The DIMENSIONS: Well Body Toolkit for Healthcare Providers was developed by the University of Colorado Anschutz Medical Campus, School of Medicine, Behavioral Health and Wellness Program
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Priority Populations: Behavioral Health

1. Weight and Health

2. Contributing Factors
   - Pharmacotherapy
   - Lifestyle Factors
   - Lack of Wellness Programming

3. Interventions and Targeted Programming
   - InShape
   - Wellness Self-Management (WSM)
   - Nutrition and Exercise through Wellness and Recovery (NEW-R)
   - Life Goals Collaborative Care
   - Well Body Program
Weight and Health

Among U.S. adults, an estimated 25% are diagnosed with a behavioral health condition and nearly 50% will develop a behavioral health condition at some point in their lifetime.\(^1\) Though prevalence studies vary on the precise percentage of people with behavioral health conditions among the U.S. population, there is general consensus that behavioral health conditions affect a significant proportion of Americans. According to the World Health Organization (WHO), behavioral health conditions account for more disability in developed countries than any other group of illnesses, including cancer and heart disease.\(^2\)

Relative to the general population, individuals with behavioral health conditions are at increased risk of being overweight or obese. One prevalence study conducted on weight issues in the behavioral health population found that 29% of men and 60% of women with severe mental illness were overweight or obese, compared to 18% of men and 28% of women in the general population. These numbers are staggering, and for individuals with behavioral health conditions, obesity has been deemed “an epidemic within an epidemic.”\(^3,4\) In addition to the increased risk for chronic disease, excess weight is directly and indirectly linked to premature death in individuals with behavioral health conditions. These individuals die up to 25 years earlier than those in the general population.\(^5\) Numerous studies identify factors that contribute to this disparity in life expectancy, including high rates of poverty, lifestyle factors (e.g., poor health behaviors), medication side effects, and lack of wellness programming in treatment settings.

**Definition**

The term “behavioral health populations” represents the heterogeneous group of individuals diagnosed with a psychiatric or substance use disorder, as outlined by established medical criteria. This may include mood disorders, anxiety disorders, substance-induced disorders, or any other brain disease resulting in cognitive and/or psychological changes or decline.
Contributing Factors

Individuals with behavioral health conditions are affected by similar biological, financial, and psychosocial factors that contribute to obesity in the general population. However, due to significantly higher rates of obesity among individuals with behavioral health conditions, additional factors need to be examined and addressed through intervention.

Pharmacotherapy

An observed and reported side effect of many antipsychotic medications is weight gain—a primary contributor to increased rates of obesity among the behavioral health population. Individuals who begin psychiatric medications at an earlier age (those age < 24 years) and remain on the medication for at least 5 years are more likely to be obese. Medications that exhibited the greatest amount of weight gain include: Olanzapine (average weight gain of 37 lbs.), Risperidone (average weight gain of 28 lbs.), and Haloperidol (average weight gain of 9 lbs.). The biological mechanism by which this occurs is currently unclear. It appears that atypical antipsychotics may directly affect the hypothalamic appetite centers, alter satiety signals originating in adipose tissue, or create hormonal resistance to satiety control.

It is important to note that weight gain associated with psychiatric medications has been known to negatively impact medication compliance. To avoid weight gain, individuals may choose not to take their medications, which can lead to a worsening of mental health symptoms and subsequent increase in psychiatric hospitalizations. If not addressed with effective wellness interventions, this only further contributes to a diminishing quality of life for individuals with behavioral health conditions.

Lifestyle Factors

Certain health behaviors, such as a sedentary lifestyle and poor eating habits, have been found to be more prevalent among individuals with behavioral health conditions than the general population, particularly those whose conditions are more severe. Studies indicate that individuals with schizophrenia engage in low levels of physical exercise and are more likely to consume high calorie foods that are low in nutrient value. Combined with the biological effects of psychotropic medications, these factors also contribute to the high rates of diabetes, heart disease and obesity found among individuals with severe behavioral health conditions.

In addition to these lifestyle factors, individuals with behavioral health conditions are more likely to live below the poverty line and are at increased risk for homelessness. Additionally, these individuals also have limited access to primary care and may be less likely to discuss physical symptoms with health providers.
Lack of Wellness Programming

Despite the recent trend towards health promotion programs in the general population and an increased risk for obesity and poor health behaviors, wellness programming geared towards individuals with behavioral health conditions continues to be sparse.\textsuperscript{17,18} This includes programming in psychiatric inpatient-hospital and community outpatient settings.

Many individuals with behavioral health conditions attend psychiatric inpatient or partial hospitalization programs where they receive onsite meals. Thus, these individuals likely obtain a large proportion of their daily calories from institutional meals, which are often high in calories and low in nutrient density.\textsuperscript{19} Additionally, many outpatient psychiatric facilities do not offer comprehensive wellness programs that offer weight management and nutritional education. Often times, behavioral health providers are focused solely on managing psychiatric symptoms and negate addressing lifestyle factors that contribute to obesity and promote weight management.
Interventions and Targeted Programming

Behavioral Interventions

Traditional interventions such as Motivational Interviewing (MI) and Cognitive Behavioral Therapy (CBT) are applicable and can be successful with the behavioral health population. However, as this population is at increased risk for obesity and related medical complication, it is vital to examine additional programmatic factors that may increase success. In 2012, a comprehensive systematic review of the scientific literature was conducted on existing interventions for weight management and nutrition among the behavioral health population, particularly individuals with significant psychiatric impairment. The findings were as follows:20

• Programs of longer duration (greater than 3 months) were more successful at achieving wellness-related gains;
• Successful programs combined both psychoeducational and activity-based approaches in a manualized, structured format—unstructured, non-intensive, and non-manualized programs or programs that only focused on either nutrition or weight management alone were less likely to improve physical fitness, eating behaviors, and overall health;
• For decreases in excess weight, providing nutrition information and/or support alone is not sufficient—individuals with behavioral health conditions should be actively engaged in measures of physical exercise (e.g., 6-minute walk test or standardized physical activity monitoring) and weight management strategies (e.g., food diaries) for optimal success.

Health Promotion Programs for Persons with Serious Mental Illness: What Works? A Systematic Review and Analysis of the Evidence Base in Published Research Literature on Exercise and Nutrition Programs.

**Targeted Programming**

As health promotion is increasingly discussed among behavioral health providers, wellness programming aimed at addressing the needs of the behavioral population are beginning to develop. The following chart outlines some key programs developed for this population:

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<th>Name of Program</th>
<th>Description and Resources</th>
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<tbody>
<tr>
<td>InShape Program</td>
<td>A community-based wellness program aimed at individuals with severe behavioral health conditions. Individuals are assigned a “health mentor” who provides weight management and nutrition assistance. <a href="http://www.lapeercmh.org/programsandservices/inshapeprogram/">www.lapeercmh.org/programsandservices/inshapeprogram/</a></td>
</tr>
<tr>
<td>Wellness Self-Management</td>
<td>A comprehensive, evidence-based program with an emphasis on mental and physical wellness and stability. Program contains various components that include strategies to promote recovery, mental health wellness, and relapse prevention. <a href="http://www.nyebpcenter.org/CPIInitiatives/WellnessSelfManagementWSM/tabid/189/Default.aspx">www.nyebpcenter.org/CPIInitiatives/WellnessSelfManagementWSM/tabid/189/Default.aspx</a></td>
</tr>
<tr>
<td>Nutrition and Exercise through Wellness and Recovery (NEW-R)</td>
<td>A manualized, structured program developed by behavioral health professionals focused on “being intentional” and promoting changes in physical activity level and food intake. Participants attend regularly scheduled weekly sessions and utilize support from trained professionals and group members. <a href="http://www.cmhsrp.uic.edu/download/WeightWellnessParticipantManual.pdf">www.cmhsrp.uic.edu/download/WeightWellnessParticipantManual.pdf</a> <a href="http://www.cmhsrp.uic.edu/download/WeightWellnessLeaderManual.pdf">www.cmhsrp.uic.edu/download/WeightWellnessLeaderManual.pdf</a></td>
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<tr>
<td>Life Goals Collaborative Care – Wellness for Bipolar Disorder</td>
<td>An evidence-based psychosocial intervention with a focus on integrated care services and wellness interventions. Individuals receive concurrent health care from behavioral health and physical health providers. Proven effective with individuals with substance abuse disorders. <a href="http://ssw.umich.edu/programs/ce/LGCC_Brochure_Approved.pdf">ssw.umich.edu/programs/ce/LGCC_Brochure_Approved.pdf</a></td>
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<tr>
<td>DIMENSIONS: Well Body Program</td>
<td>A comprehensive, structured and manualized wellness program focused on weight management, nutrition, and exercise geared at individuals within the behavioral health population. This model can be utilized by healthcare providers, behavioral health providers, and/or trained peers working in collaboration. <a href="http://www.bhwellness.org">www.bhwellness.org</a></td>
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End Notes


The Behavioral Health and Wellness Program’s DIMENSIONS: Well Body Program is designed to train peers and providers to assist people to maintain a healthy lifestyle. The DIMENSIONS: Well Body Program Advanced Techniques training supports individuals to envision and achieve their Well Body goals through motivational engagement strategies, group process, community referrals, and educational activities. Contact the Behavioral Health and Wellness Program at bh.wellness@ucdenver.edu for more information.