

Resilience and Quality of Life in Initial Versus Final Stages Among Male Addicts Attending a Rehabilitation Program

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Abstract

Background: Impulsive conduct, a strong need to use a specific substance, drug seeking behavior, withdrawal symptoms, and tolerance are all indications of substance use disorders (SUDs), a category of mental diseases. The propensity for mental and/or physical dependency is influenced, in part, by the substance's mode of action; SUDs may include a broad range of substances, including stimulants, analgesics, hypnotics, and opioids. Research and practice in the domains of health and medicine have increasingly focused on quality of life (QOL). The primary objectives in medical and health research have historically been biological results rather than quality of life outcomes. Nonetheless, quality of life (QOL) evaluations have grown in popularity and research on QOL has intensified during the last few decades. In recent years, issues around drug dependency rehabilitation have brought resilience to the forefront. In psychiatry, resilience—defined as the capacity to adapt to challenging circumstances—is seen as an essential part of the healing process. Building resilience is not a sign of weakness; in fact, it is something that everybody can achieve. There are two types of resilience: intrinsic resilience, which results from internal, personal elements, and learned resilience, which may be shaped and reinforced by external, environmental influences. There are several ways to treating drug use disorders that are grounded on the idea of self-medication. This theory proposes that one of the primary reasons people use illicit substances is to temporarily alleviate psychological discomfort caused by chronic sensory overload. Recent work in the field of addiction theory proposes a neural basis for drug addiction as a pathological subversion of normally functioning learning and memory systems brought about by chronic self-administered drug actions, which in turn leads to the development of compulsive drug-seeking habits. The purpose of this review article is to examine the relationship between resilience and quality of life in the early and late stages of substance use disorder among addicts who attend rehabilitation programs at rehabilitation centers, and to assess the resilience and quality of life of these addicts at these stages. In summary: Recovery programs should contain job assistance that is customized to each patient's development in order to address the correlation between acquired resilience and work status. In order to help people with SUDs recover and become more resilient, there has to be a system in place to help them find jobs and stay in treatment for the long haul. Efforts to reduce drug misuse have an impact on aspects of quality of life beyond cognitive performance.

Keywords: Program for Rehabilitation; Resilience; Addiction in Men; Quality of Life.

Introduction

Drug Addiction is a multi-faceted mental illness that impacts one's emotional, social, cognitive, and behavioral well-being. Relapses and decreased inhibitory control over drug usage and seeking are hallmarks of this disorder. Unfortunately, the word "addiction" is no longer included in the DSM-5, the fifth iteration of the handbook that describes mental illnesses. Rather, the term drug use disorder has been accepted to describe people with varying degrees of the condition [1].

The worldwide epidemic of drug misuse is a major public health concern with far-reaching consequences for people's physical, mental, financial, and social health. Roughly half of the world's 27 million drug abusers inject drugs, with 12 million individuals falling into this category. The quality of life (qol) of addicted individuals was shown to be worse than that of healthy people in terms of physical

and psychological components of social functioning, according to prior research [2].

Impulsive conduct, a strong need to use a specific substance, drug seeking behavior, withdrawal symptoms, and tolerance are all indications of substance use disorders (suds), a category of mental diseases. Many different types of medicines may be used in treatment, including opioids, hypnotics, stimulants, and analgesics. The likelihood of developing a mental and/or physical reliance on a substance is dependent on how it works [3].

Among the most pressing medical, mental, and societal problems today is substance misuse. addiction may be explained by a number of different things. Resilience, which leads to healthy ways of dealing with difficult situations, is one of these components. According to Rahmati and Akbari (2016), high-risk behaviors like drug addiction may be explained by an individual's subjective well-

being, which includes pleasant emotional experiences, and their quality of life, which is defined as their feeling of pleasure from many aspects of life.

When talking about becoming sober, it's crucial to bring up the idea of resilience, which is defined as "the capacity to naturally recover despite adverse circumstances" [3].

Recovering from a drug use disorder may include improving one's quality of life (QoL), which in turn may help physicians see issues and make more informed treatment choices. It seems that increasing one's physical and mental health is a powerful protective factor for drug users. Understanding these factors better is crucial as they form the foundation of effective management [4].

Within the realm of rehabilitation counseling programs, research on resilience and quality of life has grown in importance. Despite this, studies examining the rehabilitation program's efficacy and its impact on resiliency and well-being are few. Resilience and quality of life in the early stages compared to the later stages among addicts undergoing rehabilitation, as well as the factors related to substance abuse that may influence these aspects, have been the focus of a literature review. [5]

Aiming to determine the relationship between resilience and quality of life in the initial and final stages of substance use disorder among addicts attending rehabilitation programs in rehabilitation centers, this review sought to assess the resilience and quality of life in these stages.

Addictions to Substances

Substance use disorders (SUDs) are defined by compulsive drug or alcohol use that negatively impacts a person's social, academic, and vocational functioning. Alcohol, caffeine, cannabis, hallucinogens, inhalants, opioids, sedatives, hypnotics, stimulants, nicotine, and other substances are all part of the substance-related illnesses. Physical and mental dependency, drunkenness, and abuse are the hallmarks of substance use disorder (SUD)[6].

Public health

Any given drug has a lifetime prevalence of 7.25–14.5 percent. The one-month prevalence varies between 5.4% and 11.5% after adjusting for demographic factors. Of the 4,832 respondents surveyed, 9.6% had used illegal substances at least once in their life. Of this number, 1,329 were determined to be experimental and social users, 3.3% to be frequent users, 4.64 percent to be regular users, and 1.6% to be addicts. Substance usage among males is 13.2% and among women it is 1.1%. It is more common among men who are

Bedouin, who live in coastal governorates, who have less education, and who work in certain vocations. The prevalence of drug use start is greatest among those aged 15–19. According to Hamdi et al. (2013), the substance most widely misused in Egypt is cannabis, with alcohol coming in second.

Nearly 275 million individuals took drugs in the last year, with more than 36 million suffering from drug use disorders, according to the 2021 World Drug Report published by the UNODC. One reason for the 22% rise in drug use from 2010 to 2019 is the overall increase in the world's population. Projections show that drug use will rise by 11% worldwide by 2030, with a particularly steep 40% increase in Africa due to the continent's youthful and expanding population [7].

A number of variables, both internal and external to the body, contribute to the development of SUDs and other complex mental illnesses [8].

Genetics and drug Use Disorders in Biology: A large body of evidence suggests that some forms of drug misuse are heritable. Research on the genetic component of alcohol consumption has been conducted in several studies including twins, adoptees, and siblings [62]. Researchers found connections between SUDs and genes that influence dopamine synthesis using restriction fragment length polymorphism (RFLP) in their study [9].

Addiction to drugs is gratifying on a neurochemical level. The nucleus accumbens is a critical node in the brain's reward neurocircuitry, and they take over the brain's dopamine system to increase dopamine levels there [10].

Substance Use Disorders and Their Psychological Aspects

A number of psychopathological illnesses and personality types have been linked to substance use disorders (SUDs), although the most prevalent ones are those involving depression and personality disorders (Fuchshuber & Unterrainer, 2020). Affect coping difficulties, narcissism, object relations, judgment, and lack of self-care are some of the traits seen in substance use disorder patients [11].

Some recent psychodynamic theories propose that substance use disorders (SUDs) reflect dysfunctional ego functioning. Opioids are useful for reducing rage, alcohol for panic attacks, and amphetamines for depression. Anxiety brings on pathological shame, which in turn brings on further drug usage; this vicious cycle begins with guilt about using

substances, which in turn generates anxiety [12].

Training and Education: Substance use disorders (SUDs), whether episodic or chronic, are best understood as actions that are reinforced by the results they produce. Once a drug alleviates a painful, anxious, or depressing sensation, it could encourage the user's prior behavior.

Using drugs may have both physiological and social rewards in some social contexts, such as elevating one's prestige or winning over one's friends [13].

Rapid positive reinforcement is a byproduct of any drug usage, whether it euphoria, the alleviation of disturbed emotions, the easing of withdrawal symptoms, or any mix of these. Furthermore, several medications have the ability to make neural systems more sensitive to their enhancement effects [14].

According to Porche and Gardner (2022), the behaviors linked to drug use disorders may actually serve as signs for when the substance is available, which in turn increases cravings or the need to feel its effects.

❖ **Diagnosis:**

According The following are the criteria for diagnosing SUD according to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition, Text Revision (DSM-5-TR) [16], (2022): 1. exceeding recommended dosages 2. ongoing motivation to reduce or stop 3. substantial duration spent acquiring or using substances 4. strong want or yearning to use substances 5. neglecting responsibilities 7. Reducing social or recreational activities due to unfavorable interpersonal repercussions, 8. Using in physically dangerous conditions, 9. Using despite knowing about the hazards, 10. Tolerance, and 11. Taking a Break.

• **Course**

Normative epidemiological patterns for substance use disorders (SUDs) demonstrate that they tend to start in late adolescence or early adulthood, reach their highest frequency in adolescence or early adulthood, and then decline. Although SUD is less prevalent among the elderly, it is still a public health issue because to the greater impact it may have when present. According to Paltell et al. (2022), a large number of individuals struggling with substance use disorders seem to benefit from non-traditional approaches to therapy.

The overall incidence of substance use disorders is rather high among those aged 18 to 24. Most substance-related disorders start in youth, with intoxication being the most prevalent first condition. When the appropriate

medication is used in large enough quantities for an extended length of time, withdrawal symptoms may manifest at any age[8].

• **The outlook**

Factors that impact the prognosis of substance use disorders include the following: the severity of dependence or withdrawal, psychiatric comorbidities, substance-related problems, motivation, treatment duration, cognitive factors, personality traits and disorders, coping skills, number of substances used, genetic predisposition, sleep architecture, urges and cravings, self-efficacy, and societal and economic factors [15].

Adequate treatment of mental comorbidities and improvements in social, economic, and familial functioning lead to better treatment results. New therapies have been developed by identifying elements linked with beneficial results. Concrete examples include specific strategies to promote self-efficacy, motivation, coping skills, and community functioning [15].

• **Interrelated health conditions:**

The incidence and effect on public health make comorbidity of BD and SUD one of the most significant dual illnesses. The prevalence of alcohol and cocaine addiction was higher in bipolar dual individuals compared to non-bipolar patients. Those with bipolar disorder with a dual diagnosis also tend to start drinking at a younger age than the general population. Patients with a dual diagnosis of bipolar illness were more likely to suffer from personality and anxiety disorders, and they were also more likely to take their own lives. So, according to Arias et al. (2017), cocaine and alcohol are the narcotics most often linked to BD.

More and more research is showing that cannabis usage and depression often occur together. Although there is some evidence linking cannabis usage to depression, the majority of the data suggests the opposite. In other words, Feingold and Weinstein (2021) found that depressive symptoms were associated with either first cannabis use or increasing frequency of use.

• **Medical Care**

Pursuing sobriety or a reduction in drug use and its consequences, lessening the likelihood and impact of relapse, and enhancing psychological and social functioning are all objectives of treatment [16]

Pharmacological therapy: Narconon and Purtle (2020) describe medication-assisted treatment (MAT) as a "holistic approach" to substance use disorder (SUD) treatment that combines an FDA-approved medicine with evidence-based psychosocial intervention.

Treatment outcomes, total treatment costs, and SUD-related morbidity and mortality can be improved, decreased, and prevented with the use of medications that target alcohol [17], tobacco [18], and opioid use disorders [19] [20].

- **medication-free therapy:**

The patient will be able to stabilize and overcome the withdrawal symptoms of drugs or alcohol via a medically supervised detox program. A few days up to a few weeks is the typical duration of these programs. An inpatient treatment may be necessary after the patient has stabilized [21].

Overcoming addiction is possible with the support of inpatient and residential rehab programs, which include living in a treatment facility and receiving supervised therapy along with a planned care plan. After completing these programs, which may range in duration from a few weeks to a few months, patients frequently undergo outpatient rehabilitation [22].

Patients in outpatient and intensive outpatient programs are able to participate in treatment and therapy whenever it is most convenient for them [23].

Cognitive Behavioral Therapy (CBT): Participants in CBT are encouraged to question and investigate recurring thoughts in an effort to eliminate negative and unhealthy ones. This form of therapy can be conducted one-on-one with a therapist, in a group setting with supportive peers, or even with family members or other important people in the patient's life [24]. Individuals who undergo cognitive behavioral therapy (CBT) sessions have the ability to self-awareness and modify their dysfunctional patterns of behavior, as well as the knowledge and tools to deal with stressful circumstances, avoid relapse, and live healthier lives overall [25].

Sobriety maintenance is one of the desired behaviors that may be motivated via the use of material incentives in Contingency Management (CM). Reducing treatment-related problems including dropout and relapse is a major benefit of CM [26].

Motivational interviewing (MI) is a technique that aims to help people overcome resistance to treatment by finding the solutions that work best for them. Increasing the client's drive and dedication to making a change that aligns with their values is the objective [27].

Clients learn emotional regulation skills in Dialectal Behavior Therapy (DBT), which helps them to lessen the frequency and severity of self-destructive actions brought on by extreme emotions. DBT is structured on four sets of skills: being able to tolerate discomfort,

regulating emotions, practicing mindfulness, and being successful in interpersonal relationships [28].

Resolving symptoms and anxiety associated with traumatic events is possible with the use of Eye Movement Desensitization and Reprocessing (EMDR)[29]. In a nutshell, there are eight steps to the EMDR process: First, the patient's medical history; second, preparation; third, evaluation; fourth, desensitization; fifth, installation; sixth, body scan; seventh, closure; and last, re-assessment. The third step is to examine the painful memory by identifying the most painful mental picture associated with it as well as its present cognitive, emotional, and physical symptoms. In the desensitization and processing stages (4-6), the traumatic memory is treated utilizing dual-attention Bi-Lateral Stimulation (BLS), which is often known as alternating horizontal Eye Movements (EMs) [30].

To assist clients attain safety from trauma and substance use disorders, trauma-focused therapies like Seeking Safety emphasize coping skills, grounding strategies, and education [31].

Model: Matrix In therapy, patients learn to believe in themselves and get positive reinforcement for appropriate actions; patients also learn to value themselves, respect themselves, and value themselves in relation to others using a variety of approaches. The primary focus of the Matrix Model is "relapse prevention, family and group therapies, drug education, and self-help participation," as stated by the National Institute on Drug Abuse. Citation: Kazakov and Zheng (2022).

Twelve-Step Facilitation: This kind of treatment seeks to encourage prolonged sobriety by having those in recovery participate in 12-Step peer support groups. Meetings are hosted by a variety of 12-Step groups, such as Narcotics Anonymous and Alcoholics Anonymous [32].

❖ Stages of Treatment

The Beginning and ending treatment for Substance Use Disorder mark the first and last steps in a life-altering path to sobriety, respectively. In the first stage, you'll work through your denial, manage your withdrawal, and develop basic coping mechanisms. In the last stage, you'll concentrate on staying sober, improving your quality of life, and avoiding relapse with the help of more sophisticated techniques and continuous support. When taken as a whole, these steps provide a thorough framework that helps people recover from addiction and stay sober. Treatment programs are able to rescue addicts from the clutches of their disease and lead them to a life

of sobriety, purpose, and resilience by attending to the many ways in which their emotions, thoughts, and bodies interact with one another.

First Phase of Therapy: The first phase of substance abuse treatment, which typically lasts between ten to ninety days after detox, is a crucial time since it marks the beginning of the road to recovery. This is the stage when people who have decided to get assistance for their drug abuse frequently face the most difficult emotional and psychological issues.

Finally, the Treatment Phase: The maintenance or advanced recovery stage, which lasts for three to six months after detoxification, marks the consolidation of recovery benefits and the shift towards long-term sobriety. During this stage, staying sober, improving one's quality of life, and avoiding relapse are the primary goals.

Resilience

Researchers, medical professionals, and politicians have all taken a keener interest in resilience as of late. The possible effects of resilience on health, happiness, and quality of life (QOL) are a major motivating factor [63].

The 2019 coronavirus disease (COVID-19) pandemic has put a strain on healthcare systems worldwide, heightening the importance of resilience discussions and calling for a more thorough examination of national responses from a resilience perspective [64]; [65].

According to Barasa et al. (2018), resilience was first used in the field of natural sciences. Research on children who had experienced trauma led to the development of the term "psychological resilience" in the early 1970s [66].

Terms explained:

A material's pliability or elasticity is described by the Latin term "resiliens," from which the English word "resilience" is borrowed [67]. The capacity of a material to absorb energy when elastically deformed and then recover it upon unloading is what physics calls "resilience" [68].

A person is resilient if they are able to adapt to stressful situations by being mentally, emotionally, and behaviorally flexible and by meeting the demands of both themselves and the world around them. This definition comes from the American Psychological Association (APA). Individuals' perceptions and interactions with the environment, the quantity and quality of social support systems, and the methods they use to cope with stress are all variables that impact their capacity to adapt to challenging situations [69].

As a process, resilience is described as "a dynamic process influenced by both neural and psychological organizations, as well as the transaction between the ecological context and the developing organism." When viewed as a personal trait, resilience is described as a "adaptive stress-resistant personal quality" [70]. Nevertheless, according to Masten et al. (2021), resilience is "a class of phenomena characterized by good outcomes despite serious threats to adaptation or development" when considered as an outcome.

Biochemistry of adaptability:

The concepts of allostasis and allostatic load were proposed to help us better understand the spectrum of stress, from adaptive to maladaptive. In contrast to homeostasis, which is maintained by adaptive mechanisms, allostatic load is the result of adaptations that build up when systems involved either do not shut down after a stressor has gone or do not react enough [71].

People who have systems that make them more resilient to stress are able to adjust to stressful situations without acquiring psychopathology [72]. Osório et al. (2017) state that in order to comprehend why some individuals have a robust profile, the complex interaction of neurochemical, genetic, and epigenetic mechanisms has to be elucidated.

The mechanisms of resilience in the central nervous system:

Neurogenesis in the hippocampus: Glucocorticoid secretion and stress inhibit hippocampus neurogenesis in adults. Ablation of neurogenesis produced by irradiation led to behaviors that promoted resilience [73]. Stress resistance is enhanced by enhancing hippocampus neurogenesis, according to another research [74].

Researchers have found that the VTA and the nucleus accumbens (NAc) regulate a significantly higher number of genes in resilient mice compared to susceptible mice. This suggests that the VTA plays an active mediating role in resilience [75].

The things that get into the nucleus accumbens (NAc): Cox and Witten (2019) found that neurons in the prefrontal cortex improve resilience via collateral pathways. The regulation of positive and negative mood states in response to chronic stress and the development of resistant or sensitive phenotypes may be influenced by differential NAc inputs [67].

A growing body of research suggests that the locus ceruleus (LC) contributes to both susceptibility to and capacity to recover from stress [77]. The study conducted by Isingrini et al. (2016) found that resilient mice exhibited

an increase in the production of Norepinephrine (NE) from LC neurons that project to the VTA.

Epigenetic and transcriptional pathways: Research on gene expression in different parts of the brain has shown that resilience is more of a dynamic process involving transcriptional activity than stress vulnerability [78].

Resilience mechanisms in the periphery:

Repetition of psychosocial stress causes significant peripheral immunological alterations, according to studies on the innate immune system. Studies on humans have shown that immunological dysfunction may manifest on different levels depending on the individual's susceptibility to and capacity to cope with stress [79]. Several pro-inflammatory cytokines are increased in certain MDD patients [80].

The immune system's ability to adapt: According to a meta-analysis, those who suffer from MDD had a lower T-cell ratio and a slightly higher CD4/CD8 T-cell ratio in their blood. Research on rats has shown that T cells may have a protective or resilience-boosting influence on the nervous system [81].

Human gut flora: Numerous physiological activities are influenced by the gut microbiota. These include direct impacts on the brain and interactions with the host immune system. A significant regulator of the body's reaction to stress is the "microbiota-gut-brain axis," which summarizes several pathways (Mayer et al., 2014). The makeup of the gut microbiota differs between healthy controls and patients with MDD, according to many research [82].

The blood-brain barrier (BBB): Active coping is thought to be a trait that improves resilience, and a rat research indicated that passive coping animals show more vascular remodeling than active coping animals [83].

Neuroimmune interactions: Wang et al. (2018) found that susceptible mice's NAc undergo maladaptive synaptic plasticity only when peripheral IL-6 is present. There is mounting evidence that microglia have a role in neuropsychiatric diseases associated with stress. Microglia undergo morphological and functional alterations in response to social defeat stress [84]. Regarding resilience, a study conducted by Kreisel et al. (2014) found that the antibiotic minocycline protected rats from experiencing unexpected anhedonia caused by prolonged stress.

3-Disciplines impacting resiliency:

The capacity to plan for the future and see it through, faith in one's own talents, competence in communicating and solving

problems, control over one's emotions and impulses, and a healthy sense of self-worth are all components that contribute to and sustain resilience, according to research [85].

Nevertheless, these aspects differ throughout age brackets. Factors such as these in the elderly might include things like optimistic view on life, health, external connections, independence, self-care, self-acceptance, altruism, and determination [86].

There is a correlation between resilient emotions and good emotions, according to the literature. Researchers have shown that being optimistic when facing challenges increases mental agility and creativity. Recovering from traumatic events and interactions is facilitated, in large part, by positive feelings. The physiological impacts of negative emotions may be mitigated by keeping a good emotional attitude. According to Kleine et al. (2019), it improves personal well-being, fosters lasting social resources, and helps with adaptive coping.

Increases in salivary immunoglobulin A levels and enhancements in immune system function are two physiological consequences that humor may induce [87].

According to Saffarinia et al. (2016), forgiveness may also influence resilience in people with chronic pain, however it does not seem to affect the intensity of their discomfort.

A large body of research indicates that social support plays a crucial role in building resilience [88]. However, it is important to note that social support does not merely imply having relationships with others; rather, it necessitates relationships characterized by trust, intimacy, and mutual commitment, both within and outside of families [89].

Successful people were the subjects of a research that sought out difficult circumstances that tested their mettle. The research identified six key factors that contribute to resilience: a proactive and optimistic personality, a strong feeling of control over one's own life, the capacity to adapt and change with the times, a positive attitude and viewpoint, and the perception of social support. In addition to their employment, high achievers have a lot of free time for things like sports, hobbies, and social events [90].

A number of other characteristics are linked to resilience; they include being able to plan ahead, having faith in one's abilities and a healthy view of oneself, learning to communicate effectively, and controlling one's emotions and impulses [91].

A person's resilience may depend, in part, on their temperament and constitutional makeup. To be resilient, it is essential to have

this quality, as well as strong familial bonds and easy access to social support networks [92]. Resilience is influenced by three different temperament systems: the attention system, the defense system, and the hunger system [93].

4-Evaluating toughness:

Ahern et al. (2006) conducted a research to assess the reliability and validity of resilience measurement tools. Among its contents were:

With a Likert scale ranging from 1 to 5, the Baruth Protective Factors Inventory consists of 16 questions. The resilience construct is assessed by the BPGI. There are four main variables that may protect you against harm: an adaptable personality, a supportive environment, a low stress level, and compensatory experiences [94].

The Connor-Davidson Resilience Scale (CD-RISC): This scale, developed by Connor et al. (2003) and translated into Arabic by Dimitriadou and Stalikas (2012), will be used.

One 37-item semantic difference measure that has been developed for adults is the Resilience measure [95]. Adult resilience-supporting protective resources are the focus of this measure. Five factors make up the RSA [96]: individual competency, social competency, family harmony, social support, and personal organization.

The 21-item Adolescent Resilience Scale evaluates the mental traits shared by resilient individuals on a 5-point Likert scale (ranging from 1 to 5). Three parts make up the measure, which was developed for use with Japanese adolescents; they are openness to new experiences, control over one's emotions, and hope for the future [97].

To measure adaptive stress resilience, researchers developed the Brief-Resilient Coping Scale, a 4-item measure with a 5-point rating (1-5). Although further research is required, Sinclair and Wallston (2004) argue that the scale has the potential to help in longitudinal studies identify people who might benefit from treatments to strengthen their ability to cope with adversity.

On a scale from 1 to 7, the 25 items that make up the Resilience Scale are evaluated. Two aspects of self-competence and life-acceptance make up the resilience construct, which is measured by the scale [98].

5-Developing adaptability:

The ability to cope with stressful situations is a key component of resilience [99]. In order to keep functioning normally in the face of stress, people need coping skills. Methods for dealing with stress include regular exercise, socializing, meditation, and self-care.

In their previous article titled "10 Ways to Build Resilience" [95], the American Psychology Institute offered the following advice: prioritize positive relationships with loved ones; stop viewing problems as crises or intolerable; accept unchangeable circumstances; set attainable goals and work towards them; take bold action when faced with adversity; seek out opportunities for self-discovery following a loss; build confidence; maintain a long-term view and consider the stressful event in a broader context; maintain an optimistic outlook; worship, expect good things, and visualize what you desire; and finally, take decisive action when faced with adversity. be mindful of one's own needs and emotions, exercise often, and tend to one's physical and mental health.

Quality of life

Quality Quality of life (QoL) is now a key metric for assessing the efficacy of medical treatments. There needs to be a sharp divide between health-related quality of life (HRQoL), which pertains to the absence of disease, and quality of life (QoL), which centers on people' subjective pleasure with various aspects of life. Quality of life was not adequately considered in the realm of addiction research. Contrast this with the abundance of QoL studies reported from randomized controlled trials including other chronic disorders, such cancer and cardiovascular disease [100].

Health-related objectives, expectations, and standards in an individual's life are the basis for their quality of life, according to the World Health Organization (WHO). "the way health is empirically estimated to affect QOL or use the term to only signify the utility associated with a health state" [102] describes health-related quality of life, the most popular technique to quantify QOL.

Factors that influence and forecast quality of life

Gender and age: Opiate users' (HR)QoL tends to be worse as they become older, suggesting an inverse link between the two variables. Results were contradictory when broken down by gender. Gender disparities in the SF-36's population norms suggest that opiate-dependent women tended to have lower (HR)QoL scores. The admissions process is the best place to see these distinctions. Astals et al. (2008) and Haug et al. (2005) found that women undergoing therapy had substantially worse quality of life ratings in the "physical" and "psychological" domains.

Neither the quantity, length, nor frequency of drug use were associated with health-related quality of life (HRQoL). Using

an HRQoL instrument, almost all studies that have shown a (negative) correlation between drug use and QoL have done so. The "mental component" of the SF-36 is more negatively correlated with cocaine usage in the last 30 days. The use of intravenous cocaine was associated with worse mental health outcomes. A lower "physical component" score on the SF-36 was linked with older injection ages, and a negative correlation was seen between frequent stimulant drug usage and this score. Additionally, several authors have shown that heavy alcohol use negatively affects HRQoL, specifically in regards to "role limitations," "social functioning," and "physical health" ([53], [100]).

Comorbidity: Several research have examined the impact of mental diseases on quality of life in those who are addicted. Research shows that heroin addicts' "physical" and "mental composite score" did not change while they were in residential treatment for dual diagnosis, even though both groups had very low quality of life. Opiate users' subjective and HRQoL are negatively affected by personality disorders, according to other authors. According to De Maeyer et al. (2010), individuals with an axis-I problem who are dependent on opiates also scored worse on the WHOQoL Bref in the "psychological" and "physical domain" categories compared to those without a mental illness.

Additional factors that impact quality of life that may be used as predictors include: Other factors, such as recent medical treatment, pharmaceutical usage, chronic illness, recent hospitalization for physical issues, and psychological and sexual abuse, have been associated with a low quality of life on occasion. According to Kelly et al. (2014), those who have legal issues or are incarcerated tend to have poor "physical health," whereas those who have family difficulties, particularly with their partners, tend to have worse scores on both the "mental" and "physical health" dimensions.

For what reasons should studies on addiction prioritize Quality of Life (QoL)?

Because substance abuse issues tend to persist over time, it's important to take a holistic view of treatment results by tailoring approaches to individual clients' requirements and prioritizing long-term health maintenance above short-term fixes. The majority of outcome studies have focused on getting people off drugs and back on their feet, rather than looking at the bigger picture of ongoing treatment. Methadone patients reported higher levels of life satisfaction as a primary

motivation for continuing treatment, according to a recent research [33].

Problems in other areas of life, such as the legal and social spheres, are more common than drug use itself when individuals seek therapy. In addition, there is a lack of evidence linking drug use to a decline in quality of life. Beyond the obvious effects of drug dependency, measuring quality of life may provide light on the things that clients value most in life beyond their physical and mental health. Quality of life is more closely linked to social participation and self-determination for drug users than health [34].

Research assessing health-related quality of life (HRQoL) that focuses on quality of life is using the incorrect construct. Limiting HRQoL to health-related concerns ignores the complexities of drug users' lives and fails to account for other factors that significantly affect individuals' subjective well-being, such as self-esteem, life goals, and social participation. This in no way detracts from HRQoL's usefulness. The study provides valuable insights into how therapy impacts a person's health, but its narrow emphasis on pathology prevents it from offering a more comprehensive assessment of quality of life [35].

Over time, quality of life has emerged as a crucial metric for health research outcomes. Despite the fact that quality of life (QoL) has gained traction as a professional phrase to illustrate a client-centered, multi-faceted approach to therapy, the idea often devolves into meaningless rhetoric. It is possible and helpful to assess drug users' quality of life in practice; doing so may provide extra diagnostic information, painting a fuller picture of the client and allowing clinicians to better meet their needs [35].

Connecting drug abuse, resiliency, and life satisfaction

The correlation between resiliency and QoL in the early and late phases of a drug abuse treatment program:

First Phase

Staying Strong: At the beginning, patients usually don't seem very resilient. Relapse is more likely and the individual is less able to handle stressful situations. Substance abuse causes cognitive deficits, which manifest in patients at this stage as restricted problem-solving ability and inflexible thinking.

Here, patients may still be in the early phases of transformation, when they are unsure about how to handle their drug use issue or have not fully acknowledged it.

Life Quality: During the first phase, people often have a low quality of life. Relationship troubles, health issues, and difficulty with day-to-day functioning are all part of this. Stress, unpleasant feelings, and dissatisfaction in many aspects of life are common among patients.

Both the emotional and physical effects of addiction have a negative impact on quality of life..

Stage Four: Resilience Patients are anticipated to have enhanced resilience at the end of the rehabilitation program. They are more resilient, better able to deal with stress without turning to drugs or alcohol, and have superior coping methods overall.

Therapy, support groups, and other therapies that teach people to manage their emotions, stress, and self-efficacy actively cultivate resilience.

Life Satisfaction: The last phase considerably enhances life satisfaction. As a patient's health improves, they are able to reconnect with loved ones, resume normal activities, and generally lead better lives. Feelings of happiness, improved social functioning, and general contentment with life are common outcomes.

Patients report enhancements to their mental and physical health as a result of the rehabilitation procedure, which aids in achieving a better life balance. Per Flores (1997: 113).

The connection between drug use disorder resiliency

Research on resilience has mostly focused on clinical groups, namely those whose members have experienced trauma or other forms of stress. Studies like this may help with alcohol dependency research, but they can also guide behavioral intervention design and execution [36].

Strengthening one's mental fortitude has a preventive effect against alcohol abuse and has an inverse relationship with alcohol abuse. As part of gathering information on alcohol use, physicians should consider whether or not the patient is resilient; this might help with treatment planning. When dealing with alcohol abuse, it might be beneficial to include elements of resilience enhancement therapy[37]. Substance misuse was inversely predicted with resilience and adaptive motivation. Rehospitalization for drug use disorders is more common among males who score lower on measures of ego identification, self-efficacy, and resilience compared to women [38].

According to Yamashita and Yoshioka (2016), those who are resilient are less likely

to relapse and are more likely to open up about their struggles with alcohol. According to Travis et al. (2021), faith groups that back preventative initiatives have a positive impact on resilience and the likelihood of reducing the incidence of drug use disorder. Nikmanesh and Honakzahi (2016) found that those with strong resilience reported higher levels of perceived social support compared to those with poor resilience.

According to a research by Yamashita and Yoshioka (2016), patients with AUDs had Bidimensional Resilience Scale ratings of 30.1 ± 5.5 and 38.2 ± 8.1 , respectively. People who struggle with substance use disorders are not very resilient, according to a prior research [39].

In order to help patients build self-esteem and self-efficacy as they recover, it is recommended that they make changes to their surroundings, such as avoiding or altering relationships with people who were formerly linked with their substance use disorder and addressing any cognitive distortions they may have. Evidence suggests that mindfulness training may help people with substance use disorders overcome cognitive distortions. The use of CBT workbooks grounded on the Matrix Model has recently gained traction in the United States, with encouraging outcomes shown in studies[40]; [41].

Relapse risk was shown to be inversely linked with both innate and acquired resilience, with high acquired resilience indicating lower relapse risk; this highlights the importance of resilience enhancement in substance use disorder recovery[42]. Efforts to build resilience should begin in early infancy, according to studies on resilience that is connected to substance use disorder prevention [43].

Also, studies on resilience have shown that family-based treatments and social support are necessary; for example, Johnson et al. (1998) found that families with teenagers, who are at a high risk for substance abuse, benefited from an intervention program that focused on community affinity.

This calls for initiatives to foster resilience beginning in adolescence. Also, people can't heal and become more resilient until they're in a secure therapy setting where they can be themselves without fear of repercussions. Dunn et al. (2014) cites other studies that found that attending meetings of alcohol dependency treatment facilities and self-help groups improved self-disclosure, which in turn increased resilience.

❖ Relation between addiction and quality of life

Relevance of quality of life in substance abuse treatment

The characteristics of SUD make it very relevant to think about QOL, especially OQOL. To begin, a person's ability to operate in almost every aspect of life is impacted by active drug misuse. This includes career, social and family life, physical and mental health, housing situation, and access to resources. "The most striking aspect... was the sheer number of problems that people were experiencing"[44], according to researchers commenting on study results on reasons individuals sought treatment for alcohol misuse.

People are more likely to discontinue SUD treatment if they do not get comprehensive assistance for all of the issues that limit their ability to live life to the fullest. We found that 33% of polydrug users would have stayed in outpatient treatment if the program had addressed their unmet social service needs, particularly in the areas of housing and vocational/educational opportunities [45].

Recent research on recovery priorities among community-based individuals in recovery for durations ranging from one month to over ten years provide credence to the idea that broad quality of life areas, as evaluated by the World Health Organization's Quality of Life (WHOQOL) instruments, are relevant to the recovery experience. All participants in the study were worried about being sober, but they were also worried about a number of other functional areas, including housing, education and training, and job [45].

The ASI and other popular metrics assess patients' experiences in important areas where many report difficulties. People in long-term recovery who are no longer getting treatment but still deal with addiction-related consequences are likely to find QOL instruments more relevant since they are more thorough [46].

Most people with SUD live with the disease for the rest of their lives, and while treating incurable diseases, improving quality of life is of paramount importance. An individual's quality of life may be better understood by taking their medical condition and treatment recommendations into account when measuring QOL within a framework for chronic disease. Quality of life (QOL) is a popular outcome measure for chronic illness patients. It gives a realistic picture of how patients feel about their ability to function and the impact of their disease after treatment, which is helpful for public health assessments

and the creation and assessment of services [64], [47].

Substance use disorder researchers have been rethinking what it means to be "recovered" in line with the increasing consensus in medicine that patients need enhanced functioning in many domains. Traditional wisdom held that sobriety was an indicator of success in other areas, but that view has now been disproven. However, it is typical to see decreases in drug use without corresponding improvements elsewhere, particularly in the beginning, and abstinence seldom gives quick relief from all other issues in life [48].

Everyone from therapists to clients and their families to funders to lawmakers to society as a whole is working toward the same objective of recovery, which is best seen as sobriety with enhancements in global functioning, or better quality of life. As a result, recovery is described by the SAMHSA as "a process of change through which an individual achieves abstinence and improved health, wellness, and quality of life" [46].

"Recovery is when patients are not just free of symptoms—they have a life." – Charles Curie, former director of the Substance Abuse and Mental Health Services Administration (SAMHSA). In line with this position, the National Outcome Measures (NOMs) used to assess all publicly financed services by SAMHSA center on quality of life (QOL) dimensions [46].

Due to these shifts in our knowledge of SUDs, a new paradigm of care has emerged that bases its decisions on patients' actual experiences, particularly their quality of life (QOL) ratings. Individuals, families, and communities are encouraged to assume accountability for their own health, wellbeing, and rehabilitation from substance abuse via the provision of person-centered, strength-based continuity of care in what is referred to as "recovery-oriented systems of care" [49].

Consistent with demands made by the Institute of Medicine and prominent addiction researchers for a change in substance use disorder treatment away from acute care and toward a model more similar to that used for other chronic conditions, the suggested array of services is meant to address clients' evolving needs throughout their lives [50]. Individuals may find a wide range of services and supports via ROSC, and these can be tailored to their specific needs and goals in order to help them lead more fulfilling lives. Assistance with housing, child care, transportation (to and from treatment and work), education, job training, case

management, and substance use disorder (SUD) services (e.g., recovery support, peer-to-peer services and coaching, self-help, and support groups) are all possible [51].

When dealing with incurable diseases, quality of life enhancement becomes even more critical.

The effects of drug misuse on living standards

In the US in particular, the addiction sector is quite slow to accept QOL as a crucial result compared to other fields dealing with mental health and biology (Morgan et al., 2004). The extensive impact of substance use disorders on individuals, their families, and society as a whole has not led to the widespread use of quality of life measures as a means of tracking results [103].

Almost all of the less than 100 English-language research published in the last 20 years on quality of life in SUD populations have involved individuals who are dependent on alcohol. Research on quality of life among drug abusers has mostly taken place in countries other than the US and has focused on people who have a dual diagnosis, meaning they suffer from both mental illness and substance use disorder ([53], [101]).

There is only one quality of life study of people who are addicted on crack or cocaine, and that is our own work. Qualitative well-being has been the subject of some research that has avoided using the phrase. Despite this, the most common non-substance-abuse outcome, psychological functioning, was recorded by just 38% of the multigroup studies published between 1990 and 1998. Even though OQOL is more directly related to recovery objectives, almost all research examining QOL have focused on HRQOL [46].

The present understanding about well-being and quality of life in populations of people who abuse substances is summarized here. Due to a lack of research on drug-dependent populations, this review focuses on data from those who abuse alcohol and drugs [46].

Treatment Seekers and Active Substance Abusers: Quality of Life

Compared to non-SUD groups, QOL is lower among those who are dependent on substances or are seeking treatment for substance use disorders. Smith and Larson (2000) and Donovan et al. (2005) found the same thing when comparing this to primary care patients, groups with chronic physical or mental health disorders, healthy non-abusers, and nonclinical and clinical cohorts.

For instance, according to Smith and Larson (2000), clients undergoing substance use disorder treatment have lower SF-36 indices of physical and mental functioning than the overall population, as low as or lower than those with lung disease and diabetes, and substantially lower than those waiting for cardiac surgery.

Evidence for the detrimental effects of SUD on physical functioning is mixed, but there is overwhelming evidence linking SUD to significant impairments in a number of other functional areas. Specifically impacted are mental and physical role functions (daily tasks, job, health perception in general), as well as occupational and recreational pursuits [54].

There is a strong correlation between the number and severity of substance abuse issues and worse performance across almost all aspects of quality of life.

Patients' health state, as assessed by the SF-36, was much poorer than the normative US population at intake, according to a major study of methamphetamine-dependent individuals undergoing treatment. General mental health and its subscales, such as energy, social functioning, and emotional wellness, yielded their worst results [55]. Although there were no changes in overall physical health status, they did report lower general health and greater physical role constraints compared to the population [46].

Associated Factors of Quality of Life in Substance Use Disorder Populations

The majority of research on QOL predictions in SUD patients has focused on sociodemographic and clinical characteristics. Due to variations in techniques, instruments, domains, and populations, the results are not entirely consistent and may be challenging to understand [52].

Foster et al. (2000) found that after controlling for other factors, a greater level of education, being employed, being younger, and being male were consistently related with better functioning on all HRQOL parameters. Impaired functioning is more common among people with several medical and mental health issues, such as those who have HIV and hepatitis C [53].

There is a correlation between the number of chronic diseases a person has and the likelihood of functional impairment across all aspects of quality of life. Although mental comorbidity is more often associated with impairments in cognitive functioning, physical comorbidity is more commonly associated with impairments in physical functioning; yet, both types of comorbidity increase the

likelihood of impairments in almost every area of life [56].

Still, further study is required since known demographic and clinical characteristics have only explained 2–7% of the variation in HRQOL among SUD treatment seekers across studies [46].

How much drug misuse impacts QOL on its own, apart from other variables, is an important subject and a new field of study. Other commonly used dependence indices, such as age at start of drug use, duration of dependence, drinking pattern, prior withdrawal distress, and number of prior treatments, do not reliably predict QOL, although a higher number and severity of alcohol or drug problems consistently associate with poorer functioning in nearly all QOL domains. According to Smith and Larson (2000) and Millson et al. (2006), drug misuse, particularly cocaine and polysubstance abuse, may have a more significant impact on functioning than alcohol abuse.

Improvement in Quality of Life and Remission of Substance Use Disorder Symptoms

One would think that a higher quality of life (QOL) would accompany a decrease in substance use disorder symptoms and a commitment to sobriety; indeed, research shows that QOL improves during abstinence and worsens after relapse [56].

The majority of research [57] has shown that people's mental functioning improves when they abstain from drugs and alcohol. As an example, the most rigorous study on the impact of substance use disorders on quality of life discovered that over a three-year follow-up period, people whose drinking habits varied (i.e., went from not drinking at all, moderate drinking, abuse, and dependence) were more likely to experience changes related to their mental functioning than their physical functioning [58].

large reductions in mental functioning were seen in participants who acquired an alcohol use disorder or proceeded from abuse to dependence, whereas large improvements in mental functioning were independently related with all kinds of remission. Compared to partial remission, when a person does not fulfill dependency requirements but does exhibit one or more symptoms of abuse or dependence, the increases linked with abstinent and nonabstinent remission were almost twice as great [46].

Based on the evidence, it seems that decreased drug consumption is not a sufficient requirement for recovery on its own. Additionally, the effect on mental functioning

is minimal. As an example, [52] found that decreased drug usage accounted for 4.8% of the variation in mental functioning at the 3-month follow-up in an outpatient randomized clinical trial including 252 individuals.

One important point to consider, as with other favorable treatment outcomes, is whether the improvements in quality of life that come with reduced drug misuse will last. The link between length of abstinence and quality of life is still not well understood, and there has been very little study on the subject [59].

After six years of tracking a group of alcoholics, Mann and colleagues found that 65% of them had been sober for four years or longer, and that they performed much better in all areas of life when compared to the group that continued to drink [60]. Amodio et al. (1992) found that whereas short-term research have shown a linear positive connection between abstinence length and QOL, a small number of cross-sectional studies indicate that QOL gains may reach their peak after 1 or 2 years of abstinence.

One study found that quality of life (QOL) ratings declined with increasing duration of abstinence, and that individuals with 12–42 months of abstinence performed better than those with 3–12 months or 43–108 months of abstinence [61].

Conclusions:

The Recovery programs should contain job assistance that is customized to each patient's development in order to address the correlation between resilience training and work status. In order to help people with SUDs recover and become more resilient, there has to be a system in place to help them find jobs and stay in treatment for the long haul. Efforts to reduce drug misuse have an impact on aspects of quality of life beyond cognitive performance.

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