The Comorbidity of Eating Disorders and Substance Abuse in Adolescents and Young Adults

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Introduction

Eating disorders and substance abuse are both predominant issues that the United States faces today especially within the adolescent populations. The Eating Disorders Coalition (EDC) related from the American Academy of Child and Adolescent Psychiatry that between 2.5 and 4% of teenagers suffer from either anorexia nervosa or bulimia nervosa and as many as 20% of these cases die, reported the National Association of Anorexia and Associated Disorders (ANAD). In 2012, 14.8 % of high-school seniors used a prescription drug nonmedically in the past year (National Institute on Drug Abuse). Pain relievers are simply one of the most commonly abused substances among adolescents. However, rates of alcohol, marijuana and other drugs are high among teenagers and are very problematic in the United States (refer to figure 1). Eating disorders and substance abuse are widespread and alone they can be very risky and sometimes fatal. Together, they can have serious consequences. And unfortunately many individuals suffering from an eating disorder or substance abuse problem develop its counterpart at some point in their lifetime. The National Center on Addiction and Substance Abuse (CASA) at Columbia University found in their three year study (2003) that "individuals with eating disorders are up to five times likelier to abuse alcohol or illicit drugs and those to abuse alcohol or illicit drugs and those who abuse alcohol or illicit drugs are up to 11 times likelier to have eating disorders". This demonstrates the unfavorable odds a person suffering from either disorder has in developing the other. This paper will explore the comorbidity of eating disorders and substance abuse among the adolescent population in America. It will first look very briefly at each disorder separately, and then review the literature and studies that look at the overlap between the

two. By comparing common personal, social and societal risks that are shared by those affected by eating disorders and substance abuse, this paper will attempt to explain the co-occurrence between the two disorders and demonstrate the causal linkages. Finally, I will bring my own thoughts, reactions, critiques and areas where I see need for further exploration.

Eating Disorders

An eating disorder is a psychological illness that affects a person's diet and food intake. They may eat very small amounts of food or eat excessively and at some point this will spiral out of control, becoming an obsession or compulsion to overeat or under eat, such as is the case with anorexia nervosa, bulimia nervosa and binge eating (Becker, Grinspoon, Klibanski, Herzog 1999). It is commonly seen as an illness affecting primarily women. However, it does affect both men and women. Fairburn et al. (1997) identified a widespread and varied list of risk factors that may cause eating disorders including family history of eating disorders (genetic), affective disorder, substance abuse, obesity, history of exposure to adverse events and circumstances and physical abuse, presence of certain traits (e.g. perfectionism, excessive compliance and low self-esteem). Bastiani et al. (1995) in their study on patients suffering from anorexia nervosa identified a strong correlate between perfectionism and eating disordered behaviors among their patients. Bastiani et al. found that after using the two multidimensional instruments they did to measure perfectionism among their anorexic and control subjects, patients who suffered from anorexia nervosa were perfectionist and also that perfectionism did not subside after the patients' suffering from anorexia regained their weight to a normal range. The last of Bastiani et al.'s findings was that this perfectionism was self-imposed

among their anorexic subjects rather than a response to any external pressures or expectations. Perfectionism as a possible risk factor causing an eating disorder is just one of many examples however it will be drawn upon again as it is central to the comorbidity of eating disorders and substance abuse.

Substance Abuse

Substance abuse affects millions of Americans and an extraordinary amount of adolescents in the United States. The World Health Organization (2004) defines it as the use of psychoactive substances, which includes alcohol and illicit drugs. Substance abuse can lead to dependency that then includes behavioral, cognitive and psychological problems and this may interfere with daily activities no matter how severe the consequences may be. Alcohol can be particularly dangerous to the adolescent and young adult population as it is easily accessible, legal to some, but actually quite dangerous and even deadly. Alcohol affects the brain, can damage the heart, can cause strokes, high blood pressure, lead to damage to the heart and increase risks of various types of cancer (National Institute on Alcohol Abuse and Alcohol). These are only a several of a long list of possibly life threatening side effects of alcohol, which includes not only immediate risks but also long term and therefore, severe caution should be taken. This same precaution should not be taken for granted when it comes to other substances. However, as was reported in a New York Times article, young people seem to transition through the stages of illicit drug use more quickly than adults do; the stages include experiment use, regular use, daily preoccupation and dependence (Ballas and Jefferson 2006). Opiates, opioids, and narcotics (heroin, oxycodone, hydromorphone, methadone, pain killers), inhalants and stimulants have become the drugs of choice behind prescription painkillers.

All off these drugs can cause severe damage to the body despite long-term, short-term use or one time use. Therefore, whether it is alcohol or an opiate, they share common risks and as it is shown, the adolescent population in the United Sates is eager to consume.

Comorbidity of Substance Abuse and Eating Disorders

There is no question that adolescents suffer from eating disorders and adolescents abuse substances. This is quite common in the United States. There has not been enough research and analysis on the comorbidity of the two. However, there has been an effort to understand the reasons behind why it is so likely that individuals suffering from one illness will suffer from another. And it has been found that there are certain identifiable psychological mechanisms, personality traits, and or social histories that are prevalent in individuals with one form of an eating disorder and who chose a certain substance. This has helped guide researchers to better understand the comorbidity of eating disorders and substance abuse although there remains quite a bit more to be understood.

Mood and Emotion Regulation

Bulimia Nervosa and Alcoholism: Anxiety and Depression. People who abuse substances and who are prone to eating disorders also have a tendency to have an inability to regulate their mood. A large number suffer from depression and anxiety. Researchers have found that depression and anxiety are present in many individuals suffering from both bulimia and alcoholism. They have found that the reason why these illnesses may be so strongly present together is that these people lack the ability to regulate their negative emotional states (depression and anxiety) and depression in particular is very much a reinforcing mechanism for an eating disorder such as bulimia nervosa and substance abuse such as

alcoholism. Therefore, one will strengthen the other and bulimia and alcoholism will have strong comorbidity rates.

Claire Holderness, Jeanne Brooks-Gunn and Michelle Warren (1994) reviewed 51 studies that were conducted since 1977 of substance use and abuse in eating disordered women as well as among women who were classified as substance abusers. This review of literature was meant to document substance use in eating disordered individuals, women, usually bulimics. Holderness et al.'s (1994) studies of substance use among individuals classified as eating disordered showed greater alcohol and drug use both among bulimic, rather than anorectic women and among bulimic, rather than restricting, anorectics (Holderness, Brooks-Gunn & Warren, 1994). Holderness et al. (1994) concluded that the mechanisms that determine the eating disorder-substance abuse fall under three broad categories: psychological, environmental and biological. Anxiety and depression are two examples of psychological mechanisms. Individuals suffering from bulimia nervosa can tend to feel more anxious. This relates to the consumption of alcohol. People tend to drink to calm their nerves. Also, on a similar note, people with depression or a negative emotional state will sometimes develop an eating disorder (bulimia nervosa in particular) or substance abuse problem in order to self-medicate their depression (National Center on Addiction and Substance Abuse). M. Lynne Cooper, Michael R. Fone, Marcia Russell and Pamela Mudar (1995) found in their study that individuals use alcohol to cope with negative emotions such as depression when they over aroused or anxious. Cooper et al. (1995) also proposed that negative feeling states in particular drive an individual to seek out cognitive and behavioral efforts aimed at managing, minimizing or eliminating the source of the problem or the emotions

themselves. This is not the case for positive emotions. Due to this strong desire for a "coping mechanism," individuals drink. Not only does alcoholism become a behavior to manage the underlying anxieties or depression in an individual with an eating disorder, for example, the psychiatric disturbances such as strong depressive and anxious symptoms are very similar in individuals with bulimia nervosa and major depressive disorder and bulimia nervosa and alcoholism (Cooper et al. 1995). Anxiety and depression are only two examples of destabilizing moods and psychological states. There are of course many additional ones. However, in literatures and research, anxiety and depression seem to be elementary to the comorbidity of substance abuse and eating disorders. And as more of the studies have shown that there is a significant relationship between bulimia and alcoholism over any other substance abuse problem and eating disorder, anxiety and depression is at the core of both of these illnesses.

Low Self-Esteem. Low self-esteem is common to individuals who have eating disorders and substance abuse problems, especially adolescents. (Scheir, Botvin, Griffin, & Diaz 2000). Scheir et al. (2000) looked at the relationship between self-esteem and alcohol in middle school youth. They demonstrated an inverse relation between changes that occurred in self-esteem and alcohol use over time – high initial levels of self-esteem led to increases in alcohol use compared to low initial levels of self-esteem. Because adolescence is a period of rapid developmental change, the mechanisms that link self-esteem and alcohol become complicated (Scheir et al. 2000). In regards to the adolescent population, a better explanation for why low self-esteem is still so important to factor in is that adolescents are less likely to resist peer pressure. This increases their risk for substance abuse or may lead these individuals to take part in risky behaviors such as attempting to enhance their

image or appearance through an eating disorder (National Center on Addiction and Substance Abuse). In addition, there are some studies that have shown that despite the theory that posits a negative relation between self-esteem and alcohol use, there is evidence to show that in some situations, delinquent activities, alcohol consumption for example, can enhance self-esteem, which leads to an overall increase in alcohol use and reinforcement of that delinquent behavior.

Social, Cultural and Familial Factors

Common Family Characteristics and Modeling Behaviors. A family history of eating disorders or substance abuse increases the risk for the development of the other in an individual (Chandy et al. 1995). This can happen through parental modeling (Andrews et al. 1997). Children at a very young age form beliefs about substances on the basis of their parents' actions than on the basis of their parents' words and similarly children of mothers' who are overly concerned about their weight are at increased risk are behaving in similar ways and modeling their mothers' unhealthy attitudes and behaviors leading to increased risks of substance abuse and eating disorders. Andrews et al. (1997) found that all of the data they collected from 657 adolescents, 357 fathers, and 633 mothers across a 6 year assessment period indicated that all adolescents modeled mother's cigarette use and father's marijuana use if they had relatively good or moderate relationship with that parent but did not model their parent's use if the relationship with that parent was relatively poor. This "modeling theory" demonstrated that adolescents are vulnerable to mirroring behaviors, especially related to substances and eating disorders (shown in other studies), if they are positively reinforced by their parents whom they are close with.

Peers and the Social Environment. For anyone, social environment and peer pressure play crucial roles in development of behaviors and greatly impact day-to-day activities. Among adolescent populations, unhealthy social norms and pressures to conform to peers' high-risk behaviors increase risks of developing substance abuse disorders or eating disorders. The chances of these disorders developing simultaneously increase dramatically (National Center on Addiction and Substance Abuse). By establishing attitudes, beliefs and group norms around substance use and eating patterns or body image, peers play an important role. In their analysis of longitudinal data for 345 adolescent adolescents ranging from 11-18 years of age, Duncan, Tildesley, Duncan, and Hops (1995) found that results indicated similarities between alcohol, cigarette and marijuana initial use and development, with peer incentive as well as "family cohesion," which was predictive of initial levels of use, and changes in peer encouragement influencing the developmental trajectories of these three substances (Duncan et al. 1995). In other words, the trajectories of each of these substances were also consistent with the influence of family and peer pressures. These adolescent individuals who participated in the study shared a common trajectory over time, tending towards an increase in substance use (Duncan et al 1995). This can also be applied in the case of eating disorders as well and gives explanation to the reasons why there is susceptibility among teenagers to eating disorders and substance abuse problems.

Criticism and reaction

There has still yet to be enough research and empirical evidence on the comorbidity of substance abuse and eating disorders to draw any clear conclusions because the majority of the studies and literatures focus on particular topics within this

subject. Most studies focused on adults and not adolescent populations, for example, or analyze the relationship between bulimia and alcoholism in women, which is a very small representative population. Bulik et al. did review a recent study done in Ontario on students aging 10-20 years. This study found that the symptom of binge eating was significantly related to substance use in the past year in both females and males (Bulik et al.). However, once again this study focused only on bulimia nervosa as an eating disorder. Another study was conducted on adolescent girls who met the criteria for anorexia nervosa or bulimia nervosa. In this study, the rates of substance use were higher for those girls with bulimia nervosa than those who suffered from anorexia nervosa (Bulik et al.) This corresponded to the studies conducted on adults. Therefore, it clear that the direction that these studies take researchers at least in terms of eating disorders is towards bulimia nervosa. However, still there is a lack of psychological studies done in the research that I have found and specifically meeting the criteria I was studying – eating disorders and substance abuse besides bulimia nervosa and alcohol consumption.

That is why I turned to other resources such as publications in fields such as social work where they have found a strong association between eating disorders and substance abuse. They have uncovered social, cultural, and environmental factors. In a periodical of Social Work Today, Adrienne Ressler found that "Many shared risk factors and characteristics link these two disorders" (Ressler 2008). Ressler draws on the word "satiate," which comes from the Latin root satis, which means "enough and implies the capability of being fully satisfied (Ressler 2008). As she points out for both individuals suffering from eating disorders and substance abuse problems this is exactly the problem. These individuals' hunger is rarely or never satisfied. Ressler says, "For them, "the high

is never high enough, the scale never low enough, the image in the mirror never good enough. There is always a longing for more, better, faster—even instant gratification takes too long" (Ressler 2008). This description is successful in that it that incorporates the substances abuser and the eating disordered individual. Ressler manages to step away from looking at these disorders through such a scientific and psychological lens and look at them in a more humane way, which helps get to the core of the similarities between the two – the never ending struggle to find satisfaction or gratification. Ressler's comprehensive list that was first published by CASA in 2003 (refer to figure 2) was also very useful in gearing my research, as it was one of the only resources that I could find that highlighted shared characteristics and risk factors among both populations of eating disordered individuals and substance abusers. It helped me to better understand the comorbidity between the two illnesses in a different way and the common risk factors and characteristics among individuals, which was refreshing after being overwhelmed by the repetition among psychological studies.

Conclusion

As we've seen, psychological studies as well as reports have showed in adults as well as adolescents a range of prevalence estimates of comorbid substance abuse for individuals with eating disorders. As women are much more likely to develop an eating disorder than men and therefore are generally afflicted more than men, the majority of studies are populated by females who suffer from bulimia nervosa (National Association of Anorexia and Associated Disorders Inc.). Almost all studies showed almost no significance in rates of substance abuse and individuals suffering from anorexia nervosa. The few studies that were conducted on adolescent populations were of the same sort and

excluded much research on other substances. Therefore, there is some evidence of an association between substance abuse and eating disorders. However, there are many mechanisms behind this. The comorbidity between the two can be psychological, environmental, and biological. Anxiety and depression are two examples of psychological mechanisms. And as Adrienne Ressler showed, individuals who suffer from eating disorders and or substance abuse problems share common risk factors and characteristics such as social, cultural and familial factors. Thus, it is a possibility for individuals to suffer from both simultaneously and an even stronger possibility that an individual develop one of these psychological illnesses at a later stage. It would be interesting to further research the prevalence of eating disorders and substance abuse in different cultures because there is a lack of research and it would intriguing to see if it takes any different form.

Figures

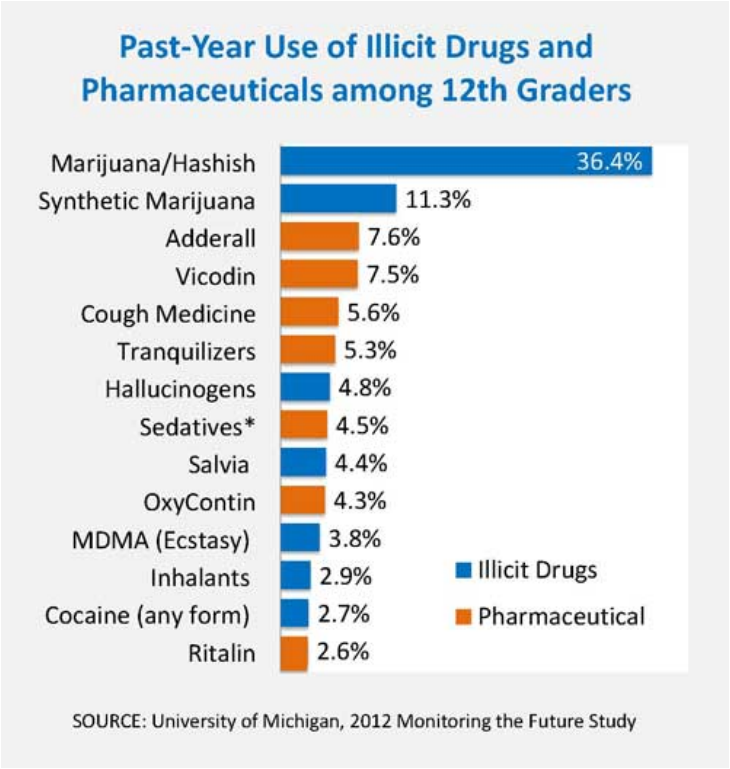

Figure 1.

Shared Risk Factors:

- Occurrence in times of transition or stress;
- Common brain chemistry;
- Common family history;
- Low self-esteem, deperession, anxiety, or impulsivity;
- History of sexual or physical abuse;
- Unhealthy peer norms and social pressure; and
- Susceptibility to messages from advertising and entertainment media

Shared Characteristics

- Obsessive preoccupation, craving, compulsive behavior, secretiveness, and rituals;
- Experience mood-altering effects, social isolation;
- Linked to other psychiatric disorders or suicide;
- Difficult to treat, life threatening;
- Require intensive therapy; and
- Chronic diseases with high relapse rates

Figure 2. 2003 study published by CASA

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