NEAR EAST UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
APPLIED (CLINICAL) PSYCHOLOGY MASTER PROGRAM

GRADUATION PROJECT

PREVALANCE AND RISK FACTORS OF GAMBLING

NUR ÇELİKEL
20030490

SUPERVISOR
ASSOC. PROF. DR. EBRU TANSEL ÇAKICI

NICOSIA
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Prepared by: Nur Çelikel

We certify that the thesis is satisfactory for the award of the Degree of Master of Science in Applied Psychology

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ÖZET

Kumar Yaygınlığı ve Risk Faktörleri

Hazırlayan **Nur Çelikel**
Şubat,2010

Bu araştırmacının amacı kumar yaygınlığı ve risk faktörlerini araştırmak, kumar davranışının patolojik kumara nasıl dönüştüğünü anlamak için literatürdeki bilimsel çalışmaların bir derlemesini yapmaktır.

Kumar, değerli bir şeyi daha değerlisini kazanmak umuduyla riske atmak olarak tarif edilebilir. Kumara karşı kontrol yitirildiğinde ve kumara bağımlılık başladığında kumar davranışının patolojik kumara dönmesi söz konusudur.

Yüksek gelirli insanlar arasında yaygın olan kumar, kumarın yasallaşmasıyla birlikte orta ve düşük gelirli insanlar arasında da yaygınlaşmaya başlamıştır. Yeni Zelanda, Britanya, Avustralya, Kanada ve İsveç ve KKTC'de ülke çapında yaygınlık çalışmaları yapılmıştır. Sonuçlara göre popülasyonu oluşturan kişilerin çoğu milli piyango oynamışlardır. Sonuçlar gösteriyor ki, madde kullanımı ve bağımlılığı, duygulanım bozuklukları, cinsiyet ve ırk gibi demografik faktörler belirgin risk faktörleridir. Türkiye'de kumar adına yapılmış çok az araştırma vardır. Yaygınlık çalışması ise bulunmamaktadır. Türkiye'de kumar yaygınlığını tespit etmek ve kültürümüze has risk faktörlerini belirlemek amacıyla akademik çalışmalara ihtiyaç duyulmaktadır.

Anahtar Kelimeler: Kumar, problem kumar, patolojik kumar, risk faktörleri.

ABSTRACT

Prevalence and Risk Factors For Gambling

Prepared by **Nur Çelikel**

February,2010

The purpose of this study is to examine the literature on gambling, risk factors of gambling and gambling prevalence for gathering and integrating information together to find out how gambling behavior turn to pathological gambling.

Gambling can be defined as placing something of value at risk in the hopes of gaining something of greater value. Gambling can turn to pathological gambling when control over gambling is lost and dependency on gambling develops.

Many forms of gambling was prevalent among the people having high financial opportunities. By the legalization of some gambling forms, gambling became a game of many people who have low to high financial opportunities. Country based prevalence studies have been made in New Zealand, Britain, Australia, Canada and Sweden and TRNC. According to results, most of the population have participated national lottery draw. Results show that drug use and abuse, mood disorders, demographic factors such as being male or female and race are significant risk factors for pathological gambling. It is an important point, there is lack of prevalence study in Turkey. Only two study were found on gambling and there was not any prevalence study which was made in Turkey. There is need for further examination and academic study on gambling in Turkey.

Keywords: Gambling, problem gambling, patological gambling, risk factors.

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INTRODUCTION

Gambling is a seriously developping problem of youth and adults. And we are as the researchers and psychologists continue to strive towards a better understanding of why people gamble, which factors lead poeple to gamble, how do people perceive gambling behavior, why gambling is important to some people and not to others, and what the consequences of involvement are. This study was prepared to provide some knowledge about gambling, problem gambling and the issues related to gambling behavior. A great deal of academic resources were investigated and used for this study. Firstly, we defined what the gambling and problem gambling are. Then, we examined the prevalence studies and maked the interpretation of the studies which applied in our country and to the other countries. After this, we touch on some gambling related issues like social, biological, environmental factors and personality traits as the things that effect gambling behavior.

1. GAMBLING and PATHOLOGICAL GAMBLING

1.1. Gambling

Gambling is a very prevalent legalized activity that can be considered a non-drug related behavior with addictive behavior (Potenza et. al.2002). Increasing numbers of people have begun gambling, as it has become a more accessible and socially accepted activity.

Gambling is a broad concept that includes diverse activities, undertaken in a wide variety of settings, appealing to different sorts of people, and perceived in various ways. For most people, gambling is an enjoyable, if occasional, experience. For some people, however, gambling leads to debilitating problems that can also result in harm to people close to them and to the wider community (Volberg & Wray, 2007).

1.1.1. Definition of Gambling

There are some gambling definitions which were used in the researchs and some studies. In 2007 British Survey, 'Gambling participation' was defined as having 'spent money' on the activity, so that it would include, for example, having a lottery ticket purchased on their behalf if the money used to buy the ticket was the respondent's own.

In 1999 British Survey, some gambling activities were shown and it is defined as "having *spent your own money* on the activity". So that, spending your own money is the criteria for gambling.

The New Zealand Gambling Act 2003 defines gambling as "paying or staking consideration, directly or indirectly, on the outcome of something seeking to win money when the outcome depends wholly or partly on chance" (Gambling Act, 2003).

Gambling can be define as placing something of value at risk in the hopes of gaining something of greater value (Potenza,2002).

Thompson (1997) likens gambling to a variety of activities which have in common the risking of something of value in exchange for something of greater value.

Similarly, Walker (2008) argues that gambling involves risking money in order to win money on an outcome that is wholly or partly determined by chance.

As Derevensky reported; gambling refers to wagering money on games of chance. Gambling behavior involves risk-taking, may involve some skill, and may best be conceptualized on a continuum ranging from nongambling, to social and recreational gambling, to problem gambling and to pathological gambling (Hardoon&Derevensky, 2002).

1.1.2. Types of Gambling

It is noteworthy that there was no significant difference in the choice of gambling activities between the younger and older cohort. The most common form of gambling leading to problems among the elderly, as well as among the younger cohort, was slot machines, likely reflecting the fact that most gamblers admitted to our program live in areas of the country in which casino gambling is prevalent, and casino gambling tends to contribute to gambling problems. The NORC survey found that in the United States, the availability of a casino within 50 miles is associated with almost double the prevalence of pathological gambling (Kaush,2004).

Gambling activities (British Survey,2007):

- National Lottery Draw
- Another lottery
- Scratchcards
- Football pools
- Bingo
- Slot machines
- Horse races
- Dog races
- Betting with a bookmaker (other than on horse or dog races)
- Fixed odds betting terminals
- Online betting with a bookmaker on any event or sport
- Online gambling
- Table games in a casino
- Betting exchange
- Spread betting

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- Private betting (e.g. with friends, colleagues)
- Another gambling activity

1.2. Pathological Gambling

1.2.1. Definition of Pathological Gambling

Pathological gambling is a behavioral disorder that was first classified as a nosological entity with specific diagnostic criteria in *DSM-III* (American Psychiatric Association, 1980). Currently, pathological gambling is categorized in *DSM-IV*(American Psychiatric Association, 1994) as an impulse control disorder. It is a behavioral addiction characterized by emotional dependence on gambling and by a chronic and progressive failure in resisting the impulse to gamble. As a consequence, important alterations occur in the family, social, working, and personal environments of pathological gamblers, which negatively interfere with normal functioning in daily life (Echeburúa& Montalvo, 2002).

The American Psychiatric Association (APA) defines pathologic gambling ‘‘as a chronic progressive failure to resist impulses to gamble and gambling behavior that comprises, disrupts, or damage personal family vocational pursuits.’’ Pathologic gambling, like any other addiction can be devastating (Bazargan, M.& et. al, 2000).

Over the past decade problem gambling has been seen as a public health issue instead of a mental disorder. The harmful effects of problem gambling include financial problems, problems at work (ranging from poor performance to fraud), poor parenting and other relationship problems, family violence, alcohol abuse, and mental health problems (Wen Li, 2007).

Pathological gambling is characterized by a continuous or periodic loss of control over gambling, a preoccupation with gambling and with obtaining money with which to gamble, irrational thinking and a continuation of the behavior despite adverse consequences (American Psychiatric Association [APA], 1994, Hardoon ve Derevensky, 2002).

1.2.2. Diagnostic Criterias of Pathological Gambling

The *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-IV*) describes pathological gambling as a disorder that involves preoccupation, tolerance, and loss of control relating to gambling behaviors (Ladd et al. 2003).

Pathological gambling, in the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-IV*; American Psychiatric Association, 1994), is characterized by a continuous or periodic loss of control over gambling, a preoccupation with gambling, and obtaining money to support one's gambling activities, irrational thinking regarding gambling, and a continuation of gambling despite adverse consequences. Pathological gambling, for adults and youth, is a progressive disorder involving chasing losses and is a behavior frequently used to escape or reduce stress and painful events (Dickens & Derevensky, 2006).

Some people who take part in gambling activities risk more than they can afford to lose. However, gambling activities, unlike other highly risky enterprises, are typically presented and perceived as recreation, socialisation or leisure. This perception has led to substantial increases in the accessibility and acceptability of commercial gambling in the past two decades, internationally and nationally. In other words, social acceptance of gambling and gambling participation is increasing in many parts of the world (Wen Li, 2007; Abbott, 2002, Abbott & Volberg, 1999).

In the present context, dramatic developments in the ways that professionals have objectified and operationalized the concept of problem gambling are of particular interest. Beginning in the 1950s, a small number of mental health professionals argued that at least some people with gambling problems were "sick" rather than "immoral" and suggested that interventions be based in medical science rather than punitively in the criminal justice system. In the 1980s, these early efforts paid off as programs such as Gamblers Anonymous and organizations such as the National Council on Problem Gambling attracted new adherents and as psychiatric professionals successfully fought to have the category *pathological gambling* added to the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*; American Psychiatric Association, 1980). These successes were accompanied by increasingly sophisticated efforts to detect problem gambling and to measure prevalence rates both in the United States and abroad (Rachell&Matt, 2007).

1.2.2.1. Measurement of Gambling Problems in the Population

Historically, standardized measures and indices have often emerged in situations where there is both intense distrust and a perceived need for public action.

With the rapid expansion of legal gambling in the 1980s and 1990s, state governments began to establish services for individuals with gambling problems. In

making decisions about funding and programs, policy makers sought answers to questions about the number of individuals in the general population who might seek help for their gambling difficulties. These questions required epidemiological research to identify the number (or "cases") of problem and pathological gamblers, ascertain the demographic characteristics of these individuals, and determine the likelihood that they would use treatment services if these became available.

Following inclusion of pathological gambling in the *DSM-III* in 1980, a few researchers began to investigate problem gambling using methods from psychiatric epidemiology. At the time, few tools existed to measure gambling-related difficulties.

The only tool rigorously developed and tested for its performance was the South Oaks Gambling Screen (SOGS; Lesieur & Blume, 1987). Closely based on the new psychiatric criteria, the SOGS was originally developed to screen for gambling problems in clinical populations.

The SOGS was first used in a prevalence survey in New York State (Volberg & Steadman, 1988). Since then, the SOGS and subsequent modifications of the original screen have been used in population-based research in more than 45 jurisdictions in Asia, Canada, Europe, Oceania, and the United States (Abbott & Volberg, 1996, 2000; Bondolfi, Osiek, & Ferrero, 2000; Orford, Sproston, Erens, White, & Mitchell, 2003; Productivity Commission, 1999; Shaffer, Hall, & Vander Bilt, 1999; Volberg, 2001; Volberg, Abbott, Rönnberg, & Munck, 2001; Welte, Barnes,Wieczorek, Tidwell, & Parker, 2001). This widespread use of the SOGS has been due at least in part to the great advantage of comparability within and across jurisdictions that came with use of a standard tool (Walker & Dickerson, 1996). Although there were increasingly well-focused grounds for concern about the performance of the SOGS in nonclinical environments, this tool remained the de facto standard in the field until well into the mid-1990s (Volberg, 2001).

However, beginning in the early 1990s, dissatisfaction with the SOGS grew, particularly among Australian and Canadian researchers. The main criticism of the SOGS was that this screen was developed and tested in a clinical setting and the characteristics of its performance in community samples were unknown (Walker & Dickerson, 1996; Wiebe, Single, & Falkowski-Ham, 2001).5 Additional criticisms of the SOGS were that the screen did not clearly reflect the conceptualization of

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pathological gambling included in the *DSM*, that it might not specifically target pathological gamblers because some of the items would be equally endorsed by regular gamblers, that its lifetime frame of reference overestimated the current prevalence of gambling problems, and that it was insensitive to culturally diverse contexts (Abbott & Volberg, 1999; Battersby, Thomas, Tolchard, & Esterman, 2002; Thomas, Jackson, & Blaszczynski, 2003).

What led to the growing dissatisfaction with this screen? One important change was the rapid expansion of legal gambling itself. As legal gambling expanded and as new groups began to gamble, more women and middle-class individuals began to seek help for their gambling-related difficulties (Strachan & Custer, 1993; Volberg, 1996; Volberg & Steadman, 1992). Representatives of the lottery and casino industries also played a role in challenging the supremacy of the SOGS through their efforts to discredit what they saw as unacceptably high prevalence rates (Fahrenkopf, 2002). Another reason for growing dissatisfaction with the SOGS arose from the multiplying needs for tools to identify problem gamblers in different settings, including primary health care settings and gambling venues. As growing resources became available for problem gambling services, demands for accountability and performance rose and drew further attention to the deficiencies of the screen. Since the publication of revised diagnostic criteria for pathological gambling in the *DSM* (4th ed.; *DSM-IV*; American Psychiatric Association, 1994), a multitude of new problem gambling screens for adults and for adolescents have been developed (Govoni, Frisch, & Stinchfield, 2001).

Early conceptualizations of problem gambling were based primarily on clinical experience and expert consensus (Govoni et al., 2001). The few tools that were developed during this period to identify problem gamblers reflect the strong psychological perspective that has largely informed problem gambling research. Recent emergence of a public health approach to gambling problems, particularly evident in Australia and Canada, has led to a focus on harm as the foundation of several new measures of problem gambling (Battersby et al., 2002). Researchers in these countries have argued that a focus on harm is more appropriate for determining the socioeconomic impacts of gambling in the community and is also useful in screening for individuals who are, or may be, at risk for developing into problem gamblers (Thomas et al., 2003). However, the problem gambling measures

developed in these countries include many items used in earlier screens and reflect a continued emphasis on the psychological aspects of problem gambling (Volberg&Wray, 2007).

1.2.3. Levels of Pathological Gambling

Beginning in the 1950s, a small number of mental health professionals argued that at least some people with gambling problems were “sick” rather than “immoral” and suggested that interventions be based in medical science rather than punitively in the criminal justice system. In the 1980s, these early efforts paid off as programs such as Gamblers Anonymous and organizations such as the National Council on Problem Gambling attracted new adherents and as psychiatric professionals successfully fought to have the category *pathological gambling* added to the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*; American Psychiatric Association, 1980). These successes were accompanied by increasingly sophisticated efforts to detect problem gambling and to measure prevalence rates both in the United States and abroad (Volberg&Wray, 2007).

To synthesize the extant data from different studies and avoid favoring nomenclature associated with particular schemas, Shaffer and friends employed a classification system consisting of 3 generic levels of gambling problem severity that allows for the organization and integration of data from different studies. "Level 1 represents respondents who do not experience gambling problems. This group includes both "nonproblem" gamblers and nongamblers. Level 2 represents gamblers with subclinical levels of gambling problems (e.g., "problem," "at-risk," "in-transition," "potential pathological"). Level 3 represents the most severe category of disordered gambling (e.g., "pathological"). In many studies, level 3 gamblers are those who meet established diagnostic criteria for pathological gambling (Shaffer et al.1999).

CIS with gambling problems normally start gambling recreationally. Indicators of the shift from recreational gambling to problem gambling include: the primary motivation of gambling to win money, to wager greater amounts of money for prolonged periods of time, and the inability to stop gambling at will after starting a single gambling session. These findings challenge diagnostic approaches used in gambling prevalence research. Prevalence research allocates all people with gambling related problems to a single category and fails to address the diverse levels of problem severity (Tse et al. 2005). The movement from recreational gambling to

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problem gambling lends support to a continuum of problem gambling ranging from minor to major severity. It also supports the continuum of risk for problem gambling which ranges from no risk to low risk and moderate risk, then to high risk (Blaszczynski, 2005).

Gambling behavior may best be conceptualized on a continuum ranging from social and recreational gambling, to problem gambling (at-risk gambling), to pathological gambling (Dickens & Derevensky, 2006 “National Research Council [NRC], 1999”).

Gambling participation, very much like drug use, falls upon a continuum, ranging from controlled responsible use to uncontrollable gambling participation. This latter group of people are often referred to as pathological gamblers (American Psychiatric Association, 1994) and exhibit the same lack of control and decision-making capacities as those dependent on drug use (Dickens & Derevensky, 2004).

Operational definitions and nomenclature issues have been a contentious issue in the gambling literature due to the interchangeable use of such terms as problem, probable pathological, pathological, and compulsive gambler (Derevensky, Gupta,&Winters, 2003).

The classification of gambling behavior by severity often depends on the instrument used. For example, individuals diagnosed as pathological gamblers must meet 5 of 10 of the impulse control disorder criteria from the *Diagnostic and Statistical Manual-IV-TR* (*DSM-IV-TR*; American Psychiatric Association, 2000).

1.2.3.1. Problem Gambling

In the present context, dramatic developments in the ways that professionals have objectified and operationalized the concept of problem gambling are of particular interest (Volberg & Wray, 2007).

Problem gambling refers to individuals who experience difficulties with their gambling, although it has been used in a variety of ways. In some situations, it is used to indicate all of the patterns of gambling behavior that compromise, disrupt, or damage personal, family, or vocational pursuits (Volberg, 1997; Lesieur, 1998). In other situations, its use is limited to those whose gambling-related difficulties are substantial but less severe than those of individuals who would meet the diagnostic criteria for *pathological gambling*, a recognized psychiatric disorder (Volberg&Wray, 2007).

Definitions of problem gambling have moved from a clinical approach which mainly regards pathological gambling as a mental illness, to a public health perspective which addresses not only the biological and behavioural dimensions related to gambling and health, but also the social and economic determinants, gambling is recognised as a public health issue (Wen Li, 2007).

2. GAMBLING PREVALENCE

Prevalence of gambling refers to the percentage of gamblers in the community at a given time.

Many forms of gambling have historically been class based. Reith (1999) and Rosecrance (1988) have both observed that gambling among the upper classes, whether on horses, cards, casino games, real estate, or stocks, has long been condoned in Western societies. Despite the efforts of reformers, similar activities have been broadly tolerated among the working and lower classes. In contrast, until the latter part of the 20th century, gambling among the middle classes was widely discouraged.

2.1. Gambling Prevalence Studies in Turkey

Gambling and gambling related problems are important issues for Turkish population. But the studies about gambling are not more than a few studies. And there is no prevalence study in Turkey. The studies are: Descriptive Features of Turkish Pathological Gamblers (Duvarcı&Varan, 2000), Standartization of South Oaks Gambling Screen (Duvarcı&Varan, 2001), and Pathological Gambling: Biopsychosocial Approach (Kalyoncu&Pektaş&Mırsal, 2003).

In standartization of South Oaks Gambling Screen; Two studies examining the reliability and validity of the Turkish Form of the South Oaks Gambling Screen (SOGS) are reported.in the first study 59 subjects, and in the second study 73 subjects-participated. The subjects were diagnosed as either pathological gamblers or nonpathological gamblers (comparison group) through the use of the DSM-IV criteria and were given the SOGS. In both studies, statistical analysis revealed no significant demographic differences between pathological gamblers and the subjects in the comparison group with respect to age, marital status, education, employment status and income level. In the second study, pathological and non-pathological gamblers did not differ significantly in their preferred forms of gambling. The two groups were also similar to one another in terms of their gambling frequencies. It was concluded that the Turkish Form of the South Oaks Gambling Screen can be used as a reliable and valid instrument in identifying Turkish pathological gamblers.

In pathological gambling: Biopsychosocial Approach study; Kalyoncu & Pektaş & Mırsal have reviewed the literature of pathological gambling. They made

computerized literature search using PubMed for the years 1984 to 2003 and to the choice of articles by random. They find that several competing conceptualizations of pathological gambling: as an impulse control disorder, a mood disorder, an obsessive-compulsive spectrum disorder, or a non-pharmacological addiction. An alternative model of pathological gambling is as a heterogeneous disorder with different subtypes sharing certain characteristics. Both biological and psychological factors play a role in the etiology of pathological gambling. Treatment options include several medications, psychotherapies and attendance to Gamblers Anonymous, although none of them are established treatments. As conclusion, there is the need for further research in order to improve the understanding of this disorder and improve the quality of the treatments available.

In another study about Turkish pathological gamblers, this study investigated the descriptive features of Turkish pathological gamblers. Participants were 31 male pathological gamblers and 42 “regular gamblers” who acted as controls. The subjects were diagnosed on the basis of DSM-IV pathological gambling criteria and completed the Turkish Version of South Oaks Gambling Screen (SOGS). The non-pathological group was quiet comparable with the pathological gambling group with the respect to types and frequency of gambling and socio-demographic features. The data on the variables that defined and discriminated pathological gamblers from regular gamblers were collected through administration of a 68 item questionnaire, prepared by the authors. Compared to the non pathological gamblers, the pathological gamblers gambled more to recover their losses, experienced craving for gambling more often, gambled more often to obtain relief from disturbing emotions, harboured more irrational and unrealistic cognitions to rationalize their gambling behavior and suffer more emotionally, financially and socially as a result of their involvement in gambling. The results of the study suggested that Turkish pathological gambler are very much like their counterparts in Western countries.

2.2. Gambling Prevalence Study in TRNC

The first and only gambling prevalence study in Turkish Republic of North Cyprus (TRNC) was made by Mehmet ÇAKICI in 2007. Participants were selected from every regions of and 438 women and 491 men were participated. Participants were chosen as randomized. One of the every three house was participated according to

the determined route. Gambling questionnaire form was prepared and SOGS used for this study.

According to the findings, the less played game(%1.5) was the “games like barbut” and the most chosen gamble type was “national lottery” (%37,8). The most played type of gambling in one time or more times in a week was “horse racing, dog racing, football”.

Some other places out of the specifics were the most prefered according to the findings. For one day a week or more days a week players prefered bet ofices for play.

According to the SOGS results; %68.6 of the population have no gambling related problems, %29.3 of the population have gambling related problems and %2.2 of the population pathological gamblers.

2.3. Gambling Prevalence Studies in The Other Countries

The legalization of new forms of gambling is increasing in most Western countries. This trend has created a situation in which increasing numbers of people will develop serious gambling problems for which they will need to seek professional help (Boutin et al. 2003; Becoña, Labrador, Echeburua, Ochoa, & Vallejo, 1995). It is now acknowledged that the prevalence of pathological gambling is related to the availability of gambling opportunities, legal or illegal (Volberg, 1994).

More than a decade ago, Rosecrance (1988) argued that the rapid legalization of gambling would lead to growth in the gambling participation of the middle classes. Given the size and influence of the middle class in American society, Rosecrance believed that its acceptance of legal gambling would be an important factor in the continued expansion of commercial gambling in the United States (Volberg&Wray, 2007).

Beyond expansion in the availability of casinos and lotteries, the most notable change in Americans’ access to gambling in the past 30 years has been a significant shift in the availability of gambling from gambling-specific venues to a diversity of social settings not previously associated with gambling (e.g., bars, restaurants, hotels, social clubs, and grocery and convenience stores). This increase in the number, variety, and distribution of gambling venues has been referred to as “convenience gambling” (National Gambling Impact Study Commission, 1999). Gambling has

become a pervasive backdrop to many different social settings; this both reflects and enhances the normalization of gambling (Volberg&Wray, 2007).

Current prevalence rates of this disorder vary from1%to2%in the United States and Canada (Shaffer, Hall, & Vander Bilt, 1997). Prevalence surveys suggest that at least 2.5 million adults in North America (1.9%) suffer from pathological gambling and that approximately 5.3 million adults (3.9%) are problem gamblers in that they experience some gambling-related difficulties but not to the extent of pathological gamblers (Shaffer et al, 1999).

In several surveys on adult pathological gambling in the US, results revealed that prevalence rates of pathological gambling range from 0.1 to 2.3% (NORC, 1999; NRC, 1999; Shaffer & Hall, 1996; Volberg, 1994, 1996). Research in Canada further highlights the growing trend of gambling involvement, with prevalence rates ranging from 2.6 to 4.0% for problem gamblers and 1.2 to 1.4% for probable pathological gamblers (Volberg, 1994). Overall, lifetime prevalence rates of pathological gamblers range from 0.1 to 3.1%, whereas rates of problem gambling range from 1.4 to 12.0% (NRC, 1999). The discrepant findings can often be attributed to different operational definitions and types of instrumentation used. However, the prevalence rates are nevertheless indicative of a serious problem. Furthermore, between 50 and 90% (median: 82%) of adults have reported engaging in some form of gambling activity in the past year (NRC, 1999).

1999 Surveys

According to 1999 British gambling survey, almost three-quarters (72%) of the population – that is about 33 million adults – took part in some form of gambling activity within the past year (Sproston, Erens&Orford, 2000).

Over half (53%) of the population – or about 24 million adults – gambled in the week prior to the interview.

By far the most popular gambling activity is the National Lottery Draw. Two-thirds (65%) of the population bought a National Lottery ticket during the past year, while nearly half (47%) the population played in the week before the interview.

Compared with many other countries which have carried out similar studies of gambling behaviour, it appears that the British are less likely to gamble. For example, the 72% of British adults who gambled in the past year is lower than the

nine in ten adults in Sweden and New Zealand who gamble, and the eight in ten Australian adults. However, at 63%, it seems that adults in the United States are less likely to gamble than the British.

While people's interest and participation in gambling lies on a continuum, a cluster analysis identified four broad groups of people: the 28% of the population who were 'non-gamblers' in the past year; a third (33%) of the population whose participation in gambling is limited to the National Lottery Draw and/or scratchcards (referred to as 'minimal interest gamblers'); another third (32%) of the population who participate in one or two activities in addition to the National Lottery ('moderate interest gamblers'); and a small group (7%) of people who bet on a greater number and more diverse range of gambling activities ('multiple interest gamblers').

According to 1999 Australia's gambling survey it has been reported; over 80 per cent of whom gambled in the last year — spending about $11 billion — with 40 per cent gambling regularly.

In 1999 New Zeland gambling prevalence survey, 94.0 percent (93.4-94.6%) of New Zealand adults said that they had participated in at least one type of gambling activity at some time in their lives. The percentages given in brackets indicate the confidence interval surrounding the point prevalence estimate of 94 percent. There is a 95 percent probability that the true estimate for the adult population falls between 93.4 and 94.6 percent.

The 94.0 percent lifetime gambling participation rate is similar to that of the 1991 national survey (95%) and comparable to rates obtained in recent Australian, Canadian and Swedish surveys. It is higher than United States participation rates.

2001 Survey

Volberg and friends reported that, the great majority (95%) of the Swedish respondents have participated in one or more of the 17 gambling activities included in the survey at some time during their lives. Participation is highest for the many lottery games available in Sweden, including instant scratch games, the weekly televised 'Bingo-Lotto' game and local lotteries (Volberg et. al. 2001)

2004 Survey

Welte and friends (2004) evaluated the frequency of gambling, among those who gambled at least once in the past year by gender, race, and marital status. Males

gambled more frequently than females, particularly if divorced, widowed, or living as married. It is not unusual to find males more involved in problem behavior than females, particularly outside the stabilizing institution of marriage. Race was the most significant predictor of gambling pathology, with minorities having more problem gambling than whites. Minorities in the United States have a much lower net worth than whites, even at the same income levels.

2007 Survey

According to 2007 British Gambling Prevalence Survey findings, 68% of the population, that is about 32 million adults, had participated in some form of gambling activity within the past year. This compares to 72% (about 33 million adults) in 1999.

Excluding people who had only gambled on the National Lottery Draw in the last year, 48% of the population, or about 23 million, had participated in another form of gambling in the past year. This compares to 46% (about 22 million adults) in 1999.

The most popular activity was the National Lottery Draw (57%), though participation rates had decreased since the previous survey in 1999 (from 65%).

Men were more likely than women to gamble overall (71% compared with 65%), and on each individual activity, with the exception of bingo (4% of men compared with 10% of women).

Respondents who described their ethnic origin as white were more likely to be past year gamblers (70%) than those who classified themselves as Black (39%) or Asian (45%).

People in higher income households were more likely to gamble – the rate increased from 61% among those in the lowest income households, to 72% for highest income households.

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3. WHY DO PEOPLE GAMBLE?

3.1. Reasons of Gambling

In his referenced book, *The Psychology of Gambling*, Walker (1992) remarked, gambling behaviour is a challenge to our best theories of human nature. Nearly all gambling is so structured that the gambler should expect to lose, all things being equal. So why does as much as 80% of the population in industrialised Western societies gamble? Again, some gamblers give up everything of value in their lives in order to gamble: the family, the properties, the assets, their friends, and their self-esteem. Why should anyone give up so much in such a futile cause? This is really the most important issue of all.

Most gambling research focuses on Walker's (1992) "most important issue of all" why do some gamblers develop problematic gambling? It is primarily concerned with the identification of factors that influence the shift from recreational/social gambling to problem gambling.

Researchers have put forward many reasons about why people start gambling. These reasons include enjoyment, winning money, entertainment and fun, socialising, excitement, escaping from stress and so on. In New Zealand, Abbott, compared the findings from the *1991 National Survey*, the *1999 New Zealand Gaming Survey* and the *1999 National Prevalence Survey*. With respect to why people gamble, the reasons put forward by participants, in descending order of frequency, included enjoyment, winning money or the dream of winning, entertainment and fun, supporting worthy causes, socialising and excitement/challenge. In relation to positive and negative characteristics and consequences of gambling, participants reported that gambling had been a hobby or interest; they had daydreamed about a big win; gambling had given them pleasure and fun; they had gone gambling with family or friends; when they were gambling they felt excited; and when they were gambling they felt relaxed. A small percentage, mainly problem gamblers, said that gambling helped them to cope with negative emotional states. Participants also reported that more money being available, more gambling options, and advertising contributed to their increased gambling. Also, 'something to do/a day out', the opening of casinos and the chance of winning were also given as reasons participants had increased their gambling at various time in the past.

In Australia, the Productive Commission (1999) reported that the average recreational gambler gambled for entertainment — as a way of spending leisure time. For some gamblers, gambling was a means of social interaction — gambling venues provided a social setting to meet people. Other gamblers were motivated mainly by the dream of winning — they gambled with the hope of paying off a mortgage, buying a new car or meeting financial commitments. Some gambled to exercise skill or accumulate knowledge.

Although the above studies provide valuable quantitative insights into why people gamble, they also raise concerns about the role socio-culture plays in the development of gambling. A study by Tse and colleagues (2004) indicated that post-immigration adjustment difficulties were one of the motivations for Asian people gambling. This New Zealand study aimed to identify why people gambled and what caused the progression from social gambling to problem gambling. The study involved a questionnaire survey of 345 adults and focus group interviews of individuals from four ethnic backgrounds — Maori, Pakeha, Pacific Island and Asian. The reasons given by Asian participants as to why they started gambling included: financial gain, entertainment/socialising, stress release and post-immigration adjustment difficulties. Family or friends often took them to a casino when they first arrived in New Zealand and taught them how to gamble.

Like participation, reasons for gambling vary by gender, age, and ethnicity. For example, in the 1998 survey, men were more likely than women, and young adults (those ages 18 to 29) were more likely than older adults, to say that they gambled for excitement. Among different racial and ethnic groups, Latinos were more likely than African Americans to say that they gambled to socialize, whereas African Americans were more likely than Whites or Latinos to say that they gambled to win money.

Research indicates that the primary reasons youth gamble, similar to adults, include enjoyment, excitement, and the desire to make money (Dickson & Derevensky & Gupta, 2004).

Problem and pathological gamblers also gamble to escape multiple familial, personal, interpersonal, and school-related problems; to alleviate depression; cope with loneliness; relax; to promote social interaction; experience similar symptoms to chemical dependency including an inability to stop or control their behavior,

depression, mood swings; and a denial of a any gambling problem (Dickson&Derevensky, 2006).

There are many reasons, of course, why people choose to gamble. Some are drawn to gambling for the arousal or excitement, some use gambling as a form of distraction to escape from personal problems, and yet others gamble for social reasons and view losses as an entertainment cost (Gibson&Sanbonmatsu, 2004).

People who gamble undoubtedly do so for a variety of reasons, including entertainment and the hope of winning money. Gambling, however, can become problematic for some people, as problem gambling can lead to, among other things, financial strain, relational and family conflict, substance abuse, and depression. Given the potential for recreational gambling to lead to problem gambling (Clarke et al., 2006), it is important to explore the reasons why people gamble (Callan et al, 2008).

3.2. Risk Factors for Gambling

The harmful effects of problem gambling include financial problems, problems at work (ranging from poor performance to fraud), poor parenting and other relationship problems, family violence, alcohol abuse, and mental health problems (Department of Internal Affairs, 2006). The ecological approach recognises the importance of contextual factors in shaping community life and in maintaining social problems.

These factors include features of the social, organizational, political, cultural, economic and physical environments. A public health model encourages the application of a conceptual continuum to the range of risk, resiliency, and protective factors that can influence the development and maintenance of gambling-related problems (Korn, 2005). It also offers an integrated dynamic approach that emphasises a systems perspective that involves the concepts of multiple causation of social problems, multiple levels of analysis, and the operation of processes which accelerate or resist change in organisational, institutional and community systems, rather than a primary focus solely on individuals or isolated events. Such a public health viewpoint can lead to the design of more comprehensive and effective strategies for preventing and treating gambling related problems (Korn, 2005).

The literature on gambling indicates that there are several known risk factors for pathological gambling. One of the biggest risk factors is drug use and abuse, with drug users being more likely to be pathological gamblers than nondrug users (Petry, 2005). The presence of mood disorders and borderline personality disorder also increase risk (Netemeyer et al, 1998). Demographic risk factors for pathological gambling include gender (men more likely than women), age (younger more likely than older), and marital status (single or divorced more likely than married), socioeconomic status (low more likely than high), ethnic group (minorities more likely than the majority; see Petry, 2005, for a review). These risk factors are known to be associated with pathological gambling, but they are not necessarily causal. That is, although one can speculate as to why each might be related to pathological gambling, the true nature of the relationships has not been established. In short, there is no universally accepted explanation for why some gamblers become pathological, whereas others do not (Miller et al. 2008).

Male gender and younger age are cited as risk factors for disordered gambling in general adult population surveys (Ladd, 2003).

A comprehensive review of factors implicated in the development and maintenance of PG was performed by Raylu and Oei (2002). The authors examined three categories of risk factors: familial (including learning/genetics), sociological, and individual (including personality, biological/biochemistry (hemispheric dysregulation, neurotransmitters; arousal), cognitions, and psychological states)(Johanson et al. 2009).

3.2.1. Legalization of Gambling

With respect to gambling, governments throughout the world have chosen to legalize gambling venues, including casinos, lotteries, bingo halls, racetracks, gaming machines, and so forth. Although negative consequences are evident (bankruptcy, depression, suicide, health problems, work productivity, crime, delinquency, etc.), it still remains unclear whether the costs of legalized gambling outweigh any benefits (Dickons & Derevensky, 2004).

The legalization of new forms of gambling is increasing in most Western countries. This trend has created a situation in which increasing numbers of people will develop serious gambling problems for which they will need to seek professional help. It is now acknowledged that the prevalence of pathological gambling is related to the

availability of gambling opportunities, legal or illegal (Volberg, 1994). Current prevalence rates of this disorder vary from1%to2%in the United States and Canada (Shaffer, Hall, & Vander Bilt, 1999).

Duvarcı&Varan (2000) reported that, legalization of new gambling forms are increased the participation of gambling in the last thirty years (Duvarcı&Varan; 2000).

3.2.2. Genetic Risk Factors

Family, twin, and genetic association studies have reported that the susceptibility to PG has a relatively large genetic component. Like other psychiatric conditions, PG is considered a complex disorder since it is likely determined by several genes interacting together as well as with environmental factors. Converging lines of evidence have suggested the dopaminergic pathways represent important principal biological components involved in the etiology of PG (Kennedy et al.) We consider genetic studies as probable instruments for assessment of PG risk factors (Johansson et. al. 2009).

3.2.3. Financial Opportunities

If some people gamble because they lack deserved financial resources, then there might be a relation between socioeconomic status and gambling. Indeed, lower income individuals are more likely to spend a larger proportion of their income on gambling (MacDonald, McMullan, & Perrier, 2004; Welte, Wieczorek, Barnes, & Tidwell, 2006) and opportunities to gamble are more readily available in economically disadvantaged geographical areas electronic gaming machines.

Wildman &Cavalier have found that it can be argued that the link between financial problems and gambling has been documented to be bi-directional (maybe even recursive). It has been shown that money problems can lead to more gambling, so much so that chasing after one’s lost is on of the DSM-IV «symptoms» of pathological gambling (Wildman&Cavalier, 2002). So, we can say that, having financial difficulties is a risk factor for gambling.

Welte and his friends have found that, minority status and low SES are significantly linked to gambling pathology, even after adjusting for gambling behavior, substance use, and other criminal behaviors, as well as the other sociodemographic factors, gender, and age. Lower SES persons might have more gambling pathology than

higher SES persons who gamble the same amount due to the fact that higher SES persons have more income and more financial resources to buffer the effects of gambling losses (Welte et. al., 2004).

According to 1999 British Survey, people in higher income households were more likely to gamble – the rate increased from 61% among those in the lowest income households, to 72% for highest income households.

There are two studies (Bondolfi et. al.2000&Potenza et. al. 2001), their findings are contradicts with each other. In the study by Bondolfi et al. (2000), higher income was shown to be a risk factor (X2 = 10.88, p = .01) for gambling problems. The helpline study by Potenza et al. (2001) reported financial problems as a significant risk factor (X2 = 4.21, p\.04) (Johansson et. al. 2009).

3.2.4. Impulsivity

Pathological gamblers appear to be impulsive novelty seekers, who are easily bored. However, they did not score higher on thrill seeking. All of the gambler groups (social to pathological) appear to have been impulsive in their youth, but the pathological gamblers do not appear to have overcome or learned to control their impulses. Infrequent gamblers do not appear to have been impulsive as youth, and are not impulsive currently (Kennedy, 2007).

Vitaro et al. (1999) studied impulsivity among 754 adolescent boys using the Eysenck Impulsiveness Scale (EIS). PG severity was assessed with the SOGS. There was a clear relationship between greater PG severity and high rates of impulsivity (X2 = 30.58, p\.01). With only one study performed on impulsivity, we consider impulsivity as a probable PG risk factor.

According to Dickerson&Baron (2000), the erosion of a person's ability to control their time and Money expenditure on gambling is central to a psychological understanding of the origins of the harm that can arise. Impaired control has variously been defined as "spending more than planned", "gambling for longer than intended" and "apending more than can be afforded" (Dickerson&Baron, 2000).

3.2.5. Casino Which Came to Town

Casino gaming has been one of the world's fastest growing service sectors. While casinos are often thought of as tourist destinations, the casino industry also includes the "locals" market. In the wake of the gaming's expansion, New Zealand's residents

are concerned regarding the effects of problem gambling on individuals, their families, and others (Mohsin&Lockyer, 2008).

Investigators for the National Gambling Impact Study Commission (NGISC) reported in a combined patron and telephone survey that the availability of a casino within 50 miles is associated with double the prevalence rates of problem and pathological gamblers (Shaffer&Korn, 2002).

The proliferation of gambling opportunities throughout North America over the past 2 decades has been accompanied by increased gambling participation and an associated rise in rates of pathological gambling (Ladd et al., 2003).

The NORC survey found that in the United States, the availability of a casino within 50 miles is associated with almost double the prevalence of pathological gambling (Kaush,2004).

According to 1999 New Zeland National Survey, the finding of higher prevalence rates in some analyses for people living in Auckland and Christchurch relative to other parts of the country is consistent with the hypothesis that the introduction of urban casinos to these cities would generate additional gambling problems (Abbott&Volberg, 2000).

3.2.6. Easy Access to Gambling Activities

Countries with high level of gambling availability have among the highest prevalence rates of pathological gambling. Availability of gambling is correlated with prevalence of pathological gambling (Walker, 1992).

However, gambling has never been as widespread and promoted as it is presently. Gambling is unique in that it can be accessed by youth easily without the need to cross social barriers (i.e., playing cards with friends for money), in contrast to alcohol and cigarette use, where youth must, in general, gain access through sales clerks or other adults (Dickson, Derevensky&Gupta, 2004).

3.2.7. Socially Acceptable Game and Family Affair

One of the primary reasons that gambling is prevalent among today's youth is its high level of social acceptance (Abbott, 2001). Gambling is easily accessible to youth, and often found in places that are glamorous and exciting (e.g. bars, casinos). Gambling also provides opportunities for socializing, be it positive or negative. Not

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only is gambling easily accessible and socially acceptable, it has become something of a family affair. This trend reinforces the notion that for many youth gambling is perceived as a socially accepted and entertaining pastime. A recent study by Hardoon and Derevensky (in press) reported that children in grades 4 and 6 who played a computer-simulated game of roulette, individually and in groups, demonstrated changes in their playing behaviors as a result of peer modeling. More specifically, average wagers of females and mixed gender groupings appeared to be most affected by the group condition, whereby their wagering increased significantly. These findings suggest a strong social learning component involved in the acquisition of such behaviors (Hardoon et al, 2002).

In Turkey, chance games, betting and some other gambling types percieved as a habbit, an entertainment moreover gambling seen as a relaxation way. The harm of gambling is not known or not cared by the society (Duvarcı ve Varan, 2000).

3.2.8. Gambling Advertising

There are precedents that advertisements for the promotion of gambling, especially government run lotteries, should perhaps be placed in the same category as alcohol and tobacco promotions because of the potentially addictive nature of gambling and the potential for being a major health problem. There are further claims that adverts are seductive, appealing to people's greed and desperation for cash. The Christian Lobby collated some of the advertising copy and claimed that it was wildly unrealistic. Their examples included: "Winning is easy", "It might as well be you" , "Win a truckload of cash", "Play by your rules", "Spend for the rest of your life" , "Win a million, the fewer numbers you choose, the easier it is to win", "It's easy to win" (Griffiths, 2005).

3.2.9. Personal Relative Deprivation

"Relative deprivation" is generally used to describe feelings of resentment stemming from the belief that one is deprived of a deserved outcome relative to some referent level (Callan et al.2004; Crosby, 1976).

However, personal deprivation has also been shown to predict people's self-improvement efforts (Olson, Roese, Meen, & Robertson, 1995). For instance, Hafer and Olson (1993) found that working women's personal discontent with respect to their own job situation predicted the number of behaviors they undertook relevant to

improving their lot (e.g., obtaining information about courses to improve their Professional qualifications). Presumably, such self-directed behaviors are guided by the resentment elicited by the belief that one is getting less than one deserves in life. However, such self-improvement efforts are neither always successful nor always viable. Indeed, a single mother, for example, may not have the financial means to support her family and pursue further education (see Olson et al., 1995).

Gambling researchers have demonstrated that the drive to make money is one of the primary motivators for gambling , but it is also an important factor in the transition from recreational gambling to problem gambling (Clarke et al., 2006) and in gambling relapse among recently quit pathological gamblers. Callan et al. propose that personal relative deprivation might be an important predictor of gambling, because feeling unfairly deprived might increase the more immediate desire to make money (Callan et al., 2004)

Moreover, despite being linked to both problem gambling and personal deprivation in previous research, selfesteem and personality factors did not specifically account for the observed relationships between gambling and personal relative deprivation.

Indeed, it is unclear whether deprivation concerns are a cause or consequence of problem gambling and gambling urges, as problem gamblers may feel unfairly deprived because they have incurred significant financial losses through gambling.

Callan and friends found that a greater percentage of “relatively deprived” participants opted to play a real gambling game than “not relatively deprived” participants (Callan et all, 2004).

3.2.10. Demographic Factors

Multivariate analyses were also conducted using the Australian survey data. Logistic regression analyses confirmed that age was the single strongest predictor of gambling problems. When other confounding variables were taken into account, gender, income and education level had no effect on problem gambling status. However, marital status (separated, divorced or single) and living in a city appeared to be additional risk factors (Abbott&Volberg, 2000).

There are many studies(Volberg et al.2001, Bondolfi et. al. 2001, Ladoucour et al. 1999) suggesting that younger age (i.e. younger than 29 years old) appears to be a significant risk factor for PG (Johansson et al. 2009).

In four of the five gender studies where gender has been evaluated in relation to problem gambling, clear support for the notion that male gender is a significant risk factor for PG has been demonstrated (Johansson et. al. 2009).

Hing and Breen (2001b) have argued that the broad range of gambling activities deemed suitable for men coexists with widely accepted views of men as risk takers, innovators, and speculators. In contrast, women in Western cultures are generally viewed as caretakers and nurturers, social roles that are not easily reconciled with many types of gambling. In a separate article, these researchers suggest that gambling preferences are culturally based and influenced by the availability and social acceptance of different types of gambling for both males and females (Hing & Breen, 2001a). Volberg&Wray(2007) interpret these findings as appropriately gendered behavior vary across racial, ethnic, and class boundaries and further influence the acceptability of different types of gambling for men and women of different groups.

According to 1999 British Gambling Prevalence Syrvey findings, men were more likely than women to gamble overall (71% compared with 65%), and on each individual activity, with the exception of bingo (4% of men compared with 10% of women).

According to 1999 National Research Survey, Epidemiological research suggests that disordered gambling is more prevalent among men than among women.

3.2.11. Socioeconomic Status

Welte and his friends have found that, minority status and low SES are significantly linked to gambling pathology, even after adjusting for gambling behavior, substance use, and other criminal behaviors, as well as the other sociodemographic factors, gender, and age. Lower SES persons might have more gambling pathology than higher SES persons who gamble the same amount due to the fact that higher SES persons have more income and more financial resources to buffer the effects of gambling losses(Welte et. al. 2004a).

Only two studies have been directed towards employment empirically and thus, we consider employment status as a probable risk factor for PG (Johansson et. al. 2009).

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Only one study has been directed towards social welfare status empirically and thus, we consider social welfare status as a probable risk factor for PG(Johansson et. al. 2009).

3.2.12. Racial Factors

Although gender and age are the strongest demographic predictors of gambling participation, ethnicity also plays a role. Although lifetime and past-year gambling participation were significantly higher for Whites than for other racial and ethnic groups in the United States in the 1998 and 1999 surveys, weekly gambling participation was actually highest among African Americans (Welte et al., 2004). In the 1998 survey, there were substantial differences in the proportion of men and women in these ethnic groups who gambled: Whereas 29% of African American men and 21% of White men gambled weekly, only 17% of African American women and 11% of White women gambled this frequently (Gerstein et al., 1999).

Beyond gambling participation, what vulnerabilities operate to increase the probability of developing problems in these groups? Welte, Wieczorek, Tidwell, and Parker (2004) recently conducted multivariate analyses of their national survey data to examine the extent to which relationships between sociodemographic factors and problem gambling are mediated by gambling behavior. They did this by holding constant aspects of gambling behavior likely to influence problem gambling, namely, frequency of gambling, average size of wins or losses, and number of different types of gambling engaged in. These variables were all found to be strong predictors of problem gambling even after other risk factors were incorporated into the analysis. These researchers found that when the gambling participation was controlled, African American, Hispanic, and Asian ethnicity and low socioeconomic status continued to have a significant relationship with problem gambling although gender and age did not. The results of this analysis indicate that ethnic minority status and lower socioeconomic status influence problem gambling in ways that go beyond gambling participation. Welte et al. (2004a) suggest that people of lower socioeconomic status may experience more gambling problems than their higher socioeconomic counterparts who gamble with the same intensity because they have fewer financial resources to buffer the adverse effects of gambling losses. They were less certain about why ethno-racial minority groups were at greater risk for problem gambling even after controlling for gambling behavior and socioeconomic status.

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However, they suggest that ethno-racial minority status might remain a risk factor when other factors including income are controlled because, as we explain below, ethno-racial minorities in the United States have much lower net worth than Whites, even at the same income levels, and higher net worth is, of course, the most significant protection against personal financial crisis. Another possibility suggested by Welte et al. İs that ethno-racial minorities are more likely to regard gambling as a form of investment and means of escaping poverty(Volberg&Wray, 2007).

According to another study that Welte and his friends(2004b) did, again they have found that being African American, Hispanic, or Asian and having low SES are significant risk factors for pathological gambling, even after taking into account gambling frequency, size of wins and losses, number of types of gambling, substance use, and criminal offending.

In 1999 British Gambling Prevalence Survey Respondents who described their ethnic origin as white were more likely to be past year gamblers (70%) than those who classified themselves as Black (39%) or Asian (45%).

In the Welte et al. study (2004b), being African-American, Hispanic, or Asian were all risk factors for problematic gambling (IRR 1.96–4.71; p\.01).

The studies have been directed towards immigrants and ethnic groups empirically, (but only two have focused on ethnicity), we consider immigration and ethnic groups as probable risk factors for PG (Johansson et. al. 2009).

3.2.13. Effects of Religious Beliefs on Gambling

Oei&Garden (2008) have examined the effects of God Belief and Belief in a Higher Power, and have found that all these differences were statistically significant between control group&experiment group.

This is particularly an issue in Israel, where religious opposition to gaming originates from the perception that gambling is a vice (Mohsin&Lockyer, 2008; Israeli and Mehrez 2000).

In the study of Welte and friends (2004), The most significant predictor of past-year gambling was religion. Catholics were more likely (92%) to have gambled in the past year than Protestants/unknown religion (78%). The node with the lowest percentage of gamblers (63%) was ‘‘Other,’’ which included 42 Mormons, 24 Buddhists, 21 Witnesses of Jehovah, 15 Hindus, and 13 Moslems. Three of the four nodes created

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by the split on religion proceeded to divide on age, with the prevalence of past-year gambling declining with increasing age. Protestants aged 72 and older have a past-year gambling rate of 55%; all other groups had rates higher than 75%. The most significant predictor of past-year gambling is religion. Catholics and Jews are more likely to have gambled than Protestants. This is consistent with their traditional moral views on gambling. The Catholic Encyclopedia (1999) states that gambling is morally permissible if it does not involve coercion or fraud and is done with money that the gambler could afford to lose. Jewish ethics takes a similar position. Some Protestant religions proscribe gambling. In a recent resolution, the American Baptist National Ministries (2002) called on American Baptists to ‘‘oppose efforts to initiate or expand gambling in their states. . ..’’ The Book of Resolutions of the United Methodist Church (2001) states simply: ‘‘The United Methodist Church opposes gambling in any form.’’ The even lower rate of gambling among ‘‘other’’ religions is presumably related to thepresence in that category of religions, such as Mormonism and Islam, which forbid gambling.

3.3. Theories of Gambling

There are multiple factors believed to be involved in the acquisition, development and maintenance of gambling behavior. Based on the available evidence, it appears as though biological, environmental and psychological processes interact in the etiology of gambling and problem gambling behavior. Blaszczynski (2000) recently argued that a model of problem or pathological gamblers should incorporate biological, personality, developmental, cognitive, learning and environmental factors. The following section will address personality, cognitive, learning/behavioral, general addiction and social learning theories of gambling behavior. (Hardoon&Derevensky, 2002).

3.3.1. Biological Dimension of Gambling

Social&psychological explanations are insufficient to explain the full complexity of gambling behavior. Whether ongoing behavior is explained in terms of behaviourism, need-state model for cognitive theories, it remains unclear why one person gambles more heavily than another. In other words, while it seems likely that increased involvement with gambling is likely to contribute to loss of control over behaviour, development of irrational beliefs and greater psychological dependence, it

is important to determine what makes some gamblers more susceptible to these factors than others. It is here that research into biological and personality factors becomes important.

Many pathological gamblers do not have other addictions (Blaszczynski, 2002). Moreover, only half of the problem gamblers possessed the so-called “gambling gene”, suggesting that this gene is not a necessary factor in the etiology of gambling addiction. Finally, researchers (e.g. Blaszczynski, 2002; Walker, 1992) have questioned the notion of physiological addiction altogether, arguing that there is very little evidence to support the applicability of traditional addiction models to gambling. Gamblers rarely experience cravings, withdrawal symptoms or tolerance in the traditional addictions sense, suggesting that excessive gambling is more likely to arise as a result of other processes. If the term “addiction” is to be used at all, it is better used in a general sense to denote a condition broadly characterised as a repetitive and uncontrollable behaviour that has undesirable consequences for individuals and those around them (Griffiths, 2005).

3.3.2. Learning/Behavioral Theories on Gambling

There are multiple stimuli which can be perceived as rewarding in gambling settings. For example, the pre-race and race sequence at the race track, the spinning of the roulette wheel, and the croupier’s calls in craps can be reinforcing because they produce excitement, arousal and tension. Still further, the bigger the win, the higher the reinforcing potential. However, winning is not the only reinforcing component of gambling, the idea of the *potential* monetary gains, the thrill of winning, as well as ‘almost winning’ have been reported to be equally reinforcing. The perception that continued gambling may temporarily alleviate depression following loss may partially explain why gamblers continue playing despite losses (Hardoon&Derevensky, 2002).

3.3.3. Cognitive Theory on Gambling

In *The Psychology of Gambling* Michael Walker introduces the reader to a sociocognitive theory of gambling behavior. Walker's model is based on the assumption that some people are drawn to gambling by the challenge of winning. Those who gamble occasionally have not fully accepted the challenge, says Walker, but choose, instead, to gamble for social and recreational reasons. Many people who gamble regularly, on the other hand, welcome the challenge that gambling has to

offer and organize their thinking around three core beliefs: 1. That money can be made through gambling; 2. that they possess the resources necessary to gamble successfully; 3. that persistence in the application of various gambling strategies will eventually pay off. What distinguishes the professional gambler from the problem gambler is the former's reliance on "overlays," situations in which the evaluated probability of a winning outcome exceeds the odds quoted by the bookmaker or totalisator. In the case of problem gambling, the core beliefs evolve into a system of irrational beliefs in which illusions of control, biased evaluation of outcomes, and entrapment in gambling activities predominate. These irrational beliefs encourage the development of attributions that then give rise to such problem gambling activities as chasing losses, dishonesty, and poor financial management (Walker, 1992).

3.3.4. Social Learning Perspective of Gambling Behavior

Bandura (2001) among other social learning theorists has suggested that observational learning and modeling play an important role in shaping an individual's behavior. Further, children are more likely to imitate significant and powerful role models such as parents, siblings and peers. Given that modeling has been shown to have a strong learning component for school-age children in a number of areas, it is likely that it would be a strong component involved in the acquisition and maintenance of gambling behavior. It is well known that gambling activities are reinforcing, in and of themselves, as they produce excitement, arousal and enjoyment. However, gambling activities have social reinforcements as well; Gupta(1994) reported that gambling behaviors can be encouraged and strengthened by peers depending on the individual's developmental level and social status. From a social learning theory perspective, individuals learn, acquire and persevere with behaviors that are attractive and reinforcing. A social learning model of gambling behavior provides an explanation for why many youth are attracted to the gambling environment.

Family and peer influences As mentioned previously, contact with gambling begins at an early age. Thus, it is not surprising that several authors have placed an emphasis on the relationship between gambling behaviors and gambling in the family (Dickons et al. 2004). Parents often serve as role models for gambling. Given that social learning theorists maintain that children often model and imitate their parents and

other powerful role models, these findings are not surprising (Hardoon&Derevensky, 2002).

Gambling is considered as a complicated cluster of factors which vary between different people and different cultures. Some people who take part in gambling activities risk more than they can afford to lose. However, gambling activities, unlike other highly risky enterprises, are typically presented and perceived as recreation, socialisation or leisure (Abbott, 2002). This perception has led to substantial increases in the accessibility and acceptability of commercial gambling in the past two decades, internationally and nationally (Abbott & Volberg). In other words, social acceptance of gambling and gambling participation is increasing in many parts of the world.

Taken together, these two accounts suggest a series of questions about the disparate social impacts of legal gambling and about the ways in which the concept of "problem gambling" is differentially applied to different populations (Volberg&Wray, 2007).

However, the tools of detection and measurement developed and employed by professionals reflected a highly individualistic approach to understanding gambling activities and gambling-related difficulties. Little attention was paid to how the cultural differences and economic and racial inequalities separating different subgroups of the population might influence and bias the processes of detection and measurement. The most recent prevalence studies of problem gambling identify high levels of problem gambling behavior among racial and class minorities and women. However, almost no effort has been made to explore the causes and effects of these disparities and to ask what historical, sociological, and cultural factors may be contributing to these differences (Volberg&Wray, 2007).

Having been made relatively poorer by an upward redistribution of wealth, members of these groups are more likely to experience financial troubles when gambling. Through the problem gambling construct, they can now be made responsible for both their poverty and their gambling problems because they "choose" to gamble. In addition, there is strong evidence that despite higher rates of problem gambling among minority social groups, these very same groups are less likely to be the beneficiaries of intervention and treatment programs designed to help problem gamblers. As a result, members of minority social groups who gamble are more

likely to experience personal troubles with their gambling and less likely to receive any kind of help. The injuries here are multiple: They are afflicted, stigmatized, and then ignored.

Volberg&Wray reported that their central argument is that current research on gambling suffers from two fundamental weaknesses. The first is a lack of structural perspective, which has led researchers to neglect the role of historical, economic, and political changes in the legalization of gambling. The second weakness is the lack of constructionist perspectives, which has led researchers to neglect the symbolic power of the problem gambling construct that subtly dominates the gambler, enables the management of wealth transfer, and places disproportionate blame on ethnoracial minorities and the poor. The first weakness is compounded by the second, resulting in a sociological perspective on problem gambling that obscures rather than clarifies the ways in which shifting legal and social definitions of gambling have resulted, paradoxically, in both the amelioration and the intensification of human misery. In what follows, we expand on the themes introduced here and make a plea for a more sociologically informed approach to the identification and treatment of problem gambling among minority social groups (Volberg&Wray, 2007).

As the problem gambling construct has developed, studies of its prevalence in general and specific populations have revealed disparities and inequalities that mirror larger social inequalities facing ethno-racial minorities and poor people of all colors. First, these groups are more likely to be labeled as problem gamblers than their richer and Whiter counterparts. The precise reasons for this are still unclear and require further research. Research is needed to explore the combined facts of lack of access to wealth and affordable credit and the cultural habits that have included gambling as a strategy for investment and wealth building. It may be that these forces are working in concert to produce a situation where racial and class minorities and women are disproportionately identified as problem gamblers, whereas upper- and middle-class White men, who as a group have the greatest financial and cultural resources, more easily avoid being so labeled. It is in this sense that gambling in its present form operates as a new mechanism of social domination (Volberg&Wray, 2007).

3.3.4.1. Cultural Influences on Gambling Behavior

Socio-cultural factors should not be considered in isolation but in the context of other possible factors, such as personality, sensation seeking, impulsivity, cognitions and

so on. These factors have been implicated by the gambling literature as playing a role in the development and maintenance of gambling and problem gambling. In a national study about perceptions of attitudes toward gambling indicates that while some countries believe gambling generates more harm than benefit, they perceive it is an “acceptable and inevitable part of our culture”.

Gambling is considered as a complicated cluster of factors which vary between different people and different cultures.

Although economic explanations are important, it also seems likely that cultural values and beliefs, as well as social factors within minority subcultures, play an important role in both gambling participation and the development of gambling problems. Recent Canadian research with six different ethnic groups concluded that cultural beliefs, practices, and family socialization influence gambling participation and that these factors are durable across generations (Tepperman & Korn, 2004). However, as Raylu and Oei (2002) point out, there is very little research on the role that cultural factors play in the development and maintenance of problem gambling (Volberg&Wray, 2007).

A recent national study outlining perceptions of gambling indicates that Canadians believe “gambling generates more harm than benefit, but feel it is an acceptable and inevitable part of our culture” (Dickson&Derevensky, 2004).

All US states (except Hawaii, Tennessee and Utah), Canadian provinces, and approximately 90 countries worldwide have legalized gambling (National Opinion Research Center [NORC], 1999).

Similar attitudes were reported by Abbott (2001) in a large-scale survey conducted in New Zealand. However, Abbott (2001) noted that the findings suggest that there has been a steady increase in public awareness about problem gambling in New Zealand and that the majority of adults currently consider this an issue of some concern to them. Nonetheless, combined with the primarily positive societal attitudes towards gambling and the widespread social acceptability of these activities, the proliferation of gambling venues is alarming. Excessive, compulsive gambling has been shown to cause personal and financial difficulties in at least 1–2% of the adult population in various countries throughout the world and remains a significant burden on society (Hardoon&Derevensky, 2002; National Research Council [NRC], 1999; NORC, 1999).

3.3.5. Personality Theory and Gambling

Personality correlates found to influence gambling behavior include sensation seeking and risk-taking. According to personality theory, there is some underlying personality characteristic(s) at the root of pathological gamblers' problems.

Gupta and Derevensky (in press) concluded that there are qualitative personality differences in adolescents who are problem or pathological gamblers, indicating that there may be certain types of individuals who are more susceptible to developing a gambling problem.

Sensation seeking, 'the need for varied, novel and complex sensations and experiences, and the willingness to take physical and social risks for the sake of such experiences' (Zuckerman, 1979, p. 10). Several studies suggest that personality variables of the sensation-seeking variety predict gambling behavior (Derevensky & Gupta, 1996, 1997).

Risk-taking Risk-taking is another personality construct that has been studied extensively. Risky behaviors include actions involving potentially negative consequences (losses), which are offset by perceived positive consequences (gains).

The positive consequences of these behaviors appear to be pleasure, peer acceptance and satisfaction of needs, whereas the negative consequences have been highly publicized and understood.

3.3.5.1. Personality Profiles and Psychiatric Histories of Gamblers

Pathological gamblers appear to be impulsive novelty seekers, who are easily bored. However, they did not score higher on thrill seeking. All of the gambler groups (social to pathological) appear to have been impulsive in their youth, but the pathological gamblers do not appear to have overcome or learned to control their impulses. Infrequent gamblers do not appear to have been impulsive as youth, and are not impulsive currently.

Anxiety was also elevated amongst the pathological gamblers. In terms of coping strategies, the main difference was the extent to which the subjects reported using escape to cope with stress. Pathological gamblers rely on escape more than any other group.

These data also brought out a number of interesting differences between the social and infrequent gamblers. Social gamblers are more easily bored, more impulsive and have a higher desire to novelty, compared to infrequent gamblers. In addition, they report having had more symptoms of ADHD and other impulse control disorders in their youth. On the other hand, their scores on current symptoms of ADHD are quite similar to the infrequent gamblers. They also have the lowest scores on harm avoidance, but are somewhat more depressed than infrequent gamblers. However, some of these differences may be artefacts of the manner in which people in the infrequent gambler control were pre-screened in order to rule out a history psychiatric illness. (Kennedy, 2007)

When we examine the psychiatric profile of gambler, in a study a sizable proportion of the elderly gamblers reported a lifetime history of trauma or abuse, and yet the elderly were significantly less likely than the younger cohort to report a history of emotional and physical abuse. The elderly were just as likely to report a history of sexual abuse. These relationships held even if we confine our comparisons to males only. The elderly were also significantly less likely to have a lifetime history of both alcohol and drug abuse and dependence than the younger cohort (Kaush, 2004).

Such cases of late-onset gambling among elderly patients in our program were in the minority, they illustrate the fact that changes in life associated with retirement and loss of a spouse can be associated with a serious addiction late in life, which can quickly spiral out of control (Kaush, 2004).

Kaush (2004) find that higher rates of physical and emotional trauma (but not sexual trauma) among the younger cohort of gamblers coincided with significantly higher rates of both alcohol and drug abuse or dependence and with significantly higher rates of suicide attempts among the younger cohort. This suggests that certain developmental insults earlier in life may lead to addiction and self-destructive behavior later in life among vulnerable persons.

Martin (2004) reported based on the current literature there appears to be a greater prevalence of mood disorders including dysthymia, major depressive disorders, cyclothymia and bipolar disorders amongst pathological gamblers. Higher levels of substance abuse and suicidality amongst problem gamblers with comorbid affective disorders are also frequently noted and result in greater morbidity and significantly poorer treatment outcomes (Martin, 2004).

CONCLUSION

In the light of literature, it was found that gambling assumes a greater presence in more and more communities through lotteries, casinos, bingo halls and sports betting. Entirely understanding the effect of this phenomenon is essential for people who choose to gamble and those involved in the treatment of problem gamblers and their families. The purpose of the study as written above is making people to understand the meaning, impact and risk factors of gambling to provide some insight about the gambling bahavior.

There are some definitions of gambling. Gambling Act defines gambling paying or staking consideration, directly or indirectly, on the outcome of something seeking to win money when the outcome depends wholly or partly on chance. And it is defined as problem gambling if any gambling behavior that is beyond the control of the individual and causes personal, economic and social hardship for the person, the family and friends.

It is an important point, the way to lead to addiction is trying gambling. This is an important predictive factor. In New Zealand, many immigrants reported that they were not know gambling but their local friends teach them to play and they begin to gamble more frequently after they try to gamble with their friends as a social activity.

Currently, pathological gambling is categorized in *DSM-IV*(American Psychiatric Association, 1994) as an impulse control disorder. It is a behavioral addiction characterized by emotional dependence on gambling and by a chronic and progressive failure in resisting the impulse to gamble. As a consequence, important alterations occur in the family, social, working, and personal environments of pathological gamblers, which negatively interfere with normal functioning in daily life (Echeburúa& Montalvo, 2002).

To determine the pathological gambling some gambling screens were occured. The most prevalent one is South Oak’s Gambling Screen. Many countries have made standartization of SOGS such as Turkey. Standartization SOGS is one of the study which is made for determining gambling behavior. But more screens are needed to develop gambling studies.

Country based prevalence studies have been made in New Zealand, Britain, Australia, Canada and Sweden. According to results, most of the population have

participated national lottery draw. Results show that drug use and abuse, mood disorders, demographic factors such as being male or female and race are significant risk factors for pathological gambling. It is an important point, there is lack of prevalence study in Turkey. Only two study were found on gambling and there was not any prevalence study which was made in Turkey. There is need for further examination and academic study on gambling. It is needed to determine the prevalence of gambling in Turkey. Impact of gambling behavior and risk factors of pathological gambling should be determined according to Turkish culture and sociological structure.

REFERENCES

Abbott, M. V.&Volberg, R. A. (2000). "Taking The Pulse On Gambling and Problem Gambling in New Zealand: A Report on Phase One of The 1999 National Prevalence Survey". The Department of Internal Affairs. (24.03.2009) http://www.dia.govt.nz

Abbott, M.W. (2001). What do we know about gambling and problem gambling in New Zealand? Report number seven of the New Zealand Gaming Survey. Wellington, New Zealand: The Department of Internal Affairs. http://www.dia.govt.nz/Pubforms.nsf/wpg_Publications_All?Openview

Bandura, A. (2001). "Social Cognitive Theory: An Agentic Perspective". **Annu. Rev. Psychol.** 2001.52:1-26

Bazargan, M.& et. All (2000). "Gambling Habits Among Aged African Americans", **Clinical Gerontologist**, Vol. 22(3/4) The Haworth Press.

Blaszczynski, A. (2000). Pathways to pathological gambling: Identifying typologies. e-Gambling: **The Electronic Journal of Gambling Issues**, 1, 1–11.

Blaszczynski, A. P. (2005). "19th annual conference on prevention, research, and treatment of problem gambling". June 23–25, 2005, in New Orleans, Louisiana. **National Council on Problem Gambling**, Washington, DC.

Blaszczynski, A. P.&Nower, L. (2002). "A Pathways Model of Problem and Pathological Gambling". **Journal of Addiction**, 97, 487-499.

Boutin, C. & Dumont, M. & Ladouceur, R. & Montecalvo. P. (2003). Excessive Gambling and Cognitive Therapy: How to Address Ambivalence. Clinical Case Studies, vol.2, p.259-269. "Becoña, E., Labrador, F., Echeburua, E., Ochoa, E., & Vallejo, M. A. (1995). Slot machine gambling in Spain: An important and new social problem. **Journal of Gambling Studies**, 11, 265-286."

Callan, M., Ellard, J. H., N., Shead, W. & Hodgins, D. C. (2008). Gambling as a Search for Justice: Examining the Role of Personal Relative Deprivation in Gambling Urges and Gambling Behavior. **Journal of Addiction**, vol.34 no.11, p. 1514-1529. "Crosby, F. (1976). A model of egoistical relative deprivation. Psychological Review, 83, 85-113."

Clarke, D., Abbott, M., Tse, S., Townsend, S., Kingi, P. & Ivianaia, W. (2006). "Gender, Age, Ethnic and Occupational Associations with Pathological Gambling in a New Zealand Urban Sample". **New Zealand Journal of Psychology** Vol.35, No. 2.

Çakici, M. (2008). K.K.T.C.'de Kumar Bağımlılığının Yaygınlığı. Yayınlanmamış yaygınlık çalışması.

Department of Internal Affairs. (2006b). Problem gambling. (12.10.2006) http://www.dia.govt.nz/diawebsite.nsf/wpg_URL/Services- Casino-and-Non-Casino-Gaming-Problem-Gambling?OpenDocument

Derevensky, J. L. "Youth Gambling and Problem Gambling: Another High Risk Behavior". **International Centre for Youth Gambling Problems and High-Risk Behaviors**, McGill University.

Dickerson, M.&Baron, E. (2000). "Contemporary Issues and Future Directions for Research into Pathological Gambling". **Journal of Addiction** (2000), 95(8), 1145-1159.

Dickson, L. , Derevensky, J. L. , Gupta, R. Youth Gambling Problems: The Identification of Risk and Protective Factors. **Report to the Ontario Problem Gambling Research Centre**, R & J Child Development Consultants, Inc. Montreal, Quebec.

Dickson, L. M. & Derevensky, J. L. & Gupta, R. (2004). Harm Reduction for the Prevention of Youth Gambling Problems: Lessons Learned from Adolescent High-Risk Behavior Prevention Programs. **Journal of Adolescent Research**, vol.19, p. 233-263.

Dickson, L. & Derevensky, J. L. (2006). Equipping School Psychologists to Address Another Risky Behavior: The Case for Understanding Youth Problem Gambling. Canadian **Journal of School Psychology**, volume 21; p. 59-72.
"National Research Council. (1999). Pathological gambling: A critical review. Washington, DC: National Academy Press."

Duvarci, İ. & Varan, A. (2000). Descripter Features of Turkish Pathological Gamblers. **Scandinavian Journal of Psychology**, 41, 253-260.

Duvarci, İ. & Varan, A. (2001). South Oaks Kumar Tarama Testi Türkçe Formu Güvenirlik ve Geçerlik Çalışması. **Türk Psikiyatri Dergisi**, 12(1); 34-45.

Echeburua, E. & Montalvo, J.F. (2002). Psychological Treatment of Slot Machine Pathological Gambling: A Case Study**. Clinical Case Studies**, vol.1, no.3, July, p. 240-253.

Gerstein, D. R., Volberg, R. A., Toce, M. T., Harwood, H., Palmer, A., Johnson, R., et al. (1999). Gambling impact and behavior study: Report to the National Gambling Impact Study Commission. Chicago: University of Chicago, National Opinion Research Center. (13.12.2009) http://cloud9.norc.uchicago.edu/dlib/ngis.htm

Gibson, B. & Sanbonmatsu, D. M. (2004). Optimism, Pessimism, and Gambling: The Downside of Optimism. **Personality and Social Psychology Bulletin**; volume30, p. 149-160.

Griffiths, M. D. (2005). "Does Gambling Advertising Contribute to Problem Gambling?". **International Gaming Research Unit**, . Vol. 3, No. 2, pp. 15-25. Psychology Division, Nottingham Trent University, United Kingdom, 2005.

Griffiths, M. D.&Orford, J. (2005). "Young People and Gambling in Britain: A Critique of the DCMS Technical Paper No. 8". **International Journal of Mental Health & Addiction** Vol. 2, No. 2, pp. 67-79, 2005.

Hardoon, K. K. & Derevensky, J. L. (2002). Child and Adolescent Gambling Behavior: Current Knowledge. **Clinical Child Psychology and Psychiatry**, vol.7, p.263-281. (Quetation from: National Research Council. (1999). Pathological gambling: A critical review. Washington, DC: National Academy Press.)

Hing, N., & Breen, H. (2001a). An empirical study of sex differences in gaming machine play among club members. **International Gambling Studies**, 1, 67-86.

Hing, N., & Breen, H. (2001b). Profiling Lady Luck: An empirical study of gambling and problem gambling amongst female club members. **Journal of Gambling Studies**, 17(1), 47-69.

Johansson, A., Grant, J. E., Won Kim, S., Odlaug, B. L.&Go¨testam, K. G. (2009). "Risk Factors for Problematic Gambling: A Critical Literature Review". **Journal of Gambling Studies** (2009) 25:67–92

Kalyoncu Ö. A., Pektaş, Ö., Mırsal H. (2003). Patolojik Kumar Oynama: Biyopsikososyal Yaklaşım. **Bağımlılık Dergisi**, cilt 4, sayı 2.

Kaush, O. (2004). Pathological Gambling Among Elderly Veterans. **Journal of Geriatric Psychiatry and Neurology**, volume17, p. 13-19.

Kennedy, J. L., Muglia, P., Jain, U. & Turner, N. (2007). "Identification of Genetic Risk Factors for Pathological Gambling". Final Report.

Korn, D. (2005). "A public health perspective." 19th annual conference on prevention, research, and treatment of problem gambling, New Orleans, Louisiana. **National Council on Problem Gambling**, Washington, DC.

Ladd, G.T & Fri. (2003). Gambling Participation and Problems among Older Adults. **Journal of Geriatric Psychiatry and Neurology**, vol.16, p. 172-177.

MacDonald, M., McMullan, J. L.&Perrier, D. C. (2004). "Gambling Households in Canada". **Journal of Gambling Studies**, vol.20, No. 3, Fall 2004.

Magoon, M. E., Gupta, R. & Derevensky, J. (2005). Juvenile Delinquency and Adolescent Gambling: Implications for the Juvenile Justice System. **Criminal Justice and Behavior**, vol.32, no.6, p. 690-713.

Martin, N. (2004). "Mood Disorders and Problem Gambling: Cause, Effect or Cause For Concern?" A Review of The Literature. **The Mood Disorders Society of Canada**. Jan. 2004, p.27.
http://www.mooddisorderscanada.ca/documents/Publications/Mood%20Disorders%20and%20Problem%20Gambling%20A%20Review%20of%20Literature.pdf

Miller, J. C.& Meier, E. & Muehlenkamp, J. & Weatherly, J. N. (2008). Testing the Construct Validity of Dixon and Johnson's (2007) Gambling Functional Assessment**. Behaviour Modification**, vol.33, no: 2, p. 156-174.

Mohsin, A. & Lockyer, T. (2008). Hamilton, New Zealand: Divergent Attitudes When the Casino Came to Town. Cornell University, vol.49, Iss.2, p.163-176. "Shoemaker, S., and D. Zemke. 2005. The "locals" market: An emerging gaming segment. **Journal of Gambling Studies** 21 (4): 379–410." "Israeli, A. A., and A. Mehrez. 2000. From illegal gambling to legal gaming: Casinos in Israel. Tourism Management 21 (3): 281–91."

Netemeyer, R. G., Burton, S., Cole, L. K., Williamson, D. A., Zucker, N., Bertman, L.&Diefenbach, G. (1998). "Characteristics and Beliefs Associated with Probable Pathological Gambling: A Pilot Study with Implications for the National Gambling Impact and Policy Commission". **Journal of Public Policy & Marketing**, Vol. 17(2), 147-160.

Oei, T. P. S.&Gordon L. M.(2007). "Psychosocial Factors Related to Gambling Abstinence and Relapse in Members of Gamblers Anonymous". **Journal of Gambling Studies** (2008) 24:91–105

Olson, J. M., Roese, N. J., Meen, J., & Robertson, D. J. (1995). The preconditions and consequences of relative deprivation: Two field studies. **Journal of Applied Social Psychology**, 25, 944-964.

Pety, N. M. (2005). "Pathological Gambling: Etiology, Comorbidity, and Treatment". **Journal of Gambling Issues**: Issue 21, july 2008.

Productivity Commision (1999). "Australia's Gambling Industries". Report No. 10, AusInfo, Canberra.
http://www.pc.gov.au/projects/inquiry/gambling

Shaffer, H. J., Hall, M. N. & Vander Bilt, J. (1999). "Estimating the Prevalence of Disordered Gambling Behavior in the United States and Canada: A Research Synthesis". **American Joumal of Public Health**". Vol. 89, No. 9, p. 1369-1375.

Shaffer, H.&Korn, D. A. (2002). "Gambling and Related Mental Disorders: A Public Health Analysis". **Annu. Rev. Public Health** 2002. 23:171–212

Sproston, K., Erens, B.&Orford, J. (2000). "Gambling Behavior in BRITAIN: Results from the British Gambling Prevalence Survey" p. 1-90.
http://www.gamblingcommission.gov.uk/pdf/Gambling%20behaviour%20in%20British%20results%20from%20the%20BGPS%202000%20-%20Jun%202007.pdf

Tepperman, L., & Korn, D. (2004). At home with gambling: An exploratory study. Toronto, ON: **Ontario Problem Gambling Research Centre.** (21.11.2009) http://www.gamblingresearch.org/

TSE, S.&Wong, J.&Kim, H. (2004). "A public health approach for Asian people with problem gambling in foreign countries". Problem Gambling Foundation of New Zealand**,** Aotearoa-New Zealand. **Electronic Journal of Gambling Issues, v**ol.12.
http://www.camh.net/egambling/issue12/jgi_12_tse.html

Vitaro, F., Arseneault, L.&Tremblay, R. E. (1999). "Impulsivity predicts problem gambling in low SES adolescent males". **Journal of Addiction**, vol.94(4), 565-575.

Volberg, R. A. (1994). "The Prevalence and Demographics of Pathological Gamblers: Implications for Public Health, Pathological Gamblers: Implications for Public Health". **American Journal of Public Health,** Vol. 84, No. 2, p. 237-241.

Volberg, R. A., Abbott, M. W., Rönnberg, S.&Munck I. M. E. (2001). "Prevalence and risks of pathological gambling in Sweden". **Acta Psychiatr Scand** 2001: 104: 250–256

Volberg, R. A. & Wray, M. (2007). Legal Gambling and Problem Gambling as Mechanisms of Social Domination? Some Considerations for Future Research. **American Behavioral Scientist**, volume 51, p. 56-85.

Walker, M. B. (1992). "Book Review of The Psychology of Gambling". Oxford: Pergamon Press, 262 p.

Walker, D. M. (2008). "Clarification of the social costs of gambling" **Journal of Public Budgeting**, 20 (2), 141-152.

Wardle, H., Sproston, K., Orford, J., Erens, B., Griffiths, M., Constantine, R.&Pigott, S. (2007). "British Gambling Prevalence Survey 2007". **Gambling Commission. National Centre for Social Research**.
http://www.gamblingcommission.gov.uk/pdf/British%20Gambling%20Prevalence%20Survey%202007.pdf

Welte, J. W., Barnes, G. M., Wieczorek, W. F.&Tidwell, M. C. (2004a). "Gambling participation and pathology in the United States—A sociodemographic analysis using classification trees". **Addictive Behaviors** 29 (2004) 983–989.

Welte, J. W., Barnes, G. M., Wieczorek, W. F., Tidwell, M. C.&Parker, J. C. (2004b). "Risk factors for pathological gambling". **Addictive Behaviors** 29 (2004) 323–335

Wen Li, W. (2007). Understanding Chinese International Students' Gambling Experiences in New Zealand**. Social Sciences Master Thesis, University of Waikato**.

WildmanII, R. W.&Chevalier, S. (2002). "Problems Associated with Gambling A Preliminary Investigation into Health, Social and Psychological Aspects".
http://www.inspq.qc.ca/publications/JeuxHasardArgent/WildmanChevalier.pdf