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WEIGHT MANAGEMENT

The potential role of tailored messaging

This behavioral intervention could mitigate medically induced weight gain

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Weight gain is a well-known side effect of many medical treatments for psychiatric illness, including antipsychotics, antidepressants, and mood stabilizers.¹ The amount of and mechanisms for weight gain differ in the various drug classes, but in general weight gain generates substantial concern.

Efforts to understand and manage treatment-associated weight gain stem from its association with medication noncompliance and discontinuation,² as well as clinically relevant health outcomes associated with excess weight and obesity.³ Research has focused particularly on the atypical antipsychotics, often prescribed to individuals with schizophrenia or treatment-resistant depression. These patients appear to have a higher propensity for poor health outcomes, and the severity of their conditions may make weight management difficult. Yet the weight gain associated with the atypicals tends to be greater than for other psychiatric drugs.

Weight gain associated with antipsychotics varies substantially, depending on the study and the particular medication. In a commonly cited meta-analysis of 81 studies examining weight gain after ten weeks of antipsychotic treatment, the greatest weight gain was observed with olanzapine and clozapine (greater than 3 kg) and the least with ziprasidone, fluphenazine, and haloperidol (0 to 1 kg).⁴ In general, there appears to be an initial surge in weight gain with a plateau later.

Medication Noncompliance Issues

Research on schizophrenia demonstrates the importance of medication and treatment compliance for preventing unnecessary

hospitalizations and relapses. There is good evidence that medication nonadherence clearly is associated with higher service use and costs.⁵ Because older antipsychotics are more likely to cause movement disorders, often leading patients to discontinue the medications, many prescribers have turned to using the atypicals. Thus, there is an incentive to mitigate the weight gain associated with the atypicals, as increasing weight also might lead some patients to discontinue the medications. A similar argument can be made for other psychotropics with significant benefits but associated with weight gain.

Mortality and Weight Gain

In addition, poor health is common among psychiatric patients.⁶ People with schizophrenia have a dramatically shorter lifespan than the general population,^{7,8} and rates of a number of chronic physical illnesses are higher in people with schizophrenia than in the general population.³ This population's higher-than-average suicide rates and poor lifestyle choices may contribute to this disparity.

This increased mortality rate likely also can be attributed to medically induced cardiovascular disease. In other words, the very medications highly effective in addressing schizophrenia's psychotic symptoms are strongly tied to weight gain and increased glucose intolerance, possibly leading to increased rates of cardiovascular disease and premature death. Some evidence even suggests that patients with schizophrenia might have a higher baseline risk of obesity and some of its concomitant effects,³ playing strong roles in cardiovascular disease and diabetes.

Therefore, the weight gain sometimes observed among individuals being treated for schizophrenia and other psychiatric conditions likely reflects a combination of medication effects, genetic predisposition, and lifestyle factors.

Promoting Weight Loss

Atypicals hold substantial promise for improving the lives of people with schizophrenia, but the association with weight gain is a reason for concern.

Little evidence exists on the role of behavioral interventions to improve health outcomes and increase treatment adherence in mentally ill patients with medically associated weight gain. Symptoms of psychiatric conditions may decrease motivation and the ability to independently pursue and adhere to exercise and diet regimens that may be effective in countering weight gain associated with medical treatment.⁹ Nonetheless, clinicians are recommended to advise behavioral interventions related to nutrition, diet, and exercise, as well as carefully monitor weight changes, especially in the period immediately following medication treatment initiation.³

National Institute of Health guidelines for weight management and reduction in the general population include modifications in diet, behavior, and physical activity.¹⁰ Yet motivating individuals to begin and maintain a lifestyle change is difficult, even in the absence of concomitant psychiatric and medical conditions.

In one of the few studies on behavioral weight management in the mentally ill population, Menza et al studied the potential for

a multimodal weight control program to be effective in a small population undergoing treatment for schizophrenia or schizoaffective disorder.¹¹ Participants achieved significant benefits in outcomes, including weight, body mass index (BMI), hemoglobin A1c levels, and blood pressure.

One strategy increasingly being shown to have potential for initiating and maintaining healthy lifestyles is “tailored messaging,” which can be delivered either in print media or via the Internet. Tailored materials are different from personalized materials, in which an individual’s name is used with an otherwise generic message. In tailored messaging, enough information is gathered from the individual to create a program that provides advice in a way that approximates a personal counseling session. Tailored messages are created on the basis of each individual’s particular needs, concerns, behavioral motivators, and challenges. The basic concept is that programs can take into account individuals’ particular stressors, challenges, and life situations, delivering a different response to each person. Individuals are more likely to respond to a program relevant to their situation and thereby see greater success in whatever health behavior they are attempting to change.

Research on tailored messaging, particularly using electronic resources, has been ongoing for a number of years,^{12,13} and recently has focused on the potential to effect weight management. In a recent randomized controlled trial conducted by HealthMedia, Inc., and Kaiser Permanente, the efficacy of Web-based tailored messaging was compared with Web-based general weight management materials.¹⁴ More than 2,800 overweight and obese individuals from four regions of Kaiser Permanente’s integrated healthcare delivery system participated. Changes in weight and satisfaction with the program were assessed via self-report at three and six months post-program initiation.

With a HealthMedia intervention, every participant is treated individually, and every engagement begins with an individualized, tailored assessment. Through this assessment, HealthMedia identifies the participant’s stage of readiness, motivation, and confidence levels, along with their barriers and

triggers. Once this information is collected, HealthMedia’s tailored messaging engine generates a custom intervention, providing a steady stream of participant-specific reinforcement.

Subjects who received the tailored messaging program lost more than twice the weight as did those who received general information only (3 kg versus 1.2 kg), a significant difference. Hopefully, this research will be repeated and expanded to multiple populations (such as those with psychiatric disorders), but initial data suggest that tailored messaging has strong effectiveness for weight management.

Considering the Possibilities

We are only beginning to explore whether current behavioral interventions—especially tailored programs—are appropriate and likely to be effective for the mentally ill population. Little research has been conducted on effecting weight management in conjunction with medical treatment for psychiatric illness, and no work on tailored programming has been conducted.

Individuals with mental illness often have very specific challenges to goal setting, motivation, and focus. Messages and programs tailored to support them at their stage of illness management might be able to mitigate some of the barriers they face.

In addition, clinicians report that avoiding or managing side effects is a major factor in their choice of antidepressant to prescribe.¹⁵ Thus, adjuvant interventions to eliminate or minimize weight gain have the potential to increase their range of medical choices.

Therefore, we see this as a rich and important area for thoughtful programmatic research and evaluation—and for the application of approaches such as tailored messaging. ■

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