The Relationship between Eating Disorders and Self-regulation among Adolescent

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Abstract. Eating disorders are one of the key topics in today's research. Self-regulation is essential in eating disorders development including anorexia and bulimia. The paper mainly discusses the influence of self-regulation and eating disorders on adolescents. With the improvement of technology, adolescents are more susceptible to eating and lifestyle that lead to unhealthy social stigma and unstable emotions such as body dissatisfaction, especially in women. Due to the lack of a unified understanding of eating disorders, the prevalence rate of eating disorders has rapidly increased. Willpower is suggested to be an essential mechanism that influences one's self-regulation in eating behaviors. A high level of willpower can help them better regulate their emotions control their eating behaviors. This paper also discusses social cultural difference as one of the influencing factors. Eating disorders are a controversial topic, and there is still no unified conclusion that plays a role through the self-regulation ability. Further studies should review the effectiveness to improve self-regulation ability.

Keywords: Eating disorders; Self-regulation; Adolescent.

1. Introduction

One of the most prevalent health challenges among the adolescent population is eating disorders. The frequency has increased rapidly over the past few years, peaking between the ages of 15 and 19. A group of disorders characterized by excessive concern with food, body weight and shape is related to cognitive, emotional, and behavioral factors.

The onset of eating disorders is often accompanied by the intervention of the individual's self-regulation. It facilitates the individual's rational control of food intake and long-term maintenance of weight, which is effective in treatment of eating disorders. At the same time, excessive self-regulation has been shown to contribute to dietary restraint, which is detrimental to the healthy development of individual eating behavior. This paper aims to figure out the connection between eating disorders and self-regulation. In addition, this paper's special role of the mechanism involved is developed in depth.

Previous studies have shown that females are more likely to suffer from eating disorders than males. As a result of this imbalance, research on males and their relationship to eating disorders is limited compared to females. Therefore, this paper will examine the gender effect on self-regulation and eating disorder. Moreover, other factors influence the relationship between self-regulation and eating disorder. Willpower has been proven to have an important role in self-regulation, which influences how the ability to self-regulate and the individual's eating behavior relate. In a context where eating disorders are predominantly concentrated in Western countries, the cultural context in which society operates is highlighted as playing an important role. This paper also looks at the socio-cultural influences on individuals and explores the mechanisms of their impact.

2. Eating disorders

Eating disorders (ED) have a variety of distinct characteristics by excessive concern with food and body weight and shape that related to cognitive, emotional, and behavioral disorders, including

anorexia (AN) and bulimia (BN), which have a boundary that has already been delineated. With the advancement of material life, in both Eastern and Western countries, eating disorders have always been focusing on women who have higher prevalence. There are many factors contributing to eating disorders, such as biological, psychological and social factors. Anorexic patients usually starve themselves, but binge eating patients often resist eating for extreme weight control practices (continuous control of intake, self-induced emetic and purgative abuse and excessive exercise), and multiple forms of weight monitoring. Another negative cognitive aspect of bulimia nervosa maintenance is the patient's extreme self-criticism. As previously indicated, most eating disorders have some traits are persistent eating disorders that impair health or psychosocial functioning. According to studies, adolescence is the peak time for eating disorders, especially among women [1].

Anorexia nervosa are the core component of the occurrence and maintenance is the need for control, which is the positive reinforcement of the sense of achievement, the fear of weight gain, and the refrain from other difficulties. Finally, diet control leads to weight loss and the self-maintenance of the process. Anorexia nervosa patients fear becoming fat and may use various methods like dieting to keep their weight low and refuse to maintain the minimum standard weight. Studies indicated [2] that anorexia patients possess a higher prevalence of certain mental disorders, such as psychosomatic disorders, especially depression, psychosomatic disorders, bulimia, and psychosomatic disorders. The dominant and avoidance personality disorders are more common in anorexia, and borderline personality disorder is more common in bulimia [2].

Bulimia nervosa is characterized by overeating, in which a large amount of food was quickly eaten up, and by a sense of powerlessness about not being able to control food intake. Over a fixed period, people with bulimia eat more than most others under the same conditions. Patients with bulimia nervosa engage in binge eating behaviors like diuretics or laxatives, or excessive exercise. Bulimia nervosa symptoms compared with anorexia nervosa onset at a slightly later age and higher prevalence. Some of the characteristics of bulimia are similar to those of anorexia, such as fear of fatness and self-evaluation that are overly influenced by body size and weight [3].

The prevalence of eating disorders has increased throughout world. Society advocates "thin is beautiful" as social value concept. Women often pursue slim bodies that gain social approval. However, abnormal eating habits might develop due to an unhealthy obsession with thinness and physical attractiveness. Relevant studies [1] have shown that adolescents are likely to suffer from eating disorders, especially among women. This article focuses on adolescent eating disorders and related influencing factors to continue the discussion.

3. Self-regulation

3.1 Self-regulation in the Area of Eating Behavior

In recent years, research and experiments on self-regulation has been broadened to cover a broader range of self-regulatory areas, including the management of time planning and usage, food decisions, and financial spending [4]. Groups who hold the belief that willpower is unlimited tend to demonstrate more superior life behaviors like less tendency and decision to procrastinate and higher academic grades, reduced unhealthy dieting, and reduced impulsive spending, in contrast to individuals who believe they have less control over these behaviors. Therefore, it appears that opinions on willpower play an essential role in self-regulation, even in extremely demanding everyday contexts, which has substantial consequences for the outcomes of addictive behaviors and binge eating.

Successful long-term weight maintenance is often characterized by monitoring and appropriate control of food intake [5]. This demonstrates the influence of self-regulation in areas of eating behaviors for those groups with a tendency to obesity. More adequate self-regulation helps to increase awareness of one's eating status and physical condition, which is largely responsible for the maintenance of planned eating behaviors. Although the relationship between cognitive control and self-control of eating behavior is largely unexplored.

Negative effects also exist. Restraint is often used by individuals as a means to achieve self-regulation of weight control by reducing energy intake as a 'preload' against high calorie intake. However, this response increases the individual's intake of palatable foods. The negative effects of dietary restriction were observed to coincide with changes in the prevalence of eating disorders [6]. With escalating concerns about young women's body image, the negative behavioral and psychological consequences of deliberately controlling food intake provoke thought. Eating restriction as a form of self-regulation is seen not only as a precursor to eating disorders, but as a causal factor in the emergence of inhibit ion and binge eating in the face of inadequate cognitive control.

3.2 Action Control Theory

Eating disorders are defined by problematic dietary restriction or uncontrolled food consumption, as well as persistent anxieties and ruminations about weight, shape, or food intake. Although the prevalence is lower than with affective disorders, it may be predicted that among 16-year-olds at risk, roughly 18% of women have sub-clinical eating disorders, and 20% of them have ongoing worries about their appearance and weight [7]. Aside from disorder-specific features such as severely restrictive or inhibited eating behavior, the many kinds of disordered eating behavior are disgusted by serious deficiencies in mood and impulse control (self-regulation). Increased inclusion of these non-disorder-specific deficiencies might help to improve the efficiency of preventative strategies and optimize therapy. Self-regulation is considered as the use of self-generated ideas, attitudes, and behaviors to improve health functioning. A wealth of research studies [6, 8, 9] suggests that people who self-regulate their health, such as controlling their weight or a chronic condition, have greater control over their health functioning than people who do not participate in self-regulation. However, it appears that there is a need for more comprehensive with eating disorders such as anorexia nervosa, binge eating, and so on.

Self-regulation within eating disorders has garnered a lot of attention over the years, and it's been suggested that difficulties in self-regulation are a significant social-emotional element among eating disorder people with anorexia nervosa (AN), bulimia nervosa (BN), and binge eating disorder (BED) have been found to have a higher propensity for maladaptive self-regulation and emotion dysregulation, as measured in both laboratory and naturalistic settings by studies employing ecological monitoring assessments, and this has been confirmed by large-scale systematic reviews and meta-analyses [8]. Recently, conducted a meta-analysis evaluation [9] to investigate relationships between self-regulation techniques and eating disorder psychopathology across eating disorder diagnoses. These results demonstrated a positive correlation between the use of maladaptive self-regulation strategies and eating disorders symptoms, while the adoption of adaptive emotion regulation strategies was inversely related to eating disorder psychopathology [10].

Binge eating disorder (BED) is characterized by a loss of control that is experienced during episodes of binge eating, this loss of control is analogous to the loss of control that is seem in drug abuse disorders. One of the most prevalent eating disorders is Binge eating disorders. Recent conceptualization of Binge eating disorders as an addiction spectrum disorder have been helped along by the existence of this similarity [11]. Self-regulation, in its simplest definition, is the practice of replying on one's own resources in order to alter one's behavior, most often with the goal of suppressing unfavorable patterns and encouraging the emergence of more desirable ones. With self-management, an individual is able to instruct and discipline themselves, meaning that their actions are governed by their own will. Numerous self-control theories have emerged as a result of researchers' repeated attempts to explain why some addictive behaviors are so challenging to control.

The Action Control Theory is a theory that attempts to explain individual differences in self-control [12]. This hypothesis describes a person's capacity to initiate and complete planned action is described by this hypothesis. The term "action-oriented" describes people at the more capable end of spectrum when it comes to self-regulation. There are two aspects: decision-related action orientation and failure-related action orientation. Individuals with a decision-related action orientation are very

good at up-regulating, or purposefully increase, positive affect in order to commence goal-directed activity. Successful down regulation, or the deliberate lessening of negative affect connected to previous unfavorable experiences, is a key component of the failure-related action orientation that allows people to continue acting on their intentions despite setbacks. Those who have trouble up-regulating positive affect to initial behavior (i.e., low decision-related action orientation) and are easily sidetracked by unpleasant experiences and previous failures are referred to as "state-oriented," and suffer from a lack of goal-directed behavior (i.e., low failure-related action orientation) [13].

For this reason, people who are state-orientated have a harder time regulating their behavior to achieve their goals, which is a factor that is especially important in the context of addictive behaviors and binge eating. Several potential effects of action orientation on behavior have been investigated. More severe alcohol-related negative outcomes were predicted by lower levels of action orienting emotion regulation (i.e., low decision-related action orientation) among binge-drinking college students, and more eating dysfunction was predicted by lower levels on decision-related action orientation in female undergraduates [9]. This demonstrates the importance of self-control in (i.e., up-regulate positive affect and down-regulate negative affect) is a crucial predictor of health-related behaviors, such as the initial and maintenance of goal-directed behaviors.

4. Influencing Mechanism

4.1 Gender

Eating behavior, sexual behavior, and interpersonal functioning are just a few of the many domains in which we might investigate apparent gender variations in self-regulation. Many studies have focused on topics that this paper may analyzes further: gender variations in self-regulation and willpower during eating disorders. The experts observed that the DSM-IV disorders of anorexia nervosa and bulimia nervosa were created based on the clinical presentation of female patients. Excessive activity is believed to be a significant issue for males with anorexia nervosa [14]. Although this symptom is present in many women with anorexia nerval, excessive exercise and its detrimental health implications have received considerably less attention than more traditionally "feminine" symptoms such as overevaluation of weight or fear of weight increase. As a result, there is an information vacuum about the correlations in eating disorders.

According to epidemiological research anorexia nervosa and bulimia nervosa are more frequent in women than man. Women are usually more unhappy with their weight, and hence, they would use diet and purge for weight control [15]. There are several reasons why more research is needed into whether or not men and women experience eating disorders differently. To begin with, a dearth of studies specifically focuses on eating and body image issues in male population. Most of the research that focuses on these issues uses a skip pattern, questions about body image problems and compensatory behaviors are usually missing with participants who initially deny the presence of criterion for anorexia nervosa or bulimia nervosa. In the absence of binge eating, purging is common among a substantial subset of the population, as evidenced by a growing corpus of research primarily based on female samples [16]. As an added note, statistics on the frequency of male purging are needed. Third, while it is known that an obsession with one's appearance is a hallmark of both anorexia nervosa and bulimia nervosa, the role of repetitive weight check and avoidance as expression of this symptom has received very little attention [17]. Body-checking or body-avoidance habits are more prevalent in women than in males. Body-checking activities include maintaining weight or trying on certain items to check for it they fit. Women are also more likely to report engaging in these activities [17].

4.2 Will power

The ability to resist current temptation in order to accomplish long-term goals is referred to as willpower. It is a conscious, deliberate, and laborious regulation of the self that is performed by the self [18]. Many individuals think that if they just had more of that enigmatic quality known as

willpower, their lives would be better. Eating healthy is one of the most eminent domains of willpower. 27% of respondents cited lack of willpower in the Stress in America study from 2011 as the biggest obstacle to change. However, even though many people attribute poor willpower to their bad decisions, it is evident that they still harbor optimism [19].

Understanding the fundamentals of self-control has drawn interest of many scholars. The 1990s saw the introduction of a widely recognized theory by Baumeister and colleagues that self-control is a strength similar to power or energy [20]. According to this theory, exercising self-control repeatedly depletes it, making it harder for the person to exercise it in future circumstances. However, researchers suggest that one's conception of willpower, in general, can account for the ego depletion effects. Previous research shows in several investigations that people who think willpower is a finite resource have more ego-depletion in ensuring challenging activities.

In contrast, those who think it is infinite do not exhibit ego-depletion in the following challenging activities [4]. This research has recently been expanded to include numerous self-regulatory areas, such as time management, nutritional preferences, and financial expenditures [21]. Compared to those who believed in limited willpower, those who believed in limitless willpower had less procrastination, improved academic performance, decreased unhealthy eating, and reduced impulsive spending. Therefore, even in extremely demanding everyday conditions, beliefs about the nature of willpower seems to play a substantial influence on the ability to self-regulate, which has crucial consequences for the development of addictive behaviors and binge eating habits.

Additionally, it was discovered that the ability to up-regulate joyful affect predicted few eating disorder symptoms for those who could down-regulate negative affect (i.e., healthy choice related action orientation). However, those who believe that willpower is endless, such as those who have difficulty up-regulating positive affect, were the only ones with symptoms of an eating problem and were predicted to decrease by a high failure-related action orientation.

Individuals who perceive their willpower to be limited did not display a reduction in binge-eating behavior, regardless of their ability to manage negative affect. As a result, being able to control unpleasant emotions is a crucial buffer against negative food impacts. However, self-control performance could be impacted if a person has low level of decision-related action orientation and believe in the restricted theory of willpower [21].

5. Cultural Difference

The research of eating disorders extended to embrace a wider variety of diseases during the twentieth century, but it remained primarily centered in Western nations and countries where the European ancestry makes up a sizable percentage of the population. The cultural context in which a society operates plays a significant role in interpreting the ways in which its members describe, diagnose, and treat and as a result of the counterculture movement of the 1960s and for the rest of the century, the Western world saw how common eating disorders are [3].

Eating disorders were once conceptualized as diseases mostly affecting privileged, white, college -educated young women in the developed, industrialized Western world. The literature on the negative effects of promoting an unrealistically slim beauty standard for young women as the pinnacle of female attractiveness and the goal toward which all women should strive is voluminous. Along with the spread of the thin deal in the West has come the acknowledgment of the concept of "body instrumentality," which suggests that bettering one's health condition through means like dieting and exercise can help one gain the mastery over one's own life that is, in some way, essential to realizing one's full potential [2].

The new millennium has brough fresh facts that have shifted our perspective on the problem of eating disorders, which have boosted n non-Western countries as the last has concluded. Since the global context constantly evolving, it is necessary to articulate eating disorder in a way that takes into account the various ways in which cultures express themselves and have an impact on one another. Due to the fact that eating disorder cases in the "East" occasionally deviated from the "normative"

West-set risk and phenotype standards, our conception of eating disorders has developed to include a more global viewpoint and more variegated expression [22].

Some Asian countries are beginning to catch up to the West in terms of the prevalence of eating disorders, clinical pathology, eating disorder, size and appearance concerns, and dieting behaviors. In these nations, the frequency of eating disorders has increased as a result of industrialization and increased internationalization. According to comparative research, Asians express similar or even higher degrees of body image concerns than westerners do when it comes to their eating habits. This is despite the widespread assumption that Asians have a lower rate of eating disorders than those in the West [23].

In previous research on eating disorders in non-western nations, the notion of Westernization was highlighted as an important factor to consider. The study of Westernization provides an essential lens that may be used to understand better the eating disorders are spreading quickly throughout Asia, but this study disregards that in the context of globalization, eating pathology is on the rise in Asia nations due to complex and profound cultural transformations [24]. They are fueled by the industrialization and urbanization processes, which might take place outside of or in conjunction with the impact "western" world. Changes of a fundamental nature in the demographics, the availability of food, world economies, gender roles, and the conventional family structure are among these transitions. All these factors also play role in personality building on cultural basis such as willpower and self-regulation in eating disorder is different in each culture. Eating disorders may be culturally reactive, but they are not always bound by culture; the concurrent rise in eating disorders has provided a new perspective to the field by revealing previously unrecognized manifestation and documenting wide variation in prevalence rates across national and social contexts.

6. Summary

This paper examines the features of adolescent eating disorders and the definitions of the many forms of eating disorders. Classical self-regulation theories are also reviewed, and this paper focuses on the research and application of self-regulation in the field of eating disorders. Gender differences, the role of willpower and socio-cultural immersion are explored as the three main influences. The research in this paper contributes to a deeper understanding of the relationship between self-regulation and eating disorders and goes some way to remedying the gender imbalance in the study of eating disorders in previous studies. At the same time, it helps to identify intervention and approaches in the field of self-management to alleviate and treat eating disorders.

Although some studies suggest that people can control their diet that enhance self-regulation, several researchers attempt to strengthen self-regulation technology to restrain overeating and claim that it might be wrong. Evidences support that individuals can successfully resist food temptation, which improve self-regulation. These studies show promise, but further studies are required to set up the effectiveness to improve self-regulation ability.

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