Araştırma / *Original article*

The prevalence and risk factors of gambling behavior in Turkish Republic of Northern Cyprus

Mehmet ÇAKICI

ABSTRACT

Objective: *This paper presents results from the first national survey of adult gambling behavior completed in Turkish Republic and Northern Cyprus (TRNC). The aim of the TRNC Gambling Prevalence Survey was to provide statistically robust data on adults' participation in gambling, and to estimate the extent of 'problem gambling' within the country.* ***Methods:*** *The population used in this study is all the people living permanently in TRNC who speak Turkish, and within the age group 18-65. Household interviews were made with 929 people. The study was carried on between May and June 2007 in TRNC. To obtain data 30 item questionnaire prepared by the researchers and Turkish Version of Revised South Oaks Gambling Screen were used.* ***Results:*** *The great majority (55%) of the TRNC respondents has participated in one or more of the 17 gambling activities included in the survey at some time during their lives. In TRNC, 2.2% of the weighted sample scored as lifetime probable pathological gamblers. 32% of the participants stated to have experienced a problem related to gambling at least once in their life time. Big amounts of money have been lost via gambling. The participants also mentioned that their friends, relatives, parents, siblings, partners and even their children are getting used to gambling and gambling is becoming more frequent. Several demographic characteristics including gender, age, having child and civil or marital status are important risk factors for problem gambling.* ***Conclusion:*** *This study shows us that gambling is getting more prevalent in TRNC, the prevalence of gambling prevalence is high and it has become a problem threatening community. Prevention and treatment programs against gambling based on scientific foundations should be developed and generalized in TRNC.* ***(Anatolian Journal of Psychiatry 2012; 13:243-249)***

Key words: *gambling, pathological gambling, TRNC, prevalence*

Kuzey Kıbrıs Türk Cumhuriyeti'ndeki kumar davranışının yaygınlığı ve risk etkenleri

ÖZET

Amaç: *Bu makale KKTC'deki erişkin kumar davranışı ile ilgili yapılan ilk araştırmanın verilerini ortaya koymaktadır. KKTC Kumar Yaygınlığı Araştırmasının amacı erişkinlerin kumar oynama yaygınlığı, risk etkenlerini ve 'problem kumar oynamanın' ülkemizdeki boyutlarını göstermektir.* ***Yöntem:*** *Bu çalışmanın evreni KKTC'de yaşayan 18-65 yaş arasında ve Türkçe konuşan bireylerdir. Dokuz yüz yirmi dokuz kişiyle evlerinde görüşülmüştür. Çalışma, Mayıs-Haziran 2007 tarihleri arasında KKTC'de yapılmıştır. Verilerin toplanmasında araştırmacılar tarafından hazırlanan 30 maddelik bir anket ile South Oaks Kumar Tarama Testi kullanılmıştır.* ***Bulgular:*** *Katılımcıların %55'i yaşamları boyunca 17 çeşit kumar aktivitesinin bir veya daha çoğuna katılmıştır. KKTC'de olası kumar bağımlılığı %2.2 oranında saptanmıştır. Katılanların %32'si yaşamında en az bir kez kumar nedeniyle bir sorun yaşadığını belirtmiştir. Kumar oyunlarında da ciddi para kayıpları olduğu görülmektedir. Çalışmaya katılanların çevrelerinde de kumar alışkanlığının yaygınlaştığı, yakın arkadaşların, akrabaların, baba ve kardeşlerin, eşlerinin, çocuklarının bile kumara alıştıkları belirtilmektedir. Risk etkenleri olarak erkek, 29 yaşından küçük, evli olmamak ve yalnız yaşamak belirlenmiştir.* ***Tartışma:*** *Çalışma KKTC'de kumarın giderek yaygınlaştığını, kumar bağımlılığının yüksek düzeyde olduğunu ve toplumu tehdit eder hale geldiğini ortaya koymaktadır. Kumar oynamayı azaltacak bilimsel önleme ve tedavi programlarının geliştirilmesine ve yaygınlaştırılmasına gereksinme vardır.* ***(Anadolu Psikiyatri Derg 2012; 13:243-249)***

Anahtar sözcükler: *Kumar, patolojik kumar, KKTC, yaygınlık*

[1] Assoc.Prof.Dr., PhD, Near East University, Arts and Science Faculty, Department of Psychology, Lefkoşa, Kıbrıs
Yazışma adresi / *Address for correspondence:*
Dr. Mehmet ÇAKICI, Yakın Doğu Üniversitesi Fen-Edebiyat Fakültesi, Psikoloji Bölümü, Lefkoşa, Kıbrıs
E-mail: meh_cakici@yahoo.com
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INTRODUCTION

Cyprus is strategically located in the eastern part of the Mediterranean Sea and the third largest island after Sicily and Sardinia which It has an area of 9851 square kilometers.[1] After the military intervention of Turkey in 1974, Cyprus is divided between the Turkish Cypriot North and Greek Cypriot South.[2] The Greek Cypriots are Orthodox Christians and speaks Greek, on the other hand Turkish Cypriots are in Muslim faith, speaks Turkish and identify with the Turkish culture.[3] Turkish Republic of Northern Cyprus (TRNC) is only recognized by Turkey and its economical structure is dependent to Turkey,[4] TRNC government very much like the western countries, has legalized and encouraged gambling to find new sources to find of finance to cope with increasing budget deficits. In Turkey income from casinos was about 1.5 billion dollars,[5] but as the result of the reactions from the public and the media casino gambling was prohibited in Turkey in 1998.[6] After that time, casinos moved to TRNC and casinos were opened at luxury hotels and betting offices were opened even at the villages. Today there are 25 Casinos and 120 Betting Offices in TRNC. According to the TRNC law any 5 star hotels with at least 500 rooms can get the permission to have a casino.[7] Most of the clients of these casinos are from Turkey but as gambling is prohibited in Greek part of Cyprus, there are also Greek Cypriot clients from south Cyprus. Although it is prohibited for citizens of TRNC to enter the casinos, from the media we learn that a good number of TRNC citizens are arrested by the police. Besides the casinos and betting offices, state lottery of TRNC and Turkey, Sport Lotto, Sport-toto, Instant Scratch Cards, Numerical Lotto for the financing of Sport Club are legal gambling in TRNC.[8] In spite of this growth, no research has been made to understand the prevalence of gambling prevalence and the effects on the community.

Numerous studies reveal the serious adverse psychological, social, and biological consequences of gambling for some people.[9] People experiencing severe adverse reactions to gambling have become known as ‘compulsive,’ ‘problem,’ or ‘pathological’ gamblers. Pathological gambling was officially recognized in 1980 with the publication of the DSM-III and was classified as an impulse control disorder.[10] The DSM-IV defined 10 criteria reflecting different aspects of pathological gambling.[11] The manual states that "the essential feature of pathological gambling is persistent and recurrent maladaptive gambling behavior that disrupts personal, family, or vocational pursuits. Problematic gambling does not fulfill the criteria of pathological gambling but it gives harm to the person's family life, career and social status. Problematic gamblers do not answer all the criteria of DSM-IV drive control disorder pathological gambling but only 1 and 3 symptoms.[12]

A number of reports detailing the costs and benefits of gambling are available,[13] but effect studies on the social costs of excessive, pathological gambling have been more prevalent, often focusing on the financial, emotional, psychological, and physical costs and increased crime rates on the opening of casinos.[14] Financial costs resulting from pathological gambling include those incurred by public and personal resources such as increased financial burdens on families, legal costs, treatment costs, increased crime rates.[13-15] Psychological, emotional, and physical costs include increases in mood and personality disorders, social isolation and loneliness, suicide ideation and attempts, domestic abuse, juvenile delinquency, substance abuse, and health problems.[16-20]

The literature indicates that gambling is an extremely popular activity for children and adolescents, as well as adults.[21-23] 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%.[14,22,24,25] 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.[26-28] 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%.[14] 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 in US have reported engaging in some form of gambling activity in the past year.[14]

This article presents results from the Northern Cyprus Gambling Prevalence Survey. This is the first household survey of its kind in this country, and its overall aim is to provide baseline data on adult gambling behaviour in TRNC. Over the past decade, the nature of gambling in TRNC has been changing, due largely to the introduction of the Casinos, but also to the increasing availability of other forms of gambling such as spread-betting and gambling on the Internet. While there is growing interest in the social impact of these new forms of gambling on TRNC population, up till now

there has been little reliable information available about people's gambling behaviour. An important aim of the TRNC Gambling Prevalence Survey was to provide statistically robust data on adults' participation in gambling, and to estimate the extent of 'problem gambling' within the country.

METHODS

Sampling

The population used in this study is all the people living permanently in TRNC who speak Turkish, and within the age group 18-65. Household interviews were made with 929 people. The sampling frame was designed to achieve a nationally representative sample of adults. The upper age limit was used to ensure that the sample would be comparable with other TRNC social research efforts. A random multi-staged, stratified sampling quota was used as the method for sampling. Different strata used are age (13-19, 20-29, 30-39, 40-49, 50-65), gender (male/female), urban/rural, and geographical region (Nicosia, Famagusta, and Kyrenia) and they are determined as represented on the last national statistics and demographic surveys. Three main districts are represented in the last national statistics carried out on 15th December 1996.[29] These geographic regions (Kyrenia, Nicosia, and Famagusta) are separated into quarters in the urban areas and into villages in the rural areas, and research contact points are chosen from these at random.

Fieldwork

The study was carried on between May and June 2007 in TRNC. Interviews were made at 16 quarters, 17 villages and five subdistrict centers Morphou (Güzelyurt), Lefka (Lefke), Galatia (Mehmetçik), Trikomo (İskele) and Lefkoniko (Geçitkale). At the contact points in urban areas, interviewers started from a street determined at random in the office, and for rural areas interviewers started from the center of the village and went north, east, south and west. Interviewers covered squares, that is to say they started at the lowest number on the right-hand side of a street and went to every third house. At the first turn they would turn right and would continue contacting households on right hand side until they completed the square. Then they would cross to the next square and continue the same way. This enabled a uniformity of 'pacing' therefore eliminating interviewer bias. The research covered every third household. In order to choose the person to participate in the research, once the household chosen to participate in the survey was contacted, a male-female quota was taken into consideration and the female in the first house and the male in the second house were chosen. Caution was taken to keep within the age quotas. If there was more than one candidate for the research, the one whose birthday was last was chosen. Twenty interviewers were involved and in order to minimize interviewer bias each had about forty-five interviews.

Questionnaire

For data collection 30 item questionnaire prepared by the researcher and Revised South Oaks Gambling Screen developed by Lesieur and Blume[30] and Turkish reliability and validity study made by Duvarcı and Varan[32] was used. At the questionnaire besides the questions investigating the sociodemographic factors, questions about the emotions, beliefs and behaviors of the participants about different subjects that were shown to be important about gambling at the previous studies like 'the reasons to start gambling', 'the negative consequences of gambling', 'withdrawal symptoms' took place.

South Oaks Gambling Screen (SOGS): The original SOGS contains 44 questions, 20 of which are used to construct the SOGS index. Most of these 20 questions are dichotomous or scored to be dichotomous. 'Yes' answers are scored as 1, and 'no' answers are scored as 0. Question scores are summed to form an overall index. Probable pathological gambling is indicated by a score of 5 or more on the SOGS and 'problem gambling' is indicated by a score of 3 or 4 on the SOGS. The Turkish version of the SOGS is almost a direct translation of the original instrument with respect to content and form. Seventeen of the 20 original SOGS items were found to discriminate Turkish pathological gamblers from non-pathological gamblers. The three items (16b, 16g, 16i) that failed to discriminate pathological gamblers from nonpathological gamblers were replaced with two culturally relevant items. The cut off point for the 19-item Turkish Form of the SOGS that yielded the lowest false negative and false positive percentages (and thus has the highest sensitivity and specificity rates) was a score of 8. The preliminary data from Duvarcı et. al.[31] and final study from Duvarcı and Varan[32] suggested that the Turkish version of SOGS could be used as a reliable and valid instrument in identifying Turkish pathological gamblers.

At the beginning of the interview the subjects were told that the purpose of the study was to study gambling behaviour. The subjects were also assured that all information obtained was strictly confidential and was strictly confidential and would be used only for scientific purposes. Following this initial explanation, the subjects were interviewed

using the questionnaire and their responses were recorded by interviewer. Finally, the subjects completed the Turkish version of SOGS. The collection of the data took approximately 40 minutes for each subject.

Statistical analysis

Data were analyzed using SPSS 17 for Windows. Groups were compared regarding a number of characteristics using chi-square. Significance levels of 0.05 were adopted. Logistic regression was used to examine the associations between the independent variables and whether or not had problem and possible pathological gambling (dependent variables). Independent variables were: gender, age, country of birth, marriage time, living status, education, employment.

RESULTS

Gambling participation

Fifty-five percent of the TRNC 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 (National lottery (%37.8), sports lotto (%24.5), instant scratch games (%19.6) and these are games mostly played in Turkey) available in TRNC, including instant scratch games, the weekly televised 'Bingo-Lotto' game and local lotteries. Among the games which are played once or more a week we see horse and dog races (8.2%), casino games (4.7%) and national lottery (4.5%). Traditional card games played at the cafes (3.4%) still preserves their presence. The distribution of gambling games is shown at Table 1. The participants who play one of the gambling games less than once a week preferred Casino (15.1%) primarily, later Betting Office (13.0%) and gambling games at the sports clubs (10.5%) and cafes (7.1%). The participants who mentioned to be playing gambling games once a week or more preferred casino (5.1%), then betting office (8.1%). They borrowed money from credit cards (5.6%), from common family income (5.1%), from friends (4.7%), banks and credit institutions (4.1%), casinos (2.8%) and usurer (2.0%). Big amounts of money seem to be lost at gambling games. In this research 7 (0.8%) people lost more than 100 thousand TL, 7 people (0.8%) lost between 50 to 100 thousand TL, 11 people (1.2%) lost between 20 to 50 thousand TL and 36 people (3.9%) lost 5 to 20 thousand TL. The participants mentioned that more people play gambling games around themselves and close friends (29.7%), relatives (19.1%), father (10.3%) and siblings (9.1%), partners (6.4%) and even

Table 1. Distribution according to types of gambling games

Types of gambling (n)	Never %	Less than once a week %	Once a week or more %
Horse/dog races, football (n=743)	80.0	12.1	8.2
Card games (n=830)	89.3	7.2	3.4
Okay game (n=863)	92.9	4.7	2.4
Dice games (n=915)	98.5	0.9	0.6
Cockfighting (n=914)	98.4	0.9	0.8
Sport-toto/sports lotto (n=799)	86.0	11.1	2.8
Numerical lotto (n=701)	75.5	20.2	4.3
Instant scratch cards (n=747)	80.4	16.8	2.8
National lottery (n=578)	62.2	33.3	4.5
Speculation (n=885)	95.3	4.3	0.4
Casino games (n=761)	81.9	13.3	4.7
Skill games (billiard, etc.) (n=888)	95.6	3.3	1.1
Gambling games at internet (n=904)	97.3	1.9	0.6
Other gambling games (n=798)	85.9	0.6	0.2

Table 2. Demographics of non-problem and problem gamblers in Turkish Republic of Northern Cyprus

Demographic variables	Lifetime non-problem people (n=637) %	Lifetime problem and pathological gamblers (n=292) %	χ^2	p
Gender			28.44	0.000
Male	46.9	65.8		
Female	53.1	34.2		
Age (years)			10.04	0.040
18-29	26.7	36.0		
30-39	23.1	22.6		
40-49	20.3	18.2		
50-59	16.2	14.0		
60 and over	13.7	9.2		
Country of birth			0.69	0.708
Cyprus	70.3	67.8		
Turkey	26.8	28.8		
Elsewhere	2.8	3.4		
Education			13.97	0.001
Uneducated/primary	23.5	13.4		
Secondary	63.4	69.2		
University	13.0	17.5		
Marital status			42.73	0.000
Unmarried	23.5	40.8		
Married	71.0	50.7		
Separated/divorce	1.4	4.8		
Widowed	4.1	3.8		
Children			23.27	0.000
No	29.0	45.2		
Yes	71.0	54.8		
Employment			4.46	0.035
Employed	59.5	66.8		
Unemployed	40.5	33.2		

Table 3. Odds ratio of the risk factors

	Problem and pathologic gamblers/ non-gambling problem	
	Odds Ratio	%95 CI
Gender (male/female)	2.17	1.66 - 2.83*
Age (29 and under/29 over)	1.53	1.17 - 2.01*
Place of birth (Turkey/Cyprus)	1.11	0.83 - 1.47
Marital status (non-cohabiting/married)	2.10	1.47 - 2.73*
Marriage time (5 year and below/over 5 year)	1.27	0.81 - 1.99
Living status (lonely/someone)	2.48	1.63 - 3.78*
Education (high-school and over/below high-school)	1.50	1.15 - 1.95*
Employment (employed/unemployed)	1.36	1.04 - 1.78

** p<0.05, CI : Confidence Interval*

their children (3.7%) get used to play gambling.

There are several interesting patterns to the gambling involvement in TRNC. For example, men in TRNC (n=328, %66.8) are more likely than women (n=185, %42.2) to gamble on Turkish sports pools, horse-dog races and card games while women are more likely than men to gamble on national lottery, scratch cards and casino games. Turkey-born residents are more likely to gamble than Cyprus-born residents, particularly on sport pools and horse races. Cyprus-born residents play more casino games and card games compared to the participants born in Turkey. In spite of lower rates of gambling involvement in Cyprus-born residents are more likely than Turkey-born residents to experience gambling related problems.

Pathological gambling

Turkish Form of South Oaks Gambling Screen respondents scoring 8 or more points were classified as 'probable pathological gamblers'. Lifetime and current probable pathological gamblers were also distinguished on the basis of their Turkish Form of SOGS-R scores. In TRNC, 2.2% of the weighted sample scored as lifetime probable pathological gamblers. 5.632 (2.2%) TRNC residents aged 18-65 can be classified as lifetime probable pathological gamblers. 32% of the participants mentioned to have experienced a problem related to the gambling. If this ratio is used for the whole population of TRNC, among 256.000 people 81.970 people might have experienced a gambling related problem.

A statistical test of independence of the distributions of non-problem people and problem gamblers across key demographic variables was used to explore the relationship between these background variables and gambling problems. Following conventional practice, the null hypothesis (i.e. the assumption that the measured effect was due to chance) was rejected if the p-value for the test was greater than 0.05. Table 2 presents significant differences in the demographic characteristics of respondents who had no problem about gambling ('non-problem people') and those respondents classified as lifetime problem and probable pathological gamblers. In reporting these results, we have followed the convention of combining the 'problem' and 'probable pathological' groups. This approach rests on discriminant analysis showing that problem gamblers cluster with probable pathological gamblers rather than with nonproblem gamblers.[33,34]

Table 2 shows that several demographic characteristics -including gender, age, residence in TRNC, and civil or marital status- are important risk factors for problem gambling. Specifically, being male, between the ages of 18 and 29, being unmarried or divorced, having no child all contribute to an increased likelihood of experiencing gambling-related problems. Having high education and occupation or being born in Cyprus rather than Turkey does not eradicate the risk for problem gambling (Table 3).

Attitudes towards gambling

Participants who have gambling dependency or problematic gambling compared to the ones who do not have gambling problem do not approve gambling in TRNC, they observe many TRNC citizens to play at the casinos. They also mention that they observe many people younger 21 to enter the casinos and play gambling though it is illegal. On the other hand the ones who don't do gambling, apart from the others, might approve of the presence of gambling, claim that it reduces unemployment, might think that it has benefits both economically and socially and may believe it is advantageous to tourism.

DISCUSSION

Our study has shown that in TRNC pathological gambling addictiveness is at the rate of 2.2%, the ones who have problems with gambling is at the rate of 34,4% and the ones who have played any gambling game is at the rate of 55%. Findings prove that gambling in TRNC is increasingly spreading around; gambling addictiveness is at a high grade and at a situation where it is threatening the society. The prevalence of probable pathological gambling in TRNC is higher than in Great Britain, New Zealand, Spain, Sweden, Switzerland, United States and the comparable to Australia. For example, prevalence of probable pathological gambling (SOGS≥5) is 1.4% in Spain and 1.1% in North America, 0.8% in Great Britain, 1.0% in New Zealand, 0.8% in Switzerland.[34-37] Similar to TRNC in Australia the prevalence of probable pathological gambling is 2.3%.[38]

Today, there are still new casinos and betting offices are continuing to open in TRNC. Even though it is not allowed to enter the casinos, quite a lot of TRNC citizens, as there is not a serious control, enter casinos. There is no doubt that opportunities to gamble and accessibility to gambling will increase in TRNC and elsewhere because of impending deregulation. What has been clearly demonstrated from research evidence in other countries is that where accessibility of gambling is increased there is an increase not only in the number of regular gamblers but also in the number of problem gamblers.[39]

The prevalence of problem and probable pathological gambling in TRNC is higher than in many other countries. This relatively high level of problem gambling prevalence presents an interesting contrast to the low level of gambling involvement among the TRNC respondents. One possible explanation is that the greater availability of games based on skill or a mix of skill and luck rather than those based on luck (e.g. lotteries, roulette at restaurant casinos), has contributed to the relatively high rate of problem gambling prevalence in TRNC. On the other hand, because in Sweden low level of problem gambling prevalence presents opposite circumstances are seen.[39] Research in several countries suggests that forms of gambling that involve relatively high levels of skill or an intermediate mix of skill and luck are associated with higher rates of problem gambling than those based purely on luck.[40,41]

When we examine the literature about pathological and problematic gambling, being younger than 29 years old,[42] male,[43] unmarried,[36] unemployed,[44] immigrant,[45] living in a big city,[46] low education level[47] are found as risk factors. In our study being younger than 29 years old, being male, being unmarried and living alone are found to be risk factors similar to the literature. Despite the literature, at our study people who have high education level and are employed play gambling more often. This difference may stem from the high education level in TRNC and only the people having good economic status can go to gambling.

At the research, it is seen to be a high proportion of money loss. As well as Money for gambling can be provided from a friend, an acquaintance, a relative, it can be found by owing from credit cards, banks and pawnbrokers. There are also financial costs to society, including crime and crime enforcement, diagnostic and treatment, and loss of work productivity. Although accurate estimates are difficult to obtain and estimates vary as to the dollar amount and nature of the criminal activity, many studies report that pathological gamblers have engaged in some form of crime to finance their gambling.[9,48]

The wide range of register data, the possibility of updating this information on a regular basis and the equally strong possibility of re-interviewing the majority of the original respondents in the future will allow us to chart the personal and social impacts of problem and pathological gambling over time. With the increase in gaming technology and the expansion of the gambling industry, opportunities for gambling participation are abundant. This, coupled with the associated rise in the number of people who gamble, creates the need to find effective best practices for the prevention and treatment of gambling problems. Collaborative efforts between researchers, treatment providers, prevention specialists, and legislators will ultimately lead to more effective public health intervention and social policies.

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