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The Relationship Between Eating Disorders and Socioeconomic Status: It's Not What You Think

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Abstract:

Many people (incorrectly) believe that eating disorders (ED) are more prevalent in the higher socioeconomic status (SES) groups. Studies conducted in the 1960s and 70s corroborate this statement; however, their methods may have biased the results. Recent studies using health questionnaires distributed to large heterogeneous populations have shown that EDs equally effect all people, regardless of SES. These studies have also demonstrated that females of the lower SES group report higher rates of disordered eating behavior (vomiting, use of diet pills, diuretics, or laxatives as a means to lose weight). Girls that exhibit disordered eating behavior are more likely to develop EDs later in life. Physicians need to be aware of this knowledge in order to screen patients for the signs of EDs. More research is necessary to understand why females of low SES employ such methods of weight loss.

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Introduction

In 1880, Fenwick stated, "[anorexia nervosa] is much more common in the wealthier of society than amongst those who have to procure their bread by daily labour," (1). Although this statement is not well known amongst the general population, the notion appears to be firmly entrenched in American ideology regarding Eating Disorders (ED). Research conducted in the 1960's and 1970's appears to uphold Fenwick's words; however the methods employed from the studies are suspect and, in some cases, based largely on speculation as opposed to empirical evidence. Beginning in the 1980s, more experiments began to refute the findings of previous research (2). Multiple national studies, employing similar methodology, have shown that eating disorders are not limited to the upper class, rather they effect people of all socioeconomic backgrounds (3-5). The myth, however, persists. This false notion is based upon class stereotypes (the cup of the wealthy over floweth, while the poor hope for scraps) and may prove to be a real obstacle to the correct diagnosis of eating disorders in patients from lower socioeconomic backgrounds.

Background of Anorexia and Bulimia Nervosa

For the purpose of this paper, eating disorders will be defined as anorexia nervosa and/or bulimia nervosa. Both of these disorders effect a large portion of the American population.

Approximately 5 to 10 million Americans have a diagnosed eating disorder or are on the borderline for one (6). Anorexia and bulimia effect 1 and 2% of the American female population respectively. As defined by the Diagnostic Statistical Manual of Mental Disorders, "Anorexia is when an individual refuses to maintain a minimally normal body weight, is intensely afraid of gaining weight, exhibits significant disturbance in the perception of size or shape of his or her body," (7). As one can see, the diagnosis of anorexia is complicated and requires intimate knowledge of the patient's eating habits and notions of self. Bulimia, is defined as, "binge eating and compensatory behaviors to avoid weight gain at least twice a week for three months," (7). Compensatory measures to avoid weight loss include, vomiting, or the use of laxatives, diet pills or diuretics. The treatments of these disorders are very complicated and may require hospitalization, therapy, and constant monitoring of body weight and food consumption (6). Unfortunately, there exists a high rate of relapse during treatment; approximately 40 to 60% of patients will fail in their initial efforts to combat this disease (6).

The Relationship of SES and ED, and the change over time

The 1960s and 70s

Kendell et al and Crisp et al both report that there is an increased amount of eating disorders in patients from the higher classes of society (8,9). Crisp, in his study of English schoolgirls found a prevalence rate of .2% (8). In 1976, Kendell reviewed the registers of three geographical locations (North east Scotland, Monroe County New York, USA, and Camberwell, England) for ten years. Kendell noted that the prevalence of anorexia nervosa was 10.8 (North east Scotland), .8 (Monroe County) and 4.1 (Camberwall County) per 100,000 (rates were adjusted for age and sex) (9). More interestingly, Kendell noted that the prevalence of anorexia nervosa was increasing. Both Crisp and Kendell attempted to rationalize their data by assessing the socioeconomic status of their respective populations. In his study design, Crisp chose to examine public and private school populations, and he noted that a larger amount of girls in the private schools received treatment for eating disorders. "There is almost certainly a social class factor in the [eating] disorder among females; it being more common amongst Social Classes I and II (the

upper classes)," (8). In Camberwall County, Kendell noted the high prevalence of anorexia nervosa in the upper classes, however, he was not able to explain these results. To his credit, Kendell mentions that the, "strong upper class predominance is now in the process of fading," (9).

There exist some problems with the research of both Crisp and Kendell that may severely bias their results. In order to determine prevalence, both authors utilized the reports of physicians who were treating patients with eating disorders. For example, Kendell assumed, "that nearly all anorexics living in a register catchment area are sooner or later seen by a psychiatrist and reported to the register." (9). Anorexia and bulimia are commonly diseases of isolation, in which the afflicted feels they must hide their eating habits and disease from others, including physicians (6). Therefore, it is not surprising that Kendell found such a wide discrepancy in the amounts of anorexics, and it may have only been due to chance, that in one area, Camberwall County, more of the patients happened to be from the upper class. Crisp's study used strict standards to insure that "possible anorexics" were clinically diagnosed by a physician. However, Crisp's study design had a major flaw; the "possible anorexics" were identified by their school teachers who reported them to the investigators for clinical diagnosis. The private schools were boarding schools, hence the teachers had more direct contact with the students and a greater knowledge of their health. The public institutions also reported a smaller teacher to student ratio, which may decrease the ability of a teacher to refer students to the authors for assessment. The strength of Crisp's results are based upon the teacher's ability to identify girls that may be at risk for Eds, and his methods favor a higher rate diagnosis at private institutions. The determination of SES is also a point of contention for Crisp's study. The girls' SES was assessed according to the type school attended (ie the girls at the private school were from the upper class, while their peers at the public schools were of the lower class). This stipulation is a bold generalization and may have led to erroneous results. Based upon faulty methodology, it is no surprise that Crisp concluded that anorexia nervosa was a disease of the upper class.

Present Day

Current research has examined the prevalence of ED and its relationship to SES. Many of the contemporary studies have examined multiple factors such as body mass index, dieting, exercise, race/ethnicity, and self-image in order to understand the complexity of EDs (3-5). Of the three studies examined, Story required the most stringent requirements to be diagnosed as having an ED and found a prevalence rate of 1.5% (4). Neumark-Sztainer used less rigorous requirements and discovered that 7.4% of the study population reported vomiting, or use of diuretics or laxatives as a form of weight control (5). All three studies concluded that having an ED did not correlate with SES (Table 1) (3-5).

The methodologies employed in the three studies were similar. Each author surveyed large populations of school age children (Story: 17,159; Neumark-Sztainer: 4,651; Rogers 17,571; for this review, only the results for females are reported). Unlike the studies of the 1960s and 70s, the diagnosis of an ED was not confirmed by a physician, but rather was deduced from the patient's responses to a confidential self-report form. The use of such surveys has positive and negative consequences. For example, one might argue that a physician is necessary to confirm the diagnosis of an ED. However, benefits of the use of surveys are their anonymity and ability to assess large heterogeneous populations. Both the Minnesota Adolescent Health Survey (Story

and Rogers) and the Voice of Connecticut Youth Survey (Neumark-Sztainer) were utilized as validated self-reporting surveys (10). Females in the 7th through 12th grade were asked questions such as, "During the past week did you do any of the following things to lose weight or keep from gaining weight? Responses: dieted (ate less or differently), exercised, made yourself vomit, took diet pills (Dexatrim), or took laxatives," (5). In order to assess the prevalence of clinical levels of bulimia, Rogers asked a similar question and added time constraints (Within the last week (month or year) how many times have you engaged in such activities?) (3). A common complaint regarding the use of self-report surveys is that the subjects may not take them seriously. Neumark-Sztainer assessed the validity of the study's participants by asking questions which tested internal consistency and removed the surveys of those whose responses were not consistent. Determination of SES was also self-reported. Based upon the subjects' responses to questions about their parents educational background and employment status, participants were placed in one of three SES categories- low, middle or high (Neumark-Sztainer, used four categories: low, middle-low, middle-high, and high). Reported SES was compared to expected values based upon census and school data. The methods employed by the three examined studies yielded similar results (Table 1). Neumark-Sztainer found that the rates of "disordered eating" (vomiting, use of diet pills, laxatives, or diuretics, not at clinical levels) were more prevalent in the lowest SES group. Rogers and Story also found that more patients in the lowest SES group reported vomiting on at least one occasion in order to control weight. This information appears to contrast greatly with the popular viewpoint; however, these results should be considered in context. The increased use of vomiting as a means to control weight in the lower SES groups does not necessarily indicate a higher prevalence of EDs. In the least, these results illustrate unhealthy habits associated with diet. Some research has shown that habits such as these may one day manifest as full-blown EDs (11).

Discussion

All three recent studies contradict previous research, as well as the myth that EDs are more prevalent in the upper class. They also conclude that females of the lower SES group exhibit more signs of disordered eating behavior. These comprehensive studies investigated the roles of many other factors such as race/ethnicity, body image and BMI. The combined effect of all of these parameters allows one to appreciate the complexity of EDs; however these issues were too complicated for this concise review. It is very important that these conclusions alter clinical practice. Physicians should be made aware of such findings in order to screen female patients for such behavior and counsel them on safer methods of weight loss. Neglecting the results of these studies could be very devastating to the population of the low SES group. In attempting to understand these findings, the authors have suggested that the members of higher SES display healthier attitudes regarding dieting because of greater access to health care, weight loss programs, health clubs, and accessibility to healthier foods (4). While their lower SES counterparts are disadvantaged by their lack of adequate insurance coverage, and less knowledge of healthy dieting issues (5). On one level, the reasoning of the authors seems logical, however, their statements are prejudicial. EDs are complex psychiatric/medical disorders that do not grow out of a lack of proper dieting knowledge. More research is necessary to understand how disordered eating behaviors blossom into EDs and why the girls of the low SES group display such conduct.

Table 1. The relationship of socioeconomic status and eating disorders of females. Data taken from three studies.

		Socioeconomic Status		
		Low	Middle	High
Neumark-Sztainer				
	Disordered eating*	10.4	7.1 ⁺	5.6
N = 4,651				
Story				
	Vomiting (ever)	16.8	13.2	11.2
	Laxative use	1.9	1.9	2.0
	Diuretic use	2.4	1.7	1.7
N = 17,159				
Rogers				
	Vomiting (ever)	15.7	11.8	9.6
	Clinical levels of vomiting	1.1	1.5	1.6
N = 17,571				

All numbers are percentages* defined as use of vomiting, diuretics, or laxatives as a means to lose weight⁺ a combination of two categories (low-middle and high middle)

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Additional Resources:

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