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A Study on the Impact of Exposure to Folk Gambling in Family During Adolescence in Korea and the Difference in the Perception of SPORTS Toto

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Abstract

This study aims to investigate the status of exposure to folk gambling in the families during adolescence for the lawful and unlawful participants of Sports Toto in Korea, present issues of household gambling, clarify the impact on the lawful and unlawful Sports Toto purchases made after reaching adulthood at the same time, analyzes the differences in the efficiency for measures to eradicate the unlawful sports gambling as well as the perception towards Sports Toto, and derive substantive measures to facilitate the lawful purchases of Sports Toto and eradicate unlawful sports gambling. The subjects of this study are the average people who have experienced buying lawful and illegal Sports Toto in Seoul and Gyeonggi-do area, which are the leading cities with relatively developed recreational activities and living standards from June through September 2018. The characteristics of the subjects were analyzed by analyzing 750 valid samples out of the total of 1,000 questionnaires collected from 200 people experienced in illegal sports gambling who were additionally selected through 800 on site participants of stores and investigators and the researchers' acquaintances.

Thus, the results of this study are as follows.

First, the rate of respondents who witnessed gambling activities within their parents' households during their adolescence turned out to be high, and Go Stop and poker games were the folk gambling favored most by the parents. Second, 62.1% of the respondents were illegal sports gamblers, 62.4% of which turned out to favor participating in illegal sports gambling. Third, it turned to have a significant impact on the pre-adulthood folk gambling participation following the exposure to folk gambling activities and frequency within the parents' households during adolescence. Fourth, it turned out to have a significant impact on the lawful and unlawful Sports Toto purchases following the pre-adulthood folk gambling participation as well as the exposure to folk gambling of the parents within the household during adolescence. Fifth, it was found to have a significant impact on the monetary games favored oneself currently as well as the folk gambling favored by the parents during adolescence. Sixth, there was a significant difference in the perception of Sports Toto among the lawful and unlawful participants.

[Keywords] Sports Toto, Folk Gambling, Household Gambling, Money Game, And Illegal Sports Gambling

1. Introduction

1.1. Need for the study

The adolescents of modern times are acting in such a rapidly changing social and cultural context. In particular, the changes in the living environment due to computers and smartphones are associated with various issues such as those related to interpersonal

relationship and the Internet addiction[1]. This may be understood through the phenomena where the details on the Internet games and addiction are heavily dealt with in the recent adolescents related studies[2].

As the adolescents' problematic behaviors have increased, studies on them have been

conducted, and as gambling behaviors of adolescents have been deemed as problematic behaviors, there has been a rising interest in researching the gambling behaviors of adolescents[3]. As such, one of the important problems facing modern adolescents is their addiction to games and gambling. Gambling is directly related to money, so there is a tendency to think that gambling is unlikely to occur for the adolescents who are not economically productive. However, the number of adolescents with gambling experiences in the Korean studies conducted reached 54.9% to 82.3%[4][5][6][7], while the Internet gambling gaming experience reached 25.5% to 35.4%[8][9]. In a study of the age at which the gambling experience began[10], 68.42% of the problematic gamblers and pathological gamblers started gambling before the age of 20, 31.58% of whom turned out to have begun gambling before the age of 15. And in one study, the age at which the gambling behaviors began was 4th to 6th grade in elementary school, or 45.1%[11], and in a survey of 167 high school students in Korea, 15% of the respondents were found to have been experienced in purchasing unlawful sports gambling[12]. As such, examining the study which demonstrates that the earlier they began gambling, the more serious their gambling problem[6][10][13][7][14][15], preventive education for adolescents is urgent, and it is also necessary to identify and counter participation factors.

The illegal sports gambling, which is a most popular gambling activity among Korean adolescents, is a gambling crime organization which imitates 'Sports Toto', a sports betting industry implemented to source the fund to help support the development of each field of sports. Sports Toto is a sports and recreational game which predicts and votes on the results of sports for popular sports and issues refunds to the people concerned according to the accuracy rate of prediction[16], and is for public interest and a necessary state financial policy business. The sports betting business began in the United Kingdom in 1923 and spread to Europe, Asia, Central and South America, etc., and has been established around the world under the names of 'football pool', 'toto calico', 'quiniela', and 'sports

toto' [17]. The 'Sports Toto' business in Korea was introduced in 2001 to secure the financial resources necessary for the 2002 World Cup Soccer Games, and is used to promote school sports, support sports for the daily living, support physical education for the disabled, promote groups and athletes, support international tournaments, nurture sports industries, build infrastructures for the sports of the Republic of Korea, and expand sports welfare[18].

However, globally speaking, Sports Toto business gave rises to a new market called illegal sports gambling due to side effects at the same time as its growth and development. It is a convenient gambling market created, where one could easily participate online without restrictions both in terms of time and space if one has access to a computer or a mobile phone.

As the illegal sports gambling market has been facilitated with the passage of time, the achievements left behind in the sports world went beyond unethical behaviors such as game results manipulation, violation of rules, illegal players, and bribery of referees, as a bridge for accidents promoting criminal acts such as murder, fraud, intimidation, threat, and inducement of gambling participation for adolescents socially speaking. In the case of illegal sports gambling, since anonymity is ensured, access is provided to people very easily[19], and online gambling rooms are provided to the addicts dreaming of hitting jack pots via the Internet and mobile access while offering a gambling playgrounds which does not require adult validation for the adolescents' sports games. As such, illegal sports gambling business operators became criminal organizations seeking personal benefits by promoting subscriptions for people of all ages and genders while promoting pathological addicts.

According to the National Gambling Control Commission in 2015, the illegal sports gambling market reached the size of approximately KRW 22 trillion(JPY 2.1 trillion), which is approximately 3 times larger than that in 2011[20]. And according to a study on the status of illegal gambling[21], most gambling

business operators are operating their servers overseas to prepare for crackdowns such as by using third party bank accounts and third party mobile phones and are inducing additional betting by stimulating the curiosity of the teens by developing new items such as “ladder game.”

Examining the previous studies related to the illegal sports gambling, various studies have been conducted to eradicate illegal sports gambling as well as the adolescents’ illegal participation by the government and Sports Toto business department such as those concerning the illegal sports gambling participation[22][23], status and countermeasures[24][25], status of the illegal sports gambling operation and policy alternatives[26][27], and gambling characteristics [28]. Yet, most are concerned with identifying the status and investigation, and the substantive analysis of the illegal sports gambling participants is minimal at best. Thus, in this study, we investigated the folk gambling exposure patterns of adolescents against the legal and illegal participants of Sports Toto in Korea to clarify the impact on the illegal sports gambling after reaching adulthood as well as the pre-adulthood gambling activities, further to comparatively analyzing the effect of countermeasures to eradicate the illegal sports gambling together with the perception of Sports Toto towards enhancing the negative perception of Sports Toto and identifying practical countermeasures required for eradicating illegal sports gambling, thereby providing fundamental data which may be useful for the growth and development of the Sports Toto industry.

1.2. Purpose of the study

The purpose of this study is to systematically investigate the folk gambling exposure of participating with parents within households during adolescence, analyze the impact on the legal and illegal Sports Toto purchases after reaching adulthood, analyzes differences on the effect of countermeasures for eradicating illegal sports gambling as well as the perception of Sports Toto of the legal and illegal participants, and present desirable directions for the development of Sports Toto

and efficient countermeasures for eradicating illegal sports gambling. To this end, the issues to be solved specifically in this study are as follows.

First, what is the form of the folk gambling exposure during adolescence?

Second, what is the relationship of effect between in the pre-adulthood folk gambling participation following the exposure to the parents’ folk gambling within households during adolescence and exposure frequency?

Third, what is the relationship of effect in the legal and illegal Sports Toto purchases after reaching adulthood as for the exposure to the parents’ folk gambling within households during adolescence and direct participation?

Fourth, what is the relationship of effect between the monetary game preferred by oneself currently and the folk gambling preferred by the parents during adolescence?

Fifth, what are the differences in the perceptions of Sports Toto of the legal and illegal participants?

Sixth, what are the differences in the effect of the countermeasures for eradicating illegal sports gambling considered by the legal and illegal participants?

2. Research Method

2.1. Subject of the study

However, the subjects of this study are those who have experienced purchasing legal and illegal Sports Toto in Seoul and Gyeonggi-do area, which are the leading areas with relatively improved recreational activities and living standards from June through September 2018. As for sampling, the convenient sampling method was utilized among the non-probability sampling methods, and to distinguish those who experienced Sports Toto, educated surveyors visited the points of sales for Sports Toto in person, had the questionnaires completed and collected them in the form of self-administration method. In addition, to increase the rate of response of

illegal sports gambling participants, 200 people experienced in illegal sports gambling were selected via the surveyors and researchers' acquaintances for additional utilization for this study. Thus, out of the total of 1,000 questionnaires distributed to 800 field participants at the points of sale and 200 people experienced in illegal sports gambling selected, 750 questionnaires as qualified were used to derive the analytical results.

The demographic characteristics of the subjects are as illustrated in <Table 1>. The gender distribution was 83.2% for males and 16.8% for females, and the age distribution was the largest of 46.5% for those aged 26 to 45 years, followed by 38.6% of those aged 19 to 25 years, 11.2% of those aged 46 to 65 years, and 3.6% of those aged 18 or younger. The distribution of monthly income was the highest of 36.2% for those with KRW 1.5 million or less, followed by 26.2% of those with KRW 2.01 to 3 million, 19.6% of those with KRW 1.01 to 1.5 million, 10.5% of those with KRW 30.1 to 4 million, 4.4% for those with KRW 5.01 million or more, and 3.1% for those with KRW 4.01 to 5 million, respectively. The distribution by educational background was the highest with 36.5% of college graduates, followed by 30.6% of high school graduates, and 22.9% of those currently attending college.

Table 1. Demographic characteristics of the subjects.

Classification	Details	No. of people (N)	Frequency (%)
Gender	Male	624	83.2%
	Female	126	16.8%
Age	19 years or less	27	3.6%
	20-25 years	290	38.6%
	26-45 years	349	46.5%
	46--65 years	84	11.2%
Monthly income	1.5 million or less	271	36.2%
	1.51-2 million	147	19.6%
	2.01-3 million	197	26.2%
	3.01-4 million	79	10.5%
	4.01-5 million	23	3.1%
	5.01 million or more	33	4.4%

Highest education received	Attending junior high	5	0.7%
	Graduated from junior high	19	2.5%
	Attending high school	22	2.9%
	Graduated from high school	229	30.6%
	Attending college	172	22.9%
	Graduated from college	274	36.5%
	Graduated from college or higher institution	17	2.3%
	Others	12	1.6%
	Total	750	100%

2.2. Survey tools

In this study, questionnaire was used as a data collection tool to analyze the exposure patterns of folk gambling during the adolescence, perception of Sports Toto, and the effect of eradicating illegal sports gambling. The questionnaire consisted of a closed end type which was prepared by the researcher in order to identify the status of the parents' folk gambling exposure within households during adolescence, experiences of folk gambling participation during adolescence, folk gambling items preferred by parents, and monetary games preferred by oneself, whose contents were validated by 5 experts in social welfare and gambling. In addition, to analyze the differences in the perception of Sports Toto of the subjects and the efficiency of the countermeasures for eradication, the items used in "Policy Impact on Voting Right Business Following the Countermeasures for Eradicating Illegal Sports Gambling" by Park Gyeong-Rae et al.(2012)[27] in line with the purpose of this study.

The questionnaire used in this study were consisted of the types which could be obtained through the self-administration method, and the questionnaire was consisted of the items concerning the socio-demographic characteristics of the subjects, items related to the folk gambling exposure during adolescence, items related to the illegal

sports gambling experiences, items related to the perception of Sports Toto, and the items related to the efficiency of the countermeasures for eradicating illegal sports gambling.

2.3. Data processing method

After the questionnaire response data were collected and reviewed, the data determined to be poor or unreliable were excluded from the analysis through the search process, and the data suitable for analysis were analyzed using the SPSS 15.0 version for windows statistical package for the purposes of this study. The details of the analysis are as follows.

First, a descriptive statistical analysis was performed for the items consisted of nominal scale to identify the general characteristics of the samples and the types of folk gambling exposure during adolescence.

Second, to investigate the impact of the parents' gambling exposure within households during adolescence on the pre-adulthood folk gambling participation and the pre-adulthood folk gambling participation following the exposure frequency of folk gambling activities, a lambda analysis λ and a cross analysis X2 were performed.

Third, a lambda analysis λ was performed to investigate the effects of the parents's folk gambling behavioral exposure during adolescence on the illegal sports gambling participation and the impact of the folk gambling participation within household during adolescence on the illegal sports gambling participation.

Fourth, a cross analysis X2 was performed to investigate the influence of the parents' preferred gambling on one's preferred monetary game.

Fifth, a t-test was used to find out any difference in the perception of legitimate and illegal participants for Sports Toto.

Sixth, a cross analysis X2 was performed to find out any difference in the efficiency of the countermeasures for eradicating illegal sports gambling considered by the illegal and legal participants of Sports Toto.

3. Research Results

For this study, 750 valid questionnaires were used for the average people experienced in purchasing legal and illegal Sports Toto in Seoul and Gyeonggi-do area, and as a result of analyzing the folk gambling exposure and participation patters within households during adolescence, impact on the legal and illegal Sports Toto purchase, perception of Sports Toto, and the efficiency of countermeasures for eradicating illegal sports gambling, such meaningful facts as follows were discovered.

3.1. Analytical results of the frequency of exposure form in folk gambling during adolescence

As illustrated in <Table 2>, as a result of examining the exposure patterns of folk gambling during adolescence, 74% of the respondents were exposed to the gambling behaviors of their parents during adolescence, it also demonstrated that the number was the largest for 5 times per year(40.1%) and less than 10 times per year(16.9%), while 9.3% of the respondents showed such a high rate of exposure frequency at 20 times or more per year. And as for the folk gambling preferred by the parents, Go Stop turned out to be the most preferred(65.4%), followed by others(18.1%) and poker game(8.4%), respectively. 57.5% of the respondents participated in folk gambling with their family during adolescence, and 61.8% participated in folk gambling before reaching adulthood. The respondents most favored Go Stop(31.7%), followed by poker game(25%) and Sports Toto(17%) as their favorite monetary games, respectively. The average spending at the time of participating in the folk gambling turned out to be KRW 20,000(JPY 1,900) or less for 59.4% of the respondents, while 31.2% of the respondents said they spent KRW 50,000(JPY 4,750) to 100,000(JPY 9,500). Examining the status of using illegal Sports Toto, 61.3% of the respondents who favored legal Sports Toto enjoy relatively healthy recreation, yet 38.7% of all prefer illegal Sports Toto, while 62.1% of the subjects experienced in participating in illegal sports gambling, respectively.

Table 2. Frequency analysis of the folk gambling exposure patterns during adolescence.

Classification	Details	No. of people (N)	Frequency (%)
Exposure to parents' folk gambling within household before adulthood	Yes	555	74
	No	195	26
Frequency of exposure to parents' folk gambling before adulthood	Never saw	195	26
	Less than 5 times per year	401	40.1
	Less than 10 times per year	126	16.9
	Less than 15 times per year	58	7.7
	20 times per year or more	70	9.3
Items of folk gambling favored by parents before adulthood	Mahjong	8	1.2
	Poker	63	8.4
	Chess	1	0.1
	Go	19	2.5
	Eastern chess	32	4.3
	Go stop	491	65.4
	Others	136	18.1
Folk gambling experience with family before adulthood	Yes	431	57.5
	No	319	42.5
Period of participating in folk gambling	No	268	35.7
	Before adulthood	463	61.8
	After adulthood	19	2.5
Monetary game currently favored by oneself	Mahjong	6	0.9
	Poker	188	25.0
	Chess	5	0.7
	Go	6	0.8
	Eastern chess	24	3.2
	Sports toto	128	17.0
	Internet game	103	13.7
Average spending at folk gambling participation	Go stop	238	31.7
	Others	52	6.9
	KRW 10,000 or less	264	35.2
	KRW 20,000 or less	182	24.2
	KRW 50,000 or less	128	17.2
	KRW 100,000 or less	105	14.0
	KRW 200,000 or less	15	2.0
Sports toto favored	KRW 500,000 or more	27	3.6
	Never participated	17	2.3
	Sports toto	459	61.3
Experienced in using illegal sports gambling	Private sports betting	291	38.7
	Yes	466	62.1
	No	284	37.9

Total 750 100

3.2. Analytical results of the impact on the pre-adulthood folk gambling participation following the exposure to folk gambling behaviors of parents during adolescence

As illustrated in <Table 3>, when they witnessed their parents playing folk gambling within households during adolescence, as a result of analyzing the results related to the pre-adulthood folk gambling participation, if they witnessed the behaviors of their parents playing folk gambling, 75.4% said they did participate before reaching adulthood and 24.6% responded that they did not, and in the case of not witnessing their parents's such playing behaviors during adolescence, 6.7% said they did participate before adulthood and 93.3% said they did not, and so λ showed a high correlation of 0.530, while the significance probability was 0.000, yielding a significant impact statistically, respectively.

Table 3. Analysis of the pre-adulthood folk gambling participation following behavioral exposure.

Classification	Pre-adulthood folk gambling participation		Total	λ (p)
	Yes	No		
Parents' folk gambling activities during adolescence	Yes	75.4	100.0	0.530 (.000**)
	No	6.7	100.0	

3.3. Analytical results of the impact on the pre-adulthood folk gambling participation following the frequency of exposure to folk gambling of parents during adolescence

As illustrated in <Table 4>, as a result analyzing the participation in folk gambling before adulthood following the frequency of folk gambling exposure of parents within household during adolescence, in the case of not seeing their parents' folk gambling behaviors, 93.3% responded that they did not

participate in the folk gambling before reaching adulthood, and among the respondents who witness less than 5 times per year, 66.4% said that they did participate in the folk gambling before adulthood, 91.4% said that they did participate less than 15 times, and 85.7% participated 20 times or more. Examining the test statistics, X^2 was 300.441, and the significance probability was 0.000, yielding a statistically significant difference, respectively.

Table 4. Analysis of the pre-adulthood folk gambling participation following exposure frequency.

Classification		Pre-adulthood folk gambling participation			Total	X^2 (p)
Details		Yes	No			
Exposure frequency to parents' folk gambling during adolescence	None	People %	13	182	195	300.441 (.000**)
			6.7	93.3	100.0	
	5 times per year or less	People %	200	101	301	
			66.4	33.6	100.0	
	10 times per year or less	People %	105	21	126	
			83.3	16.7	100.0	
15 times per year or less	People %	53	5	58		
		91.4	8.6	100.0		
20 times per year or more	People %	60	10	70		
		85.7	14.3	100.0		

3.4. Analytical results of the impact on the illegal sports gambling purchase following the exposure of folk gambling behaviors of parents during adolescence

As illustrated in <Table 5>, as a result of analyzing the impact of the parents' folk gambling behavior within household during adolescence on the purchase of illegal sports gambling, in the case of witnessing the parents' folk gambling behaviors, 71.9% said that they did participate in illegal sports gambling, and 28.1% said they did not, and in the case of not witnessing it, 33.8% said that they did participate, and 66.2% said they did not. Examining the test statistics, λ has a low correlation of 0.222, and the significance probability is 0.000, which is statistically significant, respectively.

Table 5. Analysis of the illegal sports gambling participation following behavioral exposure.

Classification		Experiences of illegal sports gambling			Total	λ (p)
Details		Yes	No			
Parents' folk gambling activities during adolescence	Yes	People %	400	155	555	0.222 (.000**)
			71.9	28.1	100.0	
	No	People %	66	129	195	
			6.7	93.3	100.0	

3.5. Analytical results of the impact on unlawful sports gambling purchase following the pre-adulthood folk gambling participatory experiences

As illustrated in <Table 6>, as a result of analyzing the impact of folk gambling participation before adulthood on the purchases of illegal sports gambling, in the case of having experience in folk gambling before adulthood, 77.5% said they did participate in illegal sports gambling and 22.5% said they did not, and in the case of not having such experience, 41.0% said they did participate in illegal sports gambling, and 59.0% said they did not, respectively. Examining the test statistics, λ has a low correlation of 0.201, and the significance probability is 0.001, which is statistically significant, respectively.

Table 6. Analysis of the illegal sports gambling participation following folk gambling experience.

Classification		Experiences of illegal sports gambling			Total	λ (p)
Details		Yes	No			
Pre-adulthood folk gambling participation	Yes	People %	335	96	431	0.201 (.001**)
			77.5	22.5	100.0	
	No	People %	131	188	319	
			41.0	59.0	100.0	

3.6. Analytical results of the impact of the parents preferred folk gambling on the selection of monetary games one prefers

As illustrated in <Table 7>, as a result of analyzing the impact related to the folk gambling preferred by the parents and the monetary game preferred by oneself currently,

among the folk gamblings most preferred by the parents, poker is a monetary game to be preferred by oneself, and so poker is favored by 61.9%, followed by 26.3% for go among the go's, 25% for chess among the chesses, 39.9% for Go Stop among the Go Stop's, 15.5% for Sports Toto, and 11.8% for the Internet games. Examining the test statistics, X² is 441.167, and the significance probability is 0.000, which is statistically significant, respectively.

Table 7. Analysis of the preference of parents and oneself to monetary game.

Classification		Monetary game favored by oneself							X ² (p)
Details		Poker	Go	East-ern chess	Toto	Inter-net	Go stop	Oth-ers	
Folk gambling favored by parents	Peop- le	39	0	3	10	1	9	1	441.167 (.000**)
	61.9%	0.0	4.8	15.9	1.6	14.3	1.6		
Go	Peop- le	1	5	2	9	0	1	1	
	5.3%	26.3	10.5	47.4	0.0	5.3	5.3		
Eas- tern chess	Peop- le	14	0	8	4	1	5	0	
	43.8%	0.0	25.0	12.5	3.1	15.6	0.0		
Go stop	Peop- le	113	1	11	76	58	196	28	
	23.0%	0.2	2.2	15.5	11.8	39.9	5.7		
Oth- ers	Peop- le	20	0	0	26	40	27	22	
	14.7%	0.0	0.0	19.1	29.4	9.9	16.2		

3.7. Analytical results of the difference in perception of sports toto by the lawful participants and unlawful participants

As illustrated in <Table 8>, as a result of analyzing the perception of legal and illegal participants of Sports Toto, in the case of easy to quit since Sports Toto is least addictive, examining the test statistics, the t-value is 2.335, and the significance probability is 0.020, so it may be said to be a significant difference statistically speaking. When purchasing Sports Toto, in the case of watching sports is even more interesting, examining the test statistics, the t-value is 2.868, and the significance probably is 0.004, so it may be said to be a significant difference statistically. In the case

of Sports Toto increases the participation in watching sports, examining the test statistics, the t-value is 2.276, and the significance probably is 0.023, so it may be said to be a significant difference statistically. In the case of Sports Toto brings about diversification of recreational activities, examining the test statistics, the t-value is 2.705 and the significance probably is 0.007, so it may be said to be a significant difference statistically, respectively.

Table 8. Analysis of the differences in perception of sports toto.

Classification	Illegal participants		Legal participants		t	p
	Mean	Standard deviation	Mean	Standard deviation		
Low gambling characteristics	3.07	1.231	3.00	1.137	.799	.436
Low addictiveness	2.86	1.175	2.66	1.117	2.335	.020*
Recommend to others	2.71	1.051	2.72	1.051	-.037	.970
Part of sports	3.17	1.035	3.13	1.028	.525	.600
Positive view from those around	2.81	.955	2.84	1.014	-.402	.688
Increased fun watching	3.78	.967	3.57	1.015	2.868	.004**
Stress relieved	3.06	1.037	3.13	.984	-.860	.390
Increased watching participation	3.74	.934	3.58	.967	2.276	.023*
Joy with colleagues	3.82	1.008	3.73	1.015	1.232	.218
Diversification of leisure	3.38	1.043	3.17	1.030	2.706	.007**

3.8. Analytical results of first priority on the difference in impact of eradication of unlawful sports gambling for lawful participants and unlawful participants

As illustrated in <Table 9>, as a result of analyzing the impact of eradicating illegal sports gambling for legal and illegal participants, the first priority of the impact of eradicating illegal sports gambling considered by the illegal participants is, 31.3% for the increased convenience in purchasing Sports Toto, 30.7% in cracking down on illegal websites, 12.2% for increased betting amounts, and 12.2% for the promotion of prevention against participation via mass media, and the first priority considered by the legal participants is 52.1% for

cracking down on illegal websites, 20.4% for increased convenience in making purchases, and 14.4% for promotion of the participation prevention, respectively, and examining the test statistics, X^2 is 59.652, and the significance probability is 0.000, which may be said to be a statistically significant difference, respectively.

Table 9. First priority in the effect of eradicating illegal sports gambling.

Classification		Effect of eradicating illegal sports gambling							Total	X^2 (p)
Details		In-crease d con-venience	In-crease d bet-ting amount	Di-versi-fied pro-ducts	Parti-cipa-tion pre-vention pro-mote d	Social clubs cracke d down	Web-sites cracke d down	Oth-ers		
Illegal participants	Pe opl e %	146	57	48	57	14	143	3	466	59.652 (.000)**
		31.3	12.2	9.9	12.2	3.0	30.7	0.6	100	
Legal participants	Pe opl e %	58	13	7	41	17	148	0	284	41.214 (.000)**
		20.4	4.6	2.5	14.4	6.0	52.1	0.0	100	

3.9. Analytical results of second priority on the difference in impact of eradication of unlawful sports gambling for lawful participants and unlawful participants

As illustrated in <Table 10>, as a result of analyzing the efficiency of the countermeasures for eradicating illegal sports gambling for legal and illegal participants, the second priority of the impact of eradicating illegal sports gambling considered by the illegal participants is, 19.1% for the increased convenience in purchasing Sports Toto, 17.8% for the promotion of prevention against participation via mass media, 17.6% for the diversification of products, 15.9% for cracking down on social clubs, 15.5% for cracking down on illegal websites, and 13.7% for expanding the betting amounts, and the second priority considered for the impact of eradication by the legal participants is 31.3% for cracking down on illegal social clubs, 20.8% for the promotion of participation prevention, 12.7% for the increased convenience in purchases, and 10.9% for the diversification of products, respectively. Examining the test statistics, X^2 is

41.214, and the significance probability is 0.000, which may be said to be a statistically significant difference, respectively.

Table 10. Second priority in the effect of eradicating illegal sports gambling.

Classification		Effect of eradicating illegal sports gambling							Total	X^2 (p)
Details		In-crease d con-venience	In-crease d bet-ting amount	Di-versi-fied pro-ducts	Parti-cipa-tion pre-vention pro-mote d	So-cial clubs cracke d down	Web-sites cracke d down	Ot-her s		
Illegal participants	Pe opl e %	89	64	82	83	74	72	2	466	41.214 (.000)**
		19.1	13.7	17.6	17.8	15.9	15.5	0.4	100	
Legal participants	Pe opl e %	36	16	31	59	89	50	3	284	41.214 (.000)**
		12.7	5.6	10.9	20.8	31.3	17.6	1.1	100	

4. Conclusion & Suggestion

The purpose of this study is to provide the fundamental data for the development of Sports Toto industry and the eradication of illegal sports gambling. To this end, differences among the folk gambling environment was analyzed for adolescence, and its future impact on the illegal sports gambling participation, perception towards Sports Toto, and the impact of eradicating illegal sports gambling were examined. The results derived may be discussed as follows.

First, in the household, the parents' folk gambling behaviors were easily exposed to the adolescents, and the participation in folk gambling with family before adulthood was easily observed without sanctions. This is supportive of the report that the gambling opportunities and the experience of large exposure to the gambling market are recognized as potential risk factors for gambling addiction as proposed by Shead, Derevensky, & Gupta(2010)[29], and the result that 22% of the male high school students are experienced in gambling in the study of Kim Seo-Yeon(2015)[22]. In addition, in the study of Lee Young-Bun, Lee Eun-Joo(2003)[30], in the

case of money betting games, Go Stop is most favored, whereas the counterparts are family and relatives, and the location is the house of relatives, and wherever close to one's own home, supporting the results of this study. As such, it is determined that folk gambling is classified as a general social game since it is often exposed to folk gambling within household for the adolescents, and it is also considered that most of them enjoy it without realizing that it is gambling, which is allowed under the false perception of their parents that their adolescents will not be negatively affected thereby. While folk games may have a low level of gambling characteristics engaging family members and relatives, folk gambling through which money is exchanged depending on who wins and loses will not be appropriate for the participation of adolescents.

Second, it was discovered that the possibility of participating in the folk gambling before adulthood is high according to the exposure of the parents' folk gambling activities and the frequency of exposure. This is consistent with the research results of Griffiths (1993)[31] where it is claimed that even if one of the parents has a problematic gambling behavior, the child is more likely to gamble. Folk gambling in the households tends to progress gradually mostly for its characteristics, and it is common to fall for gambling addiction after a certain period of social gambling period. While there is a tendency to think that adolescents would not fall for gambling since they lack the economic means, a study[32][33] reported that the problematic gambling rate of the adolescents is 4 times greater than that of the adults. Thus, the adolescents' participation in folk gambling in the households should be eradicated, and their parents should be cautious as to ensure that their folk gambling behaviors are not exposed.

Third, the exposure of the parents' folk gambling behaviors and the participation in folk gambling before adulthood during the adolescence shows that the possibility of participating in illegal sports gambling with strong gambling characteristics and addiction is increasing in purchasing Sports Toto in the future. This is supportive of the research results of Kwon Bok-Soon, Kim Young-Ho

(2011)[34] that the illegal sports gambling participation is influenced by the factors related to family and related to the local community culture, and also the result of the study of Ryu Hwang-Kwon, Choi Yi-Soon, Jang Hyo-Gang, Kim Jeong-Eun(2012)[35] such that the adolescents experienced in gambling will very likely continue their gambling problem until adulthood and the gambling addiction is highly likely. Illegal sports gambling is such a serious illegal gambling which destroys the families of the purchasers, causes economic deprivation, and demotivates the mentality of the workers under the notion that jack pot can be won. In addition, in the state, both the business operator and purchasers can be punished as they are illegal activities, so their crimes and responsibilities are very heavy. Thus, folk gambling activities in the households that may impact children before reaching their adulthood should not be exposed, and it should also be ensured that their participation before adulthood is precluded.

Fourth, the folk gambling most preferred by parents during adolescence is found to be very consistent with the monetary game most preferred by their children. Among which, if parents prefer those with high gambling characteristics and addiction such as Go Stop and poker game, it is highly likely that it will become a monetary game favored most by their children, and the relatively healthy folk gamblings such as chess, go, and eastern chess are found to have little impact on their children. This is consistent with the research results of Vitaro, Arseneault, & Tremblay (1997)[36] which presented that the adolescent gambling is influenced by the level of family gambling, and also those of Yeon Mi-Young(2006)[1] which presented that the family's gambling behaviors are correlated to the adolescents' gambling behaviors, distorted gambling beliefs, and future gambling motivations. Thus, in case parents need to expose their folk gambling behaviors to their children before adulthood, it would be desirable to proceed with sound folk games such as chess, go, and eastern chess which have lesser impact relative to Go Stop and poker with larger impact.

Fifth, it may be discerned that the legal and illegal Sports Toto participants have a positive perception that in using Sports Toto, it is not gambling yet it is quite addictive and since people do not look favorably upon it, it is not something to recommend to others as a matter of negative view, and it makes watching sports interesting, increases watching sports participation, and brings about the Diversification of leisure activities to conduct with friends and colleagues. In addition, it was found that the illegal participants have both negative and positive perceptions very strongly at the same time. This is consistent with Soh Jae-Wook(2016)[37] in that the legal and illegal participants of Sports Toto purchase it for the fun of watching sports yet the illegal participants are even more vulnerable to gambling characteristics and addiction as they participate for financial gains, and with Park Gyeong-Rae(2012)[27] in that they participate in sports betting to make sports games even more interesting for entertainment and recreation. Thus, to help the purchases participate more healthily, the clinic proposed in the study of Park Jun-Hui et al. (2014)[26] to prevent gambling addiction should be operated to manage and treat them while counteracting addicted purchases, and the methods of controlling daily purchase amount and frequency should also be considered by introducing electronic cards directly engaged in gambling addiction.

Sixth, those who experienced illegal participation thought that it would be effective to reduce the illegal participation via the improvement of Sports Toto's operation method, and the legal participants thought that cracking down would be conducive for the eradication of the illegal sports gambling. Unlike the legal purchasers who think that illegal participation will decline if illegal websites are cracked down, the illegal purchases seem to think first that improving the inconvenience of using the legal Sports Toto and improving competitiveness against the illegal Sports Toto will be the best way to induce and lead legal participation. This is consistent with the research results of Park Gyeong-Rae et al.(2012)[27] in that it is effective to reduce illegal sports gambling by increasing the

convenience of betting participation, enforcing strict crack downs, and increasing the betting amount. In addition, it is supportive of Kang Byeong-Woo(2008)[38] in that it is consistent with the need for a unified system where immediate evidentiary data can be collected and processed together with the discovery of the illegal sports gambling websites and where crack downs can be enforced, Thus, a most effective way to eradicate the illegal Sports Toto would be to improve unsatisfactory factors in purchasing Sports Toto as presented by Park Jun-Hui et al.(2014)[26] to guide the illegal participants to the legal area so as to build an environment where illegal purchases could no longer be made by regularizing crack downs.

5. Conclusion & Suggestion

As a result of conducting this study to investigate the differences in folk gambling exposure patterns within households during adolescence, folk gambling exposure, perception of Sports Toto, and the impact of eradicating illegal sports gambling against the participants of Sports Toto and the illegal sports gambling participants, the following conclusion has been reached.

As a result of this study, first, examining the exposure patterns of folk gambling during adolescence and the experience of the illegal sports gambling participation, the largest number of respondents witnessed gambling activities of their parents within their households, and Go Stop, a traditional folk gamble, and poker game were most favored by the parents. More than half of the respondents have participated in folk gambling with their family during adolescence, and if most of them have experienced participating in the folk gambling, they experienced gambling before reaching adulthood. The respondents currently show the highest rate of participation in Go Stop and poker for the most favored monetary games, and they mostly demonstrated KRW 20,000 (JPY 1,900) or less of spending on average. In addition, 62.1% of the entire respondents said that they did experience illegal sports gambling, of which

62.4% said they even more favor the illegal participation.

As a result of this study, second, if they witness their parents' folk gambling activities during adolescence, their likelihood of participating in folk gambling before adulthood increased, and the more they were exposed to their parents' gambling, their likelihood of participating before reaching adulthood also increased even more. Furthermore, if they witnessed their parents' gambling activities within households during adolescence, they turned out to be even more probable to purchase illegal Sport Toto to the legal Sports Toto, and if they participated in folk gambling with their family during adolescence, they had a higher likelihood of participating in the illegal sports gambling as well.

As a result of the research, third, the folk gambling favored by their parents during adolescence impacts the monetary games they currently favor themselves. The folk gambling preferred by their parents before adulthood is very consistent with the monetary game they currently favor as children.

As a result of the research, fourth, both the legal and illegal participants thought that, even while Sports Toto is not a gamble, since people around them do not look favorably upon it, they could not recommend Sports Toto of strong addiction to others. However, most of the participants had a positive perception that purchasing Sports Toto made watching sports interesting, increased participation in watching sports, and diversified recreational activities to enjoy with friends and colleagues.

As a result of the research, fifth, there was a difference in the effectiveness of the countermeasures for eradicating illegal sports for the legal and illegal participants of Sports Toto. The illegal participants thought increasing convenience for the participation of Sports Toto and cracking down on illegal websites would help to curb the illegal sports gambling as a most effective countermeasure, whereas the legal participants thought cracking down on illegal websites, illegal social clubs and clubs, and promoting participation

prevention via the mass media would help to reduce the illegal participation.

Combining the results of this study as in the above suggests that the exposure to folk gambling within households is likely to raise the possibility of participating in illegal sports gambling in purchasing Sports Toto in the future, and so the parents will likely need to control the management of the activities of folk gambling within households, while the senior management of Sports Toto should consider positive and negative perceptions of the legal and illegal participants manifested in reality to improve the image of Sports Toto and also endeavor to grow the business by integrating it into more rational management practices to eradicate illegal sport gambling.

Finally, the limitations of this study manifested in the course of conducting it point towards the accuracy of completing questionnaires due to the legal sanctions of the participation in illegal sports gambling and the distinction between the current participants and past participants of illegal sports gambling. In addition, according to the ages of the subjects, there were limitations to the difference in the accuracy of the timing related questions through the recollection of their past, and the lack of previous studies related to folk gambling within households led to the failure of controlling the subjective intervention of the researchers. Thus, it is necessary to perform family research at the same time by dividing the adolescents and their parents, and if more surveyors are deployed, and if the data of the current participants of illegal sports gambling could be obtained via the acquaintances and colleagues, even more meaningful results may be looked forward to.

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