



# Substance Use Disorder Treatment and Nutrition: A Multidisciplinary Approach

Carmela Y Drake, PhD, LPC, CAADP, ACGC-III

Department of Rehabilitation Studies, Alabama State University, John Buskey Bldg., Ste. 313, PO Box 271, Montgomery, AL 36101, United States.

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**\*Corresponding Author:** Carmela Y Drake, PhD, LPC, CAADP, ACGC-III, Assistant Professor, Rehabilitation Services with concentration in Addiction Studies, Alabama State University, John Buskey Bldg., Ste. 313, PO Box 271, Montgomery, AL 36101, United States. E-mail: [cdrake@alasu.edu](mailto:cdrake@alasu.edu)

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## Abstract

In light of the call for addiction treatment reform, this conceptual manuscript discusses the importance of using a multidisciplinary approach to treating substance use disorder. The concept of incorporating a registered dietician to the multidisciplinary approach supports the moniker of providing a “holistic” approach of substance use disorder treatment. The implementation of registered dietitians takes on more of a biopsychosocial (holistic) approach to treating and sustaining recovery for individuals with substance use disorders. Research supporting the incorporation of registered dietitians is also discussed.

For over two decades, research has been conducted to support the benefits of nutrition education in substance use disorders (SUD) treatment and recovery program. Finnegan and Gray [1] found that practitioners working with individuals with SUD become well quicker, with fewer symptoms, and sustain recovery longer when they follow principles of good nutrition. Research has supported the benefits of treating individuals with SUD through the use of a multidisciplinary model of treatment. Traditionally, these multidisciplinary teams comprise of a psychiatrist, medical doctor, certified addictions counselor, nurse, and social worker. Supporting the nutritional status of individuals with SUD is often neglected or a very small part of recovery support offered in outpatient services [2]. Recent research has suggested a more holistic approach with an integrated perspective to assisting in the development of the individual’s treatment and recovery plan. The current body of knowledge surrounding SUD treatment has placed some importance of recognizing problematic foods that exacerbate substance use cravings. The current research has supported vitamin, mineral, and nutritional education that can be incorporated in the individual with SUD treatment and recovery plan. The purpose of this conceptual article is to introduce the concept of having a registered dietitian on the multidisciplinary team; to be aware of certain problematic foods that produce cravings and withdrawal like symptoms; and share research that reflects the benefits of incorporating nutrition education in the treatment and recovery plan of individuals with substance use disorder (SUD).

## Multidisciplinary Approach

A number of different professions have released statements addressing how they can contribute to the treatment and positive prognosis of individuals with substance use disorders in sustaining recovery. The American Society of Addiction Medicine (ASAM) (2016) endorsed

the importance of using a multidisciplinary approach to treating individuals with SUD, to include, but not limited to, occupational and recreational therapists, vocational rehabilitation counselors, as well as community workers and peer support specialists. In 1990, the American Dietetic Association released a position paper encouraging registered dietitians to become vital members of multidisciplinary teams that provide services to individuals with SUD. Registered dietitians have also endorsed the importance of a holistic approach to addiction treatment to include diet, supplements, a 12-Step Program, and intensive individual counseling [3].

Additionally, dietitians have recognized the importance of their role in promoting wellness by diversifying multidisciplinary teams and providing nutritional evaluations and dietary assessments, nutritional therapy and education, menu design, and aftercare consultations [4] agreed that dietitians have an important role in improving the physical health of individuals with mental health problems and should be active members of a multidisciplinary team. Researchers have acknowledged that the current psychosocial treatment model of substance use treatment has been unsuccessful in providing the degree of desired outcomes and other aspects of treatment must be identified [5]. Adding registered dietitians to the multidisciplinary team of persons with SUD encourages a shift from a psychosocial model of treatment to a more biopsychosocial treatment model.

Given the current opioid crisis and the need for treatment reform to assist individuals through treatment, discharge and recovery; incorporating registered dietitians to the multidisciplinary team would only be an investment towards providing a more responsible and relevant service to clients seeking SUD treatment at both the residential and outpatient treatment levels. Cowan and Devin [6] have identified that poor diets and high rates of overweight and obesity have been reported among individuals in recovery from substance use disorder (SUD). It is also known that individuals with longstanding SUDs have been associated with malnutrition [7]. Nutrition should be an important part of the treatment of individuals with SUD; unfortunately, it is not given much consideration in treatment guidelines despite the evidence that recovery outcomes can be improved by nutrition therapy [5].

Unfortunately, the current body of knowledge has identified a number of barriers for SUD treatment programs that has prevented the incorporation of a full-time registered dietitian to the multidisciplinary team. The barriers range from agency beliefs



to budget restraints. Financial resources were ranked as the most significant barrier to including new wellness/nutrition programs [4]. Agency beliefs surrounding the necessity and ability to provide reasonable accommodations for the programming were also barriers that were identified. Specifically, [4] identified the following beliefs that have served as barriers to SUD treatment programs providing nutrition programming:

- treatment programs that provide nutrition services may be content with current efforts and see no need to expand nutrition services;
- difficulty with service coordination,
- services are not required or they do not see the value in providing nutrition programming; and
- treatment programs believe their current facility and environment is not conducive for nutrition counseling.

There is an opportunity for substance use disorder treatment programs to revise their treatment protocols to include the professional contributions of registered dietitians in improving the nutritional health and recovery prognosis of individuals receiving treatment services.

### Dietetics Research

Dietetics research has been conducted to identify those foods items that tend to exacerbate substance use cravings as well as withdrawal like symptoms. Eating problematic foods stimulate the release of endorphins [8]. Endorphins are chemicals that are released by the body to relieve stress and pain. More common food items that

stimulate the release of endorphins are candy, chocolate, and ice cream [8]. Sugary or highly-refined foods like white bread, doughnuts, and soda are quickly broken down and can be rapidly absorbed in the bloodstream resulting in spiked blood sugar levels [9]. Once glucose levels drop, the body begins to experience withdrawal like symptoms such as:

- shakiness,
- mood swings,
- irritability,
- emotional instability,
- sudden fatigue, and
- sweatiness

Challem [3] further explored and identified food allergy addictions that appear to affect specific alcohol consumption such as wheat (beer); sugar (rum); juniper (gin), rye (vodka), and corn (bourbon). Beverages containing caffeine are widely overused among individuals in treatment and recovery from SUDs. Caffeine can also produce the aforementioned symptoms as it “stimulates the adrenal glands to trigger the release of stored glycogen to temporarily raise blood sugar levels” [9].

It is important for the individual to learn (early in treatment) about problematic foods that can produce withdrawal like symptoms and exacerbate substance use cravings so they can continue to avoid or minimize the consumption to assist in sustaining recovery.

### Nutrition Education

Substance Use disorder (SUD) treatment protocols can benefit

from nutrition intervention as a treatment modality [4]. Research has indicated that nutrition intervention has had a positive association with SUD treatment outcomes. Grant et al. [5] conducted a study to determine the extent and use of nutrition education in substance use treatment programs. The researchers observe changes in the Addiction Severity Index (ASI) composite scores to determine possible association between nutrition education and program outcomes. They observed changes in group nutrition/substance abuse education and individual nutrition/substance abuse education in ASI medical domain scores and family/social domain scores [5]. Additionally, the authors learned that programs that offered group nutrition/substance abuse education offered significantly more nutrition services overall [5].

Cowan and Devin [6] conducted a study to determine the effect of an educational and environmental intervention on diet, body mass index (BMI) and waist circumference of men in substance addiction treatment using the Recovery Healthy Eating and Active Learning in Treatment Houses (RHEALTH). The authors found that the participants reported significantly greater intakes of fruits and vegetables and lower intakes of calories from sweets and desserts [6]. Barbadora et al. [10] conducted a study on 58 individuals with alcohol use disorder receiving nutrition education services. The researchers found that 80% reported continuous abstinence six months after completing [10]. Lindsay et al. [11] found, after collecting data on 124 women that completed the Healthy Steps to Freedom program, a decrease in thin-ideal internalization, body dissatisfaction, and eating disorders symptoms, while there was an increase in health-related behaviors.

Substance use disorder treatment facilities can benefit from providing nutrition intervention in both residential and outpatient settings. Registered dietitians are qualified to provide clinical nutrition programming and can be a vital member of the multidisciplinary team.

## Conclusion

With the rise of the opioid epidemic and the call for substance use disorder (SUD) treatment reform, revisiting the inclusion of nutrition education and intervention as a treatment modality could not come at a better time. For over two decades, there has been discussions, statements, and research conducted to show the benefit of adding registered dietitians to the multidisciplinary team to provide a holistic approach to working with individuals with SUD. The inclusion allows for SUD treatment models to take a more biopsychosocial treatment approach to treating the individual and providing support for sustaining recovery. Registered dietitians bring a wealth of knowledge on supported vitamin, mineral, and nutritional education that can be incorporated in the recovery plan as well as problematic foods to avoid to reduce withdrawal like symptoms and alcohol and drug cravings. The current body of knowledge supports the benefits of registered dietitians providing clinical nutrition intervention to individuals receiving SUD treatment. The time has come for SUD treatment programs to make necessary changes to ensure a more responsible and relevant treatment service is being provided to individuals seeking recovery from substances.

**Conflict of interest:** The author have declared no conflict of interest.

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