24] and the diagnosis of schizophrenia are associated with psychiatric readmission.[24,25] A shorter length of stay at hospital has also been identified as a highly associated factor in terms of the readmission of psychiatric inpatients.[26,27] History of previous admissions is the most consistent and robust predictive factor for readmission,[28,29,30,24,27,31] including both early and late readmissions. Despite the consistency of the association between previous admissions and future admissions, there is little knowledge about possible modifiable factors which can improve outcomes in psychiatric inpatients.

Rapid readmissions or those that occur within 30 days after discharge are considered indicators of poor psychiatric care and of inadequate linkage with community-based care.[32,33] If appropriate inpatient psychiatric care occurs within the continuum of care, the mental health condition is stabilized, and patients are equipped for outpatient recovery.[12] Rapid readmissions are associated with adverse events because they require new treatment options and are more restrictive, which drives costs higher.[34,35]

When individuals are discharged after a hospitalization episode, it is indicative of the improved stability of the mental health condition, functionality level, and the ability of the individual to be reintegrated into his/her family environment back in the community.[12,36] When patients are abruptly readmitted, this disrupts the re-adaptation into the personal and community environments and the recovery process of the individual.[36]

Transitions between inpatient and outpatient psychiatric health-care settings are associated with increased risks of adverse events including early readmission and, therefore, are a focus of quality improvement initiatives.[37] Attempts to reduce the early readmission rate in the transition period were successful in producing 13.6-37% absolute reduction in readmission rates when the following interventions were applied independently: psychoeducation interventions targeting disease management and living skills and structured assessments of patients' discharge needs.[38] It is important also to identify and address system-related issues that may play a role in re-hospitalization the attitudes, expectations and perceptions of clinical staff toward patients who return for further treatment.[39] Similarly, patients' expectations and attitudes toward the system also need to be considered. For example, patients that have a lower satisfaction with the care provided during the first week of involuntary admission have a higher chance of being involuntarily readmitted within one year.[9]

The current study explored the readmission rates of a sample of psychiatric inpatient hospital for a discharge cohort. The study identified the demographic factors, first admission length and diagnosis, outcome at discharge and time to relapse after first admission associated with rapid readmission to the psychiatric hospital.

Aim

- Is to explore the relationship between the duration of the first hospital admission and the rate of readmission in Ibn Rushd Psychiatric Hospital in Baghdad (Retrospective study).
- Correlate the readmission rate and variables selected in this study.

Methods

The current study was done in Ibn Rushd Psychiatric Hospital, which is located in Andolus Square in Baghdad. The hospital consists of an inpatient care unit consisting of three units male unit, female unit and substance use disorder unit containing around 30 beds as maximum capacity. There is an outpatient care unit working 6/7 days, six hours daily. In Ibn Rushd Psychiatric Hospital, demographic data was entered into the computerized system and printed to be archived in an archival unit. The researcher used the archived papers to collect data for the present study and accessed the system to check for further admission (readmission rate) afterwards. The study information collected the demographic data retrospectively for all patients admitted for the first time to Ibn Rushed Psychiatric Hospital from the 1st January 2018 to the 1st May 2018, as the sample of the study [Flowchart 1]. The hospital records of these patients were studied, and the data was collected on various variables, which included demographic variables, duration of hospital stay in fist admission, diagnosis at first admission, and the number of readmissions to the hospital during the follow up period of the study, which is around three years (until January 2021).

The duration of the first hospital stay was divided into three categories, Group 1 is from 1 to 7 days, Group 2 is from 8 to 14 days, Group 3 is from 15 to 30 days.

The current study examined the demographic data, number of readmissions, the diagnosis at first admission, time to relapse (readmission) and the reasons of discharge of the patients at the first admission according to the length of the stay in the hospital (sample's groups)

Information of each patient had been collected from the archive papers and any patient who had been admitted to the hospital during the period of four months was included in the present study. Every patient code was entered manually in the hospital system of electronic patient's files to follow their readmission information individually.

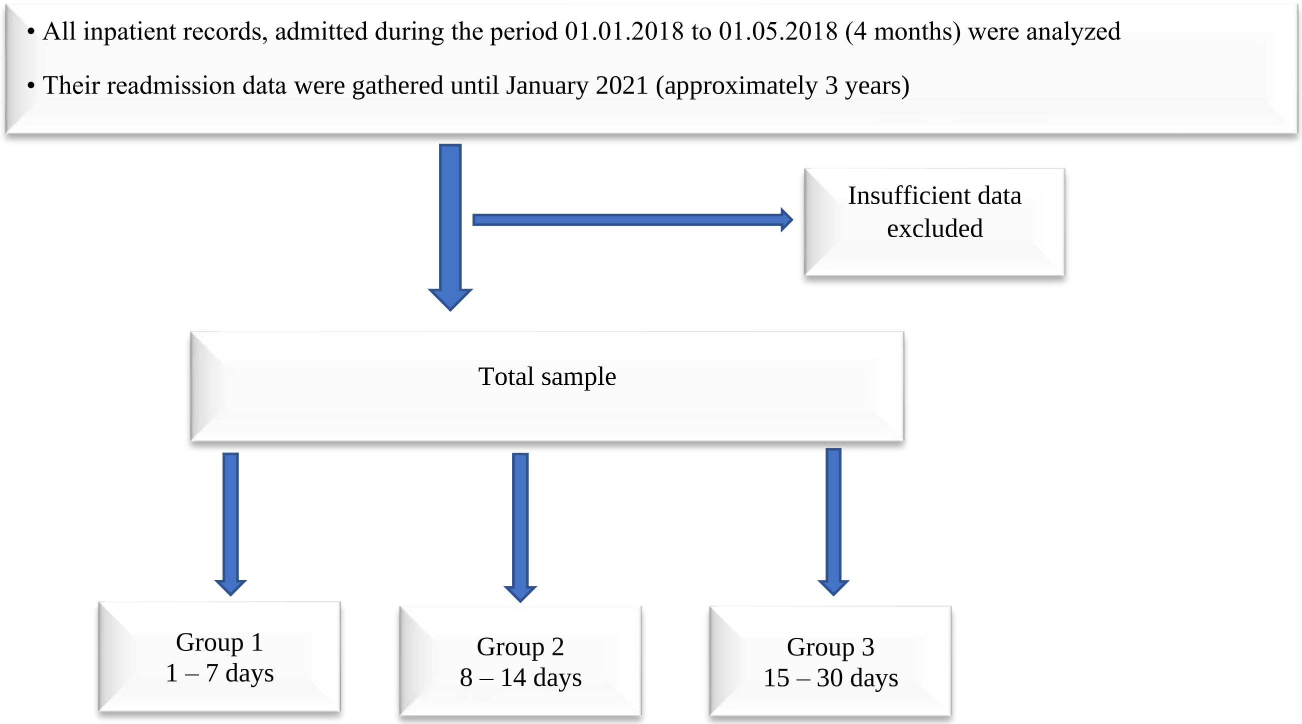
The present study did not count the previous admissions to the hospital that happened more than 10 years ago as the computerized recording system at Ibn Rushd Psychiatric Hospital was established only 10 years ago; at the same time the admissions in other hospitals were neglected. However, this should not influence the hypothesis since the current admission was taken as the index admission and re-hospitalization was calculated after the index admission.

Statistical analysis

Description of data is done depicting the percentage and the bar diagrams. Test of comparison is done for continuous variables using the ANOVA F-test, The advantage of the ANOVA F-test is that we do not need to pre-specify which items are to be compared, and we do not need to adjust for making multiple comparisons. The disadvantage of the ANOVA F-test is that if we reject the null hypothesis, we do not know which items can be said to be significantly different from the others.

For discrete variables, Fisher's Exact test was used. The test is useful for categorical data that result from classifying objects in two different ways; it is used to examine the significance of the association (contingency) between the two kinds of classification, called exact tests because the significance of the deviation from a null hypothesis (e.g., P-value) can be calculated exactly, rather than relying on an approximation that becomes exact in the limit as the sample size grows to infinity, as with many statistical tests.

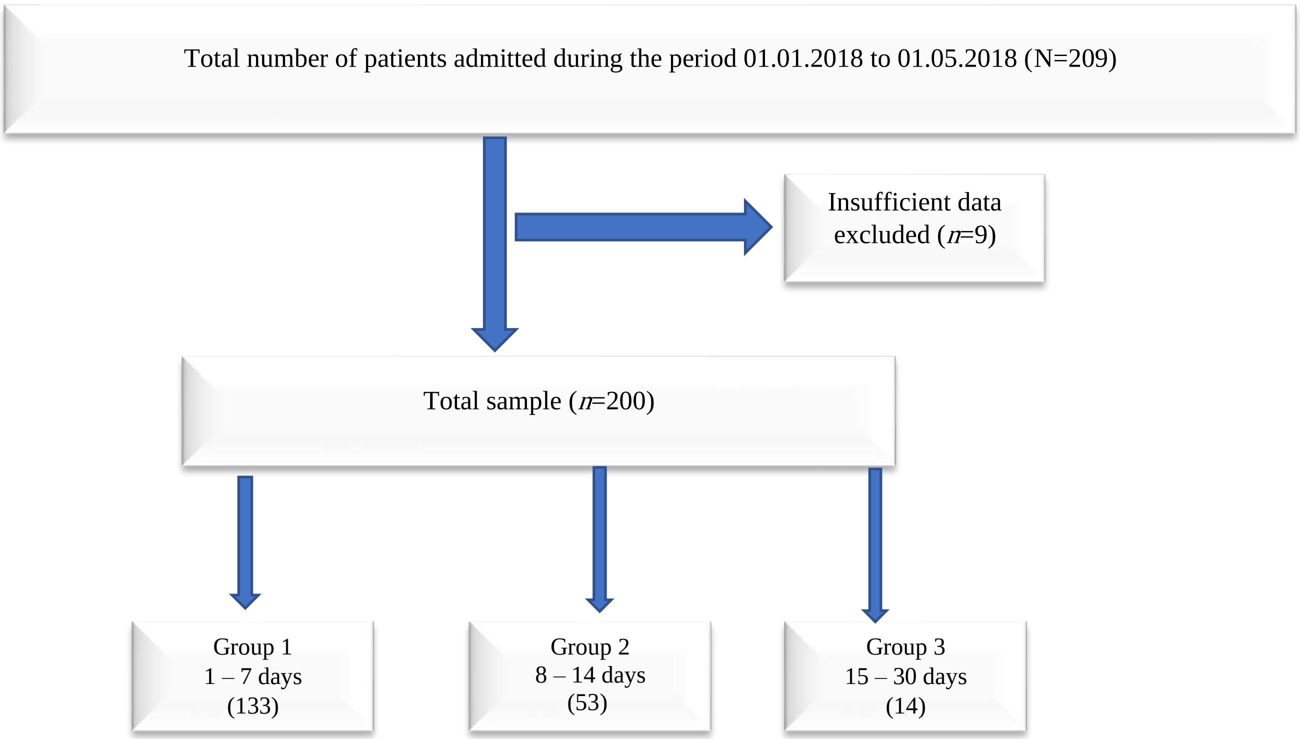
Flowchart 1. Methodology



Results

The participant sample consisted of 209 patients, out of which 9 were excluded because of insufficient data available from the records [Flowchart 2]. One hundred and thirty-three patients belonged to Group 1, who stayed in the hospital for their first admission from 1 to 7 days, 53 patients to Group 2, who stayed in the hospital for their first admission from 8 to 14 days, and 14 patients to Group 3, whom stayed in the hospital for their first admission from 15 to 30 days.

Flowchart 2. Results



According to the sociodemographic profile shown in Table 1, the mean age ranged from 29.5 to 35.5 years, indicating that most were in their early thirties. Men comprised most of the sample (71.4 to 83%). In Group 3, who stayed in hospital more than two weeks, the highest percentage of women compare with other groups was 28.6%. In terms of education levels, primary school was the biggest value across all groups ranging from 35.7 % to 56.6%. According to education level in Group 3, the illiterate percentage was zero, with the lowest percentage of primary school percentage compare with other groups as 35.7%, and the percentage of secondary school and postgraduate educational level is the highest compare with other groups as 21.4% and 7.2%, respectively.

The majority reported being single (57.1 % to 71.4 %) with the highest number of single and widowed patients being in Group 3. The type of occupation, described as “free work” was endorsed by 42.8% to 49.1% for all groups.

Table 1. Sociodemographic profile

Variable	Group 1 (*n*=133) (%)	Group 2 (*n*=53) (%)	Group 3 (*n*=14) (%)	ANOVA F	*P value*
Mean age	**35.51 +- 13.97**	**34.74 +- 12.43**	**29.57 +- 8.53**	**1.271**	***0.283***
Gender				**FE value**	***0.582***
Male	**108(81.2)**	**44(83)**	**10(71.4)**	**1.151**	
Female	**25(18.8)**	**9(17)**	**4(28.6)**		
Education				**FE value**	***0.459***
Illiterate	**13(9.7)**	**4(7.6)**	**00**	**9.373**	
Primary	**68(51.1)**	**30(56.6)**	**5(35.7)**		
Intermediate	**21(15.8)**	**6(11.3)**	**3(21.4)**		
Secondary	**11(8.3)**	**5(9.4)**	**3(21.4)**		
Graduate	**19(14.3)**	**8(15.1)**	**2(14.3)**		
Postgraduate	**1(0.8)**	**00**	**1(7.2)**		
Marital status				**FE value**	***0.757***
Single	**76(57.1)**	**31(58.5)**	**10(71.4)**	**3.886**	
Married	**51(38.3)**	**20(37.7)**	**3(21.4)**		
Divorced	**1(0.8)**	**00**	**00**		
Widowed	**5(3.8)**	**2(3.8)**	**1(7.2)**		
Occupation				**FE value**	***0.825***
Student	**8(6)**	**4(7.5)**	**2(14.3)**	**7.360**	
Employed	**18(13.5)**	**3(5.6)**	**2(14.3)**		
Free work	**58(43.6)**	**26(49.1)**	**6(42.8)**		
Military, police	**9(6.8)**	**2(3.8)**	**00**		
Retired					
Unemployed	**2(1.5)**	**1(1.9)**	**00**		
Housewife	**18(13.5)**	**10(18.9)**	**1(7.2)**		
	20(15.1)	**7(13.2)**	**3(21.4)**		

Readmission rate

The percentage of patients who were readmitted to Ibn Rushd Psychiatric Hospital after their first admission was 22.5% (45 patients / 200 sample) during the period of the follow up of the study, which was around three years (until January 2021).

The number of readmissions across all groups is shown in Table 2.

About 10.5% of the patients in Group 1 had one readmission compared with around 22.6 % in Group 2 and 21.4% in Group 3. No more than 3 readmissions in Group 2 and no more than 2 readmissions in Group 3.

Table 2. Number of readmissions across the groups

Number of readmissions	**1 – 7 days** **Group 1 (*n*=133) (%)**	**8 – 14 days** **Group 2 (*n*=53) (%)**	***15 – 30 days*** ***Group 3 (n=14) (%)***
1	**14(10.5)**	**12(22.6)**	***3(21.4)***
2	**2(1.5)**	**6(11.3)**	***1(7.2)***
3	**3(2.3)**	**3(5.7)**	***00***
4	**1(0.8)**	**00**	***00***
Total	**20(15.1)**	**21(39.6)**	***4(28.6)***

Results from the analysis of participant samples demonstrate a significant association between the duration of first admission and the readmission rate in this sample and Fisher exact test value is 18.845 and P value was equal to 0.006

The bar chart in Figure 1 shows diagnosis across the entire groups during the first admission. Schizophrenia and psychosis represent around 10% and 19% of Group 1, 18% and 21% of Group 2 and 42% and 37% of Group 3 respectively. The percentage of substance use disorder represent 40% of Group 1 and around 55% of Group 2 while only 8% of Group 3.

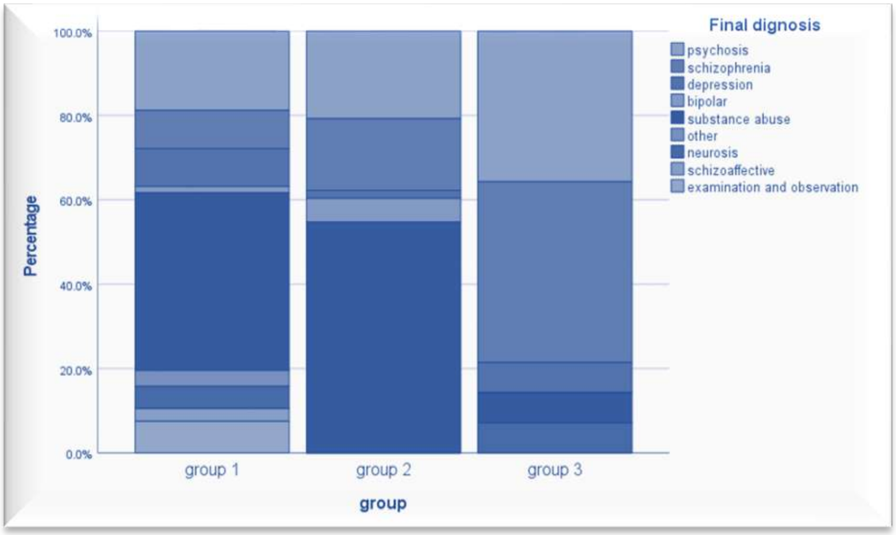


Figure 1. Diagnosis across all group during first admission

Figure 2 shows the diagnosis across the number of readmissions. Schizophrenia, psychosis, and substance use disorder accounted for the majority constituting more than 80% of the diagnosis in all the readmissions. Depression diagnosis had the highest number of readmissions across the whole sample.

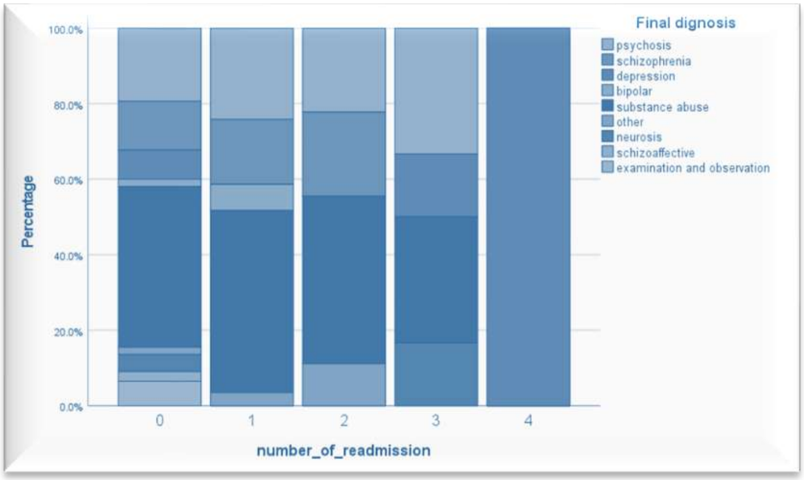


Figure 2. Diagnosis across readmission

Figure 3 shows the time to relapse (readmission) since the first admission. The percentage of patients who were readmitted within the first six months after initial discharge was the highest in Group 1 at around 50%, whereas less than 25% of Group 3 were readmitted within less than six months. Approximately 40% of the patients in Group 2 were readmitted after one year compared to 50% in Group 3.

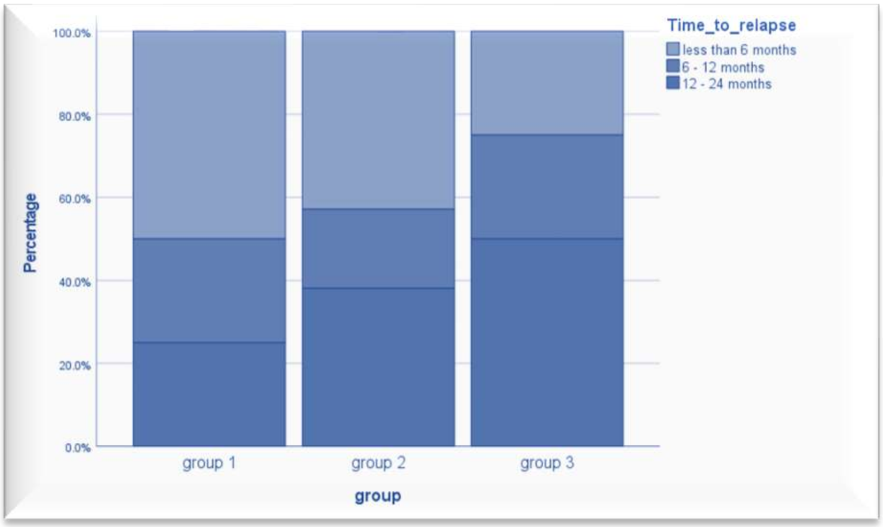


Figure 3. Time to relapse since first admission

Figure 4 shows the outcome related to duration of first admission, which is around 33% discharge of responsibility (against medical advice) and around 50% remission and improvement in Group 1. This is compared to around 80% as remission and improvement was in both Group 2 and Group 3 with significance correlation as P value is 0.002 and FE value is 21.96. This meant that there is significant correlation between length of stay and outcome at discharge

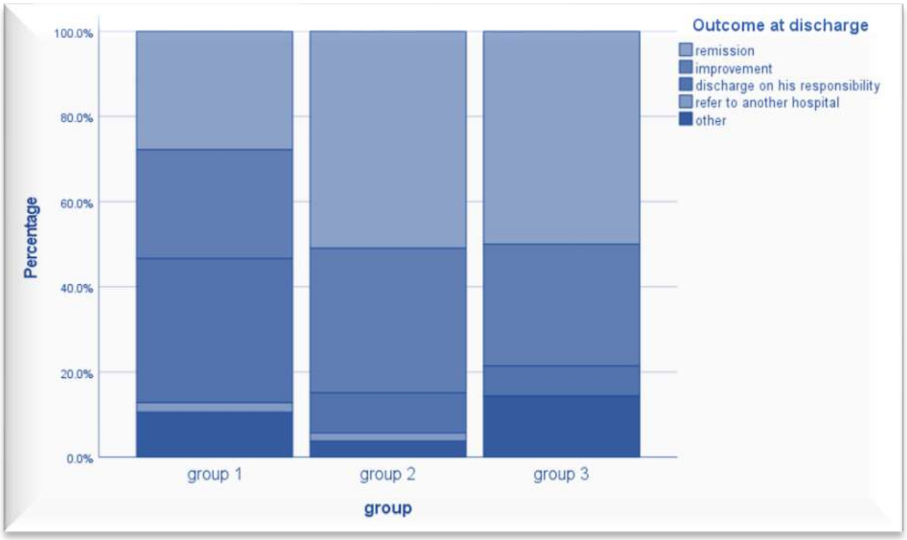


Figure 4. Reason of discharge of first admission across all groups

Discussion

For patients experiencing a first hospital admission, prolonged stays may lead to better outcomes since stronger therapeutic alliances with staff can help them gain better insight into their illness. Longer stays provide greater opportunities for patients to receive sufficient psychoeducation about their mental illness and its treatment and more time to strengthen treatment adherence and complete treatment plans. For these reasons the chances of readmission can be minimised. We hypothesized that when the duration of the first hospitalization is short, the rates of readmission are higher and when the duration of the first hospitalization is short, the time for re-hospitalization is also short.

The results of the current study indicate that readmission occurs earlier when the length of the first admission is short. When the length of the first admission is short (1-7 days), 50% of the readmissions occur within the first six months, 25% within 6 months to 12 months, and 25% within 12 to 24 months, while around 50% readmission occurs within 12 to 24 months, 25% within 6 months to 12 months, and 25% within the first six months when the length of the initial hospitalization is longer (more than 2 weeks). This finding supports results of a study in a large hospital in 1980 in Califorinia, which found that an increase in the length of stay from nine days to 26 days was associated with 55% reduction in readmissions.[16] Brief hospitalizations of less than nine days led to rapid readmissions, within one month.[16] This is also supported in another study of a state hospital where patient with above average length of stay were rarely readmitted.[17] Results from the current study are similar to a US study from 1993 on 10 state psychiatric hospitals where patients who had a brief hospital stay were likely to be readmitted within 30 days of discharge as compared to those who stayed for longer periods.[6]

In the currrent study, most patients in Group 3 who accepted longer hospital stays at first admission were postgraduates and there was no evidence of anyone being illiterate. This may indicate patients' awareness of the advantages of a longer stay, including psychoeducation and it may also have been easier for their therapists to communicate with them and may be having more family support although there were no significant relationship found as p=0.459.

Across all groups, most patients were single, which may suggest that marital status correlates with experiencing mental health difficulites.

In terms of employment status, "free work" described the occupation of most patients across all groups, which may reflect ongoing job instability in the wider community although there were no significant relationship as p value was (0.825).

In the current study, being discharged against medical advice happened for approximately 35% to 40%, this goes with a prospective study of discharge against medical advice conducted in the psychiatric wards of Zare Hospital in Iran where 34.4% were prematurely discharged.[46] Similarly, a descriptive cross-sectional study of an inpatient psychiatric facility in Rawalpindi, Pakistan reported 39% of patients leaving against medical advice whereas 61% left on regular discharge following physician advice.[47] A retrospective study of inpatient psychiatric units at a general hospital in Seattle in the US found 8% had left without taking medical advice.[48] There are differences in rate of discharge against medical advice between studies from the Middle East (Iraq, Iran, and Pakistan) and the US, which may relate to the quality of medical care in the hospitals that were studied. Further, awareness of levels about mental illness and stigma may be higher in some parts of the world compared with others. To explore this point further would require clinical audits and studies for more evaluation of possible causes.

In terms of readmission, studies from Germany and Canada done reported a short length of stay as a predictor of readmission.[27,26] The reasons for lower readmission rates in patients with longer initial stay may be attributed to them receiving sufficient time and at discharge there is near total remission of symptoms. Patients can gain better insight into their mental health difficulties and their follow-up treatment is often better. Further, psychoeducation for patients and their families may be adequately performed and planning for discharge may be better.[20]

In the current study, the median length of hospital stay was five days. In western countries, such as the US and Australia, studies have reported a median length of stay of 10 days and 12 days, respectively.[43,29] The READMIT study establishd an association between length of stay and readmission with the median stay varying between 13 and 15 days.[27]

The number of patients readmitted after first admission may highlight the severity of mental illness relapse. In the current study, 22.5% of patients were readmitted within three years, which was consistent with a study in India that found between 25% to 30% of patients were readmitted within 3.5 years of first admission.[20] This differs significantly from the study a study where the majority of patients returned within one year and nearly all had returned within three years.[17]

A much lower readmission rate was reported in Oman where 39% of patients returned within one year.[40] By way of contrast, a similar study from Australia reported a 46% readmission within a year of first admission.[29] A prospective study from Malaysia revealed that 32% of patients who were discharged from a psychiatric ward were readmitted within six months of discharge.[41] A study in Taiwan reported a readmission rate of one month for 23.3% of patients who had attended for the first time.[42]

Findings from the current study suggest that over 70% of patients who were readmitted had a diagnosis of schizophrenia, psychosis and substance use disorder, which was not dissimilar to an earlier study in India, which reported 60% of readmitted patients had a diagnosis of schizophrenia and substance use disorder.[20]

Readmission rates for people identified as having a substance use disorder are mainly linked to those with an experience of alcohol dependence. Hospitals are often the main providers of detoxification treatment, which lasts for around one week; after detoxification the emphasis tends to be on outpatient management. Research on public sector psychiatric hospitalizations has consistently shown that co-occurring mental health and substance use difficulties are accurate predictors of readmission.[44,45] Complications associated with substance use were related to shorter inpatient stays[45] but did not predict readmission.

Conclusion

Results of the current study suggest that the length of initial hospital stay for patients with mental health and substance use difficulties may be an important predictor for the prevention of readmission for those presentations. More than 22% of patients were readmitted within three years of their first admission.

There were no other definite predictors for readmission that could be identified apart from length of hospital stay following initial admission. For patients attending Ibn Rushd Psychiatric Hospital in Baghdad during the period assessed for the current study, there was a significant correlation between first admission and subsequent readmissions (p=0.006. 0.006). Specifically, hospital stays for first admission that lasted for less than one week led to significantly higher readmission rates compared with those lasting than two or more weeks.

Limitations

The current study was a retrospective study which was restricted to what was available in the data registry of Ibn Rushd Psychiatric Hospital. Patient characteristics were limited to terms such as “free work” and not all socioeconomic levels were accurately covered, for example. There was also an absence of clinical ratings and patient compliance with medication could not always be extrapolated from the information available. Further, the diagnosis for subsequent readmissions was not recorded in archive papers and it was, therefore, not possible to obtain much of it nor did it appear that approaches to the diagnostics were uniform. Finally, many of the references were older since it is not easy to obtain freely available research papers from mental health journals; however, findings from the current research do offer useful insights that may inform future research.

Recommendations

From a public health perspective, it is clear from the current findings that further clinical audits are needed in order to explore possible explanations for the high percentage of patients who were discharged only after one day and against medical advice. To aid in this process, information in the current data system at Ibn Rushd Psychiatric Hospital should consistently include the diagnostic rationale for first admission and any subsequent readmissions.

It follows that the data entry process needs to reflect more accurately on a range of sociodemographics, including type of employment, economic status, living conditions and some level of detail about family life so as to help understand possible causalities of the current mental illnesses. The current study also highlights the need for a more consistent approach to diagnosis, which may help in the provision of better and more targeted psychoeducation that, in turn, may increase the likelihood of patients remaining within hospital for more than two weeks upon first admission thus providing them a greater chance of recovery.

Finally, future research must focus on contributing factors that affect readmission rates, such as the whether treatment plans were completed, whether early discharge happened before the patient received sufficient support; and, to establish what level of treatment adherence the patient followed once discharged from hospital as well as information about follow up support.

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References

1. Bridge JA, Barb RP. Reducing hospital readmission in depression and Schizophrenia: Current evidence. Curr Opin Psychiatry. 2004;17: 505-11.
2. Glick ID, Sharfstein SS, Schwartz HI. Inpatient psychiatric care in the 21st century: the need for reform. Psychiatr Serv. 2011;62(2): 206-9.

3. Services CoMH. Highlights of organized mental health services in 2002 and major national and state trends Rockville, Maryland. Available from http://store.samhsa.gov/shin/content/SMA06-4195/SMA06-4195.pdf; 2004.
4. Lars L. Are readmission rates influenced by how psychiatric services are organized? Nordic J Psychiatry. 2002;56: 23-8.
5. Health Plan Employer Data and Information Set, Version 2.0. Washington, DC, National Committee for Quality Assurance, 1993.
6. Appleby L, Desai PN, Luchins DJ, Gibbons RD, Hedeker DR. Length of stay and recidivism in Schizophrenia: A study of public psychiatric hospital. Am J Psychiatry. 1993;150: 72-76.
7. Silva N, Bassani D, Palazzo L. A case-control study of factors associated with multiple psychiatric readmissions. Am J Psychiatry. 2009;60: 786-91.
8. Baruch Y, Kotler M, Lerner Y, Benatov J, Strous RD. Psychiatric admissions and hospitalization in Israel: An epidemiologic study of where we stand today and where we are going. Isr Med Assoc J. 2005;7: 803-7.
9. Priebe S, Katsakou C, Amos T, Leese M, Morriss R, Rose D, et al. Patients' views and readmissions 1 year after involuntary hospitalisation. Br J Psychiatry, 2009;194: 49-54.
10. Boaz T, Becker M, Andel R, Dorn R, Choi J, Sikirica M. Risk factors for early readmission to acute care for persons with schizophrenia taking antipsychotic medications. Am J Psychiatry. 2013;64: 1225-9.
11. Barros RE, Marques JM, Carlotti IP, Zuardi AW, Del-Ben CM. Short admission in an emergency psychiatry unit can prevent prolonged lengths of stay in a psychiatric institution. Rev Bras Psiquiatr. 2010;32: 145-51.
12. Lyons JS, O'Mahoney MT, Miller SI, Neme J, Kabat J, Miller F. Predicting readmission to the psychiatric hospital in a managed care environment: Implications for quality indicators. Am J Psychiatry. 1997;154: 337-340.
13. Lyons JS, O'Mahoney MT, Doheny KM, Dworkin LN, Miller SI: The prediction of short-stay psychiatric inpatients. Administration and Policy in Mental Health 1995; 23:17-25.
14. Marken PA, Stanislav SW, Lacombe S, Pierce C, Hornstra R, Sommi RW: Profile of a sample of subjects admitted to an acute care psychiatric facility with manic symptoms. Psychopharmacol Bull 1992; 28:201-205.
15. Polk-Walker G, Chan W, Meltzer A, Goldapp G, Williams B: Psychiatric recidivism prediction factors. West J Nurs Res 1993; 15:163-176.
16. De Francisco D, Anderson D, Pantano R, Kline F. The relationship between length of hospital stay and rapid readmission rates. Hosp Community Psychiatry 1980;31:196-7.
17. Duncan JM, Short A, Lewis JS, Barret PT. Readmission to the state hospital at Carstairs, 1992-1997. Health Bull (Edinb) 2002;60:70 - 82.
18. Lieberman PB, Wiitala SA, Elliott B, McCormick S, Goyette SB. Decreasing length of stay: Are there effect on outcomes of psychiatric hospitalization? Am J Psychiatry 1998;155:905-9.
19. Herz MI, Endicott J, Spitzer RL. Brief hospitalization of patients with families: Initial results. Am J Psychiatry 1975;132:413-8.
20. Vasudeva S, Narendra Kumar MS, Chandra Sekhar K. Duration of first admission and its relation to the readmission rate in a psychiatry hospital. Indian J Psychiatry 2009;51:280-4.
21. Sadock, Benjamin J., author. Kaplan & Sadock's synopsis of psychiatry: behavioral sciences/clinical psychiatry. -Eleventh edition 2015;318-637.
22. D Semple, R Smyth., author. Oxford handbook Fourth Edition 2019;277
23. John R., Nancy C., Guy M., author. New Oxford Textbook of Psychiatry Third edition 2020;1373.
24. Schmutte T, Dunn CL, Sledge WH. Predicting time to readmission in patients with recent histories of recurrent psychiatric hospitalization: a matched-control survival analysis. J Nerv Ment Dis 2010;198(12):860-3.
25. Cuffel BJ, Held M, Goldman W. Predictive models and the effectiveness of strategies for improving outpatient follow-up under

managed care. Psychiatr Serv 2002;53(11):1438-43.

26. Frick U, Frick H, Langguth B, Landgrebe M, Hübner-Liebermann B, Hajak G. The revolving door phenomenon revisited: time to readmission in 17,415 patients with 37,697 hospitalizations at a German psychiatric hospital. PLoS One 2013;8(10): e75612.
27. Vigod SN, Kurdyak PA, Seitz D, Herrmann N, Fung K, Lin E, et al. READMIT: a clinical risk index to predict 30-day readmission after discharge from acute psychiatric units. J Psychiatry Res 2015;61:205-13.
28. Moss J, Li A, Tobin J, Weinstein IS, Harimoto T, Lanctôt KL. Predictors of readmission to a psychiatry inpatient unit. Compr Psychiatry 2014;55(3):426-30.
29. Zhang J, Harvey C, Andrew C. Factors associated with length of stay and the risk of readmission in an acute psychiatric inpatient facility: a retrospective study. Aust N Z J Psychiatry 2011;45:578-85.
30. Durbin J, Lin E, Layne C, Teed M. Is readmission a valid indicator of the quality of inpatient psychiatric care? J Behav Health Serv Res 2007;34(2):137-50.
31. Donisi V, Tedeschi F, Wahlbeck K, Haaramo P, Amaddeo F. Pre-discharge factors predicting readmissions of psychiatric patients: a systematic review of the literature. BMC Psychiatry 2016;16(1):449.
32. Donisi V, Tedeschi F, Salazzari D, Amaddeo F. Pre-and postdischarge factors influencing early readmission to acute psychiatric wards: Implications for quality-of-care indicators in psychiatry. Gen Hosp Psychiatry. 2016;39:53-58.
33. Heslin KC, Weiss AJ. Hospital Readmissions Involving Psychiatric Disorders, 2012 (Statistical Brief #189). Rockville, MD: Agency for Healthcare Research and Quality; 2015.
34. Nelson EA, Maruish ME, Axler JL. Effects of discharge planning and compliance with outpatient appointments on readmission rates. Psychiatr Serv. 2000;51(7):885-889.
35. Figueroa R, Harman J, Engberg J. Use of claims data to examine the impact of length of inpatient psychiatric stay on readmission rate. Psychiatr Serv. 2004;55(5):560-565.
36. Adams JD. Risk factors contributing to the 30-day readmission rate at the Alaska Psychiatric Institute for fiscal year 2008. (Master's thesis). 2010. Available from ProQuest Dissertations and Thesis database. (UMI No. 1485380).
37. Pfeiffer PN, Ganoczy D, Zivin K, McCarthy JF, Valenstein M, Blow FC. Outpatient follow-up after psychiatric hospitalization for depression and later readmission and treatment adequacy. PsychiatrServ2012;63:1239-42.
38. Vigod SN, Kurdyak PA, Dennis CL, Leszcz T, Taylor VH, Blumberger DM, et al. Transitional interventions to reduce early psychiatric readmissions in adults: Systematic review. Br J Psychiatry2013;202:187-94.
39. Bernardo AC, Forchuk C. Factors associated with readmission to a psychiatric facility. Psychiatr Serv 2001;52:1100-2.
40. Al-Shehhi AI, Al-Sinawi HN, Jose S, Youssef R. Rate and predictors of 1-year readmission in tertiary psychiatric hospitals. Saudi J Med Med Sci 2017;5:224-31.
41. Ng C, Loh H, Yee H, Zainal N. The Prevalence and Associated Factors of Psychiatric Early Readmission in a Teaching Hospital. MalaysJPsychiatry2012;21:54-66.
42. Lin CH, Chen WL, Lin CM, Lee MD, Ko MC, Li CY. Predictors of psychiatric readmissions in the short- and long-term: A population-based study in Taiwan. Clinics (Sao Paulo) 2010;65:481-9.
43. Lee S, Rothbard AB, Noll EL. Length of inpatient stay of persons with serious mental illness: effects of hospital and regional characteristics. Psychiatr Serv 2012;63(9):889-95.
44. "Revolving door" phenomenon among patients with schizophrenic, schizoaffective, and affective disorders. Am J Psychiatry 1995; 152:856–861.
45. Lyons JS, McGovern MP: Use of mental health services by dually diagnosed patients. Hosp Community Psychiatry 1989; 40: 1067-1069.
46. Sheikhmoonesi F, Khademloo M, Pazhuheshgar S. Patients discharged against medical advice from a psychiatric hospital in Iran: a prospective study. Glob J Health Sci. 2014 Mar 30;6(3):213-8.
47. Hayat, Aalia & Ahmad, Muhammad & Minhas, Fareed. (2013). Patients Leaving

Against Medical Advice: An Inpatient Psychiatric Hospital-Based Study. Journal of the College of Physicians and Surgeons--Pakistan: JCPSP. 23. 342-346.

48. Kenneth P. Pages, Joan E. Russo, Dane K. Wingerson, Richard K. Ries, Peter P. Roy-Byrne, and Deborah S. Cowley. Predictors and Outcome of Discharge Against Medical Advice from the Psychiatric Units of a General Hospital Psychiatric Services 1998 49:9, 1187-1192.

الملخص

الخلفية: معظم أمراض الصحة النفسية في الطب النفسي لها مسار انتكاسي مزمن. تشير التقديرات إلى أن معدل عدد مرات الرقود المتكرر للمرضى الذين خرجوا من المستشفى يبلغ حوالي 40-50 ٪ خلال عام واحد من خروجهم من المستشفى. ينصب التركيز العالمي الحالي في خدمة الصحة النفسية على الاستشفاء الوجيز في المستشفى وتقديم الخدمات المجتمعية. **الهدف:** هو استكشاف العلاقة بين مدة الرقود الأول لجميع المرضى في المستشفى خلال اول اربعة اشهر من سنة ٢٠١٨ وعدد مرات الرقود المتكرر لغاية كانون الثاني ٢٠٢١ في مستشفى ابن رشد للأمراض النفسية في بغداد (دراسة بأثر رجعي). **المرضى والطرق:** جمع معلومات كل المرضى الراقدين لأول مرة في مستشفى ابن رشد للأمراض النفسية في بغداد في الفترة بين الأول من كانون الثاني 2018 إلى الأول من أيار 2018، وتم تضمينهم في هذه الدراسة. تم فحص سجلات الاحصاء في المستشفى لهؤلاء المرضى وتم جمع البيانات حول المتغيرات المختلفة، والتي تضمنت المتغيرات الديموغرافية، ومدة الإقامة في المستشفى، والتشخيص، وعدد مرات الرقود المتكرر لمدة ثلاث سنوات تقريبًا. تم تقسيم مدة الرقود الأول في المستشفى إلى ثلاث فئات، المجموعة١ من 1 الى ٧ أيام، المجموعة 2 من 8 إلى 14 يومًا، المجموعة ٣ من15 إلى 30 يومًا. **النتائج:** مجموع العينة التي شاركت في الدراسة وتم قبولها هي 200 مريض. كان هناك 133 مريضًا ينتمون إلى المجموعة 1 (من 1 إلى 7 أيام)، و53 مريضًا في المجموعة 2 (من 8 إلى 14 يومًا) وكان 14 مريضًا ينتمون إلى المجموعة 3 (من 15 إلى 30 يومًا). يتكون الذكور من حوالي ثلاثة ارباع العينة. عدد المرضى المتوقفين عند الدراسة الابتدائية يكون ثلث إلى نصف العينة. عدد المرضى غير المتزوجين، الحالة الزوجية (اعزب) يكون نصف إلى ثلثي العينة. تشكل المهنة كعمل حر(كاسب) حوالي نصف العينة. حدث رقود متكرر ل 22.5٪ من العينة خلال 3 سنوات (مدة الدراسة) بعد رقودهم لأول مرة في المستشفى. عند مقارنة عدد مرات الرقود المتكررة لكل مجموعة، كان 4 في المجموعة 1 بينما الحد الأقصى 3 في المجموعة 2 والحد الأقصى 2 في المجموعة 3. كانت قيمة P الاحتمالية = 0.006 في الارتباط الذي تم تحليله بين مدة الرقود الأول (المجموعات) مع عدد مرات الرقود المتكرر فيما بعد. **الخلاصة:** إن مدة الإقامة عند الرقود الاول في المستشفى هو المؤشر المهم الوحيد لتقليل او منع رقود المريض في المستشفى في المستقبل. لا توجد مؤشرات محددة أخرى للدخول المتكرر يمكن اكتشافها في الدراسة باستثناء مدة الإقامة في الرقود الأول وهو مرتبط بشكل كبير بعدد مرات الرقود المتكرر.

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The Experience of Psychiatry Residents with Individual Supervision in an ACGME-I Accredited Program in Qatar

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تجربة الأطباء النفسيين المقيمين مع الإشراف الفردي في برنامج معتمد من ACGME-I في قطر

إبراهيم مكي، سامي وناس، شين كاربيو بالاهاديا، سهيلة غلوم

Abstract

Objectives: The policies on resident supervision in the psychiatry training program at Hamad Medical Corporation (HMC), Qatar, meet the requirements of the Accreditation Council of Graduate Medical Education-International (ACGME-I). Unlike clinical supervision, little is known about how residents perceive individual supervision and its impact on their training. The purpose of this study was to explore psychiatry residents' feedback on weekly individual supervision, focusing on frequency, content, and perceived quality. **Method:** We conducted an anonymous survey among all residents in the psychiatry department of HMC, exploring the number and content of individual supervision sessions received during the previous six months, and their satisfaction with supervision provided. **Results:** Out of 25 residents, 20 responded to the survey. Results showed that 95% (n=19) of respondents had received some form of supervision during the previous six-month period, 15% (n=3) had it consistently on a weekly basis, and 5% (n=1) received no supervision at all. "Topics selected by the resident and/or the supervisor" was the most frequently provided response by residents to highlight the content of supervision. The percentage of residents satisfied was proportional to the number of individual supervision sessions received. **Conclusion:** Action must be taken to improve the standard of individual supervision to include training of faculty, time protection during supervision, and ongoing support from program leadership.

Keywords: Individual supervision, clinical supervision, psychiatry residents, education

Declaration of interest: None

Introduction

Hamad Medical Corporation (HMC) is the sole residency training program provider in Qatar and is responsible for the recruitment of trainees across all specialties. The corporation has achieved accreditation from the Joint Commission International (JCI) and the Accreditation Council for Graduate Medical Education-International (ACGME-I).[1] To maintain its reputable status for patient care, academic excellence, and its accreditations, the corporation must adhere to the requirements of these accrediting organizations. The ACGME-I defines six competencies that trainees are expected to meet; these are patient care, medical knowledge, professionalism, interpersonal and communication skills, practice-based learning and improvement, and systems-based practice.[2] Supervision is crucial to achieve these competencies, ensuring safe, effective, and high-quality training.[3] It promotes gradual progression toward independence and authority.

Supervision can be implemented in a variety of different ways for various reasons.[4] In addition, each resident must receive a minimum of two hours of direct supervision per week, at least one of which is individual.[5] Individual supervision focuses on both the personal and professional growth of the residents and addresses topics that include clinical management, residency experience, and professional development.

By acknowledging the importance of individual supervision for residents during their training, HMC will guarantee residents provide safe patient care, receive quality education and training, and exhibit competence in their specialty area (HMC policy: GME 1035, edited June 2016). According to observations made in the psychiatry residency program, 1:1 supervision has not been consistent, thus the need to examine this aspect of the residency training program in more depth. The psychiatry residency program was composed of 25 residents and 40 experienced faculty members. However, not all faculty assumed direct supervision roles in the program. This detail is crucial to consider when assessing the faculty-to-resident ratio, which was approximately 1:1, as only a portion of the faculties were involved in the direct supervision of the residents.

We, therefore, conducted an audit, in which we aimed to explore the adherence of HMC's psychiatry training program to the supervision requirements set by the ACGME-I and HMC Program Evaluation Committee (PEC) and to assess the quality of this supervision. The objectives were to determine the percentage of residents in the psychiatry training program who have received a minimum of one hour per week of individual supervision during the past six months, the content, and the perceived quality of supervision.

Methods

A cross-sectional survey was conducted among psychiatry residents in the Mental Health Hospital at HMC. Participants included all 25 psychiatry residents enrolled in the HMC psychiatry residency program in December 2018.

Residents were given an anonymous questionnaire to indicate the number and frequency of individual supervision sessions they had received during the past six-month period, the content of supervision PowerPoint slides, inpatient case discussion, professional growth and development, topics selected by the resident, topics selected by the supervisor, therapy session, and their satisfaction with supervision provided. To assess satisfaction, we used a five-point Likert scale ranging from very dissatisfied to very satisfied. Finally, the questionnaire included a suggestion box for comments and recommendations.

The questions were based on previously held discussions with the residents and observations of the study team. The tool was then piloted for relevance, and its content was adjusted accordingly before the final distribution.

This study was approved by the Quality, Audit, and Research Committee, Department of Psychiatry, HMC (MHS/PSY/0038/2018).

Results

The survey was sent to 25 residents, 20 of whom participated, three did not respond, two were on leave; the response rate was 80%.

Analysis of the results indicated that 95% (n=19) had received some form of individual supervision during the past six-month period, while only one resident (5%) reported he had received no supervision at all. However, 15% (n=3) reported that they had received one hour of individual supervision on a weekly basis during the previous six months (Fig. 1a).

Among the content of supervision listed in the survey, the most frequent responses were "topics selected by the resident" and "topics selected by the supervisor", with 85% (n=17) and 70% (n=14), respectively (Table 1).

Additionally, the percentage of residents who indicated that they were "satisfied with the supervision they received" was 35% (n=7), followed by 30% (n=6) who were neither satisfied nor dissatisfied, 15% (n=3) dissatisfied, and 15% (n=3) very dissatisfied. One resident (5%) was very satisfied (Fig. 1b). All residents who received individual supervision on a weekly basis expressed their satisfaction with the supervision provided. Additionally, it was noted that the percentage of residents satisfied was proportional to the number of individual supervision sessions received.

Discussion

Completing this survey presented benefits that include pinpointing supervision practices within the residency training program. Our findings showed that individual supervision among residents was inconsistent and not entirely aligned with neither ACGME nor HMC requirements.

To our knowledge, this is the first article that addresses in depth the minimum weekly requirement of individual supervision as defined by ACGME. While the literature is deficient in extensive research on this specific topic, there is an abundant literature on clinical supervision where patients are involved. In one study that assessed the satisfaction of residents with different types of supervision (clinical, educational, research and personal supervision), findings indicated that many areas of "personal" supervision were found to be adequate. However, "personal" supervision was still lacking in comparison to the other types.[6] Another study explored clinical supervision among residents and found that 33% of their participants had never worked without adequate supervision.[7] The majority of articles on the topic discuss the challenges and advantages of clinical supervision.[8-12] Challenges around achieving supervision in training programs have been reported internationally.[13,14].

To ensure that individual supervision is consistent, weekly, and targets the personal growth and development of the residents, the outcome of the survey was shared with the PEC, where recommendations and action plans were suggested. The PEC should consider assigning protected time to individual supervision for residents as per residents' suggestions. This can be arranged through a rota or internally within each clinical rotation. The latter option can promote better team building. It is recommended that individual supervision should also be made part of the faculty's weekly scheduled job plan, the dates, and times to be informed to the residents in advance. Similarly, residents should be encouraged to seek individual supervision early on during their rotations. They should discuss with their respective supervisors their expectations from supervision and anticipated learning outcomes. It is important to engage residents in an open discussion on the value of supervision and how to improve it while emphasizing their role in taking initiative and ownership of their training opportunities.[15]

Faculty should receive training on the role of supervisors and the importance of individual supervision as part of their continuous professional development.[15,16] Furthermore, exploring the barriers to consultants providing individual supervision is an important factor to consider. This could be done through a survey encouraging consultants to share their concerns, experiences, and aspects hindering individual supervision. Such barriers should be discussed along with challenges, including supervisors' ability to balance their time between clinical duties and supervision.

Finally, to improve the quality of training, several measures can be taken, including increasing opportunities for direct clinical experience, enhancing didactic training, providing mentorship and feedback, and encouraging research and scholarship activities. Moreover, the program should prioritize creating a supportive learning environment that fosters collaboration and cultural competence. Regular evaluation and assessment of the program's effectiveness, as well as continuous updates to reflect best practices, are also essential. By implementing these strategies, psychiatry residency programs can strive towards high-quality training that prepares residents for the challenges and complexities of mental health practice.

The study is subject to two limitations. The first pertains to the small sample size, which was confined to the residents enrolled in the relatively small psychiatry program at the time of the audit. This limitation may restrict the extent to which the findings can be applied to other programs. The second limitation is that we had to develop and pilot our own questionnaire since a standardized questionnaire was not available.

Conclusions

Individual supervision as a requirement by ACGME was not found to be consistent in the psychiatry program. Due to its impact on the residents' professional growth and overall experience in the program, it is crucial to maintain close monitoring of the quantity and quality of this supervision.

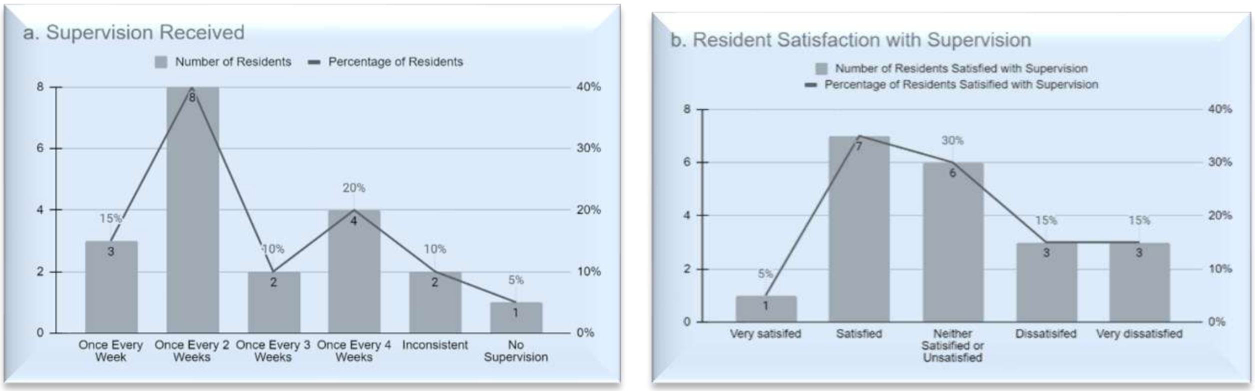

Figure 1

[a] percentage of supervision received.
[b] percentage of residents satisfied with supervision

Table 1

	Number of Residents	Percentage of Residents
Inpatient case discussion	7	35.0%
Professional growth and development	10	50.0%
Topics selected by the resident	17	85.0%
Topics selected by the supervisor	14	70.0%
PowerPoint slides	8	40.0%

[a] content of the supervision

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References

1. Hamad Medical Corporation. [cited 2023 Feb 27]. Available from: https://www.hamad.qa/EN/About-Us/Our-Accreditations/Pages/default.aspx
2. Edgar L, McLean S, Hogan SO, Hamstra S, Holmboe ES. The milestones guidebook - acgme [Internet]. Accreditation Council for Graduate Medical Education (ACGME); [cited 2023 Feb 27]. Available from:

https://www.acgme.org/globalassets/MilestonesGuidebook.pdf

3. Philibert I, Amis S. The ACGME 2011 duty hour standards: Enhancing quality of care, supervision, and Resident Professional Development: ACGME Task Force on Quality Care and professionalism. Chicago, IL: Accreditation Council for Graduate Medical Education; 2011
4. Common program requirements - ACGME [Internet]. [cited 2023 Feb 27]. Available from: https://www.acgme.org/globalassets/PFAssets/ProgramRequirements/CPRResidency2021.pdf
5. ACGME-International. Advanced speciality program requirements for graduate medical education in psychiatry [Internet]. [cited 2023 Feb 27]. Available from: https://www.acgme-i.org/globalassets/acgme-international/specialties/psychiatry/psychiatry.pdf
6. Viswanath B, Chandra PS, Chaturvedi SK. Supervision as-usual - is it enough? Asian J Psychiatr. 2013;6(6):488-93
7. Baldwin DWC, Daugherty SR, Ryan PM, Yaghmour NA, Philibert I. Residents' ratings of their clinical supervision and their self-reported medical errors: Analysis of data from 2009. J Grad Med Educ. 2018;10(2):235-41
8. Farnan JM, Petty LA, Georgitis E, Martin S, Chiu E, Prochaska M, et al. A systematic review. Acad Med. 2012;87(4):428-42
9. Holliman CJ, Wuerz RC, Kimak MJ, Burkhart KK, Donovan JW, Rudnick HL, et al. Attending supervision of nonemergency medicine residents in a University Hospital Ed. Am J Emerg Med. 1995;13(3):259-61.
10. Kroboth FJ, Brown FH, Stewart R, Karpf M, Levey GS. Impact of attending level supervision of the Emergency Department experience. Ann Emerg Med. 1982;11(4):192-6
11. Schumacher DJ, Slovin SR, Riebschleger MP, Englander R, Hicks PJ, Carraccio C. Perspective: beyond counting hours: the importance of supervision, professionalism, transitions of care, and workload in residency training. Acad Med. 2012;87(7):883-8
12. Goldszmidt M, Dornan T, van Merrienboer J, Bordage G, Faden L, Lingard L. Case Review and Supervision on the clinical teaching unit: Time to be more explicit. J Grad Med Educ. 2013;5(4):709
13. Turgeon J, St-Hilaire S. La Supervision directe. Perceptions d’ex-residents en médecine familiale [Direct supervision. Perceptions of ex-residents in family medicine]. Can Fam Physician. 2001;2(4):199-205
14. Sellers TP, LeBlanc LA, Valentino AL. Recommendations for detecting and addressing barriers to successful supervision. Behav Analy Pract. 2016;9(4):309-19
15. Martin SK, Farnan JM. Superb safety: Improving supervision for medical specialty residents. J Grad Med Educ. 2013;5(1):159-60
16. Steinert Y. Faculty development: From rubies to oak. Medical Teacher. 2019;42(4):429-35

الملخص

الهدف: تلبي سياسات الإشراف على المقيم في برنامج الطب النفسي للتدريب في مؤسسة حمد الطبية(HMC) ، قطر، متطلبات مجلس اعتماد التعليم الطبي العالي الدولي (ACGME-I). على عكس الإشراف السريري، لا يُعرف الكثير عن نظرة المقيمين للإشراف الفردي وتأثيره على تدريبهم.

كان الغرض من هذه الدراسة هو استكشاف ملاحظات المقيمين في الطب النفسي على الإشراف الفردي الأسبوعي، مع التركيز على عدد الجلسات، المحتوى، والجودة. **الطريقة:** لقد أجرينا مسحًا بين جميع المقيمين في قسم الطب النفسي بمؤسسة حمد الطبية، لاستكشاف عدد ومحتوى جلسات الإشراف الفردية التي تم تلقيها خلال الأشهر الستة الماضية، ومدى رضاهم عن الإشراف المقدم. **النتائج:** من بين ٢٥ مقيما، استجاب ٢٠ للمسح. أظهرت النتائج أن ٩٥٪ (١٩) ممن استجابوا، قد تلقوا شكلاً من أشكال الإشراف خلال فترة الستة أشهر السابقة، و١٥٪ (٣) كانوا يخضعون للإشراف باستمرار على أساس أسبوعي، و٥٪ فقط (١) لم يتلق أي إشراف على الإطلاق. أكثر محتوى أشار إليه المقيمين كان "مواضيع تم اختيارها من قبل المشرف أو المقيم" للدلالة على محتوى الإشراف. أخيرا، درجة الرضى عن جلسات الإشراف كانت متناسبة مع عدد الجلسات الفردية المقدمة. **الخلاصة:** يجب اتخاذ إجراءات لتحسين مستوى الإشراف الفردي ليشمل تدريب أعضاء هيئة التدريس، وإعفاء المقيم من أي التزامات أخرى أثناء الإشراف، والدعم المستمر من ادارة البرنامج.

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COVID-19 Related Stress Reactions in Patients with Obsessive - Compulsive Disorder

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تفاعلات الكرب المرتبطة بكوفيد19 في مرضى اضطراب الوسواس القهري

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Abstract

Background: With the outbreak of the COVID-19 pandemic, a large percentage of the world's population has been exposed to multiple burdens, including immediate hazards such as the risk of infection as well as social isolation, and economic insecurity. Based on the diathesis-stress model, which helps explain the development and maintenance of many mental disorders, these stresses may particularly affect people with preexisting mental disorders. In this study, we aimed to assess the effects of the COVID-19 pandemic on patients with OCD and healthy individuals. **Results:** According to OCSS, 23.9% of our participants were having mild OCD symptoms, 41.6% of them were having moderate symptoms, and severe symptoms presented in 34.5% of them. Our results revealed that there was a high statistically significant increase in total CSS scores in the OCD group compared to the control group. **Conclusion:** The results of the present study supported the notion that the increase in symptoms and general severity observed among those with OCD might primarily be due to stress induced by the current pandemic.

Keywords: OCD, COVID-19-related stress reactions (CSS), COVID-19

Declaration of interest: None

Background

Based on the diathesis-stress model, which helps explain the development and maintenance of many mental disorders, these stresses may particularly affect people with preexisting mental disorders. In 2020, at the beginning of the COVID-19 pandemic a high increase in common disorders, such as substance use disorders[2], eating disorders,[3] and obsessive-compulsive disorder (OCD).[4] Many studies demonstrated that the pandemic increased severity of OCD symptoms as well as symptoms of generalized anxiety disorder (GAD) and panic disorder (PD).[5, 6, 7]

In a study on German adults, the authors split the initial sample into participants with and without washing compulsions and found an increase in the severity of OCD particularly for patients of the washing subtype.[1] Further research examined symptom severity before and during the COVID-19 pandemic in a sample of children and adolescents with OCD, which found a significant increase in the frequency of contamination obsessions and washing compulsions.[7]

Likewise, a sample of Italian adult patients experienced an increase in avoidance behaviors mostly related to the fear of possible contamination, but information about specific symptom domains is not provided.[5]

Research has suggested that people with a diagnosis of OCD may be more sensitive to the kind of stressors identified during the pandemic and to react with greater worsening of symptoms since the experience would have been more stressful than for people who do not have OCD. Clinically, however, it is not possible generalize such expectations due to the variability in responses by people with OCD e.g., some reported feeling calm and stable; others felt able to continue their routine despite the pandemic not least because they perceived that others were experiencing what having compulsions, such as excessive hand-washing, was like. Still, others had nevertheless relapsed after years of improvement and some reported experiencing symptoms that were more exaggerated than was usual for them. Being obsessed with health and infection for the first time after years of OCD was also not uncommon, which is an understandable response for a heterogenous disorder like OCD.

Emerging evidence indicates that people with OCD may be more negatively impacted by COVID-19 than healthy individuals. Accordingly, the current study assessed the effects of COVID-19 on the pre-existing psychological condition of patients with OCD.

Research question

Did the COVID-19 pandemic affect patients with obsessive-compulsive disorder (OCD) more than healthy individuals?

Hypothesis

We hypothesized that patients with an OCD diagnosis are more affected psychologically by te pandemic than healthy individuals.

Objectives

1. Comparison between the patients with OCD and controls relative to COVID-19-related stress reactions (CSS) total scores.
2. Comparison between patients with OCD and controls relative to COVID-19-related stress reactions (CSS) subscale scores.

Methods

Design

The current study is a case control study conducted from January to July 2021. Patients with a diagnosis of OCD were selected from the outpatient clinics at Psychiatry Department, Zagazig University Hospital in Sharkia and from Alahrar Teaching Hospital (Ministry of Health) in Zagazig Sharkia. Both are located in Egypt.

Ethics

Ethical review was from Zagazig University. Written informed consent was obtained from all participants.

Participants

One hundred and thirteen patients from both genders, (aged 18-60 years) who met the DSM-5 criteria for OCD were selected from the selected outpatient clinics by simple random sampling. A cross-matched group of healthy controls were randomly selected from nurses, health personnel and workers in the hospital (*n*=113).

Sample size

Based on the assumption that the total number of patients with a diagnosis of OCD who attend outpatient clinic at ZUH is 300/ year, the sample size was calculated to be 113 using open epi. The ideal power was 0.8 (specified as 80%) and a 95% confidence interval. A further 113 matched controls were recruited from a healthy population of randomly nurses, health personnel and workers in both hospitals. All participants were recruited by systematic random sampling technique.

Inclusion criteria

- Both genders
- Age ranged from 18 to 60
- All socioeconomic classes

Exclusion criteria

- Patients < 18 years old
- History of psychiatric disorders other than OCD
- Evidence of substance use within the past month
- Chronic disease e.g., chronic liver diseases, chronic renal diseases, diabetes, hypertension, and cardiac diseases

Measures

General medical examination to exclude the presence of inflammation, severe physical disorders, or Organic brain disease

Structured Clinical Interview for DSM-5 to diagnose OCD[8]

Obsessive Compulsive Symptoms Scale (OCSS),[9] which is an 83-item, self-rating scale divided into subsacles: dimension of obsessions (e.g., ruminations, sexual obsessions, aggressive obsessions, religious obsessions, cleaning obsessions, impulsive obsessions, and obsessive pictures) and/or compulsions (e.g., general compulsions, religious compulsions, cleaning compulsions, slowness, repetition, touch) and a subscale questions for dysfunction. The OCSS was used to compare the severity of obsessions and compulsions between both groups. It is suitable and applicable to Arabic cultures.[10]

Responses are on a Likert scale ranging from 1 (never) to 5 (always) with total scores ranging from 31-85.

COVID Stress Scales (CSS)[11] is a 36-item, self-report measure to assess COVID-19-related danger and contamination fears, fears of socio-economic consequences, xenophobia, compulsive checking, and reassurance-seeking and traumatic stress symptoms. Responses are on a five-point Likert scale (0 - 4) with total scores ranging from 0 to 144.

The current authors translated the CSS into Arabic and back translated into English. It has been validated for testing and examining stress related to the COVID-19 outbreak in Egypt. Cronbach alphas of the different domains are satisfactory and ranged from 0.7 to 0.86.

Pilot test

A pilot test was intended to collect data on the initial psychometric properties of the scale in Arabic version and permitted a simulation of the field study. It was trialed with n=26 (20%) from the larger cohort.

Statistical analysis

Statistical analyses was calculated using version 24 of IBM SPSS Statistics (IBM; Armonk, New York, USA).

Presentation of categorical variables was by frequency and percentage. Levene's test checked the Homogeneity of variance. Continuous variables were presented as mean± SD or median (range). Shapiro-Wilk test was used to check normality. Chi-squared test of association can discover the relationship between two categorical variables. P-value (≤ 0.05) was considered a statistically significant difference.

Results

In the current study, the CCS revealed 23.9% of participants reported mild OCD symptoms, 41.6% had moderate symptoms and 34.5% reported severe symptoms, which is higher than what is reported in a previous study.[11]

Regarding COVID-19 stress scales, results suggest there was high statistically significant increase in OCD-related stress reactions relating to the pandemic compared with the control group. Moderate and severe symptom levels were significantly higher in group with OCD compared to control (see Table 1).

Table 1. Comparison between the studied groups regarding COVID-19-related stress reactions (CSS) total scale

		Diseased group (n = 113)		**Control group (n = 113)**		**Test value**	**p-value**
		n	**%**	**n**	**%**		
Total CSS	**Mean± SD**	**108.5± 20.1**		**64.7± 18.2**		ZMWU = 11.78	<0.001
	Median (IQR)	**105.0 (95.0 - 125.0)**		**68.0 (57.0 - 79.0)**			
	Range	**70.0 - 144.0**		**17.0 - 101.0**			
	Absent (0-35)	**0**	0.0%	**10**	8.8%	X2= 123.87	<0.001
	Mild (36- 71)	**4**	3.5%	**67**	59.3%		
	Moderate (72- 107)	**55**	48.7%	**36**	31.9%		
	Severe (108- 144)	**54**	47.8%	**0**	0.0%		

Regarding the CSS subscales, there were high statistically significant increases in scores of dangers, contamination fears, socioeconomic consequences, xenophobia, traumatic stress, compulsive checking subscales in diseased group compared to control group Table 2.

Table 2. Comparison between the studied groups regarding danger, contamination fears (CS), socioeconomic consequences (SEC), xenophobia (XEN), traumatic stress (TS), compulsive checking (CH) and reassurance -seeking subscales of CSS

		Diseased group (*n* = 113)	**Control group (*n* = 113)**	**Test value**	**p-value**
	n	**%**	**n**	**%**	
	Mean± SD	19.4± 4.1	11.7± 3.9	ZMWU = 10.51	<0.001
Danger subscale	**Median (IQR)**	21.0 (17.0 - 23.0)	11.0 (9.0 - 14.0)		
	Range	9.0 - 24.0	4.0 - 21.0		
SEC subscale	**Mean± SD**	16.6± 5.5	9.8± 4.7	ZMWU = 8.133	<0.001
	Median (IQR)	18.0 (11.0 - 21.0)	10.0 (7.0 - 12.0)		
	Range	6.0 - 24.0	0.0 - 23.0		
XEN subscale	**Mean± SD**	20.4± 3.7	10.9± 4.7	ZMWU = 11.31	<0.001
	Median (IQR)	22.0 (18.0 - 24.0)	10.0 (9.0 - 12.0)		
	Range	11.0 - 24.0	0.0 - 22.0		
CS subscale	**Mean± SD**	19.4± 4.2	11.4± 4.4	ZMWU = 10.26	<0.001
	Median (IQR)	20.0 (16.0 - 22.0)	11.0 (9.0 - 14.0)		

	Range	10.0 - 24.0	0.0 - 24.0		
TS subscale	**Mean± SD**	14.9± 6.9	9.2± 5.1	ZMWU = 5.98	<0.001
	Median (IQR)	14.0 (10.0 - 22.0)	9.0 (6.0 - 12.0)		
	Range	2.0 - 24.0	0.0 - 24.0		
CH subscale	**Mean± SD**	18.1± 6.0	11.3± 5.1	ZMWU = 7.76	<0.001
	Median (IQR)	20.0 (12.0 - 24.0)	10.0 (8.0 - 16.0)		
	Range	5.0 - 25.0	1.0 - 25.0		

As for correlation between OCD, total OCSS, and its subscales in patients' group, results demonstrate a high significant positive correlation between OCD with total OCSS and all its subscales (see Table 3).

Table 3. Correlation between OCSS and total CSS and its subscales in patients' group

		OCSS	
		r	**p-value**
CSS	**TOTAL CSS**	.732	<0.001
	DAN (1-6)	.391	<0.001
	SEC (7-12)	.589	<0.001
	XEN (13-18)	.451	<0.001
	CS (19-24)	.557	<0.001
	TS (25-30)	.434	<0.001
	CH (31-36)	.515	<0.001

Discussion

According to OCSS results, 23.9% of participants experienced mild OCD symptoms, 41.6% reported moderate symptoms and severe symptoms were present in 34.5%.

A study, conducted in the same university outpatient clinic and using the same measures, before the Covid-19 pandemic reported 18% of patients with OCD patients experienced mild symptoms, 64% had moderate symptoms and 18% severe.[12]

Also before the pandemic, a study using the Yale-Brown Obsessive Compulsive Scale (Y-BOCS), reported that 49.4% of their sample were subclinical, 19.1% had mild symptoms and 31% had symptom levels that were moderate to severe.[13] Similar levels were found among another patient group reported 25% of whom were subclinical with, respectively, 45.8% mild symptoms levels, 25% moderate, and 4.2% severe.[14]

The current study results established that symptom levels were higher during the pandemic than previous studies before the pandemic, which is supported in studies that found worsening OCD symptoms during COVID-19 pandemic[15,16]. Similarly, 72% of patients with OCD, especially those with washing symptoms, experienced an exacerbation of OCD symptoms because of the pandemic,[17] which is supported many other studies.[1,2,5,7,17,18]

In contrast to our findings were reports that most participants experienced improved rather than deteriorating OCD symptoms and functioning during COVID-19;[19] indeed, for some there was no exacerbation of OCD during the COVID-19 pandemic at all.[20] One study, which reported a small number (6%) as being adversely affected, explained this as relating to the protective effects of SSRIs.[21] Another possible explanation for this inconsistency among study results could be the heterogenicity of the disorder - washers and checkers are different from repeaters, arrangers; in other words, OCD patient are clearly not the same and are, therefore, not expected to have identical reactions.

Regarding COVID-19 stress scales, the current results suggest that a highly statistically significant increase in total CSS among patients with OCD compared with controls. Moderate and severe scores were significantly higher in OCD group compared to the control group. COVID-19 is linked to an increase in all OCD symptom dimensions, including contamination, responsibility for harm, unacceptable thoughts, and symmetry as reported in previous studies.[5,7]

Contamination fears and concerns about danger were a highly statistically significant in the present study as evidenced by an increase in the danger subscale of the OCCS in a OCD group compared to the control group. There was a high statistically significant increase in the contamination fears subscale in the OCD group compared to the control group. Severe scores were significantly higher in the OCD group compared to controls.

Findings were consistent with a previous study reporting on danger and contamination-related stress as being a key characteristic of COVID-19 stress syndrome and predicted change in all symptom dimensions of OCD as well as change in general severity.[18]

This is supported multiple studies,[5,6,7,17,22] which report increased contamination fears after COVID-19 pandemic. In one such study, 60% of patients with OCD reported developing new obsessions related to the infection fears of the COVID-19 pandemic.[15]

Regarding socioeconomic consequences, the current results found a statistically significant increase in the socio-economic consequences subscale for the group with OCD versus control group. It was noticed that severe scores were significantly higher in the OCD group compared to control group. Notably, women with OCD reported a tendency to buy unnecessary quantities of food out of fear of items vanishing entirely from stores.[24] Fear of deprivation, insecurity, and losing control over the environment may be the main cause responsible for the buying phenomenon as described.[25] COVID-19's economic limitation and bad effects on people's ability to fulfill their basic needs cause fear and anxiety which support our ideas.[26]

Regarding xenophobia, there was a highly statistically significant increase in the xenophobic subscale in the OCD group compared to control group. It was noticed that severe scores were significantly higher in those with OCD compared to controls.

In line with the current study, it has been found that during times of pandemic many people who feared becoming infected fear encountering foreigners who might be carrying infection with COVID-19, which gave rise to xenophobia.[27]

For many, the pandemic was also a significant traumatic stressor, which was supported in the current study in that there was a highly statistically significant increase in the traumatic stress subscale of the OCCS in those with OCD; compared to control group ($p<0.01$) severe scores were significantly higher in the OCD group compared to control group. This is supported in a study that found patients with OC dimensions of unacceptable thoughts and responsibility for harm were more likely to develop COVID-19 Stress Syndrome, particularly traumatic stress symptoms and compulsive checking related to the pandemic.[19]

Regarding compulsive checking, there was a highly statistically significant increase in the compulsive checking subscale in the OCD group compared to the control group ($p<0.001$); severe scores were significantly higher in those with OCD compared with controls ($p<0.001$).

Finally, along with the present results, it was reported that some patients with OCD would spend many hours each day watching TV and reading online media news about COVID-19, which further increased levels of distress and exacerbated OCD symptoms,[28] particularly relating to responsibility for harm and checking behaviours.[29]

Limitations

The current study did not include the prepandemic symptom levels of participants with OCD. Thus, comparision was with previous studies done before the COVID-19 pandemic. One hopes no further epidemics occur, particularly on a global scale, but future studies on OCD patients should be distinct in describing specific OCD clinical presentations e.g., contamination/washing, doubt/checking, incompleteness/repeating, guilt/scrupulosity, since these categories may play a unique role in helping to understand the stress reactions people with OCD during such a crisis.

Conclusion

The current study supported the notion that a high increase in symptoms and general severity observed among those with OCD might be due to stress caused by the recent COVID-19 pandemic. COVID-19-related stress responses explained the considerable variance in symptoms levels across all OCD dimensions and general OCD severity. In particular, stress reactions such as danger and contamination, compulsive checking, traumatic stress, and socioeconomic concerns correlated with deterioration of symptoms across multiple symptom dimensions and general OCD severity.

References

1. Jelinek L, Moritz S, Miegel F. Obsessive-compulsive disorder during COVID-19: Turning a problem into an opportunity? J Anxiety Disord. 2020;77:102329.
2. Ornell F, Moura HF, Scherer JN, et al. (2020): The COVID-19 pandemic and its impact on substance use: Implications for prevention and treatment. Psychiatry Res. 289:113096.
3. Touyz S, Lacey H and Hay P. Eating disorders in the time of COVID-19. J Eat Disord. 2020;8:19.
4. Fineberg NA, Van Ameringen M, and Drummond L, et al. How to manage obsessive-compulsive disorder (OCD) under COVID-19: A clinician's guide from the International College of Obsessive-Compulsive Spectrum Disorders (ICOCS) and the Obsessive-Compulsive and Related Disorders Research Network (OCRN) of the European College of Neuropsychopharmacology. Compr Psychiatry. 2020;100:1521740.
5. Benatti B, Albert U, Maina G, et al. What happened to patients with obsessive compulsive disorder during the COVID-19 pandemic? A multicentre report from tertiary clinics in northern Italy. Front Psychiatr. 2020; 11:720.
6. Matsunaga H, Mukai K and Yamanishi K. The acute impact of the pandemic of COVID-19 on the phenomenological features in the full or partial remitted patients with obsessive–compulsive disorder (OCD). Psychiatr Clin Neurosci. 2020;1–4.
7. Tanir Y, Karayagmurlu A, Kaya İ, et al. (2020): Exacerbation of obsessive-compulsive disorder symptoms in children and adolescents during COVID-19 pandemic. Psychiatr Res 293:113363.
8. First MB, Williams, JB, Karg RS et. al. SCID-5-CV: structured clinical interview for DSM-5 disorders, clinician version. American Psychiatric Association Publishing. 2016.
9. وائل أبو هندي، وداليا مؤمن (2006): إعداد مقياس لأعراض اضطراب الوسواس القهري، مجلة دراسات نفسية مجلد 16 عدد 3، ص: 524-475.
10. وائل أبو هندي، داليا مؤمن وأحمد عبد الله (2019). إعادة تقنين مقياس أعراض الوسواس القهري، المجلة العربية للطب النفسي، ج. 30 رقم1 ص (77-89) (doi-10.12816/0052940).

Abohendy W, Moemen D, Abdallah AM. Re-standardizing the Obsessive-Compulsive Symptom Scale. Arab J Psychiatr. 2019;30(1):77-89 (doi-10.12816/0052940)

11. Taylor S, Landry C, Paluszek M, et al. (2020): Development and initial validation of the COVID stress scales. J Anx Disord. 27:102232.
12. Ibrahim L, Abouhendy W, Raafat N. et al., Prevalence and correlates of attention deficit hyperactivity disorder in obsessive-compulsive disorder patients. Middle East Curr Psychiatry. 2020;27:3. https://doi.org/10.1186/s43045-019-0007-6
13. Hamed S, Elserogy Y, Abd-Elhafeez H, et al. (2013): Psychopathological and peripheral levels of neurobiological correlates of obsessive-compulsive symptoms in patients with epilepsy: a hospital-based study. Epilepsy Behav. 2013 May;27(2):409-15.

14. Sheikhmoonesi F, Hajheidari Z, Masoudzadeh A, et al. Prevalence and Severity of Obsessive-Compulsive Disorder and Their Relationships with Dermatological Diseases. Acta Medica Iranica, 2014;52(7):511-514.
15. Alonso, S. Bertolín, J. Segalàs, M. et al. How is COVID-19 affecting patients with obsessive–compulsive disorder? A longitudinal study on the initial phase of the pandemic in a Spanish cohort, European Psychiatry. 2022.
16. 16. Nissen JB, Højgaard D, Thomsen PH The immediate effect of COVID-19 pandemic on children and adolescents with obsessive compulsive disorder. BMC Psychiatry. 2020; 20:511. doi: 10.1186/s12888-020-02905-5. [PMC free article] [PubMed] [CrossRef] [Google Scholar]
17. Seçer I, Ulaş S. An Investigation of the Effect of COVID-19 on OCD in Youth in the Context of Emotional Reactivity, Experiential Avoidance, Depression and Anxiety. Int J Ment Health Addict. 2020:1-14.
18. Davide P, Andrea P, Martina O, et al. The impact of the COVID-19 pandemic on patients with OCD: effects of contamination symptoms and remission state before the quarantine in a preliminary naturalistic study. Psychiatry Res. 2020;20:113213.
19. Khosravani V, Asmundson GJ, Taylor S., et al. The Persian COVID stress scales (Persian-CSS) and COVID-19-related stress reactions in patients with obsessive-compulsive and anxiety disorders. J Obsessiv Compul Disord 2021;28:100615.
20. Schwartz-Lifshitz M, Basel D, Lang C, et al. Obsessive compulsive symptoms severity among children and adolescents during COVID-19 first wave in Israel. J Obsessive Compuls Relat Disord. 2021: 100610.
21. Chakraborty A, Karmakar S. Impact of COVID-19 on obsessive compulsive disorder (OCD) Iran. J. Psychiatry. 2020; 15:256–259.
22. Sharma LP, Balachander S, Thamby A, et al. Impact of the COVID-19 pandemic on the short-term course of obsessive-compulsive disorder. 2020.07.26.20162495.
23. Knowles K, Olatunji B. Anxiety and safety behavior usage during the COVID-19 pandemic: The prospective role of contamination fear. J Anxiety Disord. 2021 77:102323.
24. Balkhi F, Nasir A, Zehra A, et al. Psychological and behavioral response to the coronavirus (COVID-19) pandemic. Cureus. 2020;12(5).
25. Arafat SY, Kar SK, Marthoenis M, et al. Psychological underpinning of panic buying during pandemic (COVID-19). Psychiatry Res. 2020;289: 113061.
26. Ryan BJ, Coppola D, Canyon DV., et al. COVID-19 community stabilization and sustainability framework: an integration of the Maslow hierarchy of needs and social determinants of health. Disaster Medicine and Public Health Preparedness. 2020;14(5), 623-629.
27. Taylor S. 2019. The psychology of pandemics: Preparing for the next global outbreak of infectious disease. books.google.com
28. French I, Lyne J. Acute exacerbation of OCD symptoms precipitated by media reports of COVID-19. Irish Journal of Psychological Medicine. 2020.
29. Shafran R, Coughtrey A, Whittal M. Recognising and addressing the impact of COVID-19 on obsessive-compulsive disorder. Lancet Psychiatr. 2020;7(7): 570-572.

الملخص

الخلفية :استنادًا إلى نموذج تفاعل التأهب الكرب، والذي يساعد في تفسير تطور العديد من الاضطرابات النفسانية والحفاظ عليها، قد تؤثر هذه الكروب بشكل خاص على الأشخاص الذين يعانون من اضطرابات عقلية موجودة مسبقًا. هدفت هذه الدراسة إلى تقييم آثار وباء كوفيد -19 على مرضى اضطراب الوسواس القهري والأفراد الأصحاء.

وقد أشارت بعض الدراسات إلى زيادة كبيرة في وتيرة وساوس التلوث والغسيل القهري، وزيادة في سلوكيات التحاشي المرتبطة غالبا بالخوف من التلوث المحتمل، وبشكل عام أشارت الدلائل الناشئة إلى أن مرضى اضطراب الوسواس القهري قد يتأثرون بشكل سلبي بجائحة فيروس كورونا أكثر من الأفراد الأصحاء. وفقًا لذلك، قامت هذه الدراسة بتقييم تأثير كوفيد 19 على الحالة النفسية لمرضى الوسواس القهري في البيئة العربية. **النتائج:** 23.9% من المشاركين يعانون من أعراض الوسواس القهري الخفيفة، بينما كان 41.6٪ منهم يعانون من أعراض معتدلة، وظهرت أعراض شديدة في 34.5٪ منهم. أظهرت نتائجنا أن هناك زيادة ذات دلالة إحصائية عالية في مجموع درجات مقياس كرب كوفيد CSS في مجموعة الوسواس القهري مقارنة بمجموعة الضبط. **الخلاصة:** دعمت نتائج الدراسة الحالية الفكرة القائلة بأن الزيادة في الأعراض والشدة العامة للاضطراب والتي لوحظت بين المصابين بالوسواس القهري قد تكون في المقام الأول نتيجة الكرب الناجم عن الوباء الحالي.

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Brown Incompleteness Scale (BINCS) Arabic Version

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مقياس برون للّا اكتمال النسخة العربية

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Abstract

Background: Obsessive compulsive disorder (OCD) is a common mental health disorder with widely heterogeneous presentations characterized by multiple, temporally stable symptom dimensions. It has many consequences for those affected. Several dimensions were proposed to understand OCD dynamics, identify etiological factors and help develop more specific treatment methods. Incompleteness (INC) as one of those dimensions has received increasing importance in the last decade and is known to be associated with greater severity of OCD as well as less improvement with available treatments. However, there is no validated Arabic version of any scale that measures the impact of INC on OCD patients. **Objective:** The current study aimed to translate into Arabic and measure the psychometric characteristics of the Brown Incompleteness Scale (BINCS). **Method:** Using a forward-backward translation, the BINCS was translated into Arabic and six jurors assessed its content validity. A survey was carried out among 120 individuals to assess internal consistency and validity of the Arabic version (BINCS-Arabic) using Cronbach's α and was also assessed for reliability. **Results:** Reliability of the Arabic version of BINCS was .90 for all items by Cronbach's alpha and .70 in the split form by Spearman-Brown co-efficient. Content validity was .75 for universal content validity and .94 for item content validity index. **Conclusion:** BINCS-Arabic is a reliable and valid self-report measure for screening of incompleteness among the population. This clinician administered scale can provide a more comprehensive clinical assessment of patients with incompleteness within the Arab population.

Keywords: Obsessive compulsive disorder (OCD), incompleteness (INC), BINCS scale

Declaration of interest: None

Background

An assumed motivator for obsessive-compulsive disorder (OCD) symptoms has changed in recent years from harm avoidance (HA) to not just right experience (NJRE) and incompleteness (INC).[1] In order to end an experience, one must feel its completeness. In the case of people with OCD, an experience of incompleteness is described in two domains: sensory and cognitive, which means further repetition of action is stopped because a sense of satisfaction and contentment is experienced. Incompleteness can, through both sensory and cognitive domains, hinder the experience of contentment and satisfaction such that one cannot stop actions or end experiences or even have enough confidence in what they experience or remember. Incompleteness means a mismatch between the perceptual input and internal reference signals.[2] It can greatly delay a person's ability to end or even believe their actions happened since the subjective experience of conviction that "I did it" is prevented and hence the OCD sufferer continues checking, washing, asking, praying, thinking, remembering and so on.

Clinical experience suggests that the manifestations of incompleteness can range from delay and perfectionism with excessive attention to marked difficulty with planning and lost productivity leading to the inability to sustain goal directed behavior.[3,4] Thus, it is not shocking that incompleteness is generally associated with OC spectrum disorders including OCD,[5] body dysmorphic disorder,[6] and compulsive hoarding[7] and with characteristics such as perfectionism,[8] and sensory phenomena and tic-like experiences.[9] The clinical implication of incompleteness is also underscored by its relationships with poor treatment result, increased comorbidity, and higher degrees of functional impairment.[5]

Research on INC/NJREs has led to improvements to the current psychological and biological models of OCD. Subjectively, the reality of the INC/NJREs experience for people with OCD, including continuous suffering, highlighted a challenge to classic fear-based CBT models, which led to treatment modifications[10] that changed improved the understanding of how exposure response prevention works and how it should work.

The current study examines the psychometric properties of the Arabic version of the Brown Incompleteness Scale (BINC), which to our knowledge, has not previously been translated for use in Arabic speaking countries. A brief description of history and development of thoughts about INC/NJREs is followed by a description of ways of measuring INC/NJREs.

History and different conceptions

Perhaps the earliest descriptions of the incompleteness phenomenon date back to the late 12th century when Islamic Hanafy scholars observed obsessive and repetitive behaviours in people who were unable to stop. They described how those affected by such behaviours felt their actions were not completed or done the right way and some advised that they could only stop after certain number of repetitions e.g., three times of washing. Eight centuries later, Janet theorized that people with OCD experienced an inner sense of imperfection; that their actions were not well performed or did not give them a desired satisfaction. The description of an enclosure of action and its repetition (or perceptions related to actions) was later termed “not just right experiences” NJREs.[11]

In 1992, a model was suggested for heterogenicity of OCD based on two domains: harm avoidance and incompleteness.[12,13] The concept of incompleteness lagged for a decade possibly due to the conceptual and methodological complexity of expressing and understanding incompleteness itself. Its importance as part of the etiology of OCD was later confirmed and subsequently well researched.[11,14] Janet’s findings were reintroduced[2] as usefully explaining the "lack of sense of task completion" and several other names were used to refer to that same phenomenon with each name describing some aspect or more of the phenomenon and drawing on a hypothetical theory about the nature of incompleteness. This led to the descriptors: “Not Just Right Experiences” or NJREs[15] and “Lack of Feeling of Rightness”,[16] which is a personal feeling that something is not as it should be,[17] and “Lack of Feeling of Knowing”, which is now termed as “yedasentience”.[18] Subsequnetly, observations about the normal and pathological consequences of encountering difficulties in monitoring progress towards goals led to a clearer understanding of how the analysis of difficulties when monitoring progress could be applied to OCD.[19] It was theorized that individuals with such difficulties experience a diminished ability to access their own feelings, wishes, and preferences directly and must resort to external indicators to infer these internal states.[20] A theory of attenuation of access to internal states[21] was later found to be a feature of people with OCD that explains pathological doubt, incompleteness among other core OCD phenomena. This led to the development of Seeking Proxies for Internal States SPIS[22], which explains both cognitive and sensory aspects of incompleteness, as well as a person’s susceptibility to false feedback from external sources about his/her doubted internal state.[23]

The experience of INC itself can be strange, salient, (usually/occasionally) nagging and very distressing and at the same time difficult to describe to others; moreover, many OCD patients are secretive about these experiences, thinking of it as a peculiar experience that would not be easily understood by others. Awareness of this problem has led clinicians to routinely ask OCD patients about INC manifestation (as it is not wise to wait for a person with OCD symptoms to have these overlooked). Despite this and due to the importance that these new constructs, NJRE and INC, might have in understanding OCD symptoms heterogeneity, the Diagnostic and Statistical Manual of Mental Disorders (DSM-5, APA, 2013) didn't recognize INC as a motivating factor beside harm avoidance in OCD.

Measurement of incompleteness

Putative facets of incompleteness were first studied using the valid and reliable Not Just Right

Experiences Questionnaire (NJRE-Q),[17] which assesses respondents' subjective sensations of "not feeling right" following a series of 10 hypothetical behavioral scenarios, as well as the University of São Paulo Sensory Phenomena Scale (USP-SPS),[24] which was designed to assess tic-related phenomena and includes just two incompleteness-specific items. Both measures focus largely on sensory related distress, however, and may not adequately capture the larger construct of incompleteness. Namely, perfectionism and the completion of tasks "perfectly" or "just right" has also been described as a component of incompleteness.[11, 25]

The second most frequently utilized measuring tool is the Obsessive-Compulsive Trait Core Dimensions Questionnaire (OC-TCDQ).[14] Version one was presented at a conference in 2001. The latest version of this questionnaire is version three.[26] It is a 20-item self-report scale with two factor analytically defined subscales-incompleteness (INC) and harm avoidance (HA). It contains ten items for INC and ten for HA. People with obsessive-compulsive symptoms rate to what degree each statement applies to their OCD symptoms on a scale from 0 to 4; this is called the "state version". Non-clinical subjects must rate the same ten items with reference to how they typically think, feel, and act; this represents the "trait version".[27] The OC-CDQ is based on the established core dimensions model of OCD,[26] that treats both harm avoidance and incompleteness as unitary constructs. As such, it does not readily allow for multifaceted investigation of incompleteness, which may limit its content validity and applicability to comprehensive investigations of this phenomenon.

Moreover, the authors of BINCS[28] posit that there are key aspects associated with incompleteness that are not effectively assessed with existing measures including: difficulties getting from point A to point B (i.e., prioritization), the inability to sustain goal-oriented behavior, and difficulties with decision making under uncertain conditions.[3, 12]

Incompleteness consists of three overlapping subdomains: (1) perfectionism, obsessive-compulsive personality traits, and "not just right" experiences, (2) sensory concerns and tic-like experiences, and (3) problems with goal-directed behavior and prioritization.[3] Existing incompleteness scales capture one or more aspects of these putative subdomains. Therefore, development of a measure that goes beyond assessing the presence of incompleteness as a unitary entity may be essential to advancing research and clinical exploration.[28]

Thus, a clinical measure that comprehensively assesses these multiple facets of incompleteness may allow for more comprehensive assessment of the incompleteness phenomenon resulting in improved clinical utility. Complementing theses existing scales is a growing body of behavioral research investigating novel paradigms designed to elicit incompleteness experiences in laboratory settings.[29,30,11,26] For example, Summers[31] used in vivo visual, auditory, and tactile NJRE tasks aimed at evoking the sensations that things do not look, sound, or feel right and found strong correspondence between behavioral task ratings and self-reported ratings of incompleteness. Such research underscores the unique affective correlates of incompleteness experiences[11] and demonstrates the potential added benefit of in vivo NJRE assessment in predicting compulsive behavior.[29] To date, examination of these paradigms has been limited to undergraduate samples; future studies with well-characterized clinical populations are critical for generalization of study findings. Multi-method research could further be bolstered by the inclusion of a semi-structured clinical assessment of incompleteness.

Yet, assessment of incompleteness has relied almost exclusively on self-report and has assumed a unitary conceptualization of this phenomenon. Boisseau sought to develop and validate a new multi-faceted clinician-administered measure of incompleteness, The Brown Incompleteness Scale (BINCS)[28] that consists of 21 items; each rated on a 5-point scale, with higher scores indicating a greater degree of incompleteness. The current study describes the measure's development and preliminary validation.

The current study examines the psychometric properties of the Arabic version [blinded for peer review] from the Brown Incompleteness Scale and thus seeks to provide a scientifically sound measuring instrument that is suitable to the Arabic speaking populations. Thus, standardization of the scale in the Arab environment opens new horizons for research in the field of diagnosing and measuring the incompleteness in OCD, which may improve treatment. This is an essential step that supports exposure approaches and other psychotherapy techniques. The ideal tool should be psychometrically tested for reliability and validity.

This study aims to translate the BINCS Scale into Arabic language and measure its psychometric characteristics (content validity, internal consistency, and construct or component validity) in an Egyptian sample of general population. No Arabic version was made before to this scale.

Methods

Study design

This cross-section validation study was conducted during the period from October 2021 to April 2022.

Ethical approval was obtained from the Institutional Research Review Board (IRB), faculty of medicine, Zagazig University, Zagazig, Egypt, according to the ethical guidelines outlined in the Declaration of Helsinki and its amendments. IRB number 6243

Subjects

The study was carried out on OCD patients who are following up in the outpatient clinic of the psychiatric department, Zagazig University Hospital in Zagazig Egypt.

Sample size calculation

There are no absolute rules for the sample size required to validate constructs or study tools due to the various types of tools and the number of their items. We used 5:1 according to guidelines for respondent ratio and our scale consists of 24 items yielding a sample size of 120.[32]

Data collection

Participants enrolled voluntarily through a survey process. There were no monetary incentives for enrolling. Data were collected anonymously, including sociodemographic (e.g., age, gender, nationality, residence, and education level). All completed the Arabic version of the BINCS scale. Participant were from both genders with ages ranging from 18 to 60 years.

Measures

The BINCS Scales (INC) is an interviewer-administered scale consisting of 21 target symptoms followed by three overall (past-week) severity ratings of time, distress, and interference. The BINCS is based on the Yale-Brown Obsessive Compulsive Scale (Y-BOCS) and Symptom Checklist.[33,34] It asseses information about the presence and frequency of incompleteness symptoms (sensory and behavioral) in order identify which symptoms are more distressing to the person. The semi-structured assessment begins with a list of target symptoms (e.g., it must feel ‘just right’ in order to stop a routine activity) each with specific examples designed to assist the rater in assessing the range of incompleteness experiences (e.g., “having to wait until it feels right to stop brushing teeth”). Based on the information obtained, the frequency of each symptom is rated by the assessor using 5-point Likert-type scale from 1 (never) to 5 (always). Following symptom assessment, the rater assesses the overall impact of incompleteness in terms of time, distress, and interference in the past week.

The semi-structured prompts and response options of these three items were based on the time, distress and interference items of the Y-BOCS severity scale with time occupied rated from 0 (none) to 4 (very severe, greater than 8 hours per day), distress rated from 0 (none) to 4 (extreme, near constant and disabling distress) and interference rated from 0 (none) to 4 (extreme, causes significant impairment in all major areas, incapacitating). Sum scores for the last three items range from 0-12 are totaled and the scale is used at follow up to detect improvement. Administration time for the BINCS is approximately 20 minutes. The INC was developed and initially validated in population-representative samples from people with OCD in inpatient and outpatient settings. The scale performed well on various indices of reliability and validity. Items were inter-correlated, providing evidence of incompleteness.

Arabic translation of BINCS

The English version was translated into Arabic by two independent translators. Both translations were compared and discrepancies that may reflect more ambiguous wording in the original or discrepancies in the translation process noted. Poorer wording choice was identified and resolved in a discussion between the translators.[35]

This initial version was revised from a linguistic, grammar, and other perspective. The final Arabic version was then back translated into English by another two translators unaware of the original

English version to ensure accuracy and consistency of the translation and consistency of the translation. Back translation is only one type of validity check, highlighting gross inconsistencies or conceptual errors in the translation is also important.[36]

A committee reviewed all versions of the translation to prepare a pre-field version. Any issues arising were carefully documented as was the rationale for reaching decisions about them, which was achieved by committee to ensure equivalence between the source and target version.[35]

Following the field test, the agreed version was applied to 30 individuals within the local community. Views were sought about each question and its perceived meaning to ensure the adapted version still retained equivalence in an applied situation. The distribution of responses was examined for any missing items or single responses.[37]

Content validity

Content validation examines the contents of each item in the questionnaire to check relevance scores of all experts. The content validity indices were estimated by six experts who specialized in psychiatry: two professors, two assistant professors and two lecturers. The Arabic version of the scale was evaluated for clarity, relevance, and translation of the contents. The experts were asked independently to review each item for clarity and relevance using a three-point ordinal scale (0-3) and results obtained as 0 and 1 mean 0 but 2 and 3 mean 1. A process of Universal Agreement (UA) involved assignment to the item that accomplished 100% experts in agreement. By expert agreement an 18 point scale was selected that was equal to 0.75 meaning a valid scale would require results of more than 0.7. The item content validity index (I-CVI) was calculated as follows:

1- **I-CVI**: number of the expert in agreement divided by the total number of experts
2- (each item of questionnaire) and the result was 0.94.
3- **S-CVI/Ave** (based on proportion relevance): all expert opinions alone then we added the result and divided it by their number to get the average and result was 0.95 and that is highly significant.

The item-test correlation was calculated for one item score and total questionnaire score. The greater the value of the coefficient, the stronger the correlation between the item and the total score. The item-test correlation is often used to support that the item is a “good” contributor to what the questionnaire measures, an index of item validity. In the current study the correlation co-efficient was 0.195 and all questionnaire values were significant except for Q9 and Q18. The correlation value was calculated for each question, which yielded a strong correlation for (Qs 7, 14, 16, 17, 20, 22, and 24) moderate correlation for (Qs 2, 3, 4, 5, 6, 8, 12, 15, 19, 21, and 23) weak correlation for (Qs 1, 9, 11, 13, and 24) and very weak for (Qs 10,18).[38]

Reliability

To test the reliability of the INC-Arabic, the final version was completed by 120 practitioners. Internal consistency was examined by Cronbach’s α reliability coefficients. Cronbach’s α value of 0.50-0.70 was acceptable, whereas 0.70 or higher shows good homogeneity among the items.

- Internal consistency is a measure of the consistency of people’s responses to items on a questionnaire. Internal consistency is by calculating the Cronbach Alpha coefficient. The Cronbach's alpha value is expected to be at least 0.70 to indicate adequate internal consistency of a given questionnaire. For our scale, the result was 0.905.
- Split-half reliability is developed to check whether items in a questionnaire measure the same underlying concepts. In split-half reliability, the questions are split in two halves and then, the correlation of the scores on the scales from the two halves is calculated, by the Spearman Brown formula. And our result was 0.702.
- Finally, Cronbach's alpha value was used if an item was deleted to assess if the scale maintained good internal consistency. For the current study, results were satisfactory for the majority of items.

Results

Table 1. Age of studied patients

Age **Mean ± SD** **(range)**	**26.92±8.6** **18.49**
Gender	
Male	67 (55.8%)
Female	53 (44.2%)

Table 2. Description of mean and standard deviation of each item, reliability of study tools by Cronbach's Alpha, if item deleted Cronbach's Alpha of BINCS

Items	Mean	Std. Deviation	Cronbach's Alpha if item deleted	Cronbach's Alpha all items	Spearman-Brown Coefficient of spilt reliability
Q1	2.3167	1.24336	.903	0.905	0.702
Q2	2.3167	1.69023	.901		
Q3	2.5500	1.49986	.901		
Q4	2.4833	1.12260	.901		
Q5	2.9000	1.48607	.898		
Q6	2.7500	1.40975	.900		
Q7	2.3167	1.74406	.895		
Q8	2.2167	1.57812	.901		
Q9	2.3083	1.62851	.904		
Q10	2.1000	1.63162	.910		
Q11	2.1333	1.58742	.907		
Q12	2.4750	1.52824	.903		
Q13	2.2000	1.78038	.907		
Q14	3.3333	.94676	.899		
Q15	2.5083	1.58244	.900		
Q16	2.84	1.449	.898		
Q17	2.6083	1.41597	.895		
Q18	2.2250	1.69261	.911		
Q19	2.8000	1.56431	.901		
Q20	3.0000	1.20921	.898		
Q21	2.9167	1.46433	.901		
Q22	3.3167	1.13006	.897		
Q23	3.1750	.88558	.901		
Q24	3.1083	1.15078	.897		

Table 3. Index of item validity

Items	r	P
Q1	.447**	0
Q2	.569**	0
Q3	.530**	0
Q4	.546**	0
Q5	.686**	0
Q6	.611**	0
Q7	.762**	0
Q8	.556**	0
Q9	.456**	0
Q10	.251**	0.006
Q11	.328**	0
Q12	.505**	0
Q13	.395**	0
Q14	.710**	0
Q15	.626**	0
Q16	.727**	0
Q17	.830**	0
Q18	.236**	0.009
Q19	.567**	0
Q20	.757**	0
Q21	.596**	0
Q22	.806**	0
Q23	.642**	0
Q24	.806**	0
Q24	.473**	0
Critical value of correlation coefficient	0.195	Degree of freedom ≥100

(r= correlation coefficient), significant ($P<0.05$)

Table 4. Content validity to measure (relevance) questionnaire

	Expert 1	Expert 2	Expert 3	Expert 4	Expert 5	Expert 6	Experts' agreement	I-CVI*	UA
Q1	1	1	0	1	1	1	5	0.83	0
Q 2	1	1	1	1	1	1	6	1	1
Q3	1	1	1	1	1	1	6	1	1
Q4	1	1	1	1	1	1	6	1	1
Q5	1	1	1	1	1	1	6	1	1
Q6	1	1	1	1	1	1	6	1	1
Q7	1	1	1	1	1	1	6	1	1
Q8	1	1	1	0	1	1	5	0.83	0
Q9	1	1	1	1	1	1	6	1	1
Q10	1	1	1	1	1	1	6	1	1
Q 11	1	1	1	1	1	1	6	1	1
Q12	1	1	1	1	1	1	6	1	1

Q13	1	1	0	1	1	1	5	0.83	0
Q 14	1	1	1	1	1	0	5	0.83	0
Q15	1	1	1	1	1	1	6	1	1
Q16	0	1	1	0	1	1	4	0.67	0
Q17	1	1	1	1	1	1	6	1	1
Q18	1	1	1	1	1	1	6	1	1
Q19	1	1	1	1	1	1	6	1	1
Q20	1	1	1	1	1	1	6	1	1
Q21	1	1	1	1	1	1	6	1	1
Q22	1	1	1	1	1	1	6	1	1
Q23	1	1	1	1	1	1	6	1	1
Q24	0	0	1	1	1	1	4	0.67	0
	22	23	22	22	24	23		0.94**	0.75
Proportion of relevance	0.92	0.96	0.92	0.92	1	0.96			
CVI/Ave: Average of Proportion of relevance/ number of experts	0.95***								

Discussion

The current paper reports the process and results of a first-ever Arabic translation of the BINCS scale, which measures incompleteness in people with OCD. The scale is an important measure that examines a key aspect of OCD and its impact on those affected by the condition.

The burden of incompleteness during the COVID-19 era has increased even in normal healthy individuals, which makes the validation of an Arabic version timely. The scale consists of two parts behavioral (can't maintain action) and sense of incompleteness (something went wrong). Items on the task completion subscale encompass difficulty with initiating and completing tasks including related difficulties with prioritization and perfectionism. Consistent with behavioral research on incompleteness,[31,39] the sensory subscale taps phenomena across multiple sensory modalities. Importantly, the results of the current study support the structural, convergent, and divergent validity of the BINCS. As expected, both BINCS subscales and past-week functional impact (e.g., severity, distress, and interference) demonstrated strong positive correlations with well-established self-report measures of incompleteness. Incompleteness depends on sensory-related insecurity. The BINCS scale offers simple and appropriate way to measure the sensory phenomena of incompleteness for the purpose of establishing better approaches to symptom management. Employing the BINCS as part of a comprehensive clinical assessment may help guide clinicians to focus on the relevant sensory-affective and/or cognitive dimensions for each patient and lead to more targeted interventions and evaluation of symptom change.

Limitations

- Our sample size may be small, but it responds to guideline of 5:1 ratio. This important given the secretive nature of OCD, prevalence of OCD (1.2%) and patients' reluctance to seek medical advice.
- The scale is a subjective tool.

References

1. Belloch A, Fornes G, Carrasco A, Lopez-Sola C, Alonso P, Menchon JM. Incompleteness and not just right experiences in the explanation of obsessive-compulsive disorder. Psychiatry Res. 2016;236: 1-8.
2. Pitman RK. A cybernetic model of obsessive-compulsive psychopathology. Compr Psychiatry. 1987;28(4): 334-343.
3. Pallanti S, Barnes J, Pittenger C, Eisen J. Incompleteness and harm avoidance in OCD. Obsessive Compulsive Disorder: Phenomenology, Pathophysiology, and Treatment. Oxford University Press. 2017.
4. Rasmussen SA, Eisen JL, Greenberg BD. Toward a neuroanatomy of obsessive-compulsive disorder revisited. Biol Psychiatry. 2013;73(4): 298-9.
5. Sibrava NJ, Boisseau CL, Eisen JL, Mancebo C, Rasmussen SA. An empirical investigation of incompleteness in a large clinical sample of obsessive-compulsive disorder. J Anxiety Disord. 2016;42: 45-51.
6. Matheny NL, Summers BJ, Macatee RJ, Harvey AM, Okey Sa, Cougle JR. A multi-method analysis of distress tolerance in body dysmorphic disorder. Body Image. 2017;23: 50-60.
7. Pertusa A, Fonseca A. Hoarding Behaviors in Other Disorders, in the Oxford Handbook of Hoarding and Acquiring, G. Steketee, Editor. 2014, Oxford University: New York.
8. Ecker W, Kupfer J, Gönner S. Incompleteness as a link between obsessive-compulsive personality traits and specific symptom dimensions of obsessive-compulsive disorder. Clin Psychol Psychother, 2014. 21(5): p. 394-402.
9. Miguel EC, do Rosario Campos MC, Prado HS, do Valle R, Rauch SL, Coffey BJ et al. Sensory phenomena in obsessive-compulsive disorder and Tourette's disorder. J Clin Psychiatry. 2000; 61(2): 150-6.
10. Law C, Boisseau CL. Exposure and Response Prevention in the Treatment of Obsessive-Compulsive Disorder: Current Perspectives. Psychol Res Behav Manag. 2019;12: 1167-1174.
11. Pietrefesa AS, Coles ME. Moving beyond an exclusive focus on harm avoidance in obsessive compulsive disorder: considering the role of incompleteness. Behav Ther. 2008;39(3): 224-31.
12. Rasmussen SA, Eisen JL. The epidemiology and clinical features of obsessive-compulsive disorder. Psychiatr Clin North Am. 1992;15(4): 743-58.
13. Kampman O, Viikki M, Jarventausta K, Leinonen E. Meta-analysis of anxiety disorders and temperament. Neuropsychobiol. 2014;69(3): 175-86.
14. Summerfeldt L, Kloosterman P. et al., Assessing and validating the obsessive-compulsive-related construct of incompleteness. Poster presented at the meeting of the Canadian Psychological Association; Ste-Foy, QC. 2001.
15. Leckman JF. “Just right” perceptions associated with compulsive behavior in Tourette’s syndrome. Am J Psychiatr. 1994;151: 675-680.
16. Mangan B. Sensation's ghost: The non-sensory "fringe" of consciousness. Psyche. 2001;7(181).
17. Leckman JF, et al., “Just right” perceptions associated with compulsive behavior in Tourette’s syndrome. Am J Psychiatr. 1994;151: 675-680.
18. Szechtman H, Woody E. Obsessive-compulsive disorder as a disturbance of security motivation. Psychol Rev. 2004;111(1): 111-27.
19. Shapiro, Neurotic styles, ed. N.Y.B. Books. 1965.
20. Liberman N. R Dar. Normal and pathological consequences of encountering difficulties in monitoring progress toward goals., in the psychology of goals, H.G.E. G. Moskowitz, Editor. 2009, (pp. 277e303): New York: Guilford Press.
21. Lazarov A, Dar R, Oded Y, Liberman N. Are obsessive-compulsive tendencies related to reliance on external proxies for internal states? Evidence from biofeedback-aided relaxation studies. Behav Res Therap. 2010;48(6): 516-523.
22. Ezratia O, Friedmanb JDR. Attenuation of access to internal states in high OC individuals might increase susceptibility to false feedback: Evidence from a visuo-motor hand-reaching task. Journal of

Behavior Therapy and Experimental Psychiatry. 2019;65: 101445.
23. Rosario MC, Prado HS, Borcato S, Diniz JB, Shavitt RG, et al. Validation of the University of São Paulo Sensory Phenomena Scale: initial psychometric properties. CNS Spectr. 2009;14(6): 315-23.
24. Zor R, Szechtman H, Hermesh H, Fineberg NA, Eliam DA. Manifestation of incompleteness in obsessive-compulsive disorder (OCD) as reduced functionality and extended activity beyond task completion. PLoS One. 2011;6(9): e25217.
25. Summerfeldt LJ, Kloosterman M, Swinson AR. Examining an obsessive-compulsive core dimensions model: Structural validity of harm avoidance and incompleteness. J Obsessive-Compulsive and Related Disorders, 2014;3(2): 83-94.
26. Prudon, P. Incompleteness and Not-Just-Right experiences: A critical analysis of these concepts' meaning, assessment and role in OCD. 2018.
27. Boisseau CL, Sibrava NJ, Garnaat SL, Mancebo MC, Eisen JL, et al. The Brown Incompleteness Scale (BINCS): Measure development and initial evaluation. J Obsessive Compuls Relat Disord. 2018;16: 66-71.
28. Cougle JR, Goetz AR, Fitch KE, Hawkins KA. Termination of washing compulsions: a problem of internal reference criteria or 'not just right' experience? J Anxiety Disord. 2011;25(6): 801-5.
29. Fitch KE, Cougle JR. An Evaluation of Obsessive Beliefs as Predictors of Performance on In Vivo Assessments of Obsessive-Compulsive Symptoms. Cognitive Therapy and Research. 2013; 37(2): 207-220.
30. Summers BJ, Matheny NL, Cougle JR. 'Not just right' experiences and incompleteness in body dysmorphic disorder. Psychiatry Res. 2017;247: 200-207.
31. Osborne JW, Costello AB. Sample size and subject to item ratio in principal components. Analysis Practical Assessment, Research, and Evaluation. 2004;9(11).
32. Goodman WK, Price LH, Rasmussen SA, Mazure C, Delgado P, et al. The Yale-Brown Obsessive Compulsive Scale: II. Validity. Archives of General Psychiatry. 1989;46(11): 1012-1016.
33. Goodman WK, Price LH, Rasmussen SA, Mazure C, Fleischmann RL, et al. The Yale-Brown Obsessive Compulsive Scale: I. Development, Use, and Reliability. Archives of General Psychiatry. 1989;46(11): 1006-1011.
34. Epstein J, Santo RM, Guillemin F. A review of guidelines for cross-cultural adaptation of questionnaires could not bring out a consensus. J Clin Epidemiol. 2015;68(4): 435-441.
35. Ntourantonis D, Panagopoulos A, Iliopoulos I, Tatani I, Tsoumpos P, et al. Translation, cultural adaptation, validity, and reliability of the Greek version of the modified Constant Score. JSES Open Access. 2017;1(1): 45-50.
36. Bruce B, Fries JF. The Health Assessment Questionnaire (HAQ). Clin Exp Rheumatol, 2005;23(5 Suppl 39): S14-8.
37. Mindrila D, Balentyne P. Scatterplots and Correlation, in The Basic Practice of Statistics (6th ed.). 2017.
38. Summers BJ, Fitch KE, Cougle JR. Visual, tactile, and auditory "not just right" experiences: associations with obsessive-compulsive symptoms and perfectionism. Behav Ther. 2014;45(5): 678-89.

الملخص

اضطراب الوسواس القهري (*OCD*) هو اضطراب نفسي شائع مع عروض سريرية غير متجانسة إلى حد كبير، تتميز بأبعاد أعراض متعددة ومستقرة مؤقتًا، ولها العديد من العواقب السلبية على حياة المريض. تم اقتراح عدة أبعاد لفهم ديناميات الوسواس القهري، وتحديد العوامل المسببة وللمساعدة في تطوير طرق علاج أكثر تخصصًا. اكتسب عدم الاكتمال (*INC*) كأحد هذه الأبعاد أهمية متزايدة في العقد الماضي ومن المعروف أنه مرتبط بمزيد من شدة الوسواس القهري بالإضافة إلى تحسن أقل مع العلاجات المتاحة. ومع ذلك، لا توجد نسخة عربية مقننة من أي مقياس يقيس تأثير عدم الاكتمال أو اللا اكتمال على مرضى الوسواس القهري. لذا هدفت هذه الدراسة إلى ترجمة مقياس براون لعدم الاكتمال المطور سابقًا (مقياس *BINCS*) إلى اللغة العربية، وقياس الخصائص السيكومترية. **الأساليب:** باستخدام الترجمة العكسية، تمت ترجمة *BINCS* إلى اللغة العربية وقام 6 محلفين بتقييم صلاحية

محتواها. ثم أجريت دراسة استقصائية على 120 فردًا لتقييم الاتساق الداخلي وصحة النسخة العربية (*BINCS-Arabic*) باستخدام *Cronbach's α* وقمنا أيضًا بتقييم الموثوقية. **النتائج:** كانت موثوقية النسخة العربية من مقياس براون في دراستنا 0.905 لجميع العناصر من خلال ألفا كرونباخ و0.702 في شكل مقسم بواسطة سبيرمان براون. أيضًا، قمنا باختبار صلاحية المحتوى للمقياس، وكان 0.75 لصلاحية المحتوى العالمي و0.94 لمؤشر صلاحية محتوى العنصر. **الاستنتاجات:** تعتبر النسخة العربية لمقياس برون للا اكتمال أداة موثوقة وصالحة للتقرير الذاتي لفحص مشاعر اللااكتمال بين السكان. سيوفر هذا المقياس لمقدم الخدمة الطبنفسية تقيماً سريرياً أكثر شمولاً للمرضى الذين يعانون من اللااكتمال في السكان العرب.

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Appendix

Arabic version

مقياس برون للاكتمال (BINCS Arabic)

المهمة	مثال على المهمة	أبداً	نادراً ما	أحياناً	غالباً ما	دائماً
1. أنا منزعج من أفكاري أن الأمور ليست مثالية	أفكار أن المخدات ليست مرصوصة بطريقة مستقيمة. أفكار بأنني لم أكمل مهامي بطريقة صحيحة	○	○	○	○	○
2. أماطل في القيام بمهمة إذا كنت أعتقد أنه لايمكنني فعلها بإتقان.	تأجيل العمل أو الأعمال المنزلية لأنك قلق من أنك لن تكون قادرا على إكمالها بإتقان	○	○	○	○	○
3. لدي صعوبة في الوصول إلى الهدف في أثناء المحادثات	الحاجة إلى إعطاء الكثير من التفاصيل حتى يتم فقدان الهدف من المحادثة	○	○	○	○	○
4. حاجتي إلى أن تكون الأشياء "بطريقة صحيحة" يحد من مقدار ما يمكنني القيام به	أن تكون أبطأ مع الأعمال المنزلية بسبب الحاجة إلى القيام بالأشياء بطريقة معينة	○	○	○	○	○
5. أقضي وقتا أطول من اللازم على الأنشطة الروتينية أو اليومية لأنها لا تبدو مكتملة بإتقان	تنظيف المنزل، وغسل الأطباق، وتنظيف الأسنان، وارتداء ملابس إلخ يستغرق وقتا أطول مما ينبغي	○	○	○	○	○
6. أركز كثيرا على التفاصيل الصغيرة	الوقوع في التفاصيل الطفيفة يجعل من الصعب أن نرى الصور الأكبر والتركيز على كلمة واحدة بدلا من فقرة بأكملها؛ والتركيز فقط على جزء صغير واحد من مهمة بدلاً من إنجاز المهمة بأكملها.	○	○	○	○	○
7. لدي صعوبة في الانتهاء من المهام الضرورية لأنني أركز على الأشياء الثانوية التي أشعر أنني يمكنني القيام بها	غسل الأطباق بدلاً من دفع الضرائب، وتنظيم الأدوات على المكتب بدلاً من إكمال مهمة في العمل	○	○	○	○	○
8. لدي صعوبة في اتخاذ قرارات حول كيفية إكمال المهام لأنني مرتبك من كثرة الخيارات	قضاء الكثير من الوقت في تحديد ما البند المطلوب للشراء في المتجر في حين أن هناك الكثير من البنود	○	○	○	○	○
9. لدي مشكلة في الانتهاء من الأنشطة لحدوث تشتت من أنشطة أخرى في بيئتي	صعوبة في إكمال مهمة في العمل بسبب الحاجة إلى ترتيب الأدوات على المكتب	○	○	○	○	○
10. من الصعب بالنسبة لي التحول من نشاط غير مكتمل؛ حتى لو كان هناك شيء أكثر أهمية أحتاج إلى القيام به	الاستمرار في طي الغسيل على الرغم من أن ذلك سيجعلك متأخرا عن العمل، موعد الطبيب.	○	○	○	○	○
11. يجب أن أشعر أنني أعمل بطريقه صحيحة من أجل وقف نشاط روتيني	الاضطرار إلى الانتظار حتى تشعر أن المهمة تمت بطريقه صحيحة. مثل التوقف عن تنظيف الأسنان بالفرشاة	○	○	○	○	○
12. لدي شعور داخلي من عدم الراحة التي يجعلني أفعل الأشياء أكثر وأكثر حتى أشعر بمزيد من الراحة	تشغيل مفتاح الإضاءة وإيقاف تشغيله حتى تشعر أنه تم بطريقة صحيحة.	○	○	○	○	○
13. أنا بحاجة إلى أن أساوي الأشياء حتى أشعر بأنها تمت بطريقه صحيحة	إذا كنت أنظر بعين واحدة فأنا بحاجة إلى النظر بعيني الأخرى أو إذا ربطت حذائي الأيسر بطريقة معينة أحتاج إلى ربط حذائي الأيمن بنفس الطريقة	○	○	○	○	○
14. من الصعب بالنسبة لي التنبؤ بانتهاء مهمة أو نشاط بشكل كامل	صعوبة في معرفة الوقت الذي ستستغرقه في إكمال مهمة ما.	○	○	○	○	○
15. من المهم بالنسبة لي أن أجد أفضل طريقة لإكمال مهمة	الحاجة إلى العثور على الطريق المثالي عند السفر؛ أو قضاء الكثير من الوقت في البحث عن أفضل طريقة للقيام بشيء ما	○	○	○	○	○

16. أنا بحاجة إلى لمس، أو ضغط، أو فرك الأشياء حتى أشعر أنها تمت بطريقة صحيحة	لمس باب المنزل قبل مغادرته حتى تشعر أنه تم إغلاقه بطريقة صحيحة	○	○	○	○	○
17. لدي صعوبة في بدء المهام الروتينية أو اليومية لأنني أعرف أنها ستستغرق وقتا أطول بكثير مما ينبغي	تجنب بدء الغسيل أو الأعمال المنزلية الأخرى لأنه سيستغرق ساعات، وصعوبة بدء الأنشطة الروتينية مثل الطبخ أو التسوق بسبب القلق بشأن المدة التي ستستغرقها هذه المهام	○	○	○	○	○
18. أحتاج أن أشعر أن الأشياء على جسدي موضوعة بطريقة صحيحة	الملابس والمجوهرات تحتاج إلى الشعور بها ووضعها بطريقة معينة، وقد تضطر إلى تغيير ملابسك إذا كانت العلامات أو الملابس ليست موضوعة بطريقة صحيحة	○	○	○	○	○
19. لا بد لي من تكرار بعض السلوكيات، وذلك ليس لمنع الأذى، ولكن لأنني فقط يجب أن افعلها	غسل اليدين مرارا وتكرارا لأنك تحتاج إلى أن تكون يداك نظيفة تماما	○	○	○	○	○
20. أنا أعلم أن الأمور تمت عند الشعور بها بطريقة معينة	معرفة أن الباب مغلق بسبب الطريقة التي تأكدت بها من إغلاقه	○	○	○	○	○
21. أحتاج أن يشعر جسدي بوضع القيام أو الجلوس بطريقة معينة	عندما تَجلسُ، تشعرُ بالحاجة إلى الجلوس بطريقة مُحدّدة حتى تشعر أنك تجلس بطريقة صحيحة في الكرسي	○	○	○	○	○

"سأطرح الآن عدة أسئلة حول العناصر التي حددتها على أنها الأكثر إثارة للقلق." [الإشارة إلى البنود التي أيدها المريض أعلاه]. أريد أن أعرف مدى إزعاج هذه الأفكار، والمشاعر، أو السلوكيات كانت على مدى الأسبوع الماضي"

الوقت المشغول

س: "كم من وقتك مشغول بـ [إدراج الأعراض المستهدفة]؟" ما عدد المرات التي تحدث فيها [أعراض إدراج الهدف]؟

1 = لا شيء.

2 = معتدل، أقل من 1 ساعة/ يوم أو فيبعض الأحيان.

3 = معتدل، من 1 إلى 3 ساعات/يوم أو بشكل متكرر.

4 = شديد، أكبر من 3 وما يصل إلى 8 ساعات/ يوم أو في كثير من الأحيان جداً.

5 = شديد جدا، أكبر من 8 وما يصل إلى 12 ساعة/ يوم أو بالقرب باستمرار.

الضيق

س: "كم من الضيق [إدراج الأعراض المستهدفة] يسبب لك؟"

0 = لا شيء.

1 = معتدل، ليس مزعجاً جداً.

2 = معتدل، مزعج ولكن لا يزال يمكن التحكم فيه.

3= شديد، مزعجة للغاية.

4 = شديد جدا، بالقرب من الشدة المستمرة.

التداخل

س: "ما مدى تداخل [إدراج الأعراض المستهدفة] مع عملك الاجتماعي أو المدرسي أو العمل (الدور)؟ [إذا كان لا يعمل حالياً (أو يذهب إلى المدرسة)، حدد مقدار الأداء الذي سيتأثر إذا كان المريض يعمل (أو في المدرسة).]

0 = لا شيء.

1 = خفيف، تدخل طفيف في الأنشطة الاجتماعية أو المهنية، ولكن الأداء العام لا يضعف.

2 = التداخل المعتدل والمؤكد في الأداء الاجتماعي أو المهني، ولكن لا يزال يمكن التحكم فيه.

3 = التداخل الشديد، يسبب اضمحلال كبير في واحد أو أكثر (ولكن ليس كل) المجالات (أو جوانب) من الأداء; مثلا، موافق في العمل، ولكن الحياة الاجتماعية في الانتظار.

4 = التداخل الشديد جدا، ويسبب ضعف كبير في جميع مجالات العمل الرئيسية. مما يسبب العجز .

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Autoscopic Phenomena: The Dual of "She"

Case Study of Heautoscopy and Autoscopic Hallucination

Nabil Numan

ظاهرة تنظير الذات: ثنائية الذات

دراسة حالة هلوسة تنظير الذات وترائي الذات

نبيل نعمان

Abstract

The presents case describes phenomenological correlates to heautoscopy (HAS)/ autoscopic hallucination (AH). With the present report I aim to discuss and review previous literature on the topic, and I present a case of a healthy woman experiencing with heautoscopy and autoscopic hallucination.

Keywords: Autoscopy, autoscopic phenomenon, heautoscopy, autoscopic hallucination

Declaration of interest: None

Introduction

The term autoscopy comes from the Greek words ‘Autos’ (self) and ‘skopeo’ (looking at).[1] Autoscopy phenomena refer to a visual experience where the subject observes a visual image (visual illusory second own body; the double; autoscopic body) or self as a double of him/herself in front him/herself in external space; viewed from within his/her own physical body. Brugger was one of the first authors to study autoscopic phenomena.[2]

Autoscopy is characterized by the presence of three phenomenological characteristics: disembodiment (location of the self-outside one’s body), or no disembodiment, the impression of seeing the world from a distant in front of the subject or from elevated visuo-spatial perspective (extracorporeal egocentric perspective) and the impression of seeing one’s own body (or autoscopy) in all autoscopic phenomena. The subject may respond to the image (autoscopy) as something real and aware of the image’s illusory nature. Double (autoscopy) may be seen, felt, heard, and shared of thoughts, words, voices, and movements between the autoscopic and the patient’s physical body.

Autoscopy phenomena include out-of-body experience (OBE),[3-7] autoscopic hallucination[8-13] and heautoscopy.[3,4,14,15] During all three Autoscopy phenomena the subject has the impression of seeing a second own body in extra personal space. In addition, three other phenomena have previously been classified as autoscopy phenomena: inner heautoscopy,[16-19] negative heautoscopy[16-19] and the feeling of a presence.[19-20] Rarer forms[19] of autoscopic phenomena include polyopic heautoscopy and hearing of a presence (auditory doubles).

Autoscopic hallucination was labelled as "mirror hallucination"[8-12] and the experience of seeing a double of oneself in extra personal space without leaving one’s body (no disembodiment). Individuals with autoscopic hallucination experience seeing the world from their habitual visuo-spatial perspective and experience their “self”, or center of awareness, inside their physical body. During autoscopic hallucination does the subject immediately realize the hallucinatory nature of the experience, whereas heautoscopy and out-of-body experiences are generally described as highly realistic experiences.[4,15]

In an out of body experience, subjects feel that their “self”, or center of awareness, is located outside the physical body and somewhat elevated. It is from this elevated extra personal location that subjects experience seeing their body and the world.[5-7,11, 22] An out of body experience is defined by the presence of three phenomenological characteristics: disembodiment (location of the self-outside one's body), the impression of seeing the world from a distant and elevated visuo-spatial perspective (extracorporeal egocentric perspective) and the impression of seeing one's own body (or autoscopy) from this elevated perspective.[5]

Heautoscopy. The patient with heautoscopy is not only seeing physical body image (the double; autoscopic body), but also aspects of oneself in extra personal space. However, it is often difficult for the patient with heautoscopy to decide whether he is disembodied and whether the center of conscious experience is localized within the physical body or the autoscopic body.[5] The double (autoscopy) usually appears colorless ("foggy, "pale, or "as through a veil), and maintains sidedness. The expression heautoscopic "echopraxia" means imitation of bodily movements by the double, giving rise to the illusion that the doppelgänger contains the real mind.[23,24] This is associated with strong self-identification and close affinity with the autoscopic body,[3-5] which may even persist if the autoscopic body only partly reflects the patient's visual bodily appearance.[4,5] Indeed, patients with heautoscopy experience hearing the autoscopic body talks to them[22] or that both bodies communicate by thought.[15] Other patients stated that the autoscopic body is performing the actions they were supposed to do[3] (Devinsky et al., 1989a, Case 9) or fights with other people that could be of potential danger to the patient[15] (Blanke et al., 2004, Case 5).

The feeling of a presence has been called previously "hallucination du",[16,20] to be understood as an "invisible double", first described by Jasper in 1913 is defined as the convincing feeling that there is another person close in extra personal space without seeing that person.[19] Although several patients with the feeling of a presence due to focal brain damage have been described (for review see Brugger et al., 1996).[20] Blanke and Mohr[5] do not consider the feeling of a presence as an autoscopic phenomenon because it is characterized by nonvisual body reduplication as opposed to the three main forms of autoscopic phenomena which are all characterized by a visual body reduplication.

During negative heautoscopy (negative doubles), is defined as the failure to see one's own body either when looked at directly or in a mirror. The subject reports not seeing his reflection in a reflecting surface.[2,3,10,13,17,22] Although negative heautoscopy is not an own body reduplication in the strict sense it is classically grouped among autoscopic phenomena. This is due to the fact that negative heautoscopy shares many phenomenological characteristics with other forms of autoscopic phenomena.

In inner heautoscopy, a type of experience frequently treated by French Authors of the early 20th century. During inner heautoscopy, the subject reports seeing one or several of his inner organs of his body in the extra corporal space.[9]

Polyopic autoscopic hallucination or polyopic heautoscopy is present when patients report seeing more than one autoscopic double in extracorporeal space, that is, a multiple rather than a single reduplication of one's own body.[19]

Indeed, autoscopy phenomena occur in the healthy population[3,13,25] and due to various neurological diseases, such as epilepsy, migraine, neoplasia, infarction, and infection[2,3,17,19,21,23,26-28,29] and psychiatric diseases such as schizophrenia, depression, anxiety, depersonalization and dissociative disorders.[5,13,16,17,22,23,30-35] It is hypothesised[15,36] that the temporo-parietal junction plays a role in "self" processing, distinction between "self" and "other" and integration of multisensory information (proprioceptive, tactile, visual, and vestibular). Disturbance at the temporo-parietal junction disrupts these functions resulting in a breakdown of unity between the self and the body.[15,34]

The present case report aims to discuss and review previous literature on topic and present a case of healthy woman experiencing with heautoscopy and autoscopic hallucination under full consciousness and whose expediencies are not linked to any pathological or neurological illness.

Case report

A 42 year-old woman is fully conscious and active. She reported her experience saying, "I see myself as if I see in a mirror". She was referred by her family for psychiatric consultation.

History of present illness: In the last six months she did experience further autoscopy experiences and she spontaneously decided to visit a psychiatrist. She reported experiencing daily symptoms consisting of seeing the image of her entire body as in a mirror or from an external point of view. She reported unclear changes in the awareness of her body describing herself as projected out of her body with a feeling of dissociation of mind and body for a few seconds. When she saw her double from an external view she maintained sidedness, i.e., right, and left sides were represented as in the real body, unlike images reflected by a mirror. She reported to have access to the autoscopic body's thoughts, words, and actions and that the experiences were frightening and shocking. She added, with the time emotions never accompanied her autoscopic experiences. Her experiences have not affected her life activities and personal relations. The first autoscopy experience occurred at the age of 36. Three further autoscopy experiences occurred in the last six years. She denied delusion, thought insertion, thought broadcasting, ideas of reference or auditory hallucination.

Past psychiatric and medical: She reported no past psychiatry illness; no suicide thinking or attempts; no seizure disorder episodes of loss of consciousness; no episodes of confusion or disorientation; no major medical, surgical illnesses or major traumas. She stated irritability, hotness, and pain before menses. Neither alcohol nor drug used history

Personal, family, social history, and current circumstances: birth and early development normal, childhood health good; no emotional problems; no past traumatic events; no physical abuse or sexual abuse in childhood. Her school record is good, relationships with teachers and other students good. She married at 19 after secondary school. She is housewife and no history of job. Happy life with her family members; husband is well and has a good income; no financial worries. Good family relationship. She lives with her husband and two sons in a comfortable house; her life with husband is stable and good; no marital problem. She feels that the family members are supportive. Sexual life is satisfactory. No psychiatric illness in family members; both father and mother died with heart illness; her brothers and sisters well. She is socializing well, extroverted, cheerful, self-confident, optimistic.

Mental state: she is healthy, normally built, young looking, well dress, well groomed, clean nail, black hair. She is cooperative, attentive, and interested.

Speech: spontaneous, clear with good articulation, goal directed and relevant, no blocking or distractibility.

Mood: suited the context and in normal range.

Perception: imagines she sees herself as if I see in a mirror, she sees her double from an external view; sharing thoughts and both bodies communicate by thought, whisper and feeling sympathy. (See below)

Cognition: normal integration of consciousness; alert, aware oriented to time, place, and person. Attention, concentration calculation good. Short- term, recent, and remote memory normal. Judgment and insight good.

The present case underwent intensive psychiatric, neurological, and ophthalmic examinations. Her physical and medical and surgical history was unremarkable. On physical examination, she was averagely built with no abnormalities detected in systemic examination. Neurological examinations were unremarkable. The visual field was intact. Baseline routine investigations, that is, complete blood count, liver function test, kidney function test, thyroid test, serum electrolytes, chest X-ray (P/A view), magnetic resonance imaging (MRI) brain, electro-encephalography (EEG) were within normal limit. Her cognitive performances were normal (Mini-Mental State Examination score: 30/30). She also did not meet the criteria for the Brief Dissociative Experiences Scale (DES-B).*

Experiences of Autoscopic phenomena

- She reported experiencing several times a day seeing an image of her face and body, always in front of her, as in a mirror. The image has the same face, size, color of body, age, hair with a definable facial expression, which looked exactly like her. If "I raise left hand or closed right eye, the image raises right hand and close left eye, 'as if I am looking in a mirror". The image dressed like me replicated my bodily movements as I looked in a real mirror. She reported the vision lasted a few seconds, and despite feeling fear, she was fully conscious and aware during her experiences; she sees her double but, at the same time, feels herself in her physical body. Her first experience was six years ago.

- With respect to the autoscopic body she reported that one morning, now that she opened the door to leave her house, she saw in front of her to the left side at distance two meters an old woman, surprisingly she found herself with another woman. She immediately recognized the face as her own; she was she (herself). She saw the face and entire body in a full front-view to the left side at distance, and that it imitated her own definable facial expressions and looked dressed like her. She is smiling and she perceived it as a dreamlike.

She reported many experiences occurred of her autoscopy while active state such as standing, walking, and working or when resting such as sitting or lying down. She reported she would be walking or performing regular daily activities at home; when suddenly she would spontaneously her physical body projected into external space. The autoscopy was described as highly realistic and not dreamlike. These experiences would be extremely vivid, real, and a clear sense of separation between the self and the physical body.

- One evening she was sitting on her chair smoking cigarette and drinks a tea; she suddenly noticed a sitting woman in front of her at distance two meters smoking cigarette and drinks a tea as she. The woman was smiling and whisper at her. She was wondered, this autoscopy not as her pervious experiences. In her previous experiences, she was realizing the hallucinatory nature of the experience. She was surprised; this autoscopy was unlike images reflected by a mirror. She saw her double at a distance, in an external view, in front of her maintained sidedness i.e., right, and left sides were represented as in the real body. In this experience she experienced the sensation of being in two different places at the same time. She was wonder whether it is the body or the autoscopy which contains the real self.

- Six months later, she experienced another illusory, she described appearance an autoscopy. She was sitting on sofa in living room and leaning the left side of her body against a cushion and smoking hubble-bubble (tobacco water pipes). Suddenly, she saw herself sitting in the living room in front of her, smoking hubble-bubble, and leaning the left side against cushion. The image was in the same position, sitting at distance two meters in front her, dressed like her, replicated her bodily movement, maintained sidedness, with facial expression, which looked exactly "like herself". She did not know any more who of the two bodies she really was or where herself was located.

- A few days later, she described one evening she was preparing dinner with her husband in the kitchen and suddenly, she saw a hazy image in the kitchen in lateral view was standing, walking, cleaning, and washing dishes. On closer inspection, when the image turned his head to face her, she was shocked and surprised, she saw her face and body in full view and in front of her maintained sidedness. She brushed her eyes, and she turned her head and asked her husband, "Do you see what I see?" He replied negatively. Her husband insisted on visiting faith healers. Holy man said to her this is doppelganger and uttered pray on her head and gave her some herbal remedy.

- On other occasion, she was standing near bathroom, at a distance of about three meters from her, she saw a back of naked woman; she saw hair, back, buttock, thigh and lower limbs, when a woman turned, she saw herself. She was traumatized, feeling fear, felt terrifying and shouting and immediately closed her eyes the image disappeared. She reported "that face and body that she saw were mine". When she saw her double from an external view, she maintained sidedness. Despite feeling fear, she was fully conscious; she felt she is "two", perceived herself localized 'here' and 'there' in two places at the same. She asserts that her 'self' does not feel a separation from her physical body (no disembodiment), i.e., herself is not in autoscopic body (naked woman).

- Many experiences occurred such as she saw her autoscopy was dancing with her, in family wedding, she saw her autoscopy during dancing among other females' dancers. The interesting in her autoscopy, first, she saw the back of her autoscopy, she recognized immediately that is she, when autoscopy approached and faced her, autoscopy was maintained sidedness, the autoscopy was she, same face, hair and color dress and imitating (echopraxia) her movement in her dance. Double (autoscopy) had necklace in neck, ring in her ring finger in left hand and hand watch in right arm as I. Her double "smiled at her in a friendly way and was whisper 'for you I am here'." When she stretched her arms to lay a hand on her autoscopy, the autoscopy disappeared. When asked which position, she thinks of herself during her experience, she answered that "I am at two positions and seeing the world from two places of view at the same time". Again, she was fully conscious; she felt she is two, in two places at the same, her "self" in her physical body not in autoscopy (no disembodiment), she asserts that not only separated into external world, autoscopy is part of her, also sharing thoughts and both bodies communicate by thought, whisper and feeling sympathy.

She said that during the first episodes, she thought that she imagined, but she was under fear, shaking and palpitation; and with the time emotions never accompanied her autoscopic experiences.

During the interview, she manifested initial severe resistance to expressing the reason of her experiences. Her tears rolled down on her checks and said, 'I am not a schizophrenic patient as your colleague said'. She was visited by two psychiatrists, and both did not care about her complaint and gave her diagnosis schizophrenia and prescribed antipsychotic medication. She did not comfort them and refute antipsychotic medication.

Phenomenological variables

Based on the criteria of autoscopic phenomena and concept of the phenomenological variables in the previous studies[4,35,37] phenomenological information of the present case about the heautoscopy and autoscopic hallucination through an intensive interview (psychiatric, neurological and ophthalmic examinations) that included the following variables: sensory hallucinations (visual, auditory, tactile), illusory body schema disturbances, visual characteristics of the autoscopic body (lateralization, view, partialness, body position: standing, sitting, supine; actions), more complex manifestations (sharing of thoughts, words, or actions, bilocation, emotions) as well as associated neurological signs (hemianopia, aphasia). With respect to vestibular manifestations, I inquired about the sensation of rotation, vertigo, falling, elevation, flying, floating, lightness and heaviness. Others, such as visceral sensations (nausea, vomiting, and palpitations) were analyzed.

To summarize, the heautoscopy and autoscopic hallucination with respect the following phenomenological variables of the autoscopy:

- *View:* her autoscopic body seen in the front-view, back-view and lateral (side)-view and maintained sidedness in heautoscopy, but front-view and lateral (side)-view in autoscopy hallucination.
- *Position of the physical body:* standing and sitting position.
- *Position of the autoscopic body:* Her autoscopic body was in standing and sitting positions in heautoscopy and autoscopic hallucination.
- *Partialness/complete:* a partial autoscopic body in autoscopic hallucinations and

sometime seen entire autoscopic body, but complete autoscopic body in heautoscopy.

- *Sensory hallucinations:* in her experiences, only seeing autoscopic body, no visual or auditory or tactile hallucinations.
- *Vestibular sensation:* she reported no vestibular symptoms in both heautoscopy and autoscopic hallucination.
- *Illusory body schema disturbances:* absent in heautoscopy and autoscopic hallucination.
- *Actions:* her activities of the autoscopic body (sitting, standing, walking, cooking, cleaning, washing, and dancing) in heautoscopy, but no activity in autoscopic hallucination.
- Sharing of thoughts, words, and actions: are presented in heautoscopy and absent in autoscopy hallucination.
- *Bilocation (in two places):* her experiences present in two places at same time in heautoscopy and absent in autoscopy hallucination.
- *Emotion:* in the first episodes there were intense fears in autoscopy hallucination and heautoscopy. In both, gradually the autoscopy (double) became more sympathy appearing and no emotional state.
- *Reality:* She experienced as highly realistic in heautoscopy, in autoscopy hallucination she perceives it an image.
- *Echopraxia:* her experience in heautoscopy and absent in autoscopy hallucination.
- *Visceral sensations (nausea, vomiting, palpitations):* only palpitations at first episodes in both autoscopy hallucination and heautoscopy.

Discussion

The present case has heautoscopy and autoscopic hallucination. This report paper aims to show the phenomenological variables in healthy woman who has no neurological, medical, or psychiatric illness such as schizophrenia, dissociative disorder depersonalization. I will discuss phenomenological variables of autoscopic hallucination and heautoscopy as she sees her double and review previous literature on the topic.

The description is of autoscopic hallucination as she sees her double.

1. She was fully conscious and aware during her experiences.
2. She saw herself as if she were in a mirror.
3. She reported the vision lasted a few seconds.
4. She saw the face and entire body in full front-view and to the left side at distance in extra personal space.
5. She perceived it as a dreamlike i.e., perceived it as an image.
6. She perceived herself in her physical body, no disembodiment.
7. She reported no vestibular manifestations.
8. She reported neither sensory hallucinations (visual, auditory, tactile) nor illusory body schema disturbances.

The description is of heautoscopy as she sees her double.

1. She was fully conscious and aware during her experiences.
2. She sees herself in extra personal space unlike the image reflected by a mirror.
3. She reported the vision lasted a few seconds.
4. Her autoscopic body was seen in the front-view, back-view and lateral (side)-view and maintained sidedness.
5. She perceived her autoscopy as highly realistic body.
6. She had the impression of being at two locations at the same time (bilocation).
7. She saw the face and entire body in extra personal space.
8. The autoscopic body acts exactly like the real body (maintaining sidedness).
9. In some experiences, she felt she is two, in two places at the same, her 'self' in her physical body not in autoscopy (no disembodiment). She is conscious and oriented to her “self” or center of awareness location is localized in her physical body, i.e., no disembodiment.
10. In other experiences, she felt she was two, in two places at the same, her 'self' in autoscopy not in her physical body (disembodiment). She reported it was difficult to decide for her

experiences whether she is disembodied or not.

11. Autoscopic body sharing her actions (sitting, standing, walking, cooking, cleaning, washing, and dancing).
12. She experienced access to the autoscopic body's thoughts and sometimes could verbally communicate and whisper and feeling sympathy with it.
13. She reported neither sensory hallucinations (visual, auditory, tactile) nor illusory body schema disturbances.
14. She reported no vestibular manifestation.

Note: In the first episodes there were intense fears in autoscopy hallucination and heautoscopy. In both, gradually the autoscopy (double) became more sympathy appearing and no emotional state.

Based on the concept of the vestibular system in the previous studies, Bonnier[38] and Skworzoff[39] noted the frequent association of vestibular sensations with autoscopic phenomena; others proposed that a central vestibular dysfunction might be an important mechanism for the actual generation of autoscopic phenomena.[2,17,27,29] Blanke et al. suggested that autoscopy been associated with a moderate and more variable vestibular disturbance and autoscopic hallucination only by a mild or even absent vestibular disturbance.[15] They confirmed the importance of vestibular dysfunction and body schema disturbance in heautoscopy and suggested that a vestibular dysfunction is absent or only weakly present in autoscopic hallucination.

Analysis phenomenological variables in the present case provides that a vestibular disturbance (such as sensation of rotation, vertigo, falling, elevation, flying, floating, lightness and heaviness and body schema disturbance) not occurred during her heautoscopy or autoscopic hallucination. Thus, it seems to the healthy present case provides evidence for a vestibular and body schema disturbances are not specific of heautoscopy or autoscopic hallucination and that its absence does not exclude them.

Variability of views of the autoscopic body in heautoscopy as Brugger et al. described a patient who saw the autoscopic body in many different views.[21] Whereas Blanke and Mohr5 analysis reported the autoscopic body was always seen in the front-view in autoscopic hallucination, but rarely in heautoscopy. And their analysis suggested heautoscopy often seen the autoscopic body in side- or back-views. The present case saw the autoscopic body in many different views; her autoscopic body (in heautoscopy) seen in the front-view, back (behind)-view as Blanke et al.'s patient[15] saw herself from behind, as did Devinsky et al.'s patient,[3] and lateral (side)-view as did Ionacescu's patient.[40]

Although, several authors have reported that autoscopic hallucination and heautoscopy patients often only see the autoscopic body partially.[41-44] Moreover, patients often experience seeing their own face or the upper part of the trunk[44,45] and only rarely their entire body.[44] The present case in her autoscopic hallucination; she experienced seeing an image (autoscopic body) of the upper part (face, neck, shoulders, upper limbs, chest) and sometime the entire body in extra personal space as if she were looking into a mirror and she realized it is an image, whereas complete autoscopic body in her heautoscopy.

Regarding disembodiment, subjects with heautoscopy generally do not report clear disembodiment, but are often unable to localize themselves. Thus, in some patients with heautoscopy the self is localized either in the physical body (no disembodiment), or in the autoscopic body[1] (disembodiment), and sometimes even at multiple positions.[21] Typically, the patients had the impression of being at two locations at the same time (bilocation),[1] and frequently report to "be split into two parts or selves" or feel as if "I was two persons".[45] Others reported that they were localized at two places at the same time.[15] The present case during heautoscopy, she was fully conscious; she felt she is two, in two places at the same (bilocation), she asserts that her "self" in her physical body, not in autoscopic bodies (e.g., dancing, and naked woman). That means she is conscious and oriented to her "self" or center of awareness location is localized in her physical body, i.e., no disembodiment. In other heautoscopy experiences, she was doubting whether it is the body or the autoscopy which contains the real self. She reported it was difficult to decide for her experiences whether she is disembodied or not and whether the self is localized within the physical body or in the autoscopic body as reported by patient 2b in Blanke et al. 2004. During autoscopic hallucination, the present case does not report feelings of disembodiment; her "self" or center of awareness remains within her physical body.

Heautoscopy is often associated with the experience of sharing thoughts, words or actions[5] which are less frequent in out-of-body experiences and autoscopic hallucinations. Indeed, the present case with heautoscopy experience: she experienced to have interacted with her autoscopy; feeling sympathy 'smiled at me' access to the autoscopic body's thoughts and sometimes could whisper 'for you I am here', with sharing thoughts and both bodies communicate by thought as reported by patient 5 in Blanke et al. 2004. She stated that her autoscopic body is performing the actions (cleaning, washing, dancing) she was supposed to do as did Devinsky et al., 1989a, Case 9.

Regarding motor actions, activities of the autoscopic body appear to be specific to heautoscopy. The present case reported that the autoscopic body stands, sits down, walks, dances, cooking and clean dishes and maintained sidedness in heautoscopy. During autoscopic hallucination, the present case does not report any motor actions or activities.

Depersonalization is one of the five major dissociative disorders and defined as "experiences of unreality, detachment, or being an outside observer with respect to one's thoughts, feelings, sensations, body, or actions" (DSM-5, American Psychiatric Association).[46] Many authors have pointed out that autoscopic phenomena (except autoscopic hallucinations) are often associated with depersonalization.[2,3,13,17,22,27,47]

Penfield and Jaspers[48], Gloor[49] and Devinsky[3] and colleagues linked autoscopic phenomena (Devinsky et al., 1989a) and dissociative states (including depersonalization) to temporal lobe structures and epilepsy.

The individual in depersonalization may feel detached from his or her entire being (e.g., "I am no one," "I have no self"); thoughts (e.g., "My thoughts don't feel like my own" (DSM-V, American Psychiatric Association)[46]. In this healthy present case, evidence for depersonalization was not specific of heautoscopy or autoscopic hallucination. She asserted that physical body projected into external space, but sharing thoughts and both bodies communicate by thought, whisper and feeling sympathy. She has no disruption in the normal integration of consciousness, memory, identity, emotion, and behavior.

Summary

The phenomena are not necessarily pathological and can occur in a healthy population. Most of the current literature examines elicit autoscopy phenomena in the clinical population rather than the healthy population. Autoscopic phenomena may happen spontaneously under full consciousness in the healthy subjects; but can also be phenomenological aspects of autoscopic hallucination and heautoscopy in healthy subject are like the autoscopic hallucination and heautoscopy in neurological and psychiatric patient; but that does not mean the subjects suffer from a neurological or psychiatric disorders. This study was carried out in healthy woman, some phenomenological aspects as mentioned above may similar or differ to other studies were carried out with neurological patients with confirmed brain damage. Despite the great efforts by authors[4,5,15] who worked on in this field; the authors proposed that autoscopic phenomena are attributable to different levels of multisensory integration failure at the temporo-parietal junction. The question is if the healthy individual has no neurological, medical, or psychiatric disease and he or she has normal integration of multisensory information (proprioceptive, tactile, visual, and vestibular) and he or she developed experiences autoscopy, as my present case report; how we can clarify this? Absence of pathology does not exclude autoscopic phenomena; autoscopic phenomena need more study to clarify the mystery of autoscopy phenomena.

Finally, as the present case was diagnosed schizophrenia by two psychiatrists, she was right when she objected to the diagnosis and stopped medication. Neurologists and psychiatrists must be careful that autoscopic phenomena may be misdiagnosed. Careful history taking, examination and investigation must first exclude neurological or psychiatric disorders.

References

1. Anzellotti F, Onofrj V, Maruotti V, et al. Autoscopic phenomena: case report and review of literature. Behav Brain Funct. 2011;7:2.

2. Brugger P, Regard M: Illusory Reduplication of One's Own Body: Phenomenology and Classification of Autoscopic Phenomena. Cogn Neuropsy. 1997;2: 19-38.
3. Devinsky O, Feldmann E, Burrowes K, Bromfield E. Autoscopic phenomena with seizures. Arch Neurol. 1989;46: 1080-8.
4. Brugger P. Reflective mirrors: perspective taking in autoscopic phenomena. Cogn Neuropsychiatry. 2002;7: 179-94.
5. Blanke O, Mohr C. Out-of-body experience, heautoscopy, and autoscopic hallucination of neurological origin: Implications for neurocognitive mechanisms of corporeal awareness and self-consciousness. Brain Res Rev. 2005;50: 184-199.
6. Blackmore SJ. Beyond the Body. An Investigation of Out-of-Body Experiences. London: Heinemann; 1982.
7. Irwin HJ. Flight of Mind: A Psychological Study of the Out-of-Body Experience. Metuchen, NJ: Scarecrow Press; 1985.
8. Féré C. Report on autoscopic or mirror hallucinations and altruistic hallucinations. 1891. Epilepsy Behav. 2009;16(2): 214-5.
9. Sollier P. Les phénomènes d'autoscopie. Félix Alcan, Paris; 1903a.
10. Lhermitte J: Visual hallucination of the self. Br Med J. 1951;1(4704): 431-4.
11. Kölmel HW. Complex visual hallucinations in the hemianopic field. J Neurol Neurosurg Psychiatry. 1985;48(1): 29-38.
12. Dewhurst K, Pearson J. Visual hallucinations of the self in organic disease. J Neurol Neurosurg Psychiatry. 195;18(1): 53-7.
13. Hécaen H, Ajuriaguerra JL. Heautoscopie, Meconnassiances et hallucinations corporelles. Masson, Paris. 1952; 310-343.
14. Lunn V. Autoscopic phenomena, Acta Psychiatrica Scandinavia. 1970;46: 118-125
15. Blanke O, Landis T, Spinelli L, Seeck M. Out-of-body experience and autoscopy of neurological origin. Brain. 2004;127: 243-258.
16. Lhermitte J. Les phenome`neshe´autoscopiques, les hallucinations spe´culairesetautoscopiques, L'image de notre corps. L'Harmattan, Paris. 1939; 170-227.
17. Menninger-Lerchenthal E., Das Truggebilde der eigenen Gestalt. Karger, Berlin.1935.
18. Sollier P 1903b. L'autoscopie interne. Revue Philosophique 1903b, 55:1-41.
19. Blanke O, Arzy S, Landis T. Chapter 22: Illusory reduplications of the human body and self. Handb Clin Neurol. 2008;88: 429-58.
20. Brugger P, Regard M, Landis T. Unilaterally felt? Presences X: the neuropsychiatry of one's invisible doppelganger, Neuropsychiatr Neuropsychol Beh Neurol. 1996;9: 114-122.
21. Brugger R, Agosti M, Regard WG, Wieser T. Landis, Heautoscopy, epilepsy, and suicide. J Neurol Neurosurg Psychiatry. 1994;57: 838-839.
22. Dening TR, Berrios GE: Autoscopic phenomena. Br J Psychiatry. 1994; 165(6): 808-17.
23. Lukianowicz N. Autoscopic phenomena. AMA Arch Neurol Psychiatry. 1958;80(2): 199-220.
24. Bradford D. Autoscopic hallucinations and disordered self embodiment. Acta Neuropsychologica. 2005;3: 120-189.
25. Brugger P, Regard M, Landis T, et al. Hallucinatory experiences in extreme-altitude climbers. Neuropsychiatry Neuropsychol Behav Neurol. 1999;12(1): 67-71.28.
26. Lippman CW. Hallucinations of physical duality in migraine. J Nerv Ment Dis. 1953; 117(4): 345-350.
27. Grüsser OJ, Landis T. The splitting of "I" and "me": Heautoscopy and related phenomena. In: OJ Grüsser, Landis T (Eds.), Visual Agnosias and other Disturbances of Visual Perception and Cognition. MacMillan, Amsterdam, T. 1991 pp. 297–303
28. Podoll K, Robinson D. Out-of-body experiences and related phenomena in migraine art. Cephalalgia. 1999;19(10): 886-896.
29. Menninger-Lerchenthal E. Der eigeneDoppelga¨nger Bern. 1946.
30. Bychowski G. Disorders of the body-image in the clinical pictures of psychoses. J Nerv Ment Dis. 1946;97: 310-335.
31. Todd J, Dewhurst K. The double: Its psychopathology and psycho-physiology. J Nerv Ment Dis. 1955;122(1): 47-55.
32. Maillard L, Vignal JP, Anxionnat R, Taillandier L, Vespignani H. Semiologic

Value of Ictal Autoscopy. Epilepsia. 2004;45, 391-394.

33. Simeon D. Depersonalisation disorder: A contemporary overview. CNS Drugs. 2004; 18: 343-354.
34. Bünning S, Blanke O. The out-of-body experience: Precipitating factors and neural correlates. Prog Brain Res. 2005;150: 331-350.
35. Heydrich L, Blanke O. Distinct illusory own-body perceptions caused by damage to posterior insula and extrastriate. J Neurol. Published by Oxford University Press on behalf of the Guarantors of Brain Cortex. (2013).
36. Ruby P, Decety J. Effect of subjective perspectivetaking during simulation of action: a PET investigation of agency. Nature Neurosci. 2001;4:546-50.
37. Mohr C, Blanke O. The demystification of autoscopic phenomena. Experimental propositions. Curr Psychiatr Rep. 2005;7: 189-195.
38. Bonnier P. Le Vertige Masson, Paris.
39. Skworzoff K. Doppelgänger-Halluzinationen bei Kranken mit Funktionsstörungen des Labyrinths. Zeitschr Nervenheilk. 1931;133: 762-766.
40. Ionasescu V. Paroxysmal disorders of the body image in temporal lobe epilepsy, ActaPsychaitr. Scand. 1960;35: 171-181.
41. Nouët H. Hallucination speculaire et traumatisme craˆnien. Encephale. 1923;18: 327-329.
42. Genner T. Das Sehen des eigenen Spiegelbildes als epileptisches Aequivalent, Wiener klin Wochenschr. 1947;59: 656-658.
43. Maximov K. Epilepsie occipitale avec hallucinations héautoscopiques, Acta Neurologica Belgica. 1973;73: 320-323.
44. Blanke O, Castillo V. Clinical neuroimaging in epileptic patients with autoscopic hallucinations and out-of-body-experiences. Epileptologie. 2007;24: 90-6.
45. Pearson J, Dewhurst K. Two cases of heautoscopic phenomena following organic lesions. Encephale. 1954;43(2): 166-172.
46. DSM-5, American Psychiatric Association 2013.
47. Leischner A. Autoscopic hallucinations (heautoscopy). Fortschr Neurol Psychiatr. 1961;29: 550-585.
48. Penfield W and Jaspers H Epilepsy and the Functional natomy of the Human Brain. Churchill, London. 1954.
49. Gloor P, Olivier A, Quesney LF, et al. The role of the limbic system in experiential phenomena of temporal lobe epilepsy. Ann Neurol. 1982;12(2): 129-144.

* Brief Dissociative Experiences Scale (DES-B)

DES-B (Dalenberg C, Carlson E, 2010) modified for DSM-5 by C. Dalenberg and E. Carlson.

ملخص

ظاهرة تنظير الذات (Autoscopic phenomenon) حالة غريبة ونادرة، يرى الشخص هلاوس بصرية خادعة لذاته، هي صورته، كما لو انه ينظر الى نفسه في مرآة. قد يستجيب للصورة كشيء حقيقي، ولكن يدرك الطبيعة الوهمية للصورة. من خلال هذا التقرير نصف الارتباطات الظاهراتيه لكل من هلوسة تنظير الذَات (Autoscopic hallucination) وترائي الذات (Heautoscopy) لسيدة تتمتع بصحة جيدة، تشكو من هلوسة تنظير الذَات وترائي الذات.

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The Pioneers of Arab Psychiatry:
Fifty years in Psychiatry

Abdil-Monaf Al-Jadiry

الرواد في الطب النفسي العربي

عبد المناف الجادري خمسون عاماً في الطب النفسي

Editor's Note: Professor Al-Jadiry is one the most dedicated psychiatrists I have ever known in the clinical and academic field. His many contributions to the Arab Journal of Psychiatry supported its very continuity over the years.

Walid Sarhan

In January 1972, five years after graduating from medical school in Iraq, a career in psychiatry commenced. In that year, I joined the residency-training program in psychiatry at the psychiatric unit in Baghdad Teaching Hospital of the Medical City Teaching Complex in Baghdad as a senior house officer. From March 1973, I served in the psychiatric unit at Basra Republican Teaching Hospital as a practicing psychiatrist until September 1974, when I was awarded a three-year scholarship to the UK to qualify as a psychiatrist. In October 1974, I joined the Institute of Psychiatry and the collaborative teaching mental hospitals (Maudsley & Bethlem hospitals) in London as a clinical assistant in psychiatry. After completing a year of training, I took up a senior house officer post at the psychiatric unit of Greenwich District Hospital and Bexley Hospital in London for six months. I then served as a medical assistant in psychiatry, in the same place, until June 1977. In addition to training in general adult psychiatry, I had an opportunity to train in child psychiatry, doing a weekly clinic for one year. I joined a four-week course in neurology at the National Hospital for Diseases of the Nervous System at Queen Square in London.

While training in the UK, I obtained the Diploma of the Royal Colleges of Medicine and Surgery in Psychological Medicine (DPM) and the Royal College of Psychiatrists (MRCPsych) membership. In June 1977, I returned home to Iraq and by July 1977 I had been appointed as a senior lecturer in psychiatry at the Medical College of Baghdad University and as a specialist psychiatrist at the Medical City Teaching Hospital. In 1990, I became a Professor of Psychiatry and a Consultant Psychiatrist. In January 2005, I joined the University of Jordan medical school serving as a professor and senior consultant psychiatrist in the psychiatric unit. The American Psychiatric Association (APA) 2001 accepted me as a member and in 2011 granted me the title "International Distinguished Fellow of the APA." In 2014, retired after reaching the age of seventy but continued working part-time until 2018.

During those fifty years, I taught undergraduate students, trained postgraduate doctors, and resident doctors, and cared for patients. I also supervised postgraduate research for diploma, master's, doctorate, and board doctors of psychiatry and related disciplines. I was vice-president of the Iraqi Society of Psychiatrists for two terms. I have participated in several national, regional, and international scientific conferences and symposia.

Over these years, I published more than 35 papers in local, regional, and international journals. I also published a book for the public and co-authored several publications for the World Health Organization (WHO). Furthermore, I posted for the media to raise awareness of mental health. I have chaired too many medical committees in the ministry of health. I also chaired the psychiatric unit at Baghdad University Medical School and Baghdad Teaching Hospital, the Scientific Council of Psychiatry of the Iraqi Board for Medical Specialties, and the Arab Board Committee in the Ministry of Health. Also, I was a member of the Arab Board of Psychiatry for 11 years and simultaneously a member of the examination committee of the Arab Board of Psychiatry.

Clinical work formed a significant part of my career in psychiatry in Iraq and Jordan. In Jordan, I chaired the psychiatric unit of the department of medicine, the University of Jordan, and the University of Jordan Hospital. For six years, I served as chair or member of the Jordanian psychiatry board. I ran outpatient clinics, cared for in-patients, and provided psychiatric consultations in consultative-liaison psychiatry. I submitted comprehensive plan to the Ministry of Health for Iraq to develop mental health services in the country. I offered consultation and advice to WHO and several NGOs after 2003 to support mental health services for Iraqis. In this context, I coordinated, supervised, and delivered lectures in many training courses and symposia in Iraq and Jordan. During my long academic journey, I responded to requests for evaluation of scores of papers and research submitted for publication or academic promotions.

Across 50 years of psychiatric practice, both academic and clinical, I have learned many lessons:

- To me, the patient has been the best learning source.
- Listening carefully to the patient saves a lot of unnecessary workups.
- Evaluation of the patient is never complete without carrying out a physical examination.
- Establishing a proper doctor-patient relationship is necessary to ensure patient cooperation and treatment compliance.
- The patient's acceptance of treatment and cooperation can only be achieved by using skills to motivate him.
- Most patients' conditions require no more than one to two medications.
- Polypharmacy often does harm more than reasonable.
- Most patients require combined pharmacological and psychological approaches.
- Poor compliance to treatment is behind the failure of response to therapy in most cases.
- Talking to the patient may reduce the need for medications.
- Thinking of how to ease the pain and concerns of the patient brings more satisfaction than treating a specific disorder.
- Response to patients' or care providers' inquiries built more confidence in the doctor and their treatment plan.
- The involvement of the family or the care provider is significant for the success of any management plan.
- Every doctor should have the skills to break the bad news to the patient or family.
- The doctor must give attention to care providers.
- Finally, doctors are human beings and likely to be emotionally stressed in certain situations. This should make them think of how to care for themselves, relax, meditate, and practice time management.

I want to thank the Arab Federation of Psychiatrists, and Professor Ahmed Okasha, for their award (Professor Ahmed Okasha Prize) to me in recognition of my distinguished input and contribution to psychiatry and the development of mental health services.

I also would like to express my deep appreciation to dear colleague Dr Walid Sarhan for requesting me to write this brief biographic account.

I am grateful to all my teachers; without their efforts and support, I would not have achieved my career.
I am thankful to my patients and students from whom I learned much.

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An end is only a beginning in disguise: Farewell to our Chief Editor

Tori Snell and Numan Ali, Associate Editors

This all began in Cairo. Thirty-eight years ago, whilst at an Arab Federation meeting, Dr Walid Sarhan imagined a scientific journal for the Arab world that would support research from the Arab world. Under the guidance of both Professor Ahmad Okasha and Dr Adnan Al-Takriti, the vision for *The Arab Journal of Psychiatry* (AJP) became reality when Dr Walid hand delivered the first-ever volume to the Fourth Pan-Arab Conference in Sanaa in November 1989. Dr Adnan became the first Chief Editor with Dr Walid as Deputy Chief Editor. Both carefully steered the AJP through times when there were only three or four article submissions for an edition. Despite this, neither gave up. In 2010, the Arab Federation of Psychiatrists appointed Dr Walid as his successor.

Chief Editor and Associate Editors in 2008

Be under no illusion that bringing the AJP to life every May and November has been effortless. From Khartoum to Beirut, there are students, psychiatrists, psychologists, and professors alike who will remain grateful to Dr Walid for his encouragement and for the many hours he spent editing and providing helpful feedback for studies that likely would have been rejected immediately by Western scientific journals simply for being “from that part of the world”. In short, he has nurtured a generation of Middle Eastern and North African students and mental health professionals who may otherwise have been abandoned; many have gone on to do tremendous things. Dr Walid’s tireless, behind-the-scenes commitment to others has been largely underestimated even by his editorial team (present authors included) often to the detriment of his own writing career. It is time for a new beginning.

After nearly four decades, Dr Walid has decided to step down from the AJP. “I have taken the Journal as far as I can.” he announced. Such an understated comment belies the fact that for, at least the past 13 years, he has almost single-handedly willed each volume into existence. One evening not long ago, during an online, fireside chat with Dr Walid - when we were both feeling the pressure of editing the English and Arabic version of a particular article - he paused for a moment before observing “this exhaustion you have is from one draft edit. I gave it to you after my seventh draft.”

In amongst first time submissions, there have been some of the finest researchers in the region as regular contributors, including Professor Elie Karam, Dr Ahmad Okasha, Dr Abdelmanaf Aljadry, and the late Professor Abdelaziz Thabet. The role of professors Adib Essali, Sudad Tamimi. Nazar Amin, Jamal Turkey, Marwan Dwairy, Mohammad Abu Saleh, Mohammad Fakher Eleslsam, Professor David Sheehan and many others is beyond any imagination. Dr Walid’s belief in the AJP’s potential for promoting what is good about research from the Arab World will long be remembered. “I believe the Journal has a position in the world. My hopes are for it to be taken up by an international publisher”.

This, of course, must be a decision for the Arab Federation to make. Past opportunities to index the AJP with freely accessible web search engines and life science databases, such as MEDLINE and Google Scholar, have required financial backing and are otherwise not possible without that level of commitment. The early foundations for this, however, have already been laid. In 2019, the AJP achieved the first Arab Journal in the medical field by the Arab Citation & Impact Factor (ARCIF). This comprehensive database provides citations of peer reviewed academic journals in the Arab world and is a scientific-based solution to Arab academia’s marginalisation by the dominant Western institutions that set standards for international classification and published scientific research indexes.

Quite reasonably, the Arab Federation had its doubts back in 1989 that the AJP would survive for long. “Walid, you are two and a half people. A scientific journal is a huge job,” co-founder but Walid answered. “At least give me the honour of failure,” he replied. We know how that beginning ended. A rich collection of scientific articles from the Arab world now exists that will serve to inform generations to come. And so, dear Chief Editor, we salute you and thank you for 38 years of great success.

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Letter to the Editor

Vitamin D and Mental Health

Ali S M Jawad

فيتامين د والصحة العقلية

علي صادق محمد جواد

We read with interest the review by Amin on the role of vitamin D in mental health.[1] There are many epidemiological studies showing increased risks of not only psychological and psychiatric disorders but also cancer and autoimmune, cardiovascular, infectious, and metabolic diseases when serum 25-hydroxyvitamin D[25(OH)D] levels are <20 ng/mL (50 nmol/L) and that risks decrease with higher serum 25(OH)D concentrations. However, there is no convincing evidence from randomized controlled trials that supplements of vitamin D can influence outcomes in those extra-skeletal conditions.[2]

A decisive verdict on the value of vitamin D supplementation has come from the findings from the Vitamin D and Omega-3 Trial (VITAL). Results of analyses from VITAL, published in several learned journals, had clearly shown that vitamin D supplementation, 2000 IU per day, did not prevent cancer or cardiovascular disease, prevent falls, improve cognitive function, reduce atrial fibrillation, change body composition, reduce migraine frequency, improve stroke outcomes, decrease age-related macular degeneration, reduce knee pain, or have any important health benefits in older adults, even in those with low serum 25(OH)D.[3-8]

Though serum 25(OH)D is considered the best marker of vitamin D status, it is largely inert, compared to the activated form, 1,25-dihydrdihydroxy vitamin citriol). The latter has a short half-life and its serum levels do not adequately reflect vitamin D stores. In contrast, serum 25(OH)D has a longer half-life of 2-3 weeks. Hence in practice, it provides a better reflection of vitamin D status. Low serum 25(OH)D might reflect poor health status in general, possibly due to reverse causation or confounding by other health behaviors, such as limited outdoor mobility and exposure to sunlight. In addition, serum 25(OH)D is a negative acute phase reactant in patients with acute or chronic inflammatory diseases, such as acute systemic infections or autoimmune diseases. If the C-reactive protein (CRP) level increases, serum 25(OH)D level decreases and when the condition of the patient improves, serum 25(OH)D goes back to normal.[9]

There is no data to define the optimal level of serum 25(OH)D level in extra-skeletal conditions or diseases. We need to emphasize the recommendation by the 2011 Institute of Medicine report that established recommended dietary allowances for vitamin D of 600 to 800 IU per day to meet the bone health needs of 97.5% of the general population.[10]

Keywords: Vitamin D, mental health

Conflict of interest: None

References

1. Amin NMM. The role of vitamin D in mental health. Arab J Psychiatr 2022;33: 101-109.
2. Grant WB, Boucher BJ, Al Anouti F, Pilz S. Comparing the Evidence from Observational Studies and Randomized Controlled Trials for Nonskeletal Health Effects of Vitamin D. Nutrients. 2022;14: 3811.
3. Manson JE, Bassuk SS, Buring JE; VITAL Research Group. Principal results of the VITamin D and OmegA-3 TriaL (VITAL) and updated meta-analyses of relevant vitamin D trials. J Steroid Biochem Mol Biol. 2020; 198:105522-105522.
4. Rist PM, Buring JE, Cook NR, Manson JE, Rexrode KM. Effect of vitamin D and/or omega-

3 fatty acid supplementation on stroke outcomes: a randomized trial. Eur J Neurol. 2021;28: 809-815.

5. LeBoff MS, Murata EM, Cook NR, et al. VITamin D and OmegA-3 TriaL (VITAL): effects of vitamin D supplements on risk of falls in the US population. J Clin Endocrinol Metab. 2020; 105:2929-2938.
6. Manson JE, Cook NR, Lee IM, et al. Marine n-3 fatty acids and prevention of cardiovascular disease and cancer. N Engl J Med. 2019; 380: 23-32.
7. LeBoff MS, Chou SH, Ratliff KA, et al. Supplemental vitamin D and incident fractures in midlife and older adults. N Engl J Med. 2022;387: 299-309.
8. Cummings SR, Rosen C. VITAL findings — a decisive verdict on vitamin D supplementation. N Engl J Med. 2022; 387:368-370.
9. Waldron JL, Ashby HL, Cornes MP, et al. Vitamin D: a negative acute phase reactant. Journal of Clinical Pathology 2013; 66:620-622.
10. Ross AC, Taylor CL, Yaktine AL, Del Valle HB, eds. Dietary reference intakes for calcium and vitamin D. Washington, DC: National Academies Press, 2011.

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مساهمات علماء الحضارة العربية الإسلامية في العلاج النفسي

خالد خياط

Contributions of Arab-Islamic Civilization Scientists to Psychotherapy

Khaled Khiat

ملخص

عادةً ما يقفز المؤلفون والباحثون في تعقبهم لتاريخ العلوم من الحضارة اليونانية-الرومانية إلى عصر النهضة الأوربية مباشرة، تاركين حقبة زمنية ذهبية ازدهرت فيها العلوم وبلغت فيها مبالغ إعجازية من الرقي والازدهار والابتكار والاختراع والإبداع في شتى العلوم. وهذا ما اصطلح عليه المفكر مالك بن نبي بـالثقب المعرفي. في مقالنا هذا سنحاول سد جزء بسيط جدا من هذا الثقب، بتقديم مساهمات الحضارة العربية الإسلامية في حقل علم النفس والعلاج النفسي، من خلال كوكبة من العلماء العرب والمسلمين؛ ونسلط الضوء على شذرات من الأعمال التي كانت تعد وثبات عملاقة في التطور العلمي في مجال التفكير النفسي والممارسة الطبية النفسية. ولأننا لا يسعنا أن نفيها حقها في بضع صفحات، فإننا سنقتصر على ذكر زمرة من العلماء الذين برزوا وبرعوا في مجال الطب النفسي، خاصة أولئك العظماء الذين لم ينالوا حظهم من التعريف والتوثيق، مثل إسحاق بن عمران وأبو زيد البلخي وأبو البركات البغدادي. كما لا يفوتنا أن نتطرق لذائعي الصيت من الأطباء مثل الفارابي، والرازي، وابن سينا، وغيرهم.

كلمات مفتاحية: علم النفس، العلاج النفسي، العلماء العرب والمسلمين.

اعلان تضارب المصالح: لا يوجد.

مقدمة

عرفت البشرية نشأة العديد من الحضارات القديمة خلال سيرورة تطورها، منها الآشورية والبابلية، والصينية، والمصرية، والفينيقية. ولقد سادت فكرة أن إنسان العصور القديمة كان ينظر ويدرك المرض النفسي والسلوك المضطرب بتصورات ومفاهيم تنسب ظهورها وحدوثها إلى عوامل غيبية تؤثر في نفس الإنسان وتصرفاته. تمثلت هذه العوامل عموما في أرواح أو شياطين تسكن الكائن البشري أو أجزاء منه فتسيطر عليه وتتحكم في سلوكاته وتملي عليه ما يفكر وما يشعر وما يقول وما يفعل، وكذلك في تمائم وأعمال سحر وشعوذة تؤثر في سلوكات الإنسان وسلامته النفسية والعقلية. ولم يقف الإنسان القديم مكتوف الأيدي أمام الأرواح الشريرة والشياطين أو السحور، بل حاول أن يبدع أساليبا لطردها وتخليص المصابين منها وإعادة توازنهم النفسي. وكانت التمائم والتعويذات والتعذيب والعديد من الإجراءات المشابهة تطبق على الشخص المصاب لطرد هذه المخلوقات منه، وكان الموت حلا نهائيا لمن تحل به الأرواح العنيدة.

في العصور اللاحقة، لم يعد المريض النفسي يعالج بتلك الأساليب الوحشية أو يقتل، غير أن التفكير القديم لا يزال راسخا في مختلف المجتمعات، مثل الإيمان بالحظ، ومس الجن والمفعول السحري وغيرها. ولا تزال تمارس أساليب مواجهة تلك الاضطرابات بوسائل منها الحجاب والحروز والطقوس والأضرحة وبعض الممارسات الشعبية وغيرها، وهي نماذج موغلة في القدم لا زالت تستخدم إلى يومنا هذا.

ورغم سواد الفكر الغيبي الكهنوتي على حقل تفسير وعلاج المشكلات النفسية في العصور القديمة، إلا أن الأبحاث توصلت إلى وجود بعض الآثار التي تدل على قيام بعض علماء تلك العصور بمحاولات لتقديم تصورات وتفسيرات علمية لمختلف الظواهر الطبيعية والإنسانية، منها التشخيصات الطبية والنفسية والوصفات العلاجية. هذه الأعمال العلمية ظلت مغيبة ومطموسة في مختلف أعمال التأريخ العلمي عموما، والتأريخ الطبي والنفسي خصوصاً. هذا التاريخ الذي عادة ما يفتتح بأعمال أبقراط وجالينوس. حتى يخيل للقارئ أن اليونان كانوا أول من فكر تفكيراً علمياً.

ظاهرة إنكار ونكران مساهمات السابقين استمرت لدى الباحثين الغربيين في العصر الحديث، حيث تجد في أعمالهم ما سماه مالك بن نبي ثقبا معرفيا عمره ألف عام، في نقاشه مع المفكر روجي غارودي. يقفز المؤرخون للعلوم من الحضارة اليونانية-الرومانية إلى عصر النهضة الأوربية مباشرة، تاركين حقبة زمنية ذهبية مديدة ازدهرت فيها العلوم وبلغت فيها مبالغ خيالية من الرقي والازدهار والابتكار والاختراع والإبداع في شتى العلوم. وعادة ما يطلق الغربي على هذه الحقبة المجيدة بالقرون الوسطى، ويصفها بعصر الجهل والتخلف والظلام.

أصابت عدوى هذا الثقب المعرفي الباحثين العرب الذين تأثروا بالحضارة الغربية تأثر التماهي والذوبان، وجعلتهم ينقلون هذا الثقب إلى العالم العربي في نقلهم وتدريسهم ونشرهم للمعارف العلمية. وظل الأمر على ما هو عليه إلى غاية بروز كوكبة من العلماء العرب والمسلمين الذين بحثوا ونقبوا عن المعارف العلمية التي زخرت بها الحضارة العربية الإسلامية طيلة الألف عام من الريادة والازدهار، منذ البعثة النبوية المباركة إلى غاية سقوط الأندلس.

في مقالنا هذا سنقدم مساهمات الحضارة العربية الإسلامية في حقل علم النفس والعلاج النفسي من خلال كوكبة من العلماء، ونسلط الضوء على شذرات من أعمالهم التي كانت تعد وثبات عملاقة في التطور العلمي في مجال التفكير النفسي والممارسة الطبية النفسية. ولأننا لا يسعنا أن نفيها حقها في بضع صفحات، فإننا سنقتصر على ذكر زمرة من العلماء الذين برزوا وبرعوا في مجال العلاج النفسي، خاصة أولئك العظماء الذين لم ينالوا حظهم من التعريف والتوثيق، مثل إسحاق بن عمران وأبو زيد البلخي وأبو البركات البغدادي. كما لا يفوتنا أن نتطرق لذائعي الصيت من الأطباء مثل الفارابي، والرازي، وابن سينا، وغيرهم .

قبسات من مساهمات العلماء العرب والمسلمين

الحارث بن كلدة الثقفي (ت 50هـ)

لم يرد ذكر لوجود طب نفسي عربي في العصر الجاهلي. فقد كان الطب عموما يقوم على الممارسات الغيبية التي كانت سائدة في ذلك العصر. وكما هو حال الحضارات والشعوب القديمة، لم تخلو الأمة العربية من أطباء مارسوا العلاجات الطبية وفق ما بلغه علم الطب في عصرهم. ومن أبرز أطباء العصر الجاهلي ذكرت المراجع الطبيب المخضرم الحارث بن كلدة الثقفي (ت 50هـ)، الذي كان يلقب بطبيب العرب، وقيل أنه أطب العرب. عاش زمن البعثة وعاصر الخلفاء الراشدين الأربعة وتوفي في خلافة معاوية رضي الله عنهم جميعا. قدم على كسرى أنو شروان وكان له معه حوار مثخن بالحكمة والعز والفخار. مما دار فيه أن كسرى سأله: فما تقول في الحمام؟ قال: "لا تدخله شبعاناً، ولا تغش أهلك سكراناً، ولا تقم بالليل عرياناً، ولا تقعد على الطعام غضباناً، وارفق بنفسك يكن أرخى لبالك، وقلل من طعامك يكن أهنأ لنومك ...". ومن أخبار إبداعاته العلاجية أن أخوان من ثقيف (من بني كنة) كانا يتحابان أشد محبة. سافر الأكبر وأوصى الأصغر بزوجته، فكان أن وقعت عينه على زوجة أخيه من غير قصد فعشقها حد الضنى. فمرض واعتلت صحته. ولما عاد أخوه جلب له الأطباء فعجزوا عنه، حتى جاءه بالحارث بن كلدة. فعلم الحارث بحاله، "فقال: أرى عينين محتجبتين، وما أدري ما هذا الوجع، وسأجرب. فاسقوه نبيذا! فلما عمل النبيذ فيه قال (المريض) :

ألا رفقًا ألا رفقاً   قليلاً ما أكونه

ألما بي إلى الأبيات   بالخيف أزرهنه

غزالا ما رأيت اليوم   في دور بني كنه

أسيل الخد مربوب   وفي منطقه غنه

فقالوا (للحارث): أنت أطب العرب. ..." [1]

وتبعه في ممارسة الطب ابنه النضر بن الحارث الثقفي، واشتهرت من نساء العرب زينب الأودية، وكان لها دراية بمعالجة أمراض العين.

يمكننا القول أن الممارسات المختلفة التي طبقها الأقدمون (من أعاجم وعرب) - في سعيهم لتخليص الناس من مشكلاتهم النفسية والسلوكية - لا ترقى إلى الوصف بأنها علاج نفسي أو معالجات نفسية أو حتى ممارسات علاجية نفسية. في الحقيقة، نعتقد أن العلاج النفسي بمعناه الدقيق والصحيح لم يظهر إلا في العصر الإسلامي، حيث تطور المنظور تجاه الأشخاص ذوي المشكلات النفسية بناء على تعاليم الإسلام السمحة، ثم ظهور كوكبة من الفلاسفة الأطباء والشيوخ الزهاد الذين أدركوا وفهموا المرض النفسي بمنظور تراوح بين النظرة الفلسفية-الطبية والنظرة الدينية والتفسير النفساني. خلال هذه الحقبة النيرة من التاريخ العلمي للبشرية، تطور علم النفس وفق مسارين رئيسين، مسار علمي ومسار ديني (صوفية وعلم الكلام). وعرف كل مسار بزوغ ثلة من النفسانيين البارعين وفق معايير مسارهم. أما المسار العلمي فقد أطلق عليه أصحابه اصطلاح "علم النفس"، وأما المسار الصوفي فأطلق عليه رواده اصطلاح "علم القلوب" و"علم السلوك". وسنركز عرضنا التالي على المسار العلمي الموسوم بـ "علم النفس."

يوحنا بن ماسويه (ت243هـ) :

من أوائل من برز في محاولات توظيف الجانب النفسي في العلاجات الطبية من أطباء الحضارة العربية الإسلامية نجد الطبيب النصراني يوحنا بن ماسويه (ت243هـ)، فقد قرأنا له استخدامه العلاج الديني كعلاج نفساني لبعض الأمراض العضوية التي استعصت على العلاج الدوائي. ذكر ابن فضل الله العمري في مسالك الأبصار قصتين عن هذا الأسلوب العلاجي: "قال يوسف: وشكا إليه رجل بحضرتي 'جريا' قد أضرّ به. فأمره بفصد الأكحل من يده اليسرى، فأخبره أنه قد فعل. فأمره بشرب المطبوخ، فقال: قد فعلت. فأمره بشرب الأصطمخيقون، فأعلمه أنه قد فعل. فأمره بشرب ماء الجبن أسبوعاً، وشرب مخيض البقر أسبوعين، فأعلمه أنه قد فعل. فقال له: إنه لم يبق شيء مما أمر به المتطبّبون إلا وقد ذكرت أنك قد عملته، وقد بقي شيء لم يذكره أبقراط ولا جالينوس، وقد رأيناه يعمل على التجربة كثيراً، فاستعمله فإني أرجو أن ينجح علاجك إن شاء الله. فسأله: ما هو؟ فقال: ابتع زوجي قراطيس، وقطعهما رقاعاً صغاراً، واكتب في كل رقعة: 'رحم الله من دعا لمبتلى بالعافية'؛ وألق نصفها في المسجد الشرقي بمدينة السلام، والنصف الآخر في المسجد الغربي، وفرقها في المجالس يوم الجمعة! فإني أرجو أن ينفعك الله بالدعاء إذ لم ينفعك العلاج"[2]. هكذا لما يئس ابن ماسويه من شفاء الرجل بأي دواء مما عرفه الأطباء لم يجد ملجأ إلا تكليفه بسلوكات ذات طابع اجتماعي، وهي الاستعانة بالناس بـ "الدعاء" لعل الله يشفي به كربة الرجل، علماً أن الطبيب يوحنا بن ماسويه كان نصرانياً.

ومن طريف ما قدمه ابن ماسويه في علاجه السلوكي ما رواه ابن فضل الله فيما يلي: "قال يوسف: وصار إليه - وأنا حاضر- قسّيس الكنيسة التي يتقرّب فيها يوحنّا، وقال له: فسدت عليّ معدتي.

فقال له: استعمل جوارشن الخوزبي، فقال: قد فعلت. فقال: استعمل الكمّوني، قال: قد أكلت منه أرطالاً. فأمره باستعمال المقداذيقون، فقال: قد شربت منه جرّة. فقال: فاستعمل المروسيا، فقال: قد فعلت، وأكثرت. فغضب وقال له: إن أردت أن تبرأ فأسلم فإن الإسلام يصلح المعدة!"[3].. والظاهر أن الطبيب النصراني يوحنا بن ماسويه كان مؤمنا بصلاحية نظام الحياة الإسلامي للحفاظ على الصحة البدنية والنفسية، لذلك نصح القسيس بالإسلام، لكي يغير أو يصلح عاداته السلوكية، لأن ابن ماسويه كان يعارض نظم الكنيسة ويتبع نظم الإسلام وينكر على القساوسة مخالفتهم لتعاليم نصرانيتهم.

ومن علاجاته النفسية المبدعة أن زاره أحد الأشخاص المعروفين بالكذب في الكلام بعد مرض أصابه، وقد استعمل معه ابن ماسويه التقنية التي أطلق عليها ألفرد أدلر "البصق في المرق"، وهي تقنية تعتمد على تسخيف وتحقير السلوك بدلاً من محاولة الإقناع الفكري للمتعالج بخطئه، مع تحميل الفرد عواقب الاستمرار على نفس السلوك، حيث قال ابن ماسويه لمريضه: "قد كنت أشير عليك بما تأخذ في كل يوم وأنا أحسبك تحب الصحة والعافية، فأما إذ صح عندي أنك تكره العافية وتحب العلة فلست استحل أن أشير عليك بشيء، فقال له ابن مشغوف يا جاهل من يكره العافية ويحب العلة؟ فقال له يوحنا أنت، والبرهان على ذلك أن العافية في العالم تشبه الحق والسقم يشبه الكذب، وأنت تتكلم أكثر دهرك بالكذب، فيكون كذبك مادة لسقمك فمتى تبرأ أنت من علة متطاولة، وأنت تمدها أكثر دهرك بالكذب الزائد فيها، فالزم الصدق ثلاثة أيام ولا تكذب فيها، فيوحنا بريء من المسيح، إن لم تخرج من هذه العلة قبل انقضاء هذه الثلاثة أيام"[4]. هكذا أرشده ابن ماسويه للتخلص من عادة الكذب لأنها أصل استمرار المرض البدني الذي أصابه، وأنه لا يبرأ من مرضه إلا بترك الكذب والتزام الصدق. وهذا ضرب من العلاج النفسي العبقري، لأنه اعتبر مرض البدن عرضاً من أعراض المرض النفسي الذي كان يعانيه هذا الرجل، وهو الكذب المرضي. لذلك اعتبر أن زوال العرض مقرون بزوال المرض، فأرشده إلى تسوية سلوكه اللفظي لتستوي صحته البدنية. علما أنه لم يهتد إلى هذا الإرشاد إلا بعد استنفاذ العلاجات الطبية.

حنين بن إسحق العبادي (194-260هـ) :

ومن تلامذة يوحنا برز حنين بن إسحق العبادي (194-260هـ)، الذي قسم مواضيع علوم الطب إلى مواضيع طبيعية ومواضيع ليست طبيعية ومواضيع

خارجة عن الأمر الطبيعي. وفي جرده للمواضيع التي ليست طبيعية ذكر خمسا، وقال أن بعض الأطباء زادوا موضوعاً سادساً وهو الأحداث النفسانية. ويقصد به الأمراض العضوية ذات المنشأ النفسي التي يصطلح عليها حالياً بالاضطرابات النفسية الجسدية، حيث اعتبر ابن إسحاق أن الأحداث النفسانية تؤثر في البدن، وبيَّن "أن منها ما يحرك الحرارة وينهضها إلى ظاهر البدن إما دفعة وإما قليلاً. أما دفعة فالغضب، وأما قليلاً قليلاً فاللذة. ومنها ما يقبض الحرارة إلى داخل ويخمدها إما دفعة وإما قليلاً قليلاً. أما دفعة فالجزع، وأما قليلاً قليلاً فالحزن. ومنها ما يحرك الحرارة الغريزية مرة إلى داخل ومرة إلى خارج مثل الهم والخجل"[5] .

وفي معرض حديثه عن دلالات البول الرقيق ناصع الحمرة شخَّص حنين من بين أسبابه "أرق وسهر وهم"[6]، أما البول الثخين القاني الحمرة فشخص أننا نجده "في انقضاء الوسواس السوداوي"[7] وهو هنا كشف الصلة بين المشكلات النفسية والأعراض الجسدية في البول، وبين وجود تغيرات جسدية تدل على الشفاء من الأمراض النفسية.

إسحاق بن عمران (ت حوالي293هـ) :

ومن أبرز أوائل أطباء الحضارة العربية الإسلامية الذين ساهموا بقوة في تطور العلاج النفسي الطبيب إسحاق بن عمران (ت حوالي293هـ)، الذي استقر واشتهر بالقيروان، قادما إليها من موطنه بغداد. صنف ابن عمران كتابا رائدا خصصه لدراسة جملة الاضطرابات الإكتئابية المختلفة وما شابهها (خواف ووسواس قهري وقلق ...)، عنونه بـ "مقالة في الماليخوليا"، وهو يشتمل على مقالتين: أولاهما للتعريف بداء الماليخوليا، أما ثانيتهما فلبيان طرق علاجها. ويعد هذا الطبيب رائدا -إن لم نقل مؤسسا- لعلم الأمراض النفسية والعلاج النفسي. عرض في المقالة الأولى من كتابه جملة الأعراض العامة المشتركة في الاضطرابات، ثم خصص لكل نوع منها أعراضه المميزة له عن غيره. كتب ابن عمران: "فنقول أن الأعراض العامة لأصحاب الماليخوليا من أي الأصناف كان: دوام الكآبة والحزن والفزع مما لا يفزع ولا يدعو، وحديث النفس والتفكير الدائم في غير سبب يوجب التفكير، وإخطار أشياء بالفكر مما تردع وتهول ليست لها معان أصلاً. نعم، ويجدون في أحواسهم إحساساً بأشياء ليست بشيء"[8]. مقالة في أي أنهم لديهم هلوسات حسية، سمعية، أو بصرية، أو شمية، أو غيرها، وقد وسمها بالحس الكاذب .

وذكر ابن عمران معالجة إبداعية قام بها لأحد مرضى الوهم كان "يتوهم أن لا رأس له ... فإنا ثقلنا رأسه بقلنسوة عملناها له من رصاص، وجعلناها على رأسه في محل الخوذة، فحينئذ صح عنده أن له رأسا"[9] وشخص ابن عمران من أعراض الماليخوليا أن بعض المصابين به "يفسد ظنه وفنطاسيه"، أي أنهم يصابون في تفكيرهم وفي خيالهم. وأكد أن أعراض الماليخوليا كثيرة جدا يصعب على الباحث تعدادها، يقول "ومثل هذا كثير يعرض لهم. لا يكاد المتأمل للعوارض والمترصد للعلامات أن يضبطها إذا هو صرف عناية البحث منه إلى ذلك". وبعد فراغه من تعديد الأعراض النفسانية، قدم ابن عمران بعض الأعراض الجسمانية والسلوكية التي أوجزها في كونهم "مهازيل كثيرو السهر"[10] .

وقد انتبه إسحاق بن عمران إلى عرض هام نجده في الوسواس القهري، وهو مقاومة العلاج والاجتهاد في إفشال مساعي العلاج، رغم أنهم يسعون ويهرعون لطلب العلاج ولا يفوتون فرصة لذلك، يقول: "وفيها أيضا عارض يعمهم، وهو أنهم من أشد خلق الله حرصا لطلب المعالج لهم، يذللون أنفسهم له ويبذلون له الرغائب من أموالهم. فإذا هو أتاهم وأجابهم إلى المعالجة، لم ينقادوا ولم يطيعوه. وهذه خاصة بأصحاب الماليخوليا موكلة لازمة. فهذه الأعراض التي لا تفارقهم أصلا، العامة لهم من جهة النفس"[11].

وفي مقالته الثانية حول الماليخوليا عرج إسحاق بن عمران إلى علاج الماليخوليا باستخدام سلسلة تقنيات علاجية، ذكر منها المعالجة المعرفية بتصحيح العمليات العقلية، وتدعيمه بالعلاج الفني بالموسيقى وكذا العلاج الطبي بالمحاليل الدوائية إن كان ذلك يناسب المتعالج. وهذه إبداعات علاجية رائدة وسابقة لعصره. وقد بيَّن أن "لما كان مرض الماليخوليا أعراضه النفسانية مهولة ... وجب أن تقابل الأعراض النفسانية بإزالة تلك الظنون الكاذبة والتخيلات الفاسدة والخطرات الردية، بالألفاظ العقلية اللطيفة والحيل النظرية والنظر المقنعة بما يزيل ما وقر في النفس وانحبس في الخلد من المعاني الباطلة التي لا حقيقة لها، بحركة الموسيقى وسقي الشراب. إن أمكن ذلك ووجد الطبيب من العليل فيه شفاءه"[12].

أبو زيد البلخي (235ه-323هـ) :

ومن أكابر من برعوا في علم النفس والعلاج النفسي نذكر الطبيب أبا زيد البلخي (235ه-323هـ)، الذي كان أول من صنف تأليفا مفردا لعلم النفس المرضي والعلاج النفسي في تاريخ البشرية، وهو كتابه "مصالح الأبدان والأنفس"، ويقصد بمصطلحه "مصالح" عملية "الإصلاح"، المرادفة للعلاج. وقد وضع فيه تشخيصات لبعض المشكلات النفسية كالحزن (الاكتئاب) والوسواس (القهري)، واقترح لها علاجات مبدعة مبتكرة، استغرقت البشرية عشر قرون لتتوصل إليها من بعده. وقد كان البلخي واعيا مدركا لعظمة الحاجة إلى مثل هذا الحقل العلمي المستقل، وغفلة من سبقوه من الأطباء والحكماء عن التصنيف في هذا العلم المستقل: "على أن الكلام في هذا الباب أمر لم تجر عادة الأطباء بذكره وإيقاعه في الكتب التي كانوا يؤلفونها في الطب ومصالح الأبدان ومعالجات العلل العارضة لها؛ وذلك لأن القول ليس هو من جنس صناعتهم، ولأن معالجة الأمراض النفسانية ليست من جنس ما يتعاطونه من الفصد، وسقي الأدوية، وما شابههما من وجوه المعالجات"[13] .

ومن ثم تقدم البلخي لتغطية هذا النقص وتلبية هذه الحاجة، واعيا ومقدرا لقيمة وأهمية العمل الذي يقوم به. هذا الإنجاز الفريد جعله رائد العلاج النفسي عبر التاريخ، بل وجعله طبيبا ليس متقدما على كل من سبقوه فحسب، بل تجاوز كل من عقبوه خلال عشر قرون كاملة، ويبين البلخي أهمية وضرورة تأسيس علم العلاج النفسي قائلا: "غير أنهم وإن لم يفعلوا ذلك، ولم تجر العادة به منهم؛ فإن إضافة تدبير مصالح الأنفس إلى تدبير مصالح الأبدان أمر صواب، بل هو مما تمس الحاجة إليه ويعظم الانتفاع، لاشتباك أسباب الأبدان بأسباب الأنفس؛ فإن الإنسان إنما قوامه بنفسه وبدنه. وليس يتوهم له بقاء إلا باجتماعهما لتظهر منه الأفعال الإنسانية؛ فهما يشتركان في الأحداث النائبة والآلام العارضة"[14] .

واعتبر البلخي هذا العمل واجبا يقع عليه ويقتضي منه حسن تأليفه وفق المنهج الذي سطره بنفسه، وذلك بتصنيف المشكلات النفسية وفق ما توصل إليه بالنظر والممارسة، حتى يسهل على الأطباء فهمه واتباعه وتتحقق المنفعة به: "ولذلك يجب أن نجمع في هذه المقالة من الكتاب الوصايا التي قد يجب أن تستعمل في معالجة الأمراض النفسانية التي نسميها، ونحصيها في الباب الذي يتلو هذا الباب في موضعها وقت الحاجة إليها فينتفع بها إن شاء الله تعالى"[15] .

لقد آمن البلخي بخبرته وكفاءته الطبية ونظره العميق أن الصحة النفسية والصحة الجسمية متداخلتان، معتبرا أن العديد من الأمراض العضوية إنما تعود لأحوال نفسية مضطربة. كما حاول أن يبين أن بعض الاضطرابات النفسية والأحوال النفسية السيئة ترجع إلى علل عضوية. وعلى سبيل المثال، نقتطف من كتابه "مصالح الأبدان والأنفس" هذه الفقرة التي تعد مقدمة رائدة في علم النفس المرضي عرض فيها الأمراض النفسية الوظيفية: "فهذه المعاني التي ذكرناها هي الأعراض النفسانية التي قلنا إنها تتصل بمضار الأبدان، وتؤدي في بعض الأوقات إلى عللها. وهي نظيرة الأوجاع التي تهيج

بالإنسان في بدنه فتؤلمه وتقلقه وتمنعه من تناول الأغذية والمرافق الجسدانية والاستمتاع بشيء منها. فكما تلزم الحاجة في المصالح البدنية إلى مداراة تلك الأوجاع بما يقمعها من الأدوية، ويبرئها من الأسقمة، كذلك تلزم الحاجة في هذه الأعراض النفسانية التي هي أوجاعها إلى مقابلها من العلاجات التي بينا ما حدها وجهتها في الباب المتقدم بما يشفيها ويخلصها من مكروهها. ونحن ذاكرون ما يجب أن يقابَل به كلٌّ منها فيما يتلو من القول إن شاء الله تعالى"[16] .

وكما هو معمول به في العصور الحديثة، حرص البلخي على تقديم مفهومه للصحة النفسية قبل الانتقال إلى الحديث عن العلاج النفسي، حيث أوضح أن الصحة النفسية هي "السكون النفسي"، معرفا هذا السكون بأنه خلو الإنسان من الأعراض الأربع الأساسية (الغضب والفزع والجزع والوسواس)، وهو ما يمكن أن نصطلح عليه بالاستقرار النفسي. ومن ثم فإن نقيض الصحة النفسية هو انتقاض السكون النفسي، أي الاضطراب النفسي؛ وهذا هو المصطلح المستخدم في عصرنا الحالي. واعتبر البلخي أن كل الأعراض تنبع من مصدر وأصل واحد هو "الغم". ومن ثم كان "الغم" هو الجوهر الحاضن والمفسر لكل المشكلات والاضطرابات النفسية وفق نظرية البلخي، التي يمكننا أن نطلق عليها "نظرية الغم". يقول: "إن لنفس الإنسان صحة وسقما كما أن لبدنه صحة وسقما؛ فصحة نفسه أن تكون قواها ساكنة، ولا يهيج به شيء من الأعراض النفسانية ولا يغلب عليه كالغضب أو الفزع أو الجزع، وما نحن ذاكروه منها عند تعديدنا إياه؛ فيكون سكون النفس منها صحتها وسلامتها"[17] .

توصل البلخي إلى حقيقة تدرُّج الصحة النفسية، وأن الإنسان يمكن أن تظهر عليه أعراض نفسية وأن لا إنسان يخلو منها لأنه لا أحد ينجو من مربكات سكونه النفسي في الحياة الدنيا. واعتبر البلخي أن الناس يتباينون في مقدار اضطرابهم بتباين شدة وتواتر هذه الأعراض لديهم. وعزى ذلك إلى الفروق الفردية في قوة طبائعهم ومقدار الجلد الذي يتمتعون به. يقول: "فأما الأعراض النفسانية؛ فإن الإنسان مدفوع في أكثر أوقاته إلى ما يتأذى به منها إذ ليس يخلو في كافة أحواله من استشعار غم أو غضب أو حزن وما شابهها من الأعراض النفسانية؛ إلا أنه ليس قدرُ ما يصل منها إلى كل واحد من الناس قدرا واحدا، فإنهم مختلفون فيما يحصل إليهم من هذه الأعراض. وذلك أن كلا منهم إنما يأخذ منها بحسب مزاجه وأصل تركيبه في القوة والضعف؛ فمنهم من يُلقى سريع الغضب، ومنهم من يُلقى بطيء الغضب، وكذلك منهم من يشتد غضبه وجزعه من الشيء الهائل، ومنهم من يكون متجلدا رابط الجأش".[18]

ويشرح في موضع آخر هذه الفروق في سمات الشخصية وفي قوة الجلد: "والمعنى الآخر أن يعرف بنية نفسه، ومبلغ ما عندها من الاحتمال للأمور الملمة الواردة عليه؛ فإن لكل إنسان مقدارا من قوة القلب أو ضعفه، وسعة الصدر أو ضيقه. فمن الأنفس ما يوجد فيه محتمل للخطوب العظيمة حتى لا يقدحه شيء منها، ولا يضعف متنه، ومتسع لأشغال كثيرة مهمة حتى يتفرغ لكل منها ويقابله بما يخففه عنها من الحيل. ومنها ما يوجد فيه من الانخزال لكل ما يفجعه من الهموم حتى تدهشه وتحيره وتجعله وشيك انحلال القوة من كل ما يلم به من النوائب حتى تكربه، وتضيق عليه مذاهب التصرف والاحتيال، وحتى تؤديه إلى حالة تعقبه علة في البدن مضرة به"[19] .

وقد ميز البلخي بين نفسيات الطفل والمرأة والرجل، ومن ثم ضرورة التمييز بين علم النفس الطفل وعلم نفس المرأة وعلم نفس الرجل، كما شدد على مراعاة التمييز بين دراسة الشخصية الضعيفة والشخصية القوية: "وكذلك توجد أحكام النساء والصبيان. وأصحاب الطبائع الضعيفة مخالفة لأحكام الرجال الأقوياء الطبائع قدر ما يخلص منها إلى كل منهم؛ إلا أنه لا بد أن يأخذ كلٌّ بحظه منه، قلَّ ذلك فيه أو كثر منه، واشتد عليه أو ضعف"[20].

وحدد البلخي جملتان من العوامل تحدث المشكلات النفسية تحت تأثيرهما، وهما العوامل الداخلية (العقلية، بالخصوص) والعوامل الخارجية. يقول: "كذلك النفس إنما يحفظ صحتها عليها من وجهين: إحداهما أن تصان عن الأعراض الخارجة التي هي ورود ما يرد عليها من الأشياء التي يسمعها الإنسان أو يبصرها فتقلقه وتضجره، وتحرك منه قوة غضب، أو فزع، أو غم، أو خوف وما أشبه ذلك. والآخر أن تصان عن الأعراض الداخلة التي هي التفكير فيما يؤديه إلى شيء مما وصفنا من هذه الأعراض فيشغل قلبه وينقسم ضميره"[21].

واعتبر البلخي أن للإنسان القدرة على التخلص من مشكلاته النفسية بنفسه، غير أنه شدد على أن نجاعة علاجها من قبل معالج نفساني تكون أكبر وأعمق: "كذلك الحكم في الأعراض النفسانية من أن المعونة التي تلحقه من خارج بالعظة والتذكير يوجد أنجع وأعمل فيه، وأرد بالنفع والفائدة عليه لمعنيين: أحدهما أن الإنسان يقبل من غيره أكثر مما يقبل من نفسه؛ وذلك أن رأيه في كل الأحوال مغلوب بهواه وأحدهما ممتزج بالآخر. والثاني أن الإنسان في وقت اهتياج عارض من الأعراض النفسانية به مشغول بما يقاسيه من ذلك العارض، مقهور على عزمه ورأيه، مفتقر إلى من يلي عليه تدبير أمره، وإصلاح فساده. وحاله في ذلك شبيهة بحال الطبيب الذي يعتل علة جسدانية فيشتغل بها عن التطبيب لنفسه، ويفتقر إلى طبيب آخر يقوم بمداواته ومعالجته"[22].

ورغم تأكيده على حاجة الناس إلى المعالج النفسي في معالجة مشكلاتهم النفسية، إلا أن البلخي انتبه ونبه إلى أن نجاح العلاج النفسي واستمرار مفعوله يقع على عاتق المتعالج، بحيث يلعب الأخير دورا هاما مكملا لدور المعالج أو معالجا ذاتيا لنفسه، كتب البلخي: "على أن المعونة التي تلحق الإنسان من خارج في نفي الأعراض النفسانية، وإن كانت أرد وأنفع فإنه ليس يستغني مع ذلك عن معونة تلحقه من داخل بوصايا فكرية تتهيأ أن يقمع بها الأعراض النفسانية إذا هاجت؛ فيجمعها في نفسه في وقت صحتها، وسكون قواها، ويستودعها قوة الحفظ منها ليخطرها بباله، ويعظ بها نفسه إذا لم يحضره واعظ مذكر من خارج، كما يفعله المحتاط في الأعراض البدنية لنفسه بأن يتطلب أدوية تصلح للأمراض البدنية فيجمعها، ويستودعها خزائنه لكي إن عرض له عارض من الأمراض والأوجاع في وقت لا يحضره فيه طبيب يعالجه، تناولها لينتفع بها وينزع أذى العارض عن نفسه"[23].

أبو بكر الرازي الطبيب (250ه-311هـ):

وقد عرفت حقبة البلخي المباركة بروز علم آخر من أعلام الطب النفساني في العالم العربي خصوصا وفي تاريخ الطب عموما، وهو الطبيب أبي بكر محمد بن زكريا الرازي (250هـ -311هـ)، الذي ترأس مستشفى العلاجات النفسية. فقد عاصر الرازي سلفه البلخي الذي يكبره بخمس عشرة أعوام، غير أن الرازي توفي قبله. وقد برع الرازي في العلاج النفسي وألَّف فيه كتابه الشهير "الطب الروحاني". وإن كان البلخي أول من صنف كتابا في العلاج النفسي إلا أنه أطلق على العلاج تسمية "مصالح"، المشتقة من الإصلاح؛ فإن الرازي سبق إلى تصنيف كتاب تحت عنوان علاجي واضح "الطب"، وهذه قفزة عملاقة تنقل معالجة المشكلات النفسانية من دهاليز الشعوذة والكهنة إلى عيادات الطب والأطباء، وأسس لفرع جديد من فروع الطب خصصه لعلاج المشكلات النفسانية .

لقد عرف الرازي أن بعض الأمراض العضوية يمكنها أن تؤثر على النفس فتظهر الأمراض والمشكلات النفسية، وهو ما يعرف اليوم بالأمراض الجسدية النفسية. يقول الرازي – نقلا عن أبي نصر: "قد يُهَيِّج الطحال كم من مرة الماليخوليا وشهوة الغذاء المفرطة ..." [24]. وأشار في موضع آخر إلى مرض يدعى المراقية وصف من أعراضه أن "صاحبها يكون حزيناً آيسا من الخير ..." [25]. وذكر سبباً عضوياً للماليخوليا (الاكتئاب) مصدره الطحال، فقال: "إن الطحال إذا كانت فيه علل ودفع عن نفسه فضلاً ردياً فربما صبه إلى فم المعدة فأحدث الماليخوليا"، ويعلل ذلك بأن "الطحال إذا صب إلى فم المعدة فضلاً سوداوياً أورث كآبة والوسواس السوداوي، وربما يهيج الشهوة وربما لم تهج به. وأفسد الهضم في الحالين جميعاً من قوى النفس"[26].

كما عرف الرازي أن الأحوال النفسية الحادة -الحسنة منها والسيئة على حد سواء- قد تقود إلى بعض أمراض البدن، حيث يذكر في تشخيصه لأسباب وجع القلب: "... وإما بسبب الفرح الشديد فإنه يعرض هناك للروح تحلل، وإما بسبب الغم الشديد فإن القوة الحيوانية تنخنق وتنقبض عندها ..."[27]. وهكذا انتبه الرازي إلى أن الأحوال السارة أيضا قد تكون مصدراً للمشكلات العضوية، وهذا من دقة ملاحظاته وقوة استقراءه .

وقد كان الرازي يعتمد في علاجه على الجانب النفسي أشد الاعتماد برفع أمل وثقة المرضى في الشفاء ويبتعد عن تيئيسهم بذكر الحقيقة إن كانت محبطة لأنه كان يؤمن بأن النفس هي المتحكم في البدن، في صحته وسقمه. يقول الرازي: "ينبغي للطبيب أن يوهم المريض أبدا الصحة وإن كان غير واثق بها، فمزاج البدن تابع لأخلاق النفس"[28]. يذكر الرازي في علاجه لأحد الأطباء -أصيب بمرض في الكبد- أنه وضع يده على كبده وقال: "هاهنا تشتكي؟ فأقر بذلك. فأردت أن أقول له أن ترقوتك تنجذب إلى أسفل، ولكن لما كان هذا ليس يلزم أبدا وجع الكبد، بل إنما يلزم الأورام الحارة والصلبة إذا كانت عظيمة، لم أقل ذلك له مطلقاً. لكن قلت: ستجد ترقوتك تنجذب. فأقر بذلك أيضاً. فلذلك يجب أن تحسنوا استعمال السعادة إذا اتفقت لكم. ثم قلت للعليل: إنك تظن أن بك ذات الجنب، فتعجب من ذلك"[29]. هكذا سعى لأن يثبت حنكته وبراعته للمريض (الطبيب) ليشعره بدرايته بمرضه ويؤمله في شفائه .

وفي وصفه لمرض الماليخوليا (السوداوية، الاكتئاب) قدم أعراضها كالآتي: "في الماليخوليا يغلب على النفس بغتة الهم والفزع واليأس من الخير، ويعرض أضداد ذلك من سبب ضد ذلك"[30]. وقدم له سلسلة من العلاجات النفسية التي تعد اليوم علاجات إبداعية حديثة، منها العلاج بالعمل وملئ الفراغ والنشاطات النافعة والهوايات والعلاج بالأسفار والعلاج بالمحاليل الدوائية (الشراب) والعلاج باللعب والعلاج الفني بالغناء. يرشد الرازي المعالجين بأن: "لا علاج أبلغ في رفع الماليخوليا من الأشغال الاضطرارية التي فيها منافع أو مخافة عظيمة تملأ النفس وتشغلها جداً، والأسفار والنقلة، فإني رأيت الفراغ أعظم شيء توليده والفكر فيما مضى وكان يكون. وينبغي أن يعالج هذا الداء بالأشغال، فإن لم يتهيأ فبالصيد والشطرنج وشرب الشراب والغناء والمباراة فيه ونحو ذلك مما يجعل للنفس شغلاً عن الأفكار العميقة. لأن النفس إذا تفرغت تفكرت في الأشياء العميقة البعيدة. وإذا فكرت فيها فلم تقدر على بلوغ عللها حزنت واغتمت واتهمت عقلها. فإذا زاد وقوي فيها هذا العرض كان ماليخوليا. وقد برء غير واحد منهم بهدم وقع أو بغرق أو حرق أو خوف من سلطان؛ وكل هذا يدل على أن النفس إذا عرض لها بغتة أمر اضطراري شغلها عن العناية والفكر بغيره"[31].

وأعقب هذه العلاجات بذكر نوع آخر من العلاج يعد اليوم من الفتوحات العلاجية وهو العلاج العقلي (أي المعرفي) الذي خصصه لنوع من أنواع الماليخوليا شخصه على أنه اضطراب فكري فقال: "الماليخوليا قد يكون - والأخلاط جيدة ولا يُحتاج إلى دوائه - ويكون ذلك من فكرة في شيء ما يُدفع. وعلاج هذا النوع يكون بحل ذلك الفكر"[32].

أبو نصر الفارابي (259-339هـ) :

ورغم البراعة التي أبداها الأطباء السالف ذكرهم إلا أنهم لم يتقدموا بمنظومة نظرية نفسية تجمع معارفهم النفسية المكتسبة بالدراسة وبالممارسة، وتكون مرجعا لهم ولمن تبعهم من الأطباء والمعالجين والدارسين. وانتظر المسلمون ظهور المعلم الثاني للحضارة الإنسانية أبو نصر الفارابي (259-339هـ) ليقدم لنا نظرية نفسية متكاملة، مقتبسة من الفلسفة اليونانية مع محاولة التوفيق بينها وبين ثوابت الشرع الإسلامي وروح وفكر الحضارة الإسلامية. في وصفه لوحدة النفس يقول الفارابي: "فالقلب هو العضو الرئيسي الذي لا يرأسه من البدن عضو آخر. ويليه الدماغ، فإنه عضو ما رئيس، ورئاسته ليست أولية لكن رئاسة ثانوية، وذلك لأنه يُرأس بالقلب، ويَرأَس سائر الأعضاء. فإنه يخدم القلب في نفسه، وتخدمه سائر الأعضاء بحسب ما هو مقصود القلب بالطبع. وذلك مثل صاحب دار الإنسان فإنه يخدم الإنسان في نفسه وتخدمه سائر أهل داره بحسب ما هو مقصود الإنسان في الأمرين. كأنه يخلفه ويقوم مقامه وينوب عنه ويتبدل فيما ليس يمكن أن يبدله الرئيس. وهو المستولي على خدمة القلب في الشريف من أفعاله. من ذلك أن القلب ينبوع الحرارة الغريزية، فمنه تنبث في سائر الأعضاء ومنه تسترفد، وذلك بما ينبث فيها عنه من الروح الحيواني الغريزي في العروق الضوارب"[33]. في هذه الفقرة وما سبقها وتلاها من كلام مفصل عرض الفارابي تفسيره للطبع الإنساني ومصادر الأفعال والأخلاق الإنسانية، حيث بين أن النفس هي السيدة على البدن، وأن البدن كله في خدمتها. وقدم تفسيرات طبية للكيفية التي تحكم بها النفس خادمها البدن، مبرزاً أن الدماغ هو المكلف بالتحكم في البدن وفق أهداف النفس .

وعرض الفارابي الفروق النفسانية بين الذكور والإناث حيث أوضح أن الجنسين يشتركان في كل القوى النفسانية ما عدا قوة الذكورة وقوة الأنوثة فإنهما يتباينان فيها، بل ويتباينان حتى فيما هما مشتركان فيه من قوى. يقول: "وما يشتركان فيه من أعضاء فإنه في الذكر أسخن. وما كان منها فعله الحركة والتحريك فإنه في الذكر أقوى حركة وتحريكاً. والعوارض النفسانية فما كان منها مائلاً إلى القوة مثل الغضب والقسوة فإنها في الأنثى أضعف وفي الذكر أقوى. وما كان من العوارض مائلاً إلى الضعف مثل الرأفة والرحمة فإنه في الأنثى أقوى. على أنه لا يمتنع أن يكون في ذكورة الإنسان من توجد العوارض فيه شبيهة بما في الإناث، وفي الإناث من توجد فيه هذه شبيهة بما هو في الذكور. فبهذه تفترق الإناث والذكور في الإنسان"[34].

أبو علي بن سينا (370-428هـ) :

واشتهر بعده الشيخ الرئيس أبو علي الحسين بن سينا (370-428 هـ)، الذي تأثر بنهج الفارابي في أسلمة الفلسفة اليونانية، وواصل في تطوير نظرية الفارابي وإضفاء لمسته عليها وإضافة مساهماته الخاصة. وقد برع ابن سينا في العلاج النفسي موازاة مع براعته في الطب البدني، حيث اهتم بالأحوال النفسانية وأبرز دورها الحاسم في الصحة البدنية، كما اعتمد على تحسين هذه الأحوال في علاجه لمختلف الأمراض البدنية. وقدم مجموعات العلاجات الإبداعية كالمخالطة الاجتماعية الإيجابية والاستناد على القدوات الحسنة. يقول ابن سينا: "واعلم أن من المعالجات الجيدة الناجعة الاستعانة بما يقوي القوى النفسانية والحيوانية، كالفرح ولقاء ما يستأنس به وملازمة من يُسرُّ به. وربما نفعت ملازمة المحتشمين ومن يستحيا منهم فمَنَعَت المريض عن أشياء تضره، ومما يقارب هذا الصنف من المعالجات. والانتقال من بلد إلى بلد ومن هواء إلى هواء، والانتقال من هيئات إلى هيئات. وتكلُّف هيئات وحركات يستوي بها عضو ويصير بمزاج، مثلما يكلَّف الصبي الأحول من النظر الشديد إلى شيء يلوح له، ومثلما يكلَّف صاحب اللقوة في النظر إلى المرآة الضيقة، فإن ذلك أدعى له إلى تكليف تسوية وجهه وعينيه فربما عاد بالتكلُّف إلى الصلاح"[35] .

وتطرق ابن سينا إلى وصف بعض الأمراض العقلية، منها الذهان والهوس. وقد وضع للذهان ثلاث معايير تشخيصية: الذاكرة والتفكير والخيال؛ حيث يكون الخلل في أحدها أو في بعضها. يقول ابن سينا: "إن أصناف الضرر الواقعة في الأفعال الدماغية هي لسببين، وتتعرف من وجوه ثلاثة: (أ) فإنه إذا كان الحس من الإنسان سليما، وكان تخيل أشباح الأشياء في اليقظة والنوم سليما، ثم كانت الأشياء والأحوال التي رآها في يقظته أو نومه مما يمكن أن يعبر عنها وقد زالت عنه، وإذا سمعها أو شاهدها لم يبق عنده فذاك آفة في الذكر، وفي مؤخر الدماغ. (ب) فإن لم يكن في هذا آفة، ولكن كان يقول ما لا ينبغي أن يقال ويستحسن ما لا ينبغي أن يستحسن ويرجو ما لا يجب أن يرجى ويطلب ما لا يجب أن يطلب ويصنع ما لا يجب أن يصنع ويحذر ما لا ينبغي أن يحذر، وكان لا يستطيع أن يروي ما يروى فيه من الأشياء، فالآفة في الفكرة، وفي الجزء الأوسط من الدماغ. (ج) فإن كان ذكره وكلامه

كما كان ولم يكن يُحدث فيما يفعله ويقوله شيئاً خلاف السديد، وكان يخيل له أشياء محسوسة ويلتقط الزئبر ويرى أشخاصاً كاذبة ونيراناً ومياهاً أو غير ذلك كاذبة، أو كان ضعيف التخيل لأشباح الأشياء في النوم واليقظة، فالآفة في الخيال، وفي البطن المقدم من الدماغ"[36].

وفي عرضه للماليخوليا وصف ابن سينا نشأة وتطور أعراض هذا الاضطراب بدقة وتفصيل حاذقين، حيث اعتبر مبدأه من فكرة. كما قدم بعض نماذج الوسواس القهري التي صارت معروفة في عصرنا الحالي. يقول: "علامة ابتداء الماليخوليا ظن رديء وخوف بلا سبب وسرعة غضب وحب التخلي، واختلاج و دوار و دوي، وخصوصاً في المراق؛ فإذا استحكم فالتفزع وسوء الظن والغم والوحشة والكرب وهذيان كلام، وشبق لكثرة الريح، وأصناف من الخوف مما لا يكون أو يكون، وأكثر خوفه مما لا يخاف في العادة، وتكون هذه الأصناف غير محدودة: بعضهم يخاف سقوط السماء عليه، وبعضهم يخاف ابتلاع الأرض اياه، وبعضهم يخاف الجن، وبعضهم يخاف السلطان، وبعضهم يخاف اللصوص، وبعضهم يتقي أن لا يدخل عليه سبع"[37].

وفي معرض وصفه لتطور هذه الأعراض، أشار ابن سينا إشارة عبقرية إلى أصل كل هذه الأعراض حيث افترض أن " قد يكون للأمور الماضية في ذلك تأثير"[38]. هنا انتبه ونبه ابن سينا إلى أن هذه الأعراض ليست وليدة الحاضر، بل هي مرتبطة بماضي الشخص المصاب. غير أنه لم يبين طبيعة هذه الأمور الماضية أو كيفية تأثيرها، واكتفى بالتنبيه على ما انتبه إليه .

وبعد تلك الإشارة اللطيفة ينتقل ابن سينا إلى وصف الأعراض الخيالية: "ومع ذلك فقد يتخيلون أموراً بين أعينهم ليست (حقيقة)، وربما تخيلوا أنفسهم أنهم صاروا ملوكاً، أو سباعاً، أو شياطيناً، أو طيوراً، أو آلات صناعية. ثم منهم من يضحك - خاصة الذي ماليخوليا دموي - لأنه يتخيل ما يلذه ويسره. ومنهم من يبكي، خاصة الذي ماليخوليا سوداوي محض. ومنهم من يحب الموت، ومنهم من يبغضه"[39].

وميز ابن سينا بين أعراض الماليخوليا الدماغية الماليخوليا الجسدية، في كون أعراض الماليخوليا الدماغية تخص اختلالات في العمليات العقلية ترافقها آثار جسدية واختلالات سلوكية: "وعلامة ما كان خاصاً بالدماغ: إفراط في الفكرة ودوام الوسواس ونظر دائم إلى الشيء الواحد، وإلى الأرض. ويدل عليه لون الرأس والوجه والعين، وسواد شعر الرأس وكثافته، وتقدم سهر وفكر، وتعرض للشمس وما أشبهه، وأمراض دماغية سبقت ... وأن تكون الأعراض عظيمة جداً"[40].

وقدم ابن سينا عرضاً مستقلاً لإحدى المشكلات النفسية التي اصطلح عليها "القطرب". والقطرب هي ذبابة لا تفتر عن الحركة بعشوائية ليلاً، وهي تضيء بالليل كأنها شعلة. وقد اتخذ هذا الاضطراب اسم هذه الحشرة نسبة إلى العرض الأساسي فيه وهو الحركة العشوائية ليلاً. يقول عنه ابن سينا: "هو نوع من المالينخوليا. أكثر ما يعرض في شهر شباط. ويجعل الإنسان فرَّاراً من الناس الأحياء محباً لمجاورة الموتى والمقابر. مع سوء قصد لمن يغافله (يباغته بإساءة). ويكون بروز صاحبه ليلاً واختفاؤه وتواريه نهاراً، كل ذلك حباً للخلوة وبعداً عن الناس. ومع ذلك فلا يسكن في موضع واحد أكثر من ساعة واحدة. بل لا يزال يتردد ويمشي مشياً مختلفاً لا يدري أين يتوجه. مع حذر من الناس، وربما لم يحذر بعضَهم غفلةً منه وقلة تفطُّنٍ لما يرى ويشاهد. ومع ذلك فإنه يكون في غاية السكون والعبوس والتأسف والحزن..."[41].

وشخص ابن سينا العشق كمرض وسواسي شبيه بالاكتئاب، وشرح نشؤه بكون "الإنسان جلبه لنفسه بتسليط فكرته على استحسان بعض الصور والشمائل التي له، ثم أعانته على ذلك شهوته أو لم تعن ..." [42]. ويقدم ابن سينا طريقة خاصة لتشخيص مرض العشق تعتمد على قياس النبض، ويصفها قائلا: "والحيلة في ذلك أن يذكر أسماء كثيرة وتعاد مراراً، وتكون اليد على نبضه، فإذا اختلف بذلك اختلافاً عظيماً وصار شبه المنقطع، ثم عاود، وجربت ذلك مراراً، علمت أنه اسم المعشوق. ثم يذكر كذلك السكك والمساكن والحرف والصناعات والنسب والبلدان، وتضيف كلا منها إلى اسم المعشوق، ويحفظ النبض حتى إذا كان يتغير عند ذكر شيء واحد مراراً، جمعت من ذلك خواص معشوقه من الاسم والحيلة والحرفة وعرفته"[43]. هكذا استخدم ابن سينا ما صار يسمى حديثاً باختبار "تداعي الكلمات" في تشخيص مرض العشق، وتنسب هذه الطريقة المبتكرة إلى الطبيب اليوناني جالينوس .

وتوصل ابن سينا بخبرته إلى أن علاج هذا الداء يكون بالجمع بين المريض ومعشوقه وفق أحكام الشريعة، أي العلاج بالزواج: "فإنا قد جربنا هذا واستخرجنا به ما كان في الوقوف عليه منفعة. ثم إن لم تجد إلا تدبير الجمع بينهما على وجه يحله الدين والشريعة فعلت. وقد رأينا من عاودته السلامة والقوة وعاد إلى لحمه، وكان قد بلغ الذبول وجاوزه وقاسى الأمراض الصعبة المزمنة والحُمَّيات الطويلة بسبب ضعف القوة لشدة العشق، لما أحس بوصل من معشوقه بعد مطل، معاودةً في أقصر مدة قضينا به العجب"[44].

الإمام ابن حزم الظاهري (384-456هـ) :

بعد ابن سينا ظهرت في الأندلس مساهمة عظيمة جاءت خلافاً للسابقين على يد الإمام الفقيه رائد المذهب الظاهري أبو محمد بن علي بن حزم (384-456هـ). تمثلت هذه المساهمة في كتيبه الموسوم بـ "رسالة في مداواة النفوس وتهذيب الأخلاق والزهد في الرذائل" والمشهور بكتاب "الأخلاق والسير". يعرف ابن حزم بنظريته في مطلع رسالته حيث يلخصها بقوله: "تطلبتُ غرضاً استوى الناس كلهم في استحسانه وفي طلبه، فلم أجده إلا واحداً وهو: طرد الهم. فلما تدبرته علمت أن الناس كلهم لم يستووا في استحسانه فقط ولا في طلبه فقط، ولكن رأيتهم -على اختلاف أهوائهم ومطالبهم وتباين هممهم وإرادتهم- لا يتحركون حركة أصلاً إلا فيما يرجون به طرده، ولا ينطقون بكلمة أصلاً إلا فيما يعانون به إزاحته عن أنفسهم. فمن مخطئ وجه سبيله، ومن مقارب للخطأ، ومن مصيب، وهو الأقل من الناس في الأقل من أموره. (والله أعلم). فطرد الهم مذهب قد اتفقت الأمم كلها مذ خلق الله تعالى العالم إلى أن يتناهى عالم الابتداء ويعاقبه عالم الحساب. على أن يعتمدوا بسعيهم شيئا سواه. وكل غرض غيره ففي الناس من لا يستحسنه ... وليس في العالم - مذ كان إلى أن يتناهى - أحد يستحسن الهم ولا يريد طرده عن نفسه"[45].

في هذه الفقرة الموجزة لخص ابن حزم نظرية كاملة في علم النفس. حيث آمن أن الدافع الأساسي المحرك للحياة النفسانية هو "طرد الهم". وهذه النظرية قريبة مما ظهر بعد قرون طويلة في علم النفس الحديث في نظرية صدمة الولادة لأوطو رانك، والذي يرى أن القلق هو أصل الحياة النفسانية وأن التخلص من القلق هو الدافع الرئيس للحياة لدى كل إنسان. كما نجد نفس هذه النظرة جزئياً في التحليل النفسي لسيغموند فرويد، الذي يرى أن الأعراض المرضية هي تسوية لتخفيض القلق الناتج عن الصراع الطفولي اللاواعي .

اعتبر ابن حزم أن هذا الدافع هو محرك كل البشر بدون استثناء. كما شدد على أن كل ما يصدر عن الإنسان من أقوال وأفعال إنما هي كلها تسعى وتعبر عن مسعى طرد الهم. وذهب ابن حزم أبعد من التعميم على الفرد وعلى مجتمع بعينه، بل جعل طرد الهم الدافع الرئيس لكل الناس والمجتمعات منذ خلق الله الجنس البشري إلى أن يفنيه. وأكد من جهة أخرى أن كل الدوافع الأخرى المتعارف عليها هي دوافع جزئية أو محدودة لا تصدق على كل البشر، خلافاً لدافع طرد الهم الذي يتحكم في كل البشر.

ويفسر ابن حزم كيف أن طرد الهم هو أصل كل ما يصدر عن الإنسان من فعل وقول وانفعال وفكر، أي أنه الدافع الأولي الرئيس للحياة النفسانية وكل الدوافع غيره إنما هي ثانوية من دونه وتحت خدمته، يقول: "فإنما طلب الصيت من طلبه ليطرد به عن نفسه هم الاستعلاء عليها. وإنما طلب اللذات من طلبها ليطرد بها عن نفسه هم فوتها. وإنما طلب العلم من طلبه ليطرد به

(عن نفسه) هم الجهل. وإنما هش إلى سماع الأخبار ومحادثة الناس من يطلب ذلك ليطرد بها عن نفسه هم التوحد ومغيب أحوال العالم عنه. وإنما أكل من أكل، وشرب من شرب، ونكح من نكح، ولبس من لبس، ولعب من لعب، واكتنز من اكتنز، وركب من ركب، ومشى من مشى، وتودَّع من تودَّع، ليطردوا عن أنفسهم هم أضداد هذه الأفعال وسائر الهموم ... فاعلم أنه مطلوب واحد وهو طرد الهم. وليس له إلا طريق واحد وهو العمل لله تعالى، فما عدا هذا فضلال وسخف"[46] .

كما ذاع صيت ابن حزم بدراسته المستفيضة لموضوع "الحب" في رسالته الشهيرة "طوق الحمامة". وقد عرج على الموضوع باختصار في "رسالة مداواة النفوس" حيث قسم الحب حسب شدته إلى خمس درجات، وجعل أشدها هو "الشغف"، وهو حب مرضي كان قد تطرق إليه ابن سينا كما أسلفنا عرضه. غير أن ابن حزم بين أن الدرجات الأربع الأولى تدور في فلك السواء، ولم يعتبر المرض إلا في الدرجة القصوى، وهذا تصنيف بديع يعتمد على تحديد اللاسواء من خلال الإفراط في السلوك أو الانفعال أو الفكر، حيث آمن ابن حزم بما سماه "كرية السلوك"، حيث يعتبر اللاسواء هو الوسط والاعتدال، بينما اللاسواء هو طرفا شدة السلوك أي التفريط والإفراط. وهذا ما يسمى في عصرنا هذا بمنحنى غوص. يقول ابن حزم في الحب: "درج المحبة خمس: (1) أولها الاستحسان، وهو أن يتمثل الناظر صورة المنظور إليه حسنة أو يستحسن أخلاقه، وهذا يدخل في باب التصادق. (2) ثم الإعجاب، وهو رغبة الناظر في المنظور إليه وقربه. (3) ثم الألفة، وهي الوحشة إليه متى غاب. (4) ثم الكلف، وهو غلبة شغل البال، وهذا النوع يسمى في باب الغزل بالعشق. (5) ثم الشغف، وهو امتناع النوم والأكل والشرب إلا اليسير من ذلك، وربما أدى ذلك إلى المرض أو إلى التوسوس أو إلى الموت، وليس وراء ذلك منزلة في تناهي المحبة أصلا"[47].

أبو البركات البغدادي (480-560هـ) :

واشتهر أبو البركات بن ملكا البغدادي (480-560هـ) الملقب بأوحد الزمان، بنظريته النفسية المستقلة تماما عن الفلسفة اليونانية، خلافا لمن تقدمه من الأطباء الفلاسفة مثل الرازي وابن سينا. وقد برع أوحد الزمان في العلاج النفسي وأبدع فيه. عرفه ابن أبي أصيبعة في كتابه "عيون الأنباء في طبقات الأطباء"، وذكر له تقنية علاجه لأحد المرضى النفسيين فروى: "أن مريضاً ببغداد كان عرض له علة الماليخوليا. وكان يعتقد أن على رأسه دنا، وأنه لا يفارقه أبداً، فكان كلما مشى يتحايد المواضع التي سقوفها قصيرة ويمشي برفق، ولا يترك أحداً يدنو منه حتى لا يميل الدن أو يقع عن رأسه. وبقي بهذا المرض مدة وهو في شدة منه. وعالجه جماعة من الأطباء، ولم يحصل بمعالجتهم تأثير ينتفع به. إلى أن عُرض على ابن ملكا، ففكر في أنه ما بقى شيء يمكن أن يبرأ به إلا بالأمور الوهمية. فقال لأهله: إذا كنت في الدار فأتوني به. وأمر أحد غلمانه بأن ذلك المريض إذا دخل عليه وشرع في الكلام معه، وأشار إلى الغلام بعلامة بينهما، أن يسارع بخشبة كبيرة فيضرب بها فوق رأس المريض على بعد منه كأنه يريد أن يكسر الدن الذي فوق رأسه. وأوصى غلاماً آخر، وكان قد أعد معه دنا في أعلى سطح المنزل، أنه متى رأى الغلام الأول قد ضرب فوق رأس صاحب الماليخوليا، أن يرمي الدن الذي عنده بسرعة إلى الأرض. وجلس ابن ملكا في داره وأتاه المريض وشرع في الكلام معه وحادثه. وأنكر عليه حمله للدن، وأشار إلى الغلام الأول بالعلامة التي بينهما، وحدث المريض قائلاً: والله لا بد أن أكسر هذا الدن وأريحك منه. وأدار الغلام الخشبة التي معه وضرب بها فوق رأس المريض بنحو ذراع، ورمى الغلام الآخر الدن من أعلى السطح، فكانت له جلبة عظيمة، وتكسر قطعاً كثيرة. فلما عاين المريض ما فُعل به ورأى الدن منكسراً، تأوه لكسرهم إياه، ولم يشك أنه الذي كان على رأسه، وأثر فيه الوهم أثراً برىء من علته تلك". وأشار ابن أبي أصيبعة إلى أن هذه الطريقة المرتكزة على علاج الأوهام موجودة منذ عهد جالينوس: "وهذا باب عظيم في المداواة، وقد جرى أمثال ذلك لجماعة من الأطباء المتقدمين مثل جالينوس وغيره في مداواة الأمور الوهمية"[48].

سكرة الحلبي (قرن 6 هـ) :

وكان سكرة الحلبي (قرن 6 هـ) طبيباً بارعاً، حاذقاً بأغوار النفس بارعاً في علاجها. وصفه ابن أبي أصيبعة بأنه "كان له دربة بالعلاج وتصرف في المداواة". وذكر له طريقة متميزة عالج بها إحدى الجواري بعدما عجز نفر من الأطباء أمامها، وذلك أن سكرة الحلبي عرف أنها تعاني أعراض إدمان الخمر وتغير مباغت في العادات. وقد استعمل معها فحصاً نفسانياً ماهراً، حيث طلب مقابلتها على انفراد، وطالبها بمصارحته بكل ما يسألها عنه، وذلك بعدما شجعها وكسب ثقتها من خلال تأميلها في العلاج بأسرع وقت .

يروي صاحب عيون الأنباء أنه: "... استأذن الخادم في الحضور إليها وحده فأذنت له. فقال: يا ست أنا أعالجك بعلاج تبرئي به في أسرع وقت إن شاء الله تعالى، وما تحتاجي معه إلى شيء آخر. فقالت: افعل. فقال: أشتهي إن مهما سألتك عنه تخبريني به ولا تخفيني. قالت: نعم. فأخذ منها أماناً. فقال: تعرفيني ما جنسك؟ فقالت: علَّانية. فقال: العلان في بلادهم نصارى. عرفيني أيش كان أكثر أكلك في بلدك؟ قالت: لحم البقر. فقال: يا ستي وما كنت تشربين من النبيذ الذي عندهم؟ فقالت: كذا كان. فقال: أبشري بالعافية. وراح إلى بيته، واشترى عجلاً وطبخ منه. وجاب معه في زبدية منه قطع لحم مسلوق، وقد جعلها في لبن وثوم وفوقها رغيف خبز، فأحضره بين يديها وقال: كلي. فمالت نفسها إليه، فصارت تجعل اللحم واللبن والثوم وتأكل حتى شبعت. ثم بعد ذلك أخرج من كمه برنية صغيرة وقال: يا ستي هذا شراب ينفعك فتناوليه، فشربته. وطلبت النوم وغطيت بقرجة فرو سنجاب، فعرقت عرقاً كثيراً وأصبحت في عافية. وصار يجيب لها من ذلك الغذاء والشراب يومين آخرين فتكاملت عافيتها ..." [49].

رشيد الدين أبو حليقة (591-660هـ) :

ومن بزغ في مجال الطب رشيد الدين أبو حليقة (591-660هـ). كان طبيباً حاذقاً في صنعته، وكانت له دراية بالعلاج النفسي وتطبيقاته. ومن فحوصاته الشهيرة تشخيصه حالة العشق المرضي لدى شاب أحضرته أمه بعدما عجز عن فهم مرضه الأطباء ونفدت الحيل. روى ابن أبي أصيبعة أن أبا حليقة فحص الشاب في صبيحة باردة الجو و"... بينما هو يجس نبضه، قال لغلامه: ادخل ناولني الفرجية (وهي لباس) حتى أجعلها علي، فتغير نبض ذلك الشاب تغيراً كثيراً واختلف وزنه وتغير لونه أيضاً، فحدس أن يكون عاشقا. ثم جس نبضه بعد ذلك فتساكن. وعندما خرج الغلام إليه وقال: هذه الفرجية، جس نبضه فوجده أيضا قد تغير. فقال لوالدته أن ابنك هذا عاشق والتي يهواها اسمها فرجية. فقالت إي والله يا مولاي هو يحب واحدة اسمها فرجية، وقد عجزت مما أعذله فيها. وتعجبت من قوله لها غاية التعجب، ومن اطلاعه على اسم المرأة من غير معرفة متقدمة له بذلك"[50]. فقد كان أبو حليقة يهتم ويدقق في سبب تغير النبض وربطه بكلمة الفرجية، ثم استنتج أن الفرجية اسم فتاة يعشقها الشاب، وكان استنباطه صحيحاً. حيث آمن أبو حليقة - مثل الأطباء العرب والمسلمين - بأن النبض يتبع أحوال النفس في الاعتدال والاضطراب، وكان يسعى لربطه بمتغيرات نفسية يستقيها أو يستنبطها من ملاحظاته على المريض ومن خبراته مع المرضى ثم يتحقق من صحة تفسيره بالسؤال من المريض أو محيطه. وهذا صميم الممارسة العلاجية النفسية الحديثة.

خاتمة

كان للعلماء العرب والمسلمين مساهمات جبارة في علم النفس والعلاج النفسي، قيدتها العديد من أعمالهم وكتب التراجم والسير التي وصلتنا، بينما ضاعت الكثير من الكنوز المعرفية التي بلغنا ذكر بعض عناوينها ولم يوجد متنها، وأخرى كثير لم نعلم بوجودها وضاعت كلياً. ولقد عرضنا في هذا المقال زمرة من مساهمات العلماء العرب والمسلمين على سبيل المثال والذكر، بينما أجلنا ذكر الكثير من نوابغ الفكر النفسي العربي الإسلامي إلى أعمال أخرى، من أمثال شيوخ الصوفية من الحارث بن أسد المحاسبي وأبي حامد الغزالي إلى ابن عربي، وأعلام الفلسفة الإسلامية من الكندي إلى ابن عليوة.

عموماً، انتشرت البيمارستانات والمشافي النفسية في بلاد المسلمين ابتداء من القرن الثالث للهجرة. وقد أبدع المسلمون في توفير العديد من العوامل العلاجية النفسية المبتكرة، منها بناء المشافي بالقرب من المساجد ليستأنس المرضى وتطمئن قلوبهم بصوت الآذان والصلوات وسماع تراتيل القرآن ليلاً وفجراً، خاصة من يقاسون الأرق والسهد. كما انتبه الأطباء إلى مفعول صوت خرير المياه في تهدئة النفوس واسترخاءها، فجعلوا نوافير وبحيرات داخل المشافي ليطرب المرضى على أنغام خرير مياهها. إضافة إلى الحرص على جعل بعض المشافي في الطبيعة والأماكن ذات الهواء العليل، لما للهواء من دور في توفير الراحة والسكينة النفسية. وكانت بعض المشافي تتوسطها قاعة خاصة مفتوحة جعلت للفرق الموسيقية التي تعزف للمرضى ما يطربهم من بديع الألحان لتخفف عنهم الأشجان والأحزان والآلام.

موازاة مع النهضة العلمية التي عرفها المشرق الإسلامي، ازدهرت العلوم الطبية والنفسية في بلاد المغرب والأندلس بعد ابن عمران، على يد الأطباء الفلاسفة مثل ابن الطفيل وابن باجة وابن رشد وشيوخ الصوفية مثل ابن عربي وأبي مدين شعيب وابن عليوة. وقد أخذ الأوربيون عن علماء الأندلس والمغرب العربي مختلف العلوم المزدهرة في عصرهم ونقلوها إلى بلدانهم وترجموها إلى لغاتهم. وكانت قاعدة أسسوا عليها العلوم الحديثة، منها العلوم النفسية بكل فروعها.

المراجع

1. ابن أبي أصيبعة. عيون الأنباء في طبقات الأطباء. شرح وتحقيق نزار رضا. دار مكتبة الحياة. بيروت. 162-166
2. ابن فضل الله العمري. مسالك الأبصار في ممالك الأمصار. جزء 9. دار الكتب العلمية. بيروت: 214.
3. ابن فضل الله العمري. مسالك الأبصار في ممالك الأمصار. جزء 9. دار الكتب العلمية. بيروت: 214.
4. ابن فضل الله العمري. مسالك الأبصار في ممالك الأمصار. جزء 9. دار الكتب العلمية. بيروت: 217.
5. حنين بن إسحق العبادي. المسائل في الطب. تحقيق ودراسة محمد علي أبو ريان ومرسي محمد عرب وجلال محمد موسى. دار الجامعات المصرية. الإسكندرية. 1978: 251-252.
6. حنين بن إسحق العبادي. المسائل في الطب: 300.
7. حنين بن إسحق العبادي. المسائل في الطب: 303.
8. إسحاق بن عمران. مقالة في الماليخوليا. تحقيق عادل العمراني والراضي الجازي. المجمع التونسي للعلوم والآداب والفنون "بيت الحكمة". تونس. 2009: 49.
9. إسحاق بن عمران. مقالة في الماليخوليا. تحقيق عادل العمراني والراضي الجازي. المجمع التونسي للعلوم والآداب والفنون "بيت الحكمة". تونس. 2009: 49.
10. إسحاق بن عمران. مقالة في الماليخوليا. تحقيق عادل العمراني والراضي الجازي. المجمع التونسي للعلوم والآداب والفنون "بيت الحكمة". تونس. 2009: 50.
11. إسحاق بن عمران. مقالة في الماليخوليا. تحقيق عادل العمراني والراضي الجازي. المجمع التونسي للعلوم والآداب والفنون "بيت الحكمة". تونس. 2009: 50.
12. إسحاق بن عمران. مقالة في الماليخوليا: 60-61.
13. البلخي، أبو زيد. مصالح الأبدان والأنفس. تقديم ودراسة مالك بدري ومصطفى عشوي. مركز الملك فيصل للبحوث والدراسات الإسلامية. الرياض. 2004: 115.
14. البلخي، أبو زيد. مصالح الأبدان والأنفس. تقديم ودراسة مالك بدري ومصطفى عشوي. مركز الملك فيصل للبحوث والدراسات الإسلامية. الرياض. 2004: 116.
15. البلخي، أبو زيد. مصالح الأبدان والأنفس: 124.
16. البلخي، أبو زيد. مصالح الأبدان والأنفس: 128.
17. البلخي، أبو زيد. مصالح الأبدان والأنفس: 118.
18. البلخي، أبو زيد. مصالح الأبدان والأنفس: 115.
19. البلخي، أبو زيد. مصالح الأبدان والأنفس: 120.
20. البلخي، أبو زيد. مصالح الأبدان والأنفس: 115.
21. البلخي، أبو زيد. مصالح الأبدان والأنفس: 119.
22. البلخي، أبو زيد. مصالح الأبدان والأنفس: 123.
23. البلخي، أبو زيد. مصالح الأبدان والأنفس: 124.
24. أبو بكر الرازي. الحاوي في الطب-ج7. مراجعة وتصحيح محمد محمد إسماعيل. دار الكتب العلمية. بيروت. 2000: 186.
25. أبو بكر الرازي. الحاوي في الطب-ج1: 40.
26. أبو بكر الرازي. الحاوي في الطب-ج1: 41.
27. أبو بكر الرازي. الحاوي في الطب-ج7: 28.
28. ابن فضل الله العمري. مسالك الأبصار في ممالك الأمصار. ج9: 217.
29. أبو بكر الرازي. الحاوي في الطب-ج7: 34.
30. أبو بكر الرازي. الحاوي في الطب-ج1: 41.
31. الرازي، أبو بكر. الحاوي في الطب-ج2: 42.
32. الرازي، أبو بكر. الحاوي في الطب-ج2: 42.
33. الفارابي أبو نصر. المدينة الفاضلة. المؤسسة الوطنية للفنون المطبعية. الرغاية. الجزائر. 1990: 65-66.
34. الفارابي أبو نصر. المدينة الفاضلة: 73.
35. ابن سينا، أبو علي الحسين. القانون في الطب-ج1. وضع حواشيه محمد أمين الضناوي. دار الكتب العلمية. بيروت. 1999: 271.
36. ابن سينا، أبو علي الحسين. القانون في الطب-ج2: 96.
37. ابن سينا، أبو علي الحسين. القانون في الطب-ج2: 106.
38. ابن سينا، أبو علي الحسين. القانون في الطب-ج2: 106.
39. ابن سينا، أبو علي الحسين. القانون في الطب-ج2: 106.
40. ابن سينا، أبو علي الحسين. القانون في الطب-ج2: 106.
41. ابن سينا، أبو علي الحسين. القانون في الطب-ج2: 111.
42. ابن سينا، أبو علي الحسين. القانون في الطب-ج2: 112.

43. ابن سينا، أبو علي الحسين. القانون في الطب-ج2: 112.
44. ابن سينا، أبو علي الحسين. القانون في الطب-ج2: 112.
45. ابن حزم. الأخلاق والسير. المؤسسة الوطنية للفنون المطبعية. الرغاية. الجزائر. 1988: 76-78.
46. ابن حزم. الأخلاق والسير. المؤسسة الوطنية للفنون المطبعية. الرغاية. الجزائر. 1988: 78-80.
47. ابن حزم. الأخلاق والسير: 136.
48. ابن أبي أصيبعة. عيون الأنباء في طبقات الأطباء: 374-375.
49. ابن أبي أصيبعة. عيون الأنباء في طبقات الأطباء: 590.
50. ابن أبي أصيبعة. عيون الأنباء في طبقات الأطباء: 595.

Abstract

In tracing the history of sciences, writers and historians usually jump from the Greco-Roman civilization to the European Renaissance directly, overlooking a golden era in which science flourished and reached miraculous levels of sophistication, prosperity, innovation, invention, and creativity in various fields. This is what the thinker Malik bin Nabi called the cognitive hole. In the current article, we will try to fill a part of this gap by presenting some contributions of the Arab-Islamic civilization to psychology and psychotherapy, through a constellation of Arab and Muslim scholars, and highlighting fragments of their works which were giant leaps in scientific psychological thinking and psychotherapy practice. We cannot deny it its right in a few pages; we will expose some examples of scholars who have emerged and excelled in the field of psychotherapy, especially those great scientists who did not gain their worthy recognition and merit, such as Is'haq bin Imran, Abu Zaid al-Balkhi, and Abu al-Barakat al-Baghdadi. We also do not miss mentioning the well-known physicians such as Al-Farabi, Al-Razi, Ibn Sina, and others.

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نصائح بخصوص تعامل الأهل مع الأطفال بعد التعرض للزلزال

أديب العسالي

يشعر الأهل بالقلق والعجز والضياع بخصوص تدبير ما يظهر على أولادهم من علامات التوتر عقب الزلزال والهزات الارتدادية وما يطرحونه من أسئلة، وفيما يلي بعض النصائح التي قد تفيد في التعامل مع هؤلاء الأطفال.

يجب أولاً التنبيه إلى أن بعض الأطفال أقل تأثراً من غيرهم بالزلازل وغيرها من الحوادث، لذلك فإنه من الطبيعي ألا تظهر على بعض الأطفال علامات الانزعاج أو تغير السلوك المذكورة أدناه. ولكن يجب أيضاً تنبيه الأهل إلى أنه من الطبيعي أن يشعر الأطفال بالرعب عند حدوث زلزال والهزات الارتدادية. كما يجب طمأنتهم الى ان معظم الأطفال سيتغلبون على هذه المشاعر السلبية عندما تتوقف الهزات الارتدادية.

فقد يبدو الطفل أثناء التعرض للزلزال وللهزات الارتدادية مفرط الخوف والرعب فيصرح بأنه خائف أو يبدي علامات الخوف مثل فرط التنبه للهزات الارتدادية، ورفض البقاء في المنزل، أو بالعكس الخوف من الخروج من المنزل.

قد يصرح الطفل بأنه مرعوب من إمكانية تكرر الهزات الارتدادية، أو يلاحظ عليه توتر غير معتاد بعد حدوثها، وقد يصرح بأنه خائف من أن يصاب هو أو بعض أفراد اسرته بالأذى من الهزات الارتدادية.

كما قد يصبح الطفل مفرط التعلق بأهله، وقد تتراجع استقلاليته ويظهر عليه المزيد من القلق عند الانفصال عن الوالدين أو عن بقية أفراد الأسرة.

قد يبدو الطفل حزيناً مع ميل للبكاء، وقد يعاني كوابيس ذات صلة بالزلزال، وقد يزداد خوفه من الظلام أو من الذهاب الى فراشه وحيداً، وقد يعود للتبول أو التغوط أثناء النوم، وقد يصير مفرط النزق أو العناد أو المشاغبة، وقد يبدو ضعيف التركيز أو ضائعاً فيستفسر مثلاً عن أشياء كان يعرفها سابقاً.

من الضروري أن لا يستنفر الأهل إذا بدت على أطفالهم بعض هذه العلامات، فهي ارتكاس طبيعي لأطفال يمرون بكارثة ضخمة، وهو ارتكاس ستخف شدته مع مرور الوقت.

من الضروري أيضاً تذكير الأهل بأنه يمكنهم عمل الكثير للمساعدة، فلهم أقوى تأثير على أطفالهم، ولا يلزم في معظم الحالات أكثر من موقف والدي دافئ يدعم الطفل المرعوب ويخفف انفعالاته. وقد تستخدم طرق أثبتت البحوث العلمية فائدتها وفيما يلي بعضها:

ينصح أولاً بطمأنة الطفل عندما يبدو منزعجاً وأثناء الهزات الارتدادية، وبإفساح المجال له لكي يعبر عن مشاعره ويصف ما يعانيه، ومن ثم مشاركته بوضع خطة للتصرف في "المرة القادمة" ومدح شجاعته وصحة تصرفه.

وقد تستخدم في هذا المجال لعبة هدفها تعليم الأطفال التعامل مع الحوادث الطارئة ومساعدتهم على الفهم والتخطيط وتنفيس التوتر، وهي لعبة مصممة على مبدأ الكراسي الموسيقية مع اعتبار أن الموسيقى هي الزلزال وعلى الطفل عند سماع الموسيقى اللجوء الى مكان آمن (تحت طاولة أو في الممر) وممارسة التنفس بعمق للتغلب على الشعور بالرعب، مع ترديد أن "الهزة ستنتهي". كذلك يصدر الطفل أمراً "بأن يعود الزلزال للنوم"، ثم "ينفض" عن نفسه الزلزال.

من المفيد إعطاء الطفل معلومات يمكنه فهمها، مثلاً: "تحركت الصخور تحت الأرض الى مكان جديد ويحتاج استقرارها لبعض الوقت، ولكننا صامدون"، وتقدم الحقائق مع توضيح أن بعض الأبنية قد تأذت، ولكن حافظت معظم الأبنية على سلامتها، ويقوم المهندسون وعمال البناء والتمديدات الصحية بفحص الأبنية المتضررة التي يمكن إصلاحها.

سيلاحظ الأطفال أن الوالدين وبقية الأهل قلقين ومزعوجين، ومن المفيد الإقرار بذلك، فمن المهم أن يرى الطفل حوله ناس متأقلمين ومتفائلين يؤكدون أن هذا الوقت العصيب سينتهي وأن الطفل آمن ومدعوم من قبل أهله وغيرهم من الراشدين .

يخفف الأهل كربهم النفسي بمناقشة قلقهم ومخاوفهم مع الآخرين، وقد يسمع الطفل هذه المخاوف، لذلك يجب على الأهل التأكد من أنه يفهم ما يسمع عن طريق إعطائه شرحاً متزناً لأحاديثهم. وكذلك الأمر بالنسبة للأخبار والتقارير الإعلامية التي يجب أن يشاهدها الطفل برفقة الوالدين مع حمايته من فرط التعرض لها، ومع تذكيره تكراراً بأن الصور التي يراها هي صور مسجلة لأحداث حدثت وانتهت .

ويستفيد الطفل من تأكيد بعض المظاهر الإيجابية للكارثة مثل تعاضد المجتمع وكرم الناس، ويمكن هنا الاستفادة من صور وفيديوهات منشورة في وسائط التواصل.

على الأهل متابعة الأعمال اليومية الروتينية والعودة الى العمل والمدرسة بأسرع وقت لتعريف الطفل بأن الحياة مستمرة، حتى لو تغير مكان السكن أو تغيرت أمور أخرى، فيمكن مثلاً في حال تغيير السكن الاستمرار بتناول وجبات الطعام معاً. ويفيد في حال السكن مع ناس آخرين إيجاد مجال يستخدم لقضاء وقت عائلي إيجابي ولمتابعة عادات الأسرة قدر الإمكان.

قد يخشى الطفل الابتعاد عن أهله عند تحضيره للعودة الى المدرسة فتلزم طمأنته بأن أهله بأمان وبأنهم ينتظرون عودته من المدرسة، وتلزم أيضاً طمأنته بأن المدرسة صارت آمنة ولديها خطط للتعامل مع الهزات الارتدادية (عند توفر تلك الخطط).

أما إذا بقي الطفل متوجساً فإنه من المفيد تخطيط يوم لعب مع زملاء المدرسة قبل العودة الى المدرسة، وقد يستفيد من مرافقته الى المدرسة في اليوم الأول.

متى يحتاج الطفل للمزيد من المساعدة

يتجاوز معظم الأطفال كارثة الزلزال عفوياً أو عندما يستخدم الأهل الأفكار المطروحة أعلاه، ولكن قد يستمر الخوف والتوتر عند واحد من كل عشرين طفل، فتظهر عنده مخاوف وارتكاسات جسدية شديدة، ويعاني من أفكار أو تخيلات مزعجة، ويضطرب نومه ويصاب بالكوابيس. يصير الطفل مفرط التنبه والتوتر فيصعب عليه التركيز وقد يبدو مكروباً، وقد يصير انعزالياً يتجنب الأماكن والظروف والأشخاص التي تذكره بالزلزال.

رغم أن هذه الاستجابات طبيعية نوعاً ما عقب الزلزال مباشرةً، فإنها تستوجب مساعدةً إضافية إذا استمرت لشهر أو أكثر.

إذا لاحظت أن الطفل مازال قلقاً ومتوتراً بشكل مستمر بعد أربعة أشهر من الزلزال، وتبدو عليه المظاهر السلوكية المذكورة أعلاه، ويبدو أن أعراضه تشتد بدل أن تخف، ينصح باستشارة طبيب نفسي أو معالج نفسي فهناك علاجات فعالة للأطفال وللبالغين المتأثرين بالزلازل وغيرها من الكوارث.

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