

Body Composition: A Motivational Tool in Anorexia Nervosa.

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BACKGROUND:

Weight is commonly used as a means of monitoring progress in the treatment of Anorexia Nervosa, but it is a crude measure of health. Patients have a fear of weight gain, particularly becoming "fat". A more detailed measure was needed to provide accurate information to patients as to what their weight gain entailed.

Anthropometric measurements, such as skin folds and measuring waist and hip circumference, were considered too intrusive and had poor reproducibility. Body composition using total body water is for research establishments, and dual energy X-ray absorptiometry (DEXA) was considered too expensive to do regularly (but is useful to highlight osteoporosis). Body composition measured by bioelectrical impedance was considered a good option, and reviewing the research and data, a Bodystat machine was purchased. Use was first reported in 1969, but developed by Lukaski in 1985.

THE BODYSTAT MACHINE:

The Bodystat machine is inexpensive, non-invasive and portable. The results are quickly obtained and are repeatable, reliable and valid. It works on the premise that fat free mass is a good conductor of electricity and fat and bone are poor conductors. The machine measures the body's resistance to a current, and gives readings of body fat, lean weight, body water. It estimates basal metabolic rate and energy requirements. The patient has to lie down and have electrodes attached to the right hand and right foot. Age, sex, height and weight have to be entered.

SOME FINDINGS:

For over 2 years, body composition has been carried out on all in-patients at Kimmeridge Court Eating Disorders Unit. The age range of subjects was 17-52 years, predominantly female (94%), with BMI of 9.8 upwards. No patients refused an assessment, and some asked for them more regularly than stated on the protocol. On admission, the initial analysis may be misleading, for patients are frequently dehydrated. This shows up as a higher than expected fat composition, eg: one female patient had BMI: 9.8, with a body fat of 28.6%; usual range for BMI: 20-24 is 20%-26% body fat.

RESPONSE OF USERS:

Patients are reassured that weight gain does not equate to a gain in fat weight. This motivates them to remain on the in-patient programme to achieve a healthier weight. The analysis also shows that as patients gain weight, they need to eat more, in terms of calories, to maintain this. In the unit this often means that patients have an extra snack than previously. As this can be explained due to change in metabolic rate, acceptance is easier. Patients have said that body composition was "very helpful" and that it "calms the mind". **The machine is impartial and cannot lie**

according to them. This short paper will cover the user of body composition as a motivational tool for some patients but also as providing useful information around progress of weight gain and the provision of nutritional advice.

KEY WORDS:

Body composition, motivation, in-patient, Anorexia Nervosa.