Compulsive buying and quality of life: An estimate of the monetary cost of compulsive buying among adults in early midlife

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ABSTRACT

The aims of this study were to examine the associations between compulsive buying and quality of life and to estimate the monetary cost of compulsive buying for a cohort of men and women at mean age 43. Participants came from a community-based random sample of residents in two New York counties (N=548). The participants were followed from adolescence to early midlife. The mean age of participants at the most recent interview was 43.0 (SD=2.8). Fifty five percent of the participants were females. Over 90% of the participants were white. Linear regression analyses showed that compulsive buying was significantly associated with quality of life, despite controlling for relevant demographic and psychosocial factors. The estimated monetary cost of compulsive buying for this cohort was significant. The fact that the monetary cost of CB is not trivial suggests that individuals are both consciously and unconsciously plagued by their CB. The findings are important for interventionists and clinicians for cost-effective intervention and treatment programs.

1. Introduction

Compulsive buying (CB), which has been reported worldwide (e.g., Horváth et al., 2013; Koran et al., 2006), is defined as a chronic, excessive, and repetitive purchasing behavior that may be a major response to negative events or feelings or uncontrolled urges. Koran et al. (2006) reported 5.5% of men and 6.0% of women met the criteria for CB disorder in the U.S. CB has been widely viewed as a behavioral addiction (Kellett and Bolton, 2009; Lawrence et al., 2014), with features similar to gambling disorder and internet addiction (Grant et al., 2010; Holden, 2001).

One common view is that individuals with internal distress, such as depressive mood, anxiety, or low self-esteem, depend on their CB to relieve themselves temporarily from their stressful states (Lejoyeux et al., 1996; Vogt et al., 2014). Nevertheless, instead of improving quality of life, in the long run, CB induces more negative consequences, such as the accumulation of large debts, difficulty in paying debts, financial legal consequences, and criminal legal problems (d'Astous, 1990; Joireman et al., 2010; Park and Burns, 2005; Ridgway et al., 2008; Roberts, 1998). It also may result in psychological symptoms/psychiatric disorders (e.g., emotional distress, depression) (Black, 2012; O'Guinn and Faber, 1989) and interpersonal conflict and marital conflict (Lejoyeux and Weinstein, 2010). The negative association between CB and overall quality of life is also documented (Manolis and Roberts, 2012; Otero-López et al., 2011).

Early midlife (mid forties) is a unique developmental period when the consequences of many mental health problems, including CB, become manifest. However, the extent to which an individual's CB influences his or her overall quality of life is not clear. This study intends to address this research gap. In addition, the adverse consequences of CB also raise the question of the monetary cost of CB. This information is important for interventionists and clinicians for cost-effective intervention and treatment programs. In this study, we used a relatively novel approach, which is referred to as the "life satisfaction approach" (LSA) (Frey et al., 2010; Welsch and Kühling, 2009). This approach has been used to give monetary value to environmental conditions (Frey et al., 2010; Welsch and Kühling, 2009), to evaluate the trade-off between inflation and unemployment (Di Tella et al., 2001), and how much people would spend on specific health conditions (Groot and van den Brink, 2006). To our knowledge, the present study is the first study that applies this approach to the study of CB. Research has generally found that income is positively related to aspects of quality of life (e.g., Blanchflower and Oswald, 2004; Shields and Price, 2005). Using LSA, we examine the relative relationships between income and quality of life and between CB and quality of life. These relative relationships are then used to quantify the monetary cost of

Table 1
History of Data Collection.

Time Wave	Year of Data Collection	Sample Size	Mean Age (Standard Deviation)	Male Percentage
Time 1 (T1)	1975 (Childhood)	973	5.0 (2.8)	51.1%
Time 2 (T2)	1983 (Adolescence)	756	14.1 (2.8)	49.6%
Time 3 (T3)	1985–1986 (Late adolescence)	739	16.3 (2.8)	50%
Time 4 (T4)	1992 (Emerging adulthood)	750	22.3 (2.8)	49.6%
Time 5 (T5)	1997 (Late 20s)	749	27.0 (2.8)	50.1%
Time 6 (T6)	2002 (Early 30s)	673	31.9 (2.8)	47.4%
Time 7 (T7)	2005–2006 (Late 30s)	607	36.6 (2.8)	45.6%
Time 8 (T8)	2012–2013 (Early midlife)	548	43.0 (2.8)	45%

CB, i.e., the amount of income needed to make someone with an elevated CB as well off as someone with a lower or no CB. The advantage of the life satisfaction approach is that an individual is not required to perform the unfamiliar task of assessing the monetary cost on CB.

One notable limitation of the measures of self-rated quality of life is heterogeneity (Groot, 2000; Shmueli, 2002). To address the problems of this heterogeneity, in the present study we included a number of psychiatric disorders/symptoms [i.e., major depressive episode (MDE), generalized anxiety disorder (GAD), impulsivity, and legal and illegal substance dependence/abuse] as control variables in the quality of life equation. These psychiatric disorders/symptoms have been shown to be related to both quality of life and CB.

Depression is a common mental disorder that presents with depressed mood, loss of interest or pleasure, decreased energy, and feelings of guilt or low self-worth. Moreover, depression often goes along with anxiety. These problems can become chronic or recurrent and lead to substantial impairments in an individual's physical and psychosocial functions and low quality of life (Hofmann et al., 2014; Nes et al., 2013). Depression and anxiety are also commonly present among compulsive buyers (Black, 2007; Christenson et al., 1994; Dittmar, 2004; Lejoyeux et al., 1996, 1997; McElroy et al., 1994). Indeed, Lejoyeux and Weinstein (2010) reviewed the literature and found that one of the most commonly associated comorbidities of CB is depression. Therefore, we controlled for depression and anxiety in the present study. Since impulsivity and lack of self-control are commonly present among compulsive buyers (Black et al., 2012; Claes et al., 2011), we also controlled for impulsivity in our study. Some studies have shown that substance use/disorder is associated with low quality of life (Swain et al., 2012) and CB (Lejoyeux et al., 2006; Mitchell et al., 2002; Roberts and Tanner, 2000). For example, Roberts and Tanner (2000) found that self-report measures of illegal drug use were significantly associated with CB among teenagers (12–19 years). Mitchell et al. (2002) found that compulsive buyers were significantly more likely to have a lifetime history of substance abuse or dependence. So we also controlled for substance abuse/dependence.

Based on findings from other researchers, we hypothesize that adult CB will be negatively associated with adult quality of life, while household income will be positively associated with adult quality of life, despite control on earlier quality of life, concurrent MDE, GAD, impulsivity, legal and illegal substance dependence/abuse, and other important demographic factors.

In sum, the aims of this study are two-fold. First, using a community sample, we examine the association between CB and quality of life at mean age 43. Second, for the first time in the literature, using regression techniques, we derive an estimated monetary cost of CB in this particular cohort.

2. Methods

2.1. Participants and procedure

Data on the participants in this study came from a community-based random sample residing in one of two upstate New York counties (Albany and Saratoga) first assessed in 1983. The participants' mothers were interviewed about the participants in 1975 (T1) to assess psychosocial development among youngsters, when the mean age of the participants was 5 years. Primary sampling units were created from enumeration districts and block groups which, when taken together, comprised the entire area of the selected counties. The primary sampling units in each county were stratified by urban/rural status, the proportion of Whites, and median family income. A systematic sample of primary sampling units in each county was then drawn with probability proportional to the number of households, and probabilities equal for members of all strata. Segments of blocks were then selected with probability proportional to size (number of households), and each was surveyed in the field with a proportion of the households being selected according to the predetermined sampling ratio. Address lists were compiled in this process, and interviewers were sent to the selected addresses. Those households with at least one child between the ages of one and ten years were qualified for the study. In each qualified household, the interviewer, by use of a set of Kish Tables (Kish, 1949), randomly selected one child from those in the appropriate age range. The sampled families were generally representative of families in the northeast U.S. at that time. For example, there was a close match between the participants and the 1980 U.S. Census with regard to family income, maternal education, and family structure.

Follow-up interviews of the participants were conducted seven times from 1983 (T2, N=756) through 2012–2013. In the present analyses, we used the data from the two most recent interviews of this longitudinal study, when the mean ages (SDs) of the participants were 36.6 (2.8) and 43.0 (2.8) in 2005–2006 (T7, N=607) and 2012–2013 (T8, N=548), respectively. Table 1 presents the detailed history of this longitudinal study. The T2 participants who did not participate in the study at T8 (N =208) were excluded from the analyses. There was a higher percentage of females (55% in the sample of 548 participants vs. 40.5% in the sample of 208 participants; $\chi2(1) =16.3$, p-value < 0.001) and greater T2 family income (8.8 (SD=2.5) vs. 8.4 (SD=2.7); $t=2.05$, p-value < 0.05) among the participants. There were no associations between those included in the analysis (N =548) as compared with those who were excluded (N =208) from the analysis with respect to age ($t=0.19$, p-value =0.85).

In 2005–2006, extensively trained and supervised lay interviewers administered interviews in private. Questionnaires were self-administered by the participants in 2012–2013. Written informed consent was