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Alvin C. Burns, Louisiana State University
Peter L. Gillett, University of Central Florida
Marc Rubinstein, University of Central Florida
James W. Gentry, University of Nebraska-Lincoln

ABSTRACT - Little research has been devoted to lottery ticket buying. Review of the literature suggests that lottery players are distinct from nonplayers, and that addicted gamblers differ from normal gamblers. Also, excessive lottery playing may be a manifestation of a general compulsive consumption trait which is evident in other consumption areas. A telephone survey reveals that lottery players are younger and have less income and education than nonplayers. Heavy players are found to have less income and to fantasize more than light players. Very heavy lottery players share characteristics of addicted gamblers, namely they are older, higher in income, fantasize more, and engage in other forms of gambling. A subset of them also exhibits compulsive consumption in the forms of browsing and heavy buying, sensation-seeking, and risk-taking. The dream of winning the lottery seemingly accommodates the strong fantasy need found in them quite well.

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AN EXPLORATORY STUDY OF LOTTERY PLAYING, GAMBLING ADDICTION AND LINKS TO COMPULSIVE CONSUMPTION

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Little research has been devoted to lottery ticket buying. Review of the literature suggests that lottery players are distinct from nonplayers, and that addicted gamblers differ from normal gamblers. Also, excessive lottery playing may be a manifestation of a general compulsive consumption trait which is evident in other consumption areas. A telephone survey reveals that lottery players are younger and have less income and education than nonplayers. Heavy players are found to have less income and to fantasize more than light players. Very heavy lottery players share characteristics of addicted gamblers, namely they are older, higher in income, fantasize more, and engage in other forms of gambling. A subset of them also exhibits compulsive consumption in the forms of browsing and heavy buying, sensation-seeking, and risk-taking. The dream of winning the lottery seemingly accommodates the strong fantasy need found in them quite well.

INTRODUCTION

Literally millions of Americans play legal lotteries. At last count, thirty-three U.S. states have lotteries, and most not only have a weekly lottery, but also daily "pick three" or "scratch and win" varieties as well. Lottery sales in 1985 were estimated to be $9.4 billion and increasing at 36% per year (Business Week 1985). A number of states who do not have lotteries are actively considering ones at this time. In the aggregate, state lotteries appear to be generating a nation of millionaires. But lottery playing is a most peculiar form of consumer behavior. It is irrational and ethical aspects of lottery gambling give rise to interesting controversy surrounding lotteries, and this controversy is revisited practically every time a state legislature debates instituting one. Opponents claim that lotteries prey on minorities, low income families and older people (Blakely 1979, Dieelman 1979, Edmondson 1986, Kallick-Kaufmann 1979). These opponents also claim that lotteries have the potential of unleashing compulsive gambling inclinations lurking in individuals who would ordinarily not be exposed to easily accessible legal gambling (Dieelman 1979). Lottery proponents, on the other hand, argue that lottery gambling is socially acceptable since state revenues are enhanced and all state residents ultimately benefit from the use of these revenues (Kallick-Kaufmann 1979). They also claim that "shallow" gambling on bingo, slot machines, or lotteries is quite dissimilar from "deep play" gambling such as casino, race track, or craps; therefore, the potential for creating compulsive lottery gamblers is minimal (Edmondson 1986).
HYPOTHESES

1. To identify differences between lottery players and nonplayers;
2. To investigate differences between different types (e.g., light versus heavy) of lottery players
3. To determine the extent to which very heavy lottery players share characteristics of compulsive gamblers; and
4. To explore possible relationships between very heavy lottery gambling and compulsive consumer behavior.

BACKGROUND ON LOTTERY PLAYING, GAMBLING AND COMPULSIVE CONSUMPTION

Lottery Player Profile
As noted above, very little published research exists on lottery players. McConkey and Warren (1987) recently reported the results of analysis on a sample of females residing in one of sixteen lottery states. Nonplayers were found to be concentrated in retired households with college education and low income. Heavy lottery players, on the other hand, tended to come from larger families, be middle aged, and to have higher income. Light players' demographic profiles tended to fall between the nonplayers' and heavy players' characteristics. Also, nonplayers embraced conservative, traditional, and less optimistic values, while light players were optimistic and less traditional, and heavy players displayed tendencies toward excess and to experience stress. Another study cited in American Demographics (Edmondson 1986) reported that most lottery players were males over 35 years old with some college education and moderate to low income. Heavy players in the first 45 days of the California lottery were found to be minorities who were less educated and poorer than the average Californian (Schreiner 1986).

Gambling and Addicted Gamblers
In contrast to the paucity of information on lottery players, there is much more research information and some theories available to explain gambling in general. Factors which have been found to differentiate gamblers from nongamblers include: childhood or previous exposure, current exposure, perceived availability, and legal status of gambling alternatives. At the same time, there is evidence that gamblers desire more stimulation in their lives than do nongamblers. Similarly, they often perceive they have better luck and greater skill than do nongamblers (Kallick-Kaufmann 1979). At least one author (Kusyszyn 1977, 1983, 1984) has developed a theory that gambling is a form of adult playland where fantasy has as important as role as does actual winnings. Kusyszyn (1983, 1984) concludes that individuals with strong tendencies toward risk-taking, sensation-seeking and fantasy more likely to be gamblers.

Compulsive Consumption and Hedonic Consumption
Addiction manifests itself as compulsive behavior which has recently become of interest to consumer researchers. Faber, O'Guinn and Krych (1987) provide a general description of compulsive consumption, terming it as "inappropriate, typically excessive, and clearly disruptive" of the lives of those consumers afflicated with it. These authors conclude that compulsive consumers are exhibiting a dependency much the same way a drug addict or alcoholic is dependent on a substance or someone is dependent on gambling. Further, compulsive consumers share psychological characteristics with addicts including abnormal thrill-, variety-, or sensation-seeking, impulsivity, and a need to relieve stress via escape or fantasy. Shopping and buying become the mechanisms for satisfying these desires. Faber, O'Guinn, and Krych (1987) contend that important public policy issues exist in compulsive consumption and recommend further study on this topic.

Further reflection on sensation-seeking, fantasy, and hedonic consumption reveals the theoretical underpinnings for some of the hypotheses addressed in this study. Hirschman and Holbrook (1982) have contended that hedonic consumption is based on what consumers desire or fantasize reality to be. They have posited a paradigm which explicitly includes the experiential aspects of consumption including fantasies, daydreams, and imagery, and they have urged researchers to address these factors in addition to information processing constructs. Holbrook and Hirschman (1982). Maclnnis and Price (1987) have categorized these notions into the concept of "consumption imagery," an area they claim deserves research attention and promises managerial insight. Lottery playing obviously provides good opportunity for consumption imagery, and the fantasy aspect of lottery ticket purchases should be readily apparent. Also, since compulsive consumers are known to be high on the experiential consumption scale, one would anticipate that heavy (possibly compulsive) lottery players would share sensation-seeking and other hedonic consumption characteristics as well.

Given this background, there are four expectations underlying this study. First, lottery playing is affected by a myriad of personal, historical,
social, and situational factors. Second, attributes exist which are useful in differentiating heavy from light lottery players. Third, very heavy lottery players may exhibit characteristics similar to compulsive gamblers. Finally, very heavy lottery playing may be related to other consumer behaviors indicative of socially-acceptable addiction, variety-seeking or compulsivity.

The descriptions above constitute the following hypotheses.

H1: Factors which will distinguish lottery players from nonplayers.

   a. Demographic (lottery playing with)
      1.) Males
      2.) Lower income
      3.) Lower education
      4.) Older
      5.) Minorities

   b. Historical (lottery playing with)
      1.) Parents as gamblers
      2.) Experience in another state with lottery

   c. Social (lottery playing with)
      1.) Socially acceptable

   d. Motivational (lottery playing with)
      1.) To make money
      2.) Need to fantasize
      3.) Need for escape
      4.) Risk-taking propensity

H2: Factors which will distinguish heavy from light lottery players.

   a. Heavy players will possess more of each characteristic listed in H1 than will light players.

   b. Situational (heavier playing with)
      1.) Greater amounts in jackpot
      2.) Purchase of some lottery book or aid
      3.) Previous lottery winnings

H3: Very heavy lottery players may exhibit characteristics of compulsive gamblers.

   a. Demographic
      1.) older
      2.) more income
      3.) more education

   b. Historical
      1.) Parents as gamblers

   c. Motivational
      1.) Sensation-Seeking
      2.) Impulsivity
      3.) Perfectionism

   d. Perceptual
      1.) Distortion of reality

   e. Cross-addiction with
      1.) Other forms of gambling
      2.) Alcohol
      3.) Smoking

H4: Very heavy lottery players may exhibit evidence of compulsive consumption

   a. Sensation-seeking
1) Browsing
2) New product trial propensity
3) Brand switching
   b. Compulsive buying
   1) Heavy purchasing

METHOD

Setting

The study was performed in Florida which instituted a lottery in January of 1988. The typical weekly jackpot is approximately $10 million, and the largest jackpot to date has been over $40 million. In 1988, total lottery sales exceeded $1.5 billion, and 50 percent of these revenues was awarded as winnings according to state law. Data was gathered during the month of March, 1989. Thus, it was believed that any curiosity buying or unusual playing associated with the newness of the lottery had abated.

Questionnaire and Data Collection

A questionnaire was designed for telephone administration in Orlando. Since no scales were available from previous research on the various motivational and compulsive consumption constructs (e.g., need to fantasize, heavy buying, etc.), statements were generated to be used with a 5-point agree-disagree scale. The statements were refined by having a class of marketing research students attempt to match them with descriptions of the constructs. Two statements with a minimum of 60% agreement were retained for each construct. Most had agreement levels in excess of 80%.

The questionnaire was administered by college students who were compensated for their work. Respondents were selected from the local telephone book using systematic sampling with a random starting point. Interviewers were instructed to attempt three callbacks and to alternate interviews with male and female heads of the household. A subsample of respondents was recontacted for verification purposes, and all indicated they had participated.

RESULTS

Sample Profile

A total of 235 usable questionnaire resulted with an approximate 50-50 male-female split (48% males, 52% females). The typical respondent was 41 years old (standard deviation of 14.9), white (88%), married (66%), and had played the lottery (74%). Considerable variability in income and education levels was evident. While 23% of the sample had an annual family income before taxes of $20,000 or less, 18% indicated income of over $50,000, and the remainder of the sample was spread approximately evenly across the $10,000 intervals in between these extremes. About 35% of the sample had high school or less education, 23% had some college, 28% had college degrees, and 14% either had some graduate work or a graduate degree. Lottery players in the sample bought an average of 3.6 tickets each week (standard deviation of 4.7). Construct Measurement Reliability

Cronbach’s alpha coefficients were computed for each pair of statements designed to measure the various constructs. Many failed to exhibit acceptable reliability levels. Inspection of correlations suggested considerable multicollinearity between statements intended to measure separate constructs. To control for this problem, it was decided to perform exploratory factor analysis with varimax rotation to determine underlying structure. A split-half approach was used, and nine factors identical in items and factor loadings of .60 or greater were determined for each half of the sample. The reliabilities based on the items comprising each factor were acceptable (alpha > .60) except in two cases, and in two others, only one item loaded. The empirically determined constructs and the statements whose sum scores were used in subsequent analysis are described in Table 1.

Lottery Players versus Nonplayers

Table 1 also presents the results of differences tests (t-tests) and associative analyses (Chi square tests) used to test the study’s various hypotheses. Because of the exploratory nature of this study, statistical significance was set at the p<.10 level; although, most of the statistically significant findings were at the p<.05 level or less.

As noted earlier, approximately one-quarter of the respondents had not played the lottery in the past. The following description parallels the categories of factors listed in H1. Compared to nonplayers, lottery players were found to be lower in family income, less well educated, and younger. No statistically significant differences were found for race or sex. Intergenerational influence was not related to playing, but experience with a lottery in another state was. Lottery playing was deemed more socially acceptable by players than nonplayers. As was expected, players tended to fantasize about winning more than nonplayers, and they were more positive toward risk-taking. (Although not a part of H1, it was found that lottery players exhibited more heavy shopping and browsing than nonplayers.) Light versus Heavy Lottery Players

While the average number of tickets purchased per week was 3.6, inspection of the distribution of responses, revealed that an approximate median split at 2 tickets. Consequently, those respondents who typically purchased 2 or fewer tickets per week and those who bought more than 2 were arbitrarily classified into light and heavy groups, respectively.

Heavy players were found to have less education than light players. While no other significant demographic factors (sex, income, age, or minority membership) were determined. Hypothesized historical factors such as parents gambling or lottery experience in another state also were not supported. Two motivational factors, greater fantasizing of winning and risk-taking propensity, did distinguish heavy players from light ones. (Heavy players were also more likely to browse and bargain hunt).

The situational influences aspect of the hypothesis was found to be supported by the results. Lottery players bought significantly more tickets on average (5.0 versus 2.3) if they had ever won anything in the lottery, and they bought more (7.2 versus 3.4) if they had purchased some lottery book or aid. Finally, with jackpot sizes of $20, $30, $40, and $50 million, respondents indicated they would buy 5.6, 6.7, 8.7, and 10.3 tickets, respectively.

To further understand the roles of the several factors hypothesized to be related to the amount of lottery playing, a regression analysis was performed using the number of tickets typically purchased as the dependent variable and the various demographic, historical, social, motivational, and situational factors as candidate independent variables. Six were found to have significant beta weights. Alone, they accounted for 21 percent of the variance in ticket purchases. These six were (standardized beta’s in parentheses): age (-.19), income (.16), education (.20), parents gambling (-.15), won something in the lottery (-.30), and participating in other forms of gambling (-.14). Although
Evidence of Compulsive Consumption in Very Heavy Lottery Players

Table 1 reveals that no significant differences were found between very heavy lottery players and other players on any of the three consumer behavior factors related to compulsive consumption and sensation-seeking. Realistically, one is hard pressed to argue that buying even $10 worth of lottery tickets per week is excessive or disruptive consumer behavior; however, it was found that some respondents did report purchasing 15, 20 or even 40 tickets weekly. Exploratory analysis was performed using 7 respondents (1.7% of the sample) who purchased 15 or more tickets weekly. They are identified as "Possibly Compulsive" in Table 1. A statistically significant difference was found for this group's greater fantasizing about winning the lottery. Other statistical significance was obviously severely hampered by the very small sample size. Nonetheless, the mean response on the browser-bargain seeking dimension was higher for this group. It was higher for energetic-exciting life, impulsive and the making money motive for playing the lottery. The Possibly Compulsives were higher in risk-taking; they were older, had played lotteries in other states, and tended to engage in other forms of gambling more than other lottery players.

Factors Characterizing Various Types of Lottery Players and Nonplayers

Tests of significance were performed comparing the very heavy players group with all other lottery players. It was found that these players tended to be older and represented the second highest income group. They were also more likely to have observed gambling in their parents. They were found to fantasize about winning the lottery more than other lottery players. There was no evidence to support hypotheses of distortion of the odds of winning or cross-addiction to alcohol or drinking. But Very Heavy lottery players did report significantly more horse race, slot machine, and poker gambling in the last 12 months than did other lottery players.

Discussion

Some of the concerns of lottery opponents have been verified by the results of this exploratory study. That is, lottery players tend to have lower income and to be less well educated than nonplayers. However, they are younger than nonplayers. Lottery players apparently view their playing as socially acceptable risk-taking which provides them with a means of fantasizing sudden wealth and escape from their current status. Players are stimulated by situational factors, and they are likely to increase their purchases when the jackpot grows in size. There are heavy players who buy more tickets regularly even when the jackpot ist at its lowest level. These consumers have less education than the light players, and they fantasize about winning to a greater extent. Some evidence exists to suggest that the amount of tickets purchases increases with age and income; consequently, lottery playing may be less of a social problem then claimed by opponents. It appears that the vast majority of lottery players, regardless of the amount of playing, is purchasing a low cost fantasy.

There is a subset of very heavy players who are typically older and in higher income brackets. These players are more likely to have observed gambling in their parents; they fantasize of winning the lottery to a greater degree, and they participate in other forms of gambling more than other lottery players. Within the very heavy players is found a small group which appears to exhibit the characteristics of compulsive consumption. These consumers are most extreme in fantasizing, and they score high on other dimensions of compulsive consumption, namely, browsing and heavy buying, sensation-seeking, energy, and risk-taking. They are also the oldest group of lottery players and engage in other forms of gambling more. Although inconclusive, these findings do not support the claim that lotteries create addictive gamblers. Rather, excessive consumer behaviors of various types appear to be manifestations of a strong need to fantasize and perhaps to seek out sensations. Playing the lottery serves those with a strong fantasy need particularly well and holds promise of a wealth of new experiences if one should win.

A great deal of additional research must be applied to this area before definitive statements can be made. To be more specific, the measurements of the study's various constructs should be performed with greater reliability and validity tests. The sample should be broadened to provide representation in other states. Finally, a theoretical model of compulsive consumption should be developed in order to properly map out what behavioral phenomena are logically clustered together as a result of extreme sensation-seeking and fantasizing needs in consumers.

References


A gambling addiction is a progressive addiction that can have many negative psychological, physical, and social repercussions. It is classed as an impulse-control disorder. It is included in the American Psychiatric Association (APA's) Diagnostic and Statistical Manual, fifth edition (DSM-5). Problem gambling is harmful to psychological and physical health. The use of some medications has been linked to a higher risk of compulsive gambling. Secondary addictions can also occur in an effort to reduce the negative feelings created by the gambling addiction. However, some people who gamble never experience any other addiction. Some factors increase the risk.