Vol. 16, No. 4, 2024, 269-278

**Original Article** 





# "Transformation in the Body Structures in Congress 60": Application of Grounded Theory in Addiction Treatment

Ali Rashidian<sup>1,2</sup>, Ashraf Karbalaei Nouri<sup>1,2</sup>, Hamidreza Khankeh<sup>3,4</sup>, Omid Rezaei<sup>5,6</sup>

<sup>1</sup>Substance Abuse and Dependence Research Center, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran <sup>2</sup>Department of Occupational Therapy, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran

<sup>3</sup>Health in Emergency and Disaster Research Center, Social Health Research Institute, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran

<sup>4</sup>QUEST Center for Responsible Research, Berlin Institute of Health at Charité, Berlin, Germany

<sup>5</sup>Psychosis Research Center, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran

<sup>6</sup>Department of Psychiatry, University of Social Welfare and Rehabilitation Sciences, Tehran, Iran

\*Corresponding Author: Ashraf Karbalaei Nouri, Email: Nouri.uswr@gmail.com

#### Abstract

**Background:** Congress 60 is an NGO that offers services to drug abusers, but its underlying theory has not been explored in previous studies. The purpose of this study is to examine the changes in the physical dimensions of the people treated in Congress 60.

**Methods**: Grounded theory methodology was used to arrive at the underlying theory of Congress 60. The data were collected from 2021 to 2023 through interviews with 21 individuals, participant observation, and a review of available texts from Congress 60. Data were analyzed in MAXQDA 2020 following the constant comparison method recommended by Corbin and Strauss in 2014. **Findings**: The core concept included "Addiction-related transformations in body structures". Addiction-related transformations in body structures include addictive body structures (addiction and chronic substitution, and nervous system and external substances) and healthy body structure (opium tincture medicine, opium tincture dosage measurement, and taper-up-off of opium tincture in over time or Dezhakam Step Time).

**Conclusion:** The theory of "Addiction-related transformations in body structures" derived from this study explains the process of entering and leaving addiction from the perspective of Congress 60. A person using drugs enters Congress 60 with addicted body structures. In Congress 60, using the right dose of opium tincture medicine and the Dezhakam Step Time (DST) method, the person's body structures return to normal. The findings of this study offer a novel perspective on addiction, suggesting potential avenues for further research through the exploration of various hypotheses.

Keywords: Addiction treatment, Congress 60, Grounded theory

Citation: Rashidian A, Karbalaei Nouri A, Khankeh H, Rezaei O. "Transformation in the body structures in congress 60": application of grounded theory in addiction treatment. *Addict Health*. 2024;16(4):269–278. doi:10.34172/ahj.1505

Received: September 12, 2023, Accepted: October 5, 2024, ePublished: October 29, 2024

## Introduction

Addiction refers to the compulsive seeking and use of drugs, despite their harmful effects, and loss of control over drug use.<sup>1</sup> These disorders arise from a complex interplay of various factors that influence drug use and impair judgment regarding drug use decisions.<sup>1</sup> Factors such as substance accessibility, social acceptability, peer pressure during initial use, personality, and biological traits play a crucial role in the onset of addiction, leading to significant human and financial costs, unemployment, and communication breakdown. This problem is not limited to a particular social or cultural stratum; its effects are felt worldwide.<sup>1</sup> The World Health Organization's 2017 report states that approximately 271 million individuals, or 5.5% of the population aged 15–64, use drugs globally, with around 35 million people living in difficult conditions.<sup>2</sup>

The report also reveals that in 2007, there were 8400 individuals addicted to alcohol and 1.2 million individuals addicted to drugs in Iran. Over time, numerous theories have been proposed for addiction treatment, focusing on physiological, cognitive, behavioral, and environmental factors. These theories have resulted in various treatments and interventions, including individual therapy, family therapy, group therapy, drug therapy, and recovery groups, administered by specialists from diverse fields.<sup>1,3</sup>

Several theories and drug treatments have been proposed to address the physical aspects of addiction. Agonist drugs (such as methadone and buprenorphine) are utilized to compensate for the absence of the external drug, and antagonist drugs (such as naltrexone and naloxone) are employed to reduce the effect of external substances.<sup>1</sup> The primary objective of addiction treatments is to aid



the abuser in achieving abstinence and prevent relapse.<sup>3</sup> However, attaining this objective has been challenging in the treatment of narcotic drugs.<sup>1,3</sup> Long-term opioid maintenance has been acknowledged as an alternative to abstinence for individuals addicted to opioids, and they are required to continue taking this drug.<sup>3,4</sup> Additionally, drug treatments are frequently utilized to alleviate withdrawal symptoms but have not been successful in preventing relapse, resulting in a high rate of relapse.<sup>3,4</sup> Therefore, there is a need for a new theory in addiction treatment that is based on the experiences of treated people in order to liberate people and help them stay clear of drugs.

Congress 60 is an organization that takes into account the physiological, pharmacological, psychological, behavioral, and environmental aspects as a whole and offers global services. Founded in 1998 by Hossein Dezhakam as a non-governmental and public organization, Congress 60 is dedicated to the treatment and rehabilitation of individuals struggling with addiction. Currently, Congress 60 has 158,986 members, including drug users and their families. To date, 48,002 people have been treated and 15 083 people are on treatment. This organization has 120 agencies for the treatment of men, 9 agencies for the treatment of women, 75 sports agencies, 311 collaborating doctor clinics, and 1223 addiction treatment guides in the country.

Several studies have been conducted on Congress 60 to examine its effectiveness. Tehrani et al. conducted a study that demonstrated the effectiveness of Congress 60 in helping individuals achieve control over their temptations, reduce psychological disorders, improve their quality of life, and ultimately reduce the rate of relapse.8 Another study by Zahedi Asl and Pilevari revealed that individuals treated at Congress 60 experienced a shift from unhealthy and destructive beliefs to healthy and constructive beliefs.9 Additionally, Tavakoli et al found that the treatment method employed by Congress 60 was cost-effective and led to an improved quality of life for participants. 10,11 In the study conducted by Pilevari and Zahedi Asl, it was found that Congress 60 has had a positive impact on families, leading to improved relationships and ultimately aiding in the treatment of drug users.<sup>12</sup> Similarly, Dezhakam et al demonstrated that the treatment method employed by Congress 60 resulted in enhanced executive function and regulated the expression of the BDNF and 5-HTTPLR genes after a six-month treatment period.<sup>13</sup> Additionally, Zahedi et al discovered that individuals who underwent rehabilitation at Congress 60 reported a higher quality of life compared to those who received treatment in addiction treatment clinics.14 In the study conducted by Dezhakam et al, 21 034 individuals who had received treatment were followed up to determine the relapse rate, and 2090 individuals were followed up to assess cognitive changes over two years at Congress 60. The findings of the study demonstrated a low relapse rate and improvements in memory and decision-making performance.<sup>15</sup> Additionally, Dezhakam et al investigated the effectiveness of Congress 60 as a treatment method for 3972 amphetamine users over two years, revealing a retention rate of 89%.<sup>16</sup>

The sum of these studies and the field evidence that exists from this organization present new perspectives on the treatment of addiction. However, the underlying theory of this organization in terms of physical dimensions has not yet been fully and comprehensively studied. This study aims to examine the existing theory for treatment of the physical dimensions of addiction in Congress 60. To achieve this goal, the experiences of the treated people, texts, and field notes at Congress 60 were analyzed using grounded theory methodology. Finally, the theory obtained from this study is compared with biological theories in the field of addiction.

#### Methods

The grounded theory approach developed by Corbin and Strauss in 2014 was employed in this study.<sup>17</sup> Grounded theory combines techniques to integrate information and draw conclusions about causal mechanisms and conditions.<sup>17</sup> As one of the most notable research methodologies, grounded theory involves moving from empirical information to theoretical abstraction.<sup>17</sup> The distinctive features of grounded theory include the simultaneous collection and analysis of data, theoretical sampling, constant comparison at each stage of analysis, memo writing for comparative analysis, and reflexivity, which guide the analytical processes of theory building.<sup>17</sup>

#### Data collection

The data were extracted from the subjects treated at Congress 60 and texts and metaphors used in the organization. Purposeful sampling was used for initial sampling. At first, data were gathered through semistructured interviews from September 2021 to April 2023. The first author conducted the interviews. Before starting the interview, the interviewer introduced himself and stated the purpose of the study. The interview started with background information to form a relationship with the participant. Each interview session lasted between 20 and 60 minutes. The participants of the interview were selected among those who were treated at Congress 60, were willing to cooperate, gave written consent, were verbal, and had a history of drug use. Any person who did not meet the inclusion criteria was excluded from the study. These participants were selected from different cities for diversity. All the selected people cooperated by taking part in the interview.

The semi-structured interview's basic structure was initiated with an open-ended inquiry. In the first interview, the initial question posed to the participant was, "What led to your treatment?" Subsequent questions

were then based on the participant's response. For the following interviews, the research team convened and formulated questions based on the first interviews. After the participant provided consent, the interview was recorded using a voice recorder. The participants were prompted to share their thoughts and experiences without any interference or influence from the interviewer, and the researcher attentively listened to the interview.

## Data analysis

Data collection and continuous analysis and comparison began at the same time. Data analysis was conducted in MAXQDA 2020 in open, axial, and selective coding. In the first stage, the transcribed text was entered into the software after the participants' personal information was deleted, and their names were replaced with the interview number. During the initial interviews, the coding process was conducted line-by-line. Each paragraph's content was examined as the study progressed, and a corresponding code was assigned. Open coding involves a thorough exploration of the data and serves as the foundation for the researcher's engagement with the data. In the second stage, relationships and associations between concepts and categories were uncovered by connecting and organizing the codes generated from open coding. The codes are reviewed and evaluated in the third stage to ensure a comprehensive understanding of all ideas and categories. The core concept, which may encompass other related concepts, is identified at this point. Memo writing was utilized during the analysis, allowing for incorporating theoretical and conceptual ideas through free writing. The researcher's reflections were integral to the coding process.17

#### Trustworthiness

Trustworthiness was evaluated according to the grounded theory principles outlined in Corbin and Strauss 2014.<sup>17</sup> Trustworthiness was enhanced via field note recording, memo writing, long-term engagement, ongoing field observations, member checks, use of method and data source triangulation, peer review, and reflective selfawareness engagement. Long-term engagement facilitated communication with participants. Additionally, prolonged observations allowed a deeper comprehension of the underlying principles that shape the organization's processes and contexts. Member check was conducted to ensure accuracy by presenting the emerging categories to Congress 60 members, who provided feedback on the interpretations derived from the data, leading to necessary corrections. Multiple data collection methods and sources were employed to triangulate the data.

#### Data statement

The dataset analyzed in this study is not publicly available. However, it can be provided upon reasonable

request by the corresponding author while ensuring the confidentiality of the participants.

## **Findings**

The study data, which included 21 interviews, texts ("Crossing the Zone 60 Degrees Below Zero", author: Hossein Dezhakam, "Innovations in Addiction Treatment and Recovery the Story of Congress 60" author: Hossein Dezhakam and William White), and observations (Table 1), led to the identification of the core concept of "Addiction-related Transformations in Body Structures in Congress 60." Addiction-related transformations in body structures include addictive body structures (addiction and chronic substitution and nervous system and external substances) and healthy body structure (Opium tincture medicine, opium tincture dosage measurement, and taper-up-off of OT in over time). The classification of codes is shown in Table 2, and their diagram is shown in Figure 1.

## Addictive body structures

From the point of view of Congress 60, the nervous system of drug abusers has been damaged by addiction. This category includes "the nervous system and external substances" and "addiction and chronic substitution."

## Nervous system and external substances

The nervous system comprises neurotransmitters and other biochemical mediators that mutually influence each other and other organs and body parts. Any substance that harms the nervous system is referred to as an external substance, encompassing drugs, stimulants, hallucinogens, alcohol, and psychoactive drugs.

# Addiction and chronic substitution

External substances such as narcotics, stimulants, hallucinogens, alcohol, and psychoactive drugs can penetrate the blood-brain barrier, leading to damage to the nervous system function. Frequent use of these substances results in replacement, where external substances replace natural drugs or other substances that regulate the nervous system. As a result, the balance of biochemical substances in the nervous system, such as dopamine, serotonin, endorphins, dynorphin, and other neurotransmitters and regulatory factors, is disrupted, leading to the depletion of production in nerve cells and complete dependence on external substances, disrupting the balance in the nervous system. This imbalance is the basis of addiction's effect on the organism. Congress 60 teaches this view to all members receiving treatment:

"We had eliminated all the producers of opioid-like substances in the body. With what? With opium juice, opium, and methadone. One person did it with pills, another with alcohol. Then, in Congress, we discovered that the body already produced all these substances. Because it got them from the outside, over time, because

Table 1. The demographics of the participants

Participant	Gender	Age	Marital status	Education	Substance	Consumption Years	Treatment duration	Drug-free period	Location
1	Male	50	М	High school diploma	Opium	15	10 months and 18 days	50 days	Khorramabad
2	Male	41	M	Bachelor's degree	Opium juice	8	13 months	93 days	Khorramabad
3	Male	39	М	Bachelor's degree	Heroin and amphetamine	18	10 months and 27 days	21 months and 2 days	Tehran
4	Male	35	М	Bachelor's degree	Heroin, generic drugs, methadone, and weed	17	10 months	18 months and 24 days	Tehran
5	Male	31	S	High school diploma	Opium, marijuana, and opium juice	7	13 months and 3 days	43 months	Tehran
6	Male	37	М	Bachelor's degree	Opium juice and methadone	5.9	11 months	69 months	Tehran
7	Male	44	М	High school diploma	Amphetamine and methadone	14	12 months and 12 days	1 day	Tehran
8	Male	39	М	Diploma	Opium juice and methadone	17	10 months	1 day	Abadan
9	Male	43	М	High school diploma	Opium and amphetamine, heroin, and hashish	18	11 months 10 days	91 months and 6 days	Tehran
10	Male	39	S	High school diploma	Opium Juice, opium, and pills	6	13 months	72 months	Tehran
11	Male	51	М	High school diploma	Opium juice	10	10 months and 4 days	120 months	Isfahan
12	Male	36	S	High school diploma	Pills and opium	8	11 months	84 months	Tehran
13	Male	41	S	Above diploma	Opium, juice, amphetamine, hashish, and alcohol	17	10 months and 10 days	58 months	Tehran
14	Male	36	М	High school diploma	Heroin and amphetamine	20	11 months	52 months	Chalos
15	Male	44	S	Master's degree	Cocaine, opium, amphetamine, juice of opium, and alcohol	17	10 months and 28 days	2 days	Tehran
16	Male	48	М	Bachelor's degree	Edible and smoked opium juice and hashish	20	12 months and 28 days	3 months and 6 days	Tehran
17	Male	43	М	High school diploma	Alcohol and hashish	35	12 months and 2 days	10 months	Tehran
18	Male	50	М	High school diploma	Opium and opium juice	17	10 months and 3 days	18 months	Tehran
19	Male	45	М	Bachelor's degree	Heroin	28	10 month and 3 days	16 months	Tehran
20	Male	51	М	Elementary	Opium and opium juice	30	10 months and 15 days	6 months	Isfahan
21	Male	43	М	Diploma	Opium and opium juice	15	10 months and 4 days	3 months	Mashhad

Note: M and S in the table above stand for married and single, respectively.

Table 2. Classification of concepts

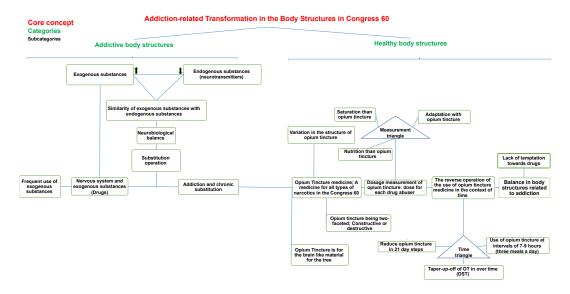
Core Concept	Categories	Subcategories		
	A -[-]: -4: []4	Nervous system and external substances		
	Addictive body structures	Addiction and chronic substitution		
Addiction-related transformations in body		Opium tincture drug: A medicine for all types of narcotics in Congress 60		
structures	Healthy body structure	Opium tincture dosage measurement: The amount of opium tincture for each drug abuser (saturation, adaptation, and nutrition)		
		Taper-up-off of opium tincture in over time (DST)		

the body is intelligent, these natural springs dried up." (6th interview)

In Congress 60, the situation of a drug abuser is likened to the situation of a rotten tree that has been eaten by termites and is in freezing conditions. The buds on this tree are a metaphor for the ability of the nervous system to return to normal (Figure 2):

## Healthy body structure

From the point of view of Congress 60, the nervous system of the drug abuser can regenerate itself if it is provided the necessary conditions. The necessary conditions for the regeneration of the nervous system include the use of the opium tincture (OT) medicine, determining the appropriate amount of OT (addiction measurement), and



**Figure 1**. The diagram of concepts related to Addiction-related transformations in body structures. The depicted diagram illustrates the process of addiction and treatment. Initially, frequent consumption of external substances leads to a deficiency in the body's endogenous substances due to homeostasis. This results in addiction, which is a chronic substitution of exogenous drugs for endogenous substances. To begin treatment, drug abusers use opium tincture, with the dosage determined by the measuring triangle. The reverse process continues until reaching the zero point, which takes 11 months and occurs within 21-day steps. Following this path leads to balance in body structures



**Figure 2.** Rotten Tree (Crossing the Zone 60 Degrees Below Zero", author: Hossein Dezhakam, published with the author's permission<sup>7</sup>)

taper-up-off of OT in over time (DST).

Opium tincture drug: A medicine for all types of addiction in Congress 60

In Congress 60, OT has been introduced as a treatment drug. This choice is due to the presence of different types of alkaloids, such as morphine, codeine, narceine, papaverine, and thebaine, along with other substances, in it. The substances in OT are considered to have two aspects: a destructive aspect that causes addiction and a therapeutic aspect that can be used for treatment. According to Congress 60, how a person uses this substance determines its therapeutic or destructive side. This change of perspective towards OT from a narcotic drug to a treatment drug is also seen in the opinion of

### treated people:

"Opium medicine... is a medicine that is healing in the hands of a wise person but not if it is in the hands of a common person. If you could go to the clinic and say that you want to be treated, and they give you the medicine, nothing will come of it...In the hands of a wise man like Hossein Dezhakam, you will be cured. It was very effective; the medicine is very effective ..." (1st interview)

Congress 60 uses the analogy of a tree's growth to explain why they prefer using OT over other drugs like methadone or buprenorphine. Just as a tree requires different substances like water, soil, light, and air to grow, the body's nervous system needs various medicinal compounds to restore and regenerate. The nervous system intelligently seeks these compounds from various drugs to restore deficiencies and regenerate the brain. Congress 60 believes that OT contains various compounds essential for nervous system regeneration, unlike methadone and buprenorphine, which only contain a single compound. This belief in OT's effectiveness in restoring the nervous system is shared by those who have undergone treatment at Congress 60.

"As you know, OT is a package containing many alkaloids. I did some online research some time ago. Fifty-five of the alkaloids are known, and there are probably more... However, methadone itself is an artificial molecule, and these individual chemicals destroy the system..." (5th interview)

Opium tincture dosage measurement: The amount of opium tincture for each drug abuser

Congress 60 uses simple calculations based on the concept of addiction measurement to determine the appropriate

dose and timing of OT drug use to treat addiction to all types of drugs. These calculations are based on a triangle consisting of the concepts of saturation, compatibility, and drug nutrition. By using this triangle, individuals in Congress 60 receive medication tailored to their body's needs, which helps prevent issues such as overdose, low dosage, and withdrawal due to a lack of awareness of the adaptation phenomenon.

Saturation for OT: Congress 60 uses the term "saturation," which is a concept borrowed from chemistry about addiction. Saturation refers to the point at which a substance has reached its maximum capacity and can no longer dissolve or absorb any more of another substance. For example, when dissolving sugar in water, how much sugar can be dissolved before it reaches saturation is limited. Congress 60 believes that many drug users, including those undergoing detoxification and maintenance treatment, reach a point of saturation where they consume multiple drugs simultaneously, leading to overdose.

Congress 60 has established that the saturation limit for the OT drug is equal to 1.65 grams of opium or 16.5 cc of opium tincture. This limit was determined based on the amount of OT or opium drug consumption that would cause death in a person with no history of drug use. Therefore, individuals who consume more than this amount are considered to have reached the point of saturation and do not experience any pleasure from using drugs.

"There was a time when my body did not need these substances, but due to habit and excess in their use, I consumed so much that I passed out..." (One of the people treated in Congress 60, Congress 60 website)

Adaptation with OT: In Congress 60, the process of adapting to OT is crucial. This phenomenon refers to the duration and process during which one type of drug can replace another. During this period, the body's physiology and metabolism prepare themselves to receive the new substance. However, the drug's effectiveness is initially lower during the adaptation period. Based on the experiences of people treated in Congress 60, this period is between 20 and 60 days. Therefore, when converting a drug abuser's substance to OT, Congress 60 informs the consumer that it takes about 20 to 60 days for the body to recognize the new drug and adapt to it. Failure to understand this phenomenon may result in the mistake of increasing the amount of medicine to achieve a more significant effect at the beginning of treatment, leading to saturation or overdose and death.

Most of the people who had not used opium or had not taken it orally have experienced this process of adaptation to OT. One of these people describes his experience as follows:

"The OT drug didn't work when I first took it. After 20 days to 2 months, when my body adapted, the OT drug

became what my body needed..." (10th interview)

Nutrition of OT: The best dosing pattern, according to Congress 60, is to give three doses of OT medication per day because any drug user uses drugs, stimulants, or alcohol several times a day, so it is difficult for a person to take one dose. Also, considering that OT is effective for a user for about 7–8 hours, Congress 60 has specified types of drug dosing three times a day with a time interval of at least 7 and at most 9 hours. In Congress 60, drugs are available to the user:

"The best type of dosing is three times a day, morning, noon, and night because the effectiveness of OT syrup or methadone is 7–8 hours; this is often overlooked outside Congress and in other methods. They give the person medicine once a day or increase the dose of the medicine, and the person has problems. So the medicine should be in three doses and accurately measured and consumed on time." (Hossein Dezhakam, nutrition CD)

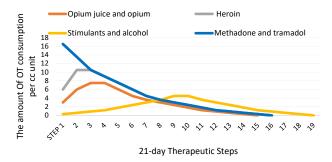
## *Taper-up-off of OT in over time (DST)*

Congress 60 suggests that the addiction treatment using OT for most external drugs be approximately 11 months, which is compared to harvesting fruit from a tree. This timeframe is based on the experiences of individuals who have undergone treatment at Congress 60. This process in Congress 60 has been likened to a car passing through an area of 60 degrees below zero. In this allegory, the car represents the human body; The area of 60 degrees below zero is the state of addiction and crossing it is the treatment process (Figure 3).

Congress 60 determines the amount of OT for each person based on their consumption and the type of external substance or narcotic used. They then implement a 21-day process of increasing or decreasing the OT. Both increase and decrease are carried out by a factor of 0.8; for a decrease in OT, it is multiplied by 0.8, and for an



**Figure 3.** The car passing through the -60° zone (Crossing the Zone 60 Degrees Below Zero", author: Hossein Dezhakam, published with the author's permission $^7$ )



**Figure 4**. Chart of drug types into the DST method. All types of narcotics will reach zero over time with 21-day steps by taking OT according to the DST method (based on data in the DST Program)

increase, it is divided by 0.8. In some cases, the drug is increased to bring the person to the limit of consumption or the peak of pleasure. The complete process takes approximately 11 months for all types of drugs and is known as the Dezhakam Step Time or DST equation in Congress 60. The DST equation includes D: the drug increase or decrease coefficient, which is equal to 0.8; S: the 21-day dosing schedule; and T: the duration of treatment, which lasts about 11 months. All individuals who receive treatment at Congress 60 go through this process.

"We entered the legion and explained the conditions; we were treated according to a special protocol called the DST system, which is the treatment method of Congress 60...which takes about 10 to 11 months..." (6th interview)

The treatment process for all types of drugs using the DST method is schematically shown in Figure 4.

If the individual receiving treatment exhibits specific characteristics in the final stage of the process, such as a clear and natural complexion, no evidence of drug use, regulated sleep patterns with easy and sufficient sleep at night, normal eye appearance, including the pupils and the color of the sclera, the disappearance of the dark circles around the eyes, calmness, and absence of restlessness and anger-induced behavior, their OT medication is discontinued. Following cessation, there are no indications of withdrawal syndrome.

"As soon as I had no appetite, I lost weight. I started to gain weight by traveling (a term meaning to undergo treatment) and using OT, and I felt that a series of things were happening in my body, and my appetite improved. My sense of movement improved, too. My perspective changed. I didn't use to exercise, but now I exercise. This drug does one thing in the body: Rebuilds the damaged places." (11th interview)

The post-treatment stage in Congress 60 is likened the buds on a rotten tree turning it into a strong tree (Figure 5).

# The theory developed in this study

People start using drugs for various reasons. Due to the phenomenon of homeostasis and the formation of



**Figure 5.** The growing bud turning into a strong person (Crossing the Zone 60 Degrees Below Zero", author: Hossein Dezhakam, published with the author's permission<sup>7</sup>)

tolerance, repeated use of external drugs over time causes an increase in the consumption of external drugs and a decrease in the production of endogenous substances in the body. For this reason, according to Congress 60, addiction is a type of "chronic substitution" where exogenous drugs replace endogenous substances such as neurotransmitters. It means that in this stage, the person can go on doing their activities despite the presence of external drugs. In Congress 60, this situation is likened to a rotten tree (the nervous system of the drug abuser) on the surface of which there are buds (neuroplasticity of the brain) or a car (the physical state of the user) that is in a frozen region (addiction).

According to Congress 60, addiction treatment takes place when the body's endogenous substances return to their equilibrium state and external drugs are entirely stopped. For this reason, Congress 60 treats addiction by modeling the process by which a person becomes addicted. In other words, in order for a person to become addicted, they need to use a drug over time, and treating addiction in Congress 60 involves reducing the drug dose over time.

The medicine used in Congress 60 to treat addiction is opium tincture. Opium tincture is a substance with two aspects: A destructive or addictive side and a constructive or therapeutic side. A substance that causes addiction over time with its gradual increase is used in reverse in Congress 60. The choice of this substance is due to its mixed and diverse structure. According to Congress 60, this substance for the brain is like the substance needed for the buds of a tree to grow.

In Congress 60, the drugs consumed by the abuser are replaced with OT according to calculations using the triangle of measurement of saturation, adaptation, and nutrition. The equivalence of drugs varies depending on the type of drug and its method of use. Once equivalence has been established, the individual is placed on a 21-

day treatment plan involving the use of OT medicine. The specific route taken for each type of drug varies; for instance, some drugs (such as stimulants) may require an initial increase in dosage to facilitate an adaptation process, while others (such as opioids) may require a reduction in dosage. Regardless of the drug type, the individual's OT drug is discontinued after 11 months. This process has been likened to driving a car in an area with -60° temperature.

#### Discussion

In this study, to reach the underlying theory of addiction treatment in Congress 60, data were first collected by adopting an inductive approach (interviews). Then, to reach the different dimensions of this theory, the deduction approach (texts) was employed, and the underlying mechanisms of addiction were uncovered using an abduction approach (metaphors and allegory). Grounded theory methodology was utilized in this study to implement these approaches.<sup>17</sup>

The core concept obtained from this study is "addiction-related transformations in body structures." Addiction-related transformations in body structures include addictive body structures ("addiction and chronic substitution" and "nervous system and external substances") and healthy body structure ("opium tincture medicine," "opium tincture dosage measurement," and "taper-up-off opium tincture in over time or DST").

In Congress 60, the drug abuser's nervous system is likened to a tree that is in a rotten state, and on the surface of this tree, there are buds, which stand for the ability of the nervous system to restore itself. According to the evidence available in the fields of neuroscience and epigenetics, drug use causes changes in nerve circuits, neurotransmitters, and receptors, signaling pathways and gene expression over time and leading to unhealthy functioning in the nervous system.<sup>1,4</sup> Tree buds represent the neuroplasticity of the brain and the ability of related genes to regenerate neuron structures. Congress 60 defines addiction as a "chronic replacement," where external drugs gradually replace the body's natural substances, such as neurotransmitters, leading to addiction formation. This definition is supported by the analogy used in the study and its alignment with the findings in neuroscience and epigenetics.

The metaphor of the rotten tree suggests that appropriate substances must be utilized to restore the tree's buds and ensure they will make the tree stable again. In line with this philosophy, Congress 60 employs OT medicine to restore the nervous system of drug abusers. Opium tincture contains various alkaloids that can suppress individual genes due to the increased tolerance and cellular adaptation they induce. The cellular mechanism of homeostasis suggests that gradually reducing the consumption of the OT drug over time can reactivate

genes associated with various alkaloids in the drug. As a result, protein structures and their derived functions can return to their normal state. A study conducted at Congress 60 on individuals undergoing treatment revealed that after 6 months of treatment, the expression of BDNF and 5-HTTPLR genes and executive function significantly returned to normal.<sup>13</sup> Another study, which aimed to evaluate the impact of the DST method on the rate of relapse and cognitive functions such as memory, decision-making, and sustained attention at Congress 60, indicated a significantly low rate of return to addiction and significant improvement in cognitive functions.15 Also, a study on 3972 methamphetamine users who were treated through the DST method from 2018 to 2020 found that 89% had not relapsed 2 years after treatment.16 This is in contrast to the high rate of relapse observed in the contemporary paradigm of addiction treatment.<sup>1,4</sup> In the common addiction treatment protocol, methadone, buprenorphine, and naltrexone are used to treat addiction. Each of these medicines has limited effectiveness and affects limited areas compared to OT medicine. 4,19

In Congress 60, all types of drugs are substituted with OT, which is why the prescribed dose of OT medication varies for each drug abuser. Recent research and data indicate that all types of narcotic drugs, despite their varying initial effects, have similar impacts on the brain's reward circuits after acute or chronic use. This convergence is characterized by changes in dopaminergic cell circuits and synaptic factors, including receptor numbers and translation factors such as delta FosB and cAMP-CREP pathways. This finding suggests that a drug with a wide range of effects could potentially treat all types of addiction. Nestler expressed this idea in a perspective

"It is possible to develop a treatment that is effective for a wide range of addictive disorders due to the shared mechanisms involved in some aspects of all addictive drugs, including natural addictions. Drugs that target the brain's dopamine, glutamate, CRF, opioid, or cannabinoid system can have common sedative effects on individuals using various drugs or natural rewards."

The dosage of OT is determined based on the triangle of addiction measurement in Congress 60, which consists of saturation, adaptation, and nutrition. In contrast, the current evidence for maintenance drugs does not account for individual characteristics, leading to many deaths due to overdose. Neglecting the phenomenon of adaptation and dosage has also resulted in dissatisfaction with other treatment methods.

In Congress 60, OT dose is reduced in a process likened to driving a car through a frozen region, where the car's movement on the ice must be slow to avoid causing an avalanche. Therefore, OT drugs are gradually reduced by a factor of 0.8 in 21-day increments over an average period of 11 months, based on the initial drug consumption and

type of substance used. The reduction time is proportional to the time it takes for a person to transition from drug use to abuse, which occurs gradually over time.

The study's limitation was the unavailability of female drug abusers who underwent treatment in this method, which limits the generalizability of the findings to men only.

#### Conclusion

Addiction is widely recognized as a chronic disease with a high rate of relapse despite interventions, highlighting the need for effective theory to explain and treat this phenomenon. This study focused on understanding the foundational theory of Congress 60, which has successfully treated and retained many individuals. The theory of "Addiction-related Transformations in Body Structures" was developed using grounded theory methodology. While this study represents the initial phase of knowledge generation, further research utilizing diverse methodologies, including animal studies and quantitative and qualitative research, is recommended to validate this hypothesis.

## Acknowledgments

The authors of this study express their gratitude to the addiction treatment clients and service providers at Congress 60.

#### **Authors' Contribution**

**Conceptualization:** Ali Rashidian, Ashraf Karbalaei Nouri, Hamidreza Khankeh, Omid Rezaei.

**Data curation:** Ali Rashidian, Ashraf Karbalaei Nouri, Hamidreza Khankeh, Omid Rezaei.

Formal analysis: Ali Rashidian, Ashraf Karbalaei Nouri, Hamidreza Khankeh

**Funding acquisition:** Ashraf Karbalaei Nouri, Hamidreza Khankeh. **Methodology:** Ali Rashidian, Hamidreza Khankeh.

**Project administration:** Ashraf Karbalaei Nouri, Hamidreza Khankeh.

Resources: Ashraf Karbalaei Nouri, Hamidreza Khankeh, Omid Rezaei.

Software: Ali Rashidian.

**Supervision:** Ashraf Karbalaei Nouri, Hamidreza Khankeh, Omid Rezaei.

**Validation:** Ali Rashidian, Ashraf Karbalaei Nouri, Hamidreza Khankeh, Omid Rezaei.

**Visualization:** Ali Rashidian, Ashraf Karbalaei Nouri, Hamidreza Khankeh, Omid Rezaei.

Writing-original draft: Ali Rashidian, Hamidreza Khankeh.

**Writing-review & editing:** Ali Rashidian, Ashraf Karbalaei Nouri, Hamidreza Khankeh.

## **Competing Interests**

The authors had no conflict of interest to declare.

#### **Ethical Approval**

The university of Social Welfare and Rehabilitation Sciences approved this research (code: IR.USWR.REC.1400.237). The study was conducted following the current guidelines for qualitative research. The researchers introduced themselves, explained the study's purpose and methodology, and obtained informed consent from participants who had the cognitive ability to comprehend the

study's details. Participants had the right to withdraw from the study at any time. Additionally, the researcher was instructed not to use personal identifiers in reports or publications.

#### Funding

Funding for this study was obtained from the Substance Abuse and Dependence Research Center of the university of Social Welfare and Rehabilitation Sciences. This center had no role in data collection, interpretation, and reporting.

#### References

- Boland R, Verdiun M, Ruiz P. Kaplan & Sadock's Synopsis of Psychiatry. Lippincott Williams & Wilkins; 2021.
- 2. WHO. Drug Consumption Statistics. WHO; 2017.
- West R, Brown J. Theory of Addiction. John Wiley &Sons; 2013
- Nestler EJ, Hyman SE, Holtzman DM, Malenka RC. Molecular Neuropharmacology: A Foundation for Clinical Neuroscience. McGraw-Hill Medical; 2015.
- Dezhakam H, White W. Innovations in Addiction Treatment and Recovery the Story of Congress 60. Congress 60; 2021.
- White WL. Congress 60: an addiction recovery community within the Islamic Republic of Iran. Alcohol Treat Q. 2015;33(3):328-47. doi: 10.1080/07347324.2015.1050929.
- Congress 60. Available from: https://congress60.org/EnUs/ Congress-60-Human-Revivification-Society-The-Addiction-Treatment.
- 8. Omidvar Tehrani S, Rezaei Ardani A, Akhlaghi S, Shayesteh Zarrin M, Talaei A. Long-term detoxification of opioid use disorder with opium tincture assisted treatment. Front Psychiatry. 2023;14:1273587. doi: 10.3389/fpsyt.2023.1273587.
- Zahedi Asl M, Pilevari A. A study of the cognitive processes of ex-addicts and their families (case study: Congress 60). Soc Sci. 2018;24(79):33-73. doi: 10.22054/qjss.2017.23549.1595. [Persian].
- Tavakoli M, Sahhaf R, Ghaffari S, Farhoudian A, Hayatbakhsh R. Cost benefit analysis of detoxification in addicts over 40 in human recovery population (Congress 60). Archives of Rehabilitation. 2012;12(0):52-7. [Persian].
- 11. Tavakoli M, Sahaf R, Farhoudian A, Bakhtavar Y. The influence of detoxification on the quality of life in substance addicts lives with 40-65 years of age referring to the charity "Congress 60". Iran J Ageing. 2012;6(0):34-40. [Persian].
- 12. Pilevari A, Zahedi Asl M. The effects of drug addiction treatment methods on families' behaviors: the Congress 60 treatment method. J Subst Abuse Treat. 2021;131:108564. doi: 10.1016/j.jsat.2021.108564.
- 13. Dezhakam A, Dezhakam H, Haghighatfard A. Taper off treatment can improve executive functions and regulate expression of BDNF and 5HTTPLR genes in opium abusers after six months period. J Psychol Sci Res. 2022;2(2):1-8. doi: 10.53902/jpssr.2022.02.000530.
- 14. Zahedi Asl M, Nemat Saatloo F. Support programs and quality of life of addicts: comparing rehabilitated drug addicts in the Congress 60 and other private rehabilitation clinics. J Soc Work Res. 2015;2(3):188-211. doi: 10.22054/rjsw.2015.4753. [Persian].
- Dezhakam H, Dezhakam A, Dezhakam S, Haghighatfard A. A new taper off treatment of opium dependents can lead to cure the addiction as well as improvement of cognitive functions. Res Sq [Preprint]. January 4, 2023. Available from: https:// www.researchsquare.com/article/rs-2410457/v1.
- Dezhakam H, Dezhakam A, Dezhakam S, Dezhakam A, Haghighatfard A. A new protocol of methamphetamine dependence treatment with taper-up-off treatment of opium

- tincture, a new hope to cure the methamphetamine addiction. Res Sq [Preprint]. May 15, 2023. Available from: https://www.researchsquare.com/article/rs-2927654/v1.
- Corbin J, Strauss A. Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory. SAGE Publications; 2014.
- Browne CJ, Godino A, Salery M, Nestler EJ. Epigenetic mechanisms of opioid addiction. Biol Psychiatry. 2020;87(1):22-33. doi: 10.1016/j.biopsych.2019.06.027.
- 19. Kalant H. Opium revisited: a brief review of its nature, composition, non-medical use and relative risks. Addiction. 1997;92(3):267-77.
- 20. Nestler EJ. Is there a common molecular pathway for addiction? Nat Neurosci. 2005;8(11):1445-9. doi: 10.1038/

- nn1578.
- 21. Davoli M, Bargagli AM, Perucci CA, Schifano P, Belleudi V, Hickman M, et al. Risk of fatal overdose during and after specialist drug treatment: the VEdeTTE study, a national multisite prospective cohort study. Addiction. 2007;102(12):1954-9. doi: 10.1111/j.1360-0443.2007.02025.x.
- Bell J, Zador D. A risk-benefit analysis of methadone maintenance treatment. Drug Saf. 2000;22(3):179-90. doi: 10.2165/00002018-200022030-00002.
- 23. Muller AE, Bjørnestad R, Clausen T. Dissatisfaction with opioid maintenance treatment partly explains reported side effects of medications. Drug Alcohol Depend. 2018;187:22-8. doi: 10.1016/j.drugalcdep.2018.02.018.