Dietary and Lifestyle Practices of People Who Use Drugs

Summary

Substance use disorder (SUD) is a major public health problem that has a detrimental impact on health, substantially contributing to the global burden of communicable and non-communicable diseases. Effective treatments for SUD are essential to reduce the impact of substance use on both the individual and society. There are two main types of treatments used for SUD: detoxification (complete abstinence) or the opioid substitution treatment (OST). Once referred to treatment, a major shift occurs in the lifestyle of people who use drugs (PWUD) especially concerning nutrition and metabolism. Addressing the lifestyle practices and improving the quality of life of PWUD seems to decrease the risk of relapse. Studies emphasizing proper nutrition, physical activity, and adequate sleep potentially associated with better physical and mental wellbeing in SUD, are scarce. Lebanon, is a small high-middle income country in the Eastern Mediterranean region that showed a rapid progression of substance use disorder from the onset of civil war. Research on SUD in Lebanon is scarce and when present, it either focuses on the prevalence of a specific drug in a specific segment of the population, or on the prevalence of infectious diseases among people who inject drugs (PWID) for harm reduction policy adoption. Studies focusing on the nutritional status, dietary and lifestyle practices of people who actively use drugs (PWUD) and those who are undergoing treatment for recovery are non-existing.

The study assessed the nutritional status and lifestyle practices among PWUD undergoing treatment for recovery in Lebanon. Furthermore, we explored significant differences in these parameters depending on the offered treatment modality, namely OST and rehabilitation. Finally, we examined the patterns and extent of weight change, and explored the determinants of weight gain among this population group.

In Chapter 2, we reviewed the evidence addressing the nutritional status and dietary habits of people actively using drugs and those in treatment. Substantial evidence supported decreased food intake, irregular eating patterns, and increased preference for sweet taste among PWUD. Moreover, this population group exhibited hidden deficiencies and disturbed metabolic parameters. Regarding users undergoing treatment, scarce available data indicated improvement in anthropometric and metabolic parameters, but with micronutrient intake remaining suboptimal. Weight gain was noted especially among females, potentially increasing the risk of relapse.

In Chapter 3, we pioneered in qualitatively exploring the dietary intake, sleep, and physical activity of PWUD undergoing treatment in rehabilitation centers in Lebanon. We found that rehabilitation centers enforced a disciplined routine lifestyle practice in terms of nutrition, sleep, and physical

activity that was appreciated by most participants. Yet, this strict regimen was viewed as suboptimal as it should address individuals' preferences and needs in terms of binge eating, lack of sleep, and type and frequency of physical activity offered. Furthermore, follow-up treatment in the community, at the end of the rehabilitation period, was also expressed as a need among most of the participants.

Also, nutritional parameters and lifestyle practices of PWUD were quantitatively assessed. The nutritional status, anthropometric measures, dietary intake, nutrition knowledge, food addiction, and biochemical profiles, as well as sleep and physical activity of PWUD in both OST and rehabilitation centers were measured (chapter 4). Furthermore, we explored major differences in these parameters between the two offered treatment modalities. Our results showed that PWUD undergoing treatment for recovery were subject to excessive weight gain that was significantly higher among those undergoing rehabilitation. Poor sleep quality was also significantly higher in the rehabilitation group, whereas physical activity was lower among PWUD in the OST centers. Finally, poor nutrition knowledge and high food addiction level were seen in both treatments with no significant difference between them.

Finally, in Chapter 5 we examined the patterns and extent of weight change and explored the determinants of weight gain in our sample. Our results showed that the majority of the participants who were initially in the underweight, normal, and overweight categories mainly gained weight during treatment and moved to a higher BMI category in both treatment modalities. This shift in the BMI was significantly higher in the rehabilitation group. On the other hand, the majority of the participants who were initially obese maintained their status. We also found that the number of previous treatment attempts and duration of treatment were negatively associated with weight gain. PWUD undergoing treatment for recovery in Lebanon are subject to various vulnerability factors creating challenges to treatment. Furthermore, SUD treatment is associated with meaningful weight gain and unhealthy lifestyle parameters that might lead to health risk factors. These findings shed the light on the importance of addressing these parameters to improve the overall rehabilitation experience, prevent relapse, and inform the development of future targeted health promotion intervention programs tackling aspects of behavioral changes in nutrition, sleep, and physical activity.

Integrated lifestyle interventions are increasingly being recognized as important components of routine care of PWUDs undergoing treatment for recovery. Yet, the feasible and sustainable

implementation of these interventions in routine care is challenging, as it requires a deeper understanding of the patients' needs, in addition to identifying facilitators and barriers experienced by both users and health providers.

The findings of this study fill an important gap in this regard by providing the foundation of a framework for a health intervention program targeting nutrition and lifestyle practices of PWUD in treatment in Lebanon. Yet, it is important to acknowledge that there are several limitations hindering the generalizability of the results including the low representation of females, not addressing other lifestyle factors like alcohol and smoking which might have an effect on the weight gain observed, and the social and economic hardships that Lebanon is facing, which pose further challenges to the participants affecting their nutrition and lifestyle factors.