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DIET-FREE WEIGHT MANAGEMENT: WISHFUL THINKING OR A VIABLE OPTION?

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Introduction

As in most western societies, dieting in Australia has become so widespread that it is a normative mode or style of eating (Polivy & Herman, 1987). A recent review of data from the USA (French & Jeffery, 1994) indicates that in that society, approximately 61% of adults have dieted at one time or another, and that at any given time, 20% are dieting to lose weight. In certain sectors of the population, for example female college students, the spot prevalence can be even higher - up to 50-60%. And women are more likely than men to be dieting to lose weight.

In a recent Australian survey, Paxton and associates (Paxton, Sculthorpe & Gibbons, 1994) found that 53.5% of women and 39% of men had dieted to lose weight in the previous year, and more than half of those (54.5%) had done so more than once. It is no surprise to learn that dieting supports a healthy industry - 300,000 Australian consumers purchase weight loss programs each year for an estimated outlay in the order of \$500 million (O'Neill, 1996).

If the reason for this enormous outlay were genuine concern for health, we would have reasons to approve it; unfortunately, the primary consideration seems to be concern for appearance. Especially for women, thinness has become the hallmark of physical attractiveness and acceptability. Becoming, or remaining, thin brings significant psychosocial benefits - enhanced self esteem, social acceptance and even vocational success. It is this message that has led to the growth of dieting and other strategies for weight control (French & Jeffery, 1994; National Health & Medical Research Council, 1996).

In this discussion, *dieting* is defined as behaviour that

- is undertaken primarily, if not exclusively, to lose or maintain weight;
- restricts choice of foods and food intake in favour of adherence to a regimen;
- is focussed on food type and quantity rather than on eating behaviour as such;
- discriminates among foods primarily on the basis of their potential to affect weight.

The cause-and effect relationship of dieting and psychological wellbeing is not fully understood. We know from research in clinical populations that dieting can have both positive and negative consequences, even within the same individual (French & Jeffrey, 1994). The dieting process may be associated with the negative effects, and the weight loss with the positive ones (Smoller, Wadden & Stunkard, 1987). Dietary

failure can result in self-blame (Jeffery, French & Schmid, 1990), lower self-esteem (Hill, Oliver & Rogers, 1992; Polivy, Heatherton & Herman, 1988), body dissatisfaction (Hetherington, Hill, Oliver & Rogers, 1992), and depression and anxiety (Edwards & Nagelberg, 1989; Herman & Polivy, 1975; Rosen, Gross & Vara, 1987). Dieting behaviour has also been linked with impulsive eating tendencies (Logue & King, 1991), distorted perceptions of one's body (Mahamedi & Heatherton, 1993), negative attitudes to food (Wardle et al, 1992), and a predisposition to emotionally cued and disinhibited eating (Wardle & Beales, 1988; Wardle et al, 1992).

Since dieting can have such negative psychological effects, Polivy & Herman, (1992, p.262) have gone so far as to describe dieting as a health hazard, and in another context to suggest that it is a disorder we should be trying to cure (Polivy & Herman, 1985, p.200).

They are not alone in their opposition to dieting. Something of an anti-dieting movement has emerged, and is becoming more vocal and visible. The debate in the professional literature on the virtues and dangers of dieting is so impassioned that it has been described by Brownell & Rodin (1994) as a "maelstrom".

Howell (1996) suggests that this debate is being fuelled by three factors. First, there is the increasing concern about the rising prevalence of obesity in Western societies. The National Health and Medical Research Council, for example, reports data indicating that approximately 50% of men and 34% of women are obese or overweight and that an increasing trend is evident (NH&MRC, 1996). Second, there is the growth of the anti-dieting movement, which brings together several groups - practitioners concerned with the possible harmful effects of dieting, and feminists seeking to free women from culturally induced pressures relating to body shape and size. The third major influence in the diet debate is the growing body of evidence showing that weight lost by dieting is usually regained over a period of time (Perri, Nezu & Viegner, 1992).

We therefore need to ask a different question. Rather than asking "How can we make dieting effective?" or "Is dieting effective statistically?", we should ask ourselves "Is there an alternative to dieting as a weight management strategy?"

The remainder of this paper examines this question. The non-diet option, described here as "natural eating", will be outlined, and an account will be given of a recently completed clinical trial of a non-diet, "natural eating" program (Higgins, Gray, McFadden & Steinhardt, 1996; Gray & Higgins, 1996).

Diet-free Weight Management: the "Natural Eating" Option.

The program used in this study originated from two sources. Higgins and Gray had examined the work of several publications pitched at the general reader (Hirschmann & Munter, 1988, 1995; McFadden, 1995; Polivy & Herman, 1983), and had assessed the programs developed by Steinhardt in Texas. McFadden and her daughter Jenny (1995) had read the same publications and in addition had been trained in the psychological work of William Glasser (1985) in Control Theory. It is the addition of control theory based techniques that differentiates this program from those of other practitioners.

All of these programs share the goal of replacing dieting with "natural eating", where the focus is on primarily physiological rather than cognitive or emotional signals. Many researchers into the physiology of eating assume that these physiological signals are the paramount regulators of eating behaviour; our experience indicates that dieters override these signals in their preoccupation with food regimens, weight loss goals and anticipated consequences of their eating, and have to be re-educated into paying attention to them. A natural eater will enjoy food without anxiety, guilt, concerns about compulsive or "out-of control" eating or feelings of deprivation. The emotional content of their relationship with food will be greatly reduced. Because they are attuned to the body's nutritional and energy needs, they are likely to attain and maintain a healthy and stable body weight, especially as part of a non-sedentary lifestyle. The more freedom they feel in satisfying the body's physiological signals, the more likely they are to make choices which allow the body to function well - and which therefore will reflect a responsible attitude to eating. It is this blend of freedom to choose what to eat and responsibility to care for the body's needs that is the key

issue to be considered in developing a natural eating program. To achieve this blend, there must be a paradigm shift in the application of control - from external to internal.

The programs also have in common the underlying assumption that people will abandon dieting and accept natural eating if they are

- made aware of the hazards and limitations of dieting;
- helped to change the thoughts and feelings which they have learned through dieting, especially negative thoughts about their bodies; and
- provided with strategies for replacing unnaturally restrained eating with “natural eating” (Polivy & Herman, 1983), i.e., eating which is an appropriate response to physiological and “psychological” hunger signals;
- assured that their bodies will naturally govern their weight.

Previous Studies:

Until recently there has been little research evidence to validate the claims being made concerning the value of “non-dieting” programs; those health practitioners who are uneasy about, or who reject dieting as an approach to weight management are therefore forced to consider an alternative which has not been fully scrutinised scientifically. With the popularity of dieting for weight control and the concurrent growth in the prevalence of obesity and overweight in Western societies, this situation is even more concerning.

The bulk of the available research-based information about “non-dieting” programs came from three studies (Carrier, Steinhardt & Bowman, 1994; Ciliska, 1990; Polivy & Herman, 1992). In two of the studies (Ciliska, 1990; Polivy & Herman, 1992), all of the subjects were women, while in the third, women made up 70% of the sample. A common finding of the studies was that participation in a non-dieting program decreased restrained eating and enhanced self-esteem. The evidence of durability of these results over time was uncertain, as some evidence is derived from a very small group of subjects (in the Polivy and Herman study), some from a sample severely affected by attrition (in the Ciliska study), and the balance from subjects whose behaviour following the intervention could have been affected by unintended exposure to follow-up activities (in the Carrier, Steinhardt and Bowman study).

Moreover, these studies were unable to provide unequivocal evidence that a non-dieting program can affect body perceptions and attitudes. Only one of the studies found evidence of increased body acceptance (Carrier et al, 1994). Polivy and Herman (1992) reported no lowering of body dissatisfaction following the program they trialled, and the modest improvement observed by Ciliska (1990) was not sustained. Body acceptance is an important issue, given the strong evidence that body dissatisfaction among women is a major reason for the prevalence of dieting (Ciliska, 1990; French & Jeffery, 1994). Therefore, any intervention with the goal of replacing dieting with natural eating, if it is to have long term validity, must have as a priority an increase in body acceptance.

A Trial of a Natural Eating Program.

The trial was undertaken to assess the effectiveness of a psychoeducational program, closely patterned on an approach developed by McFadden (1995) for changing self-perceptions and fostering “natural eating”. McFadden’s approach stands apart from the others in that it gives particular attention to body acceptance and emphasises positive self acceptance as a condition rather than an outcome of a natural healthy approach to eating and weight management.

The vehicle used to achieve this personal strength is the client’s understanding of control theory, which is a simple explanation of how and why human beings behave. The model used was adapted by Glasser (1984) from the work of Powers (Powers, 1973a, 1973b; Robertson & Powers, 1990). Control Theory (which could also be appropriately labelled “internal control theory” or “choice theory”) maintains that people are internally motivated - so virtually all behaviour is the result of choice, and people are therefore responsible for their own behaviour change. Every behavioural choice is an attempt to improve the match (or reduce the error) between a person’s desired personal world (the “reference” signal) and the world that is perceived

(the “feedback” signal). Behaviour is a composite of thoughts, actions, feelings and physiological response, and the five basic needs for freedom, power, fun, love and survival play a central part in the motivation of behaviour. Therefore it is important to choose behaviour which is congruent with the basic needs and therefore self-nurturing.

Participants learn that food can be used to satisfy all the needs, but they also learn ways to perceive food as only one of a number of choices, so that choosing a responsible, non-eating but need-satisfying behaviour is a positive experience which is likely to be repeated. This contrasts starkly with the prohibitions and lack of freedom associated with keeping oneself on a diet.

The distinctions between the thoughts making up the mind-set of dieting, contrasted with the McFadden approach, can be summarised as follows:

<i>DIETING</i>	<i>NATURAL EATING</i>
I am overweight - I am not acceptable.	I am acceptable as I am.
I must lose weight.	My body is doing its best.
Self-criticism will enable me to maintain my self-control.	Self-criticism leads to negative feelings which will increase my eating and weight problems.
I must eat less.	Everything I eat must be the highest quality so that it deserves a place in my body.
My mind controls my eating and my weight.	My body can be trusted to guide my eating and to establish a healthy weight.
I must stick to a diet.	I will let my body tell me what, when and how much to eat.
I must deny myself certain foods.	It's OK to eat anything as I take responsibility for stopping.
Success will be weight loss.	Success will be feeling free to eat in accordance with hunger and satiety signals, without guilt.
If I can't stick to a diet, it's my fault. I have no willpower.	Diets limit my freedom. When I go off a diet, it's just my freedom need speaking.
I must constantly watch my weight.	I can relax and let my body regulate what it needs.

The program used in the trial, *Freedom From Dieting (FFD)*, was devised for the purposes of the study. Its impact was assessed in relation to restrained eating (eating dominated by considerations of weight), emotional eating (eating in response to emotional states and needs), external eating (eating triggered by the presence or sensations of food), self-esteem, concern about body shape, and weight change.

Method

The trial consisted of a randomised controlled study supplemented by a 12 months prospective study. The subjects were adult female volunteers (mean age 44.4 years, SD = 10.1) who, at recruitment, described themselves as being “sometimes”, “usually” or “always” on a diet for the *primary purpose of losing weight and/or changing body shape*.

Women undertaking diets on medical advice and under medical supervision were excluded as were any women identified, using the Eating Attitudes Test (EAT) (Garner, Olmstead, Bohr & Garfinkle, 1982), as being clinically anorexic or bulimic. The subjects were recruited from the general community using press, radio and leaflet advertising. Most were from English-speaking backgrounds and in professional, clerical or administrative occupations. Over half had college or university qualifications. The mean weight of the sample was 85.1 kg (SD = 19.1) and the mean body mass index was 31.4 (SD = 6.3). For the randomised trial, the subjects were allocated to either a treatment or a wait-list control group, 40 and 42 in each respectively. Following the trial, all control group subjects undertook the *FFD* program. This meant that the prospective study began with 82 subjects.

In addition to weight data, testing prior to the program was as follows:

- *The Dutch Eating Behaviour Questionnaire* (Van Strein, Fritjers, Bergers & Defares, 1986) - a measure of restrained, emotional and external eating style
- a version of *The Feelings of Social Inadequacy Scale* (Janis & Field, 1979) - a measure of trait self-esteem
- *The Body Shape Questionnaire* (Cooper, Taylor, Cooper & Fairburn, 1987) - a measure of concern about body shape.

The test program was re-administered on three further occasions - at four weeks, six months and one year after the completion of the program.

At the 12 month testing, additional data was obtained. Subjects were asked to indicate

- whether or not they were on a diet;
- the extent (“often”, “sometimes”, “seldom”, “never”) to which they felt they were
 - (a) natural eaters
 - (b) out of control when they eat;
- subjects were weighed. Weight at pre-test was deducted from weight at 12 months. An increase in excess of 2kg was arbitrarily categorised as a “gain”, a decrease greater than 2kg as a “loss”, and variation -2kg to +2kg as “no change”.

The *FFD* program was presented in six two-hour sessions organised at weekly intervals, preceded by an introductory meeting and followed two weeks after the sixth session by a review meeting. Further follow-up involved optional monthly meetings and the distribution of two newsletters. In the main part of the program (the six sessions), subjects received information about eating, dieting and health through the understanding of control theory, and were introduced to activities which would help them co-ordinate their thoughts and feelings with the behaviour of allowing internal body signals to guide them in deciding when, what and how much to eat. They also focused on changing their attitudes to their bodies and to food, and to look for alternatives in need satisfaction.

Results.

Participation and retention rates.

Attendance rates across the sessions of the program averaged 92%, with no participant being absent for more than two sessions. Of the 82 subjects who completed the *FFD* program, all were available for testing at four weeks, 65 (79%) at six months and 63 (78%) at one year.

Immediate effects of the *FFD* program

A highly significant treatment effect was demonstrated. On all outcome measures the experimental subjects changed in the predicted direction - i.e., a decrease in restrained, emotional and external eating, and in body shape concern, and an increase in self esteem. These changes were not matched by the control group. Statistical assessment disclosed that the differences between the two groups were significant in relation to the outcome variables as a set (multivariate comparison) and to the variables individually (univariate comparisons). The impact of the program was particularly marked with respect to body image concern,

with the scores of the experimental group decreasing by 31%. A 14% improvement in trait self-esteem score was less impressive, but still quite substantial.

The program's impact on dieting and the adoption of natural eating.

At 12 months, 86% (54/63) of the subjects indicated that they were not dieting. The majority described themselves as "often" (33%) or "sometimes"(40%) natural eaters, while 22% and 5% felt that they were "seldom" or "never" natural eaters respectively. Slightly over 50% indicated that they "never"(13%) or "seldom" (40%) felt out of control of their eating, while 37% felt that their eating was out of control "sometimes", and a further 11% reported that they "often" felt out of control. A significant negative correlation ($\gamma = .61, p < .0001$) was found between the degree of adoption of natural eating and the degree of feeling out of control.

The durability of program outcomes.

The graphs in Fig 1, Appendix A show patterns of change over 12 months in the five outcome variables. The patterns for "often, "sometimes" and "seldom" natural eaters are shown separately. The "never" group was not included because of its very small size (3 subjects).

From pre- to post-test, there was an improvement in the mean scores on all five dependent variables, with the greatest change being on body image concern. Both multivariate and univariate analyses showed these improvements to be statistically significant. Initial gains were maintained in the period from post-test to 12 months, with the gains in restrained eating, emotional eating, external eating and trait self-esteem actually being enhanced. The six month testing showed stabilisation, with improvements between 6 and 12 months.

While the evidence from the sample as a whole supports the durability of the results, there is further evidence to be found when we look at the scores of the three natural eating subgroups. The scores of the "seldom" natural eaters regressed on all five variables, while those of the "sometimes" and "often" groups continued to improve. The differences were not large enough to be statistically significant.

Natural eating and weight change

The distribution of weight change by natural eating categories is displayed in Figure 2, Appendix A. An association between the extent of natural eating and weight change is evident - the greater the extent of natural eating, the greater the likelihood of weight loss or weight stability. The gamma value for this association was .47 ($p < .01$). The data in Figure 2 also indicate that 59% (30/51) of the subjects for whom weight data was available had either lost weight or remained stable over the 12 month period.

Conclusions

It is acknowledged that the study has limitations, mainly the non-representative nature of the sample. However, several outcomes and conclusions have emerged.

- The study has added to the evidence that motivated women can respond favourably to interventions designed to help them normalise their eating and to abandon "diet" thinking.
- The study helps to resolve important issues about the effectiveness of non-diet, natural eating programs. Specifically, it provides evidence that
 - ◊ women's body concerns can be significantly reduced;
 - ◊ changes to eating behaviour and improvements in self-perceptions fostered by a natural eating program including control theory can be durable over time;
 - ◊ natural eating is compatible with, and may even promote, weight stability or weight loss. Indeed, the finding that over half the subjects for whom weight data was available had either lost or stabilised over the 12 month period compares favourably with the high rates of weight gain (one to two thirds) usually observed immediately following diet-based weight loss programs (Perri, Nezu & Viegner, 1992).

- In securing evidence testifying to the effectiveness of the *FFD* program, the study invites further scrutiny of control theory, the model of behaviour upon which the program is based, and the empowering nature of its use.

In addition to its contribution to theory, this study throws light on a significant practical issue. The trend away from dieting is growing stronger, as we see the extremes of behaviour to which people go in search of the ideal body, and the consequent damage to both mental and physical health. Evidence of this is seen in the apparent interest in books offering guidelines for abandoning dieting and normalising eating, such as Polivy and Herman (1983), Hirschmann and Munter (1988, 1995) and McFadden (1995).

By investigating the principles on which McFadden's book is based, this study provides information that can assist both lay persons and health practitioners to assess the utility and potential worth of the guidelines about eating reform and diet-free weight management, especially with a control theory base. For many women, these guidelines are likely to be highly relevant, and of great value to their psychological and physical well-being. Natural eating could prove to be an effective and psychologically congenial alternative to dieting.

The McFadden material is available as a book and as an online course with support. Professional courses are also mounted, offering training in the theory and administration of the program, and in the counselling techniques based on control theory.

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