Correlates between Alcohol Consumption and Dependence according to the Number of Locations on any Given Day

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INTRODUCTION

- This research project examines the <u>relationship between alcohol consumption and dependence according to the number of locations visited on any given day</u>.

- A questionnaire method was used from June to November, 2012.

- The sample was 2376(response rate was 71.9%) aged between 16-64. SPSS 18.0 was used for the analysis.

PURPOSE OF STUDY

ɶ Korean drinkers tend to move from one place to the other when they drink.

ɶ Therefore, the purpose of this study is to find out how this drinking habit increases alcohol consumption and dependence among drinkers.

< Table 1> How many places do you usually go to drink a day? Classifications by socio-demographic characteristics

Number (%)

Items	Grouping	1 Place	2 Places	3 Places	X²	p
Gender (n=1969)	Male	424 (40.3)	519 (49.3)	110 (10.4)	64.60	.000
	Female	533 (58.2)	328 (35.8)	55 (6.0)		
Age (n=1759)	19-29	214 (34.1)	313 (52.4)	79 (13.4)	83.27	.000
	30-39	123 (36.4)	189 (55.9)	26 (7.7)		
	40-49	225 (53.2)	164 (38.8)	34 (8.0)		
	50-64	230 (58.7)	141 (36.0)	21 (5.4)		
Job (n=1648)	High school students	180 (75.9)	53 (22.4)	4 (1.7)	112.97	.000
	University students	158 (36.8)	222 (51.7)	49 (11.4)		
	Paid workers	400 (40.7)	488 (49.7)	94 (9.6)		

< Table 3> Pure Alcohol Consumption according to Locations
on any Given Day

unit(g)

1Place (n=620)	2Places (n=321)	3Places (n=63)
45.6694(55.7891)[1]	135.9912(124.3279)	375.5897(344.2095)

[1] mean(standard deviation)

Alcohol Consumption According to the Number of Locations on any Given Day

Total sample interviewed was from **2376** participants. However, the analysis covers **1004** respondents.

The reason for this change in sample size was because of non-responses (e.g. Even though some respondents answered they go to 2 places when they drink, they failed to check how much drink at the second place, thus they did not qualify for the analysis).

Q81	How many venues do you usually go to when you drink? • one venue • two venues • three venues or more
Q82	What kind of alcohol do you usually drink at the first venue? • Soju • Beer • Spirits • Wine • Takju • Yakju or Cheongju • Korean traditional wine • Mixed cocktail

	IF (Q82) IS 'SOJU',
Q82-1A	And at the **first** venue how much SOJU do you usually drink?
Q82-1B	Record NUMBER OF UNITS and TYPE OF CONTAINER • One Soju glass (45ml) • Two Soju glass (90ml) • Three Soju glass (135ml) • Paper cup (150ml) • Beer glass/pocket size bottle (200ml) • Half bottle-standard (180ml) • Bottle-standard (360ml) • Pet bottle-midium (500ml) • Pet bottle-standard (640ml) • Pet bottle-large (1600ml)

IF (Q83) IS 'BEER',

Q83-2A   And at the **second** venue how much BEER do you usually drink?

Q83-2B   Record NUMBER OF UNITS and TYPE OF CONTAINER

- Paper cup (150ml)
- Beer glass (200ml)
- Can-small (250ml)
- Can-standard (355ml)
- Can-large (500ml)
- Bottle-samll (330ml)
- Bottle-midium (500ml)
- Bottle-standard (640ml)
- Pet bottle (1000ml)
- Pet bottle (1600ml)
- Draft beer glass (250cc)
- Draft beer glass (500cc)
- Pitcher 1000cc
- Pitcher 1500cc
- Pitcher 2000cc
- Pitcher 3000cc

IF (Q83) IS 'WINE',

Q83-4A And at the second venue how much 'WINE' do you usually drink?

Q83-4B Record NUMBER OF UNITS and TYPE OF CONTAINER

(Number of units)

- One glass 94 ml
- Two glasses 188 ml
- Three or more glasses 282ml~
- Small bottle (375ml: 4 glasses)
- Standard bottle (750ml: 8 glasses)
- Small cask (1.5 litre)
- Medium cask (2 litre)
- Large cask (3 litre)

  Pure alcohol consumption calculations-

amount of drink×alcohol degree×alcohol specific gravity

  *ex. Someone drank 500cc a cup of beer at first place →   500×0.045×0.789=17.7525

  He drank 17.7525g pure alcohol at first place.

< Table 3> Pure Alcohol Consumption according to Locations

on any Given Day

unit(g)

1Place (n=620)	2Places (n=321)	3Places (n=63)
45.67 (55.79)[1]	135.99(124.33)	375.59(344.21)

[1] mean(standard deviation)

Alcohol Dependence according to Number of Locations

- Two tests were used to test for alcohol dependence according to number of locations visited.

- RAPS4 test
- DSM IV-TR

RAPS4 Test

⁊ The RAPS4 alcohol <u>screening test</u> is a four-question quiz designed for busy clinical healthcare offices that has been shown to be <u>effective in detecting alcohol dependence.</u>

⁊ The RAPS4 gets its name from the questions it poses to the patient which pertain to **remorse (R)**, **amnesia (A)**, **performance (P)**, and **starter** drinking behavior **(S)**. Each question pertains to the patient's behaviors in the past year.

The RAPS4 Questions

- 1. Have you had a feeling of guilt or remorse after drinking?

- 2. Has a friend or a family member ever told you about things you said or did while you were drinking that you could not remember?

- 3. Have you failed to do what was normally expected of you because of drinking?

- 4. Do you sometimes take a drink when you first get up in the morning?

Diagnosis of the RAPS4

- A "yes" answer to at least one of the four questions is positive.
- It means their drinking is harmful to their health and well-being and may adversely affect their work and those around them.

<Table 6> RAPS4 for Number of Locations on any Given Day

Number (%)

Result	1Place	2Places	3Places	X²	P
negative (n=586)	451(73.7)	115(36.3)	20(31.7)	141.70	.000
positive (n=406)	161(26.3)	202(63.7)	43(68.3)		

<Table 10> Odds Ratio for RAPS4

Number of Locations	Odds Ratio	95% CI	p-value
1Place	1	(3.855, 6.704)	.000
2places or 3 places	5.08		

reference = one place

DSM IV-TR

- <u>DSM stands for Diagnostic and Statistical Manual of Mental Disorders</u>

- <u>The DSM was published by the American Psychiatric Association</u> provides a common language and standard criteria for the classification of mental disorders. It is used or relied upon by clinicians, researchers, psychiatric drug regulation agencies, health insurance companies, pharmaceutical companies, the legal system, and policy makers.

- Alcohol dependence included one of mental disorders.

- So DSM also is used alcohol dependence diagnosis.

Diagnosis of the DSM IV-TR

- Diagnostic Code 303.90
- A maladaptive pattern of alcohol use, leading to clinically significant impairment or distress, <u>as manifested by three (or more) of the following, occurring at any time in the same 12-month period:</u>

(1) tolerance, as defined by either of the following:

(a) a need for markedly increased amounts of alcohol to achieve Intoxication or desired effect

(b) markedly diminished effect with continued use of the same amount of alcohol

(2) Withdrawal, as manifested by either of the following:

(a) the characteristic withdrawal syndrome for alcohol (refer to Criteria A and B of the criteria sets for Withdrawal from alcohol)

(b) alcohol (or a closely related drug such as valium) is used to relieve or avoid withdrawal symptoms

(3) alcohol is often used in larger amounts or over a longer period than was intended

(4) there is a persistent desire or unsuccessful efforts to cut down or control   alcohol use

(5) a great deal of time is spent in activities necessary to obtain alcohol, use alcohol, or recover from its effects

(6) important social, occupational, or recreational activities are given up or reduced because of alcohol use

(7) alcohol use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by alcohol (e.g. continued drinking despite recognition that an ulcer was made worse by alcohol consumption)

<Table 11> DSM IV-TR for Number of Locations on any given   Day

Number (%)

DSM IV-TR	1Place	2Places	3Places	X²	P
negative (n=688)	498(81.0)	164(51.4)	26(41.3)	110.04	.000
positive (n=309)	117(19.0)	155(48.6)	37(58.7)		

\<Table 13\> Odds Ratio for DSM IV-TR Number of Locations on any given Day

Number of Locations	Odds Ratio	95% CI	p-value
1place	1	(3.237, 5.715)	.000
2 places or 3 places	4.30		

reference = one place

Result

1. Visiting two or more locations on any given day was reported by

- 59.7% of men
- 41.8% of women
- 65.8% of respondents in their 20s
- 63.3% in their 30s
- 63.1% of university students
- 59.3% of paid workers

Result

- 2. In comparing quantity of alcohol consumed according to the number of locations on any given day, <u>respondents who mostly visited 2 places consumed almost thrice as much as those who visited a single location.</u>

- Further, <u>those who visited 3 different places consumed eight times more than those who at a single location</u> and thrice as much as those who visited 2 places.

Result

- **Tested positive on the RAPS4**
- 26.3% of people who drank at a single location
- 63.7% of consumers at 2 locations
- 68.3% of people who usually visited three places.

*The Odds Ratio for testing positive on the RAPS4 between drinking at one location versus 2 or more locations was 5.08.

- **On DSM IV-TR test**
- the rate of 1 place was 19.0%,
- 2 places was 48.6%,
- 3 places was 58.7%.

* Odds Ratio for DSM IV-TR test was 4.30

- So people who usually visited 2 or 3 locations to drink are more vulnerable to alcohol dependence than people who drank at a single location.

conclusion

- Korean drinkers tend to move from one place to the other when they drink.

- My findings demonstrated that when people visited 2 or more locations to drink, they are prone to consume remarkably larger amounts of alcohol than people who drank at a single location. As a result, the risk of alcohol dependence is significantly higher when the number of locations goes up.

- I believe it is imperative that an educational program be implemented in order to inform the public of the dangers of alcohol consumption and it's correlation to the number of locations. High risk drinkers such as university students and paid workers are especially prone to these dangers and need to be aware.

THANK YOU