

CULTURAL EXPECTATIONS OF THINNESS IN WOMEN

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Summary.—The cultural pressures on women to be thin and diet have been linked to the expression of serious eating disorders such as anorexia nervosa. The current study attempts to document and quantify the shift toward a thinner ideal shape for females in our culture over the last 20 years. Data from Playboy centerfolds and Miss America Pageant contestants indicated a significant trend toward a thinner standard. Over the same period there was a significant increase in diet articles in six popular women's magazines. These changes occurred within the context of increasing population weight norms for young women. Biosocial implications including the apparent recent increase in anorexia nervosa are discussed.

Throughout history concepts of feminine beauty have varied to reflect the aesthetic standards of the particular period. From the Rubenesque women of the 17th century to contemporary symbols of fashion, different body shapes have been selected for, and associated with, desirable social status. Ford and Beach (1952) have suggested that for the majority of societies plumpness in females is considered attractive and in some cultures obesity has been admired or even considered a secondary sexual characteristic (Rudofsky, 1972). However, even 20 years ago it was shown that Western adolescent females report more positive attitudes toward a small body size except for busts (Calden, Lundy, & Schlafer, 1959). Moreover, self-satisfaction decreased as personal body size deviated from the social stereotype (Calden, *et al.*, 1959; see also Nylander, 1971).

Particularly during the last decade, there has appeared to be a shift in the idealized female shape from the voluptuous, curved figure to the angular, lean look of today. The impact of this changing idealized female shape is exemplified by the pervasiveness of dieting among women. Heunemann, Shapiro, Hampton, and Mitchell (1966) have found that as many as 70% of high school girls were unhappy with their bodies and wanted to lose weight. Furthermore, for North American women, higher social class is strongly related to thinness (Stunkard, 1975) and dieting (Goldblatt, Moore, & Stunkard, 1965; Dwyer & Mayer, 1970). A number of writers have linked the sociocultural pressures for thinness to the apparent increased incidence of anorexia nervosa (Bruch,

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1973, 1978; Palazzoli, 1974; Boskind-Lodahl, 1976). Bruch (1978) has referred to the increase as a "sociocultural epidemic" and has indicated that fashion's ideal may indirectly affect vulnerable adolescents who come to believe that weight control is equal to self control and will lead to beauty and success. Recently, it has been demonstrated that groups of dancers and models, who by career choice experience an intense or exaggerated pressure to diet, are at risk to develop anorexia nervosa (Garner & Garfinkel, 1978, in press). Thus, the apparent increasing prevalence of anorexia nervosa and related eating disorders may well be linked to current cultural demands on women to be thinner. While this change in the preferred body shape for women is consistent with everyday experience, it has not previously been the subject of empirical study.

In an attempt to document and quantify the apparent shift in our culture's standards for the ideal female figure and the consequent pressure to diet, we have collected data from several sources.

Playboy Centerfolds

The monthly Playboy centerfold offers one indirect index of contemporary norms around desirable body sizes in women. Playboy Magazine permitted us to recover the height, weight, and measurement data of all 240 monthly playmates which appeared in their magazine over the past 20 years. Since data were obtained from a self-report information sheet, it was impossible to check for accuracy. The average age, height, and weight, as well as bust, waist, and hip measurements are presented in Table 1 as mean values over the 20-yr.

TABLE 1
STATISTICS ON CENTERFOLD SAMPLE ($N = 240$) FOR 20 YEARS

Measure	<i>M</i>	<i>SD</i>	Missing Data (Cases)
Age	21.3	2.3	4
Height (cm)	166.1	5.9	3
Weight (kg)	52.5	4.4	4
Bust (cm)	90.8	3.9	8
Waist (cm)	58.6	3.5	6
Hips (cm)	89.3	3.0	9

period. In addition, the average weight of the playmates was compared to population means reported by the 1959 Society of Actuaries. The yearly mean weight for the centerfolds was significantly less than the corresponding population means ($df = 38$, $t = 10.44$, $p < 0.001$). However, the changes within the playmates sample across the 20 years are most noteworthy. Fig. 1 illustrates changes in the percent of average weight in the playmates from 1959 through 1978. The percent of average weight was calculated by converting

each model's weight into a percent of the expected weight based upon the Society of Actuaries 1959 norms. While absolute weight did not decline because heights were increasing, a regression analysis showed that the percent of average weight for age and height decreased significantly over the 20 yr. ($r = 0.22, p < 0.01$). Figure 2 indicates additional significant changes: bust measurements decreased ($r = -0.18, p < 0.005$), waists became larger ($r = 0.41, p < 0.001$), and hips became smaller ($r = -0.12, p < 0.05$). These absolute declines in measurements occurred in women who were increasing in height ($r = 0.22, p < 0.001$). The larger waist measurements may indicate an aesthetic selection bias for more "angular" shapes or it may be a consequence of the particular skeletal characteristics (and resulting fat distribution) of these thinner women of relatively larger stature.

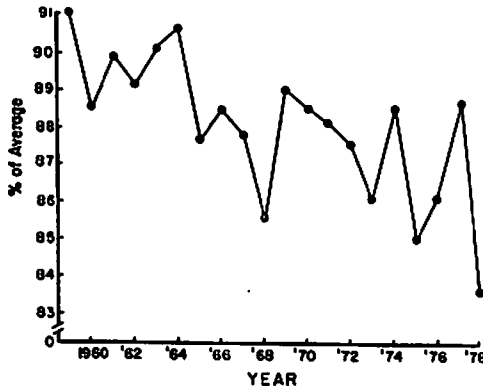


FIG. 1. Changes in percent of average weight of centerfolds over 20 yr. Average weight is based upon the Society of Actuaries' 1959 norm.

Miss America Pageant Contestants

Height, weight, and age data were also derived for both the contestants (state representatives) and the winners of the Miss America Pageant from 1959 through 1978. Based upon national norms (Society of Actuaries, 1959) the absolute weights were converted to percent of average weight for age, height, and sex. Fig. 3 illustrates both contestants' and Pageant winners' percent of average weight for each year. For all contestants, the correlation between year and percent of average weight was -0.83 ($t = 6.20, p < 0.001$). This reflects an average decline in weight of 0.13 kg (0.28 lb.) per year for the contestants. For the Pageant winners the correlation between year and percent of average weight was -0.62 ($t = 3.39, p < 0.003$); this reflects an average yearly decline in weight of 0.17 kg (0.37 lb.). The mean percent of average weight for contestants before 1970 was $87.6\% \pm 0.37$ compared to $84.6\% \pm$

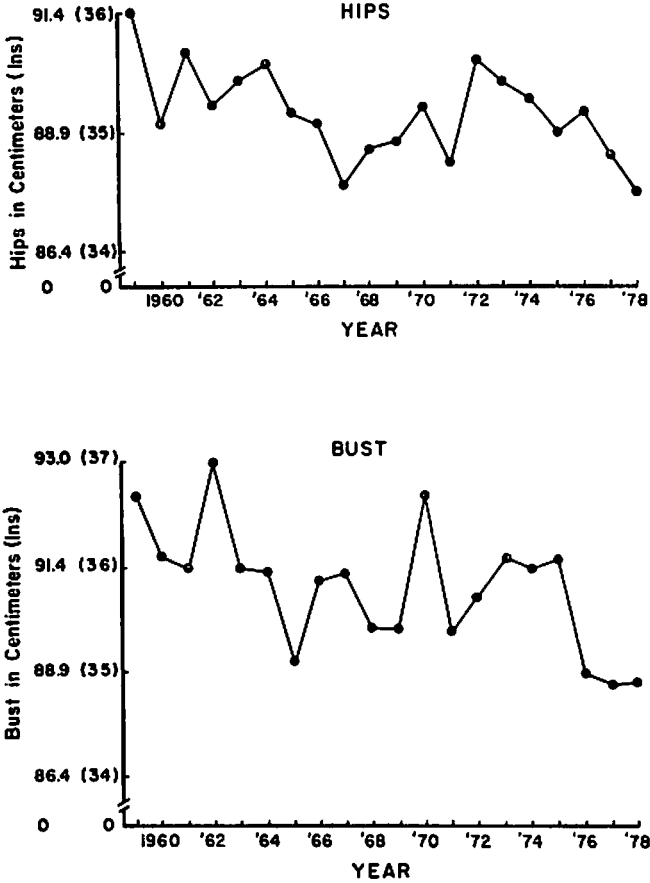


FIG. 2. Shape changes of centerfolds over 20 yr.

0.46 since 1970 ($t = 5.14, p < 0.001$). For pre-1970 the mean percent of average weight for Pageant winners was $87.7\% \pm 0.72$ compared to $82.5\% \pm 0.74$ since 1970 ($t = 5.04, p < 0.001$). Although over-all the Pageant winners have not weighed less than the average contestant, since 1970 the winners have weighed significantly less than the contestants (contestants' $M = 84.6\%$, $SD = 1.4$; winners' $M = 82.5\%$, $SD = 2.2$, $df = 16$; $t = 2.405, p < 0.05$).

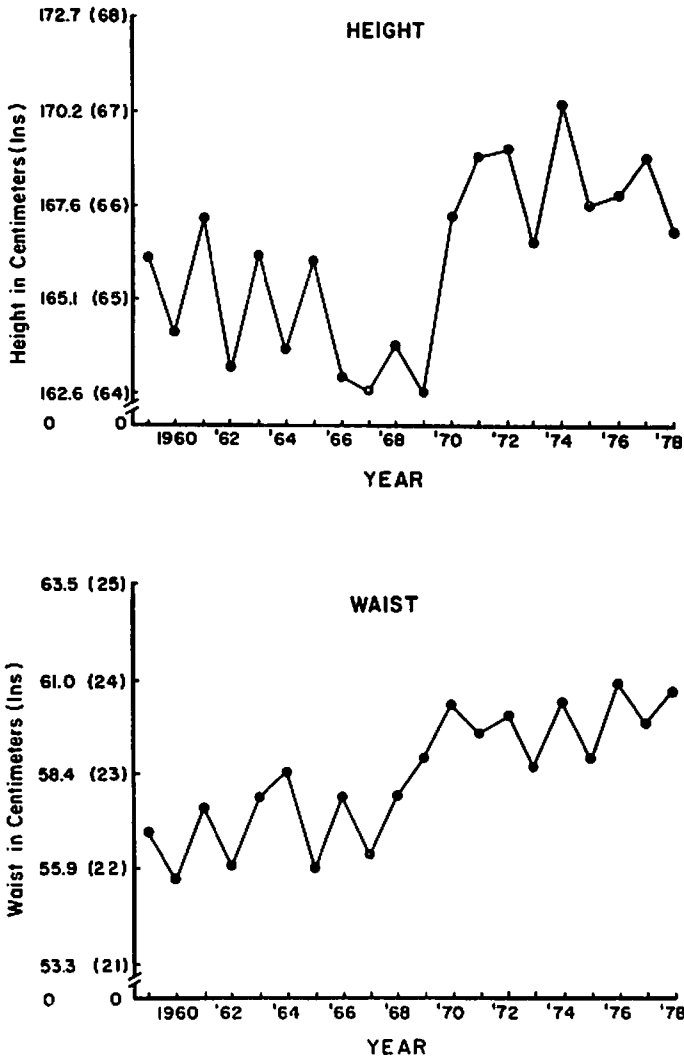


FIG. 2. Shape changes of centerfolds over 20 yr.

Changes in Population Norms

The preceding data were based upon population norms published in 1959 (reflecting data collected from 1934 to 1954) and may simply reflect a trend toward decreasing body weights for women over a 20-yr. period. Thus the 1959 average weight statistics from the Society of Actuaries were compared with the recent actuarial data from the Society (1979). Fig. 4 is a synopsis of

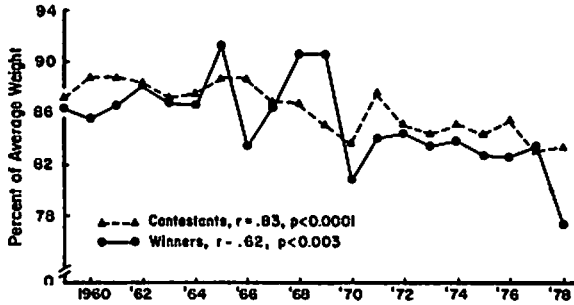


FIG. 3. Percent of average weight for Miss America Pageant contestants and winners over 20 yr.

this comparison where mean differences between the 1959 and 1979 weight norms have been collapsed across height values. An increase in average weight is evident in all age and height categories for women under 30 yr. of age; it amounts to between 2.3 and 2.7 kg (5 to 6 lb.) for most height categories for women between 17 and 24 yr. old. This can be prorated to yield an average weight increase of 0.14 kg (0.3 lb.) per year over the 20-yr. period. Women over 30 yr. of age are thinner in the 1979 versus the 1959 norms while men have become heavier in all age categories.

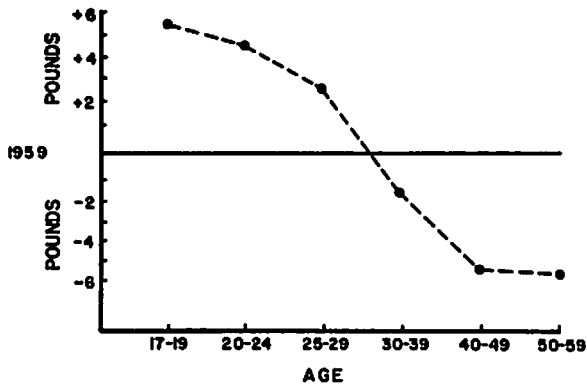


FIG. 4. Changes in average weights for women over 20 yr.

Diet Article Citation

Six popular women's magazines were selected³ and the number of articles about dieting for weight loss were calculated for each year from 1959 through 1978. Diet articles were tabulated while advertisements and promotions were

³Harpers Bazaar, Vogue, McCalls, Good Housekeeping, Ladies Home Journal, and Woman's Day.

specifically excluded. A total of 467 diet articles appeared over the period surveyed. Fig. 5 illustrates the total number of articles for each year and a regression analysis showed that the number of diet articles has increased over the 20 yr. examined ($r = 0.83, p < 0.001$). The yearly mean for the first decade was 17.1 ($SD = 3.4$) compared to 29.6 ($SD = 5.7$) for the second decade ($t = 5.9, p < 0.001$). This represents a significant increase in the number of diet articles in the last 10 yr.

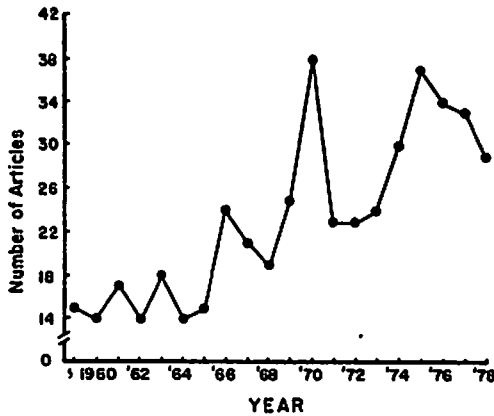


FIG. 5. Diet articles in six popular women's magazines over 20 yr.

DISCUSSION

These results strongly support the idea that there has been a gradual but definite evolution in the cultural ideal body shape for women over the past 20 yr. Particularly within the past 10 yr., there has been a shift in the ideal standard toward a thinner size. The results from both the Playboy centerfolds and the Miss America Pageant contestants confirm and quantify this trend. The Playboy data further indicate that bust, waist, and hip measurements have evolved toward a more "tubular" body form, although this may be a controversial matter among avid readers. It could be argued that the Playboy data simply reflect the changing tastes of the magazine editor, however, the convergent Miss America results suggest a genuine trend. It is also noteworthy that in the past decade the Pageant winners have almost invariably been thinner than the average contestant. Moreover, a simple visual comparison with the models portrayed in "high" fashion magazines suggests that the data sources from this study provide a conservative estimate of the current idealized shape for women. The movement toward a thinner shape for the ideal standard of beauty is more notable considering that, due to improved nutrition, the average female under 30 yr. of age has become heavier in the past 20 yr. according to the recently revised actuarial statistics (Society of Actuaries, 1979). Thus while the maga-

zine centerfolds, Pageant participants, and presumably the prevailing female role models have been getting thinner, the average women of a similar age have become heavier.

The citation of diet articles provides collateral evidence for a growing emphasis on weight reduction in pursuit of fashion's ideal figure. The movement toward this ideal within the context of increasing population weights for females has several significant implications. The physical and emotional consequences of chronic dieting are considerable. Symptoms such as irritability, poor concentration, anxiety, depression, apathy, lability of mood, fatigue, and social isolation have been associated with the prolonged caloric restriction of semi-starvation (Keys, Brozek, Henschel, Mickelson, & Taylor, 1950). Bruch (1973) has suggested that many of these symptoms occur to a lesser extent in women who chronically diet to hold their weight below that which is biologically adaptive. Dieting or "restrained eating" has been associated with increased responsiveness (or vulnerability) to external food cues suggesting that caloric restriction may change the organism's posture toward food which would make further dieting more arduous (Herman & Polivy, 1975). Body weight (or body fat) below a specific level has been associated with the cessation of normal menstrual functioning (Frisch & MacArthur, 1974; Garner & Garfinkel, in press; Vincent, 1979). It is ironic that the current symbols of "sexual attractiveness" may be gravitating toward a weight which is in biological opposition to normal reproductive activity. Finally, it has been shown that there is a heightened risk for the development of such serious eating disorders as anorexia nervosa in certain professional subcultures where dieting and the demand for thinness are endemic.

The expression of both obesity and anorexia nervosa has been linked to certain sociocultural factors. Obesity is strongly determined by social class, with lower class women showing greater proclivity than their upper-class counterparts. In contrast, anorexia nervosa has been shown to have a marked preponderance for adolescent females of upper social class. It has been hypothesized that the recent increase in anorexia nervosa may be related to increasing social pressures on women to be slim and the interaction between cultural ideals for beauty and success (Boskind-Lodahl, 1976; Bruch, 1978; Palazzoli, 1974).

The results of this report support the impression of an evolution in our society toward a thinner ideal shape for women. Particularly with the secular trend toward increasing population weights, this shrinking ideal may exert intense pressure on some women to diet in spite of possible adverse physical and emotional consequences.

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