Socio-Demographic Status and Arrack Drinking Patterns among Muslim, Hindu, Santal and Oraon Communities in Rasulpur Union, Bangladesh: A Cross-Cultural Perspective

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Abstract—Arrack is one of the forms of alcoholic beverage or liquor which is produced from palm or date juice and commonly consumed by the lower social class of all religious/ethnic communities in the north-western villages of Bangladesh. The purpose of the study was to compare arrack drinking patterns associated with socio-demographic status among the Muslim, Hindu, Santal, and Oraon communities in the *Rasulpur* union of Bangladesh. A total of 391 respondents (Muslim n-109, Hindu n-103, Santal n-89, Oraon n-90) selected by cluster random sampling were interviewed by ADP (Arrack Drinking Pattern) questionnaire. The results of Pearson Chi-Squire test revealed that arrack drinking patterns were significantly differed among the Muslim, Hindu, Santal, and Oraon communities' drinkers. In addition, the results of Spearman's bivariate correlation coefficients also revealed that socio-demographic characteristics of the communities' drinkers were the significantly positive and negative associations with the arrack drinking patterns in the Rasulpur union, Bangladesh. The study suggests that further cross-cultural researches should be conducted on the consequences of arrack drinking patterns on the communities' drinkers.

Keywords—Arrack Drinking Patterns, Bangladesh, Community, Cross-Cultural Comparison, Socio-Demographic Status.

I. INTRODUCTION

ALCOHOL is most popular liquor that a group of people all over world widely consume to quench thirst, to enjoy social and religious settings, to taste beverage, to get drunk and to feed an addiction [1]. Although alcohol drinking immemorially exists in every society and some people involve in that drinking for various purposes, yet there are no universal definitions on the alcohol drinking patterns. Most of the researchers in their studies define alcohol drinking patterns as the types of social, moderate, chronic/binge drinkers who prefer and consume varied amount, frequency, volume of different alcohols and time spent for alcohol drinking [2]- [7].

The patterns of alcohol behavior people are involved in are influenced by socio-demographical factors that initiate,

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perpetuate and continue that behavior in every society [7]-[9]. Relevant *cross-cultural* studies reveal that alcohol drinking patterns not only differ from one society to another, but also vary within the different segments of the same society according to drinkers' socio-demographic characteristics [4]-[19]. Specifically, these studies indicate that the male rather than the female, the White than the Black, the Western-European than the Asian/ African, the African than the Asian, the head of the sub-nuclear family than the nuclear/ extended family, the divorced or separated persons than the married and unmarried persons, the lower social class than the middle or upper social class of the permissive or overly permissive cultures are involved in drinking at an earlier age and they in their life cycle consume more frequent, heavy, and hard alcohol and spent more time to drinking compared to the people of ambivalent cultures who are frequently involved in moderate drinking compared to the people of abstinent cultures, who are almost males and more abstainers in many cases, are involved more in social drinking.

Arrack is one of the forms of alcoholic beverages or liquor, which is produced from palm or date juice [22]. Although any alcohol drinking pattern is not socially or legally permitted in the mainstream culture of Bangladesh, several studies [20]-[22] reveal that arrack drinking behavior including alcohol drinking and other drugs is increasing day by day among the various age, sex, occupational, and social groups, especially in the lower social class in both rural and urban areas of that country. Identifying the arrack drinkers, such as social, moderate and chronic, several studies [22]-[24] reveal that arrack drinking behavior is a crucial problem in the north-western villages, especially in the *Parbattypur* and Rasulpur union of Bangladesh where some persons, irrespective of age, sex, family pattern, social class, caste, religion, ethnicity etc., are gradually involving in that behavior due to their psycho-social, familial, economic, physical, religious as well as personality problems. Although the findings of the epidemiological studies on the arrack drinking behavior indicate that arrack drinking prevalence rates among the Oraon and Santal drinkers are higher than that the Muslim and Hindu drinkers in this region, in broad sense there is a paucity of cross-cultural information on arrack

drinking patterns associated with the socio-demographic status among communities. Therefore, the present cross-cultural study may fulfill the knowledge gaps on arrack drinking patterns in association with socio-demographic status in Rasulpur union, Bangladesh. First aim of the study is to compare arrack drinking patterns among the arrack drinkers of the Muslim, Hindu, Santal, and Oraon community and secondly to examine the relationships between socio-demographic status and arrack drinking patterns of the communities' drinkers in Rasulpur union of Bangladesh.

Bangladesh is an agro-economic village based country where various ethnic communities live side by side. A community is a group of people who share the same belief system and behave in social situations accordingly [35]. Every community, Muslim, Hindu, Santal and Oraon, bears and preserves distinct belief system: the Muslims believe in *Monotheism*, the Hindus believe in *polytheism* [25], [26] and both the Santal and the Oraon believe in *animism* [27]-[29]. These different fundamental belief systems of the communities maintain different attitudes towards alcohol or arrack drinking: Bangladeshi Muslims as a dominant culture have abstinent attitudes towards any intoxication influenced by Arabian culture, the Hindus have ambivalent attitudes toward drinking like Indian Hindu culture and both the Santal and the Oraon have permissive or even overly permissive attitudes toward use or abuse drinking [24], [30], [31]. These different attitudes toward arrack drinking behavior of the communities may differentially influence arrack drinking patterns in relation to socio-demographic status characteristics: age and sex status, family pattern, parental drinking habit, socio-economic status in the north-western villages of Bangladesh.

A. Age-Sex Status

Age and sex are the biological terms that are socio-culturally constructed in alcohol drinking behavior in every society [2]-[7]. These studies clearly indicate that both male and female of the permissive or overly cultures, such as American Irish, Russian, Japanese, and French, are involved in drinking at an earlier age than the ambivalent cultures, such as Indians, Europeans and Scandinavians compared to the abstinent cultures, such as Muslims, ascetic Protestants, and Amish, where the males are usually involved in alcohol drinking, although female cases in drinking are not rare. Although the social system of the communities in Bangladesh is patri-lineal in nature, there are marked differences in arrack drinking behavior in connection with the age and sex norms among them. Relevant literatures in Bangladesh [20]-[22], [24] revealed that although the attitudes toward arrack drinking of the Muslim and Hindu cultures were different, the Muslims are abstinent and the Hindus are ambivalent in drug use or abuse, the males of both the communities consumed more frequently and heavy amount of medium and hard arrack, but the females of the communities never touched a peak of arrack, while both the male and female of the Santal and Oraon communities drank arrack in their social and religious occasions and were involved in arrack drinking at an earlier age than the Muslim and Hindu male drinkers, because their cultural norms associated with the age and sex permitted them to do so. Generally, although any arrack seller did not sell arrack to the drinkers who were not matured enough to drink, especially before puberty, the boys and girls of the Santal and Oraon were involved in arrack drinking at an earlier age due to cultural permissiveness than the boys of the Muslim and Hindu cultures.

B. Family Pattern

Of the socio-demographic characteristics, family patterns, such as family type, marital status and parental drinking habit also influence arrack drinking behavior in rural Bangladesh. Relevant studies in Bangladesh [22], [23] explore that the head of the nuclear family rather than the head of joint/extended family and married persons rather than unmarried persons are more involved in arrack drinking and frequently drink arrack, because the people with these familial statuses not only feel lonely, but they consume more social freedom and economic opportunities for cost of arrack drinking, as they are income earners. Another factor of the family patterns that influences arrack drinking behavior is parental drinking habit. One study [22] clearly indicates that most of the drinkers are socialized by their parental drinking habit: the fathers in both the Muslim and Hindu communities and both the father and mother in the Santal and Oraon cultures are drunk in their familial and social settings. In this respect, the drinkers from the prohibited drinking culture, such as Muslim and/or prescribed drinking cultures, such as Hindu, Santal and Oraon socialized by the previous generation and possessed by the same attitudes toward drinking, consume varied amount of arrack to satisfy and copy with their personal and family stress.

C. Socio-Economic Status

Socio-economic status is an assessment of status that takes into accounts a person's income, education, and occupation [31]. Socio-economic status factors, such as education, occupation and income have pervasive effects on alcohol drinking behavior [20], [21]. About 76% of the people, irrespective of all communities, live in rural area of Bangladesh whose main occupation is agriculture based on land, but land-man ratio is very low and about 62% of the rural households are functionally land less or near the land less due to over population and land fragmentation. Most of the people live in poverty. Minority groups such as, Hindu, Santal, Oraon, and Mahali are the poorest of the poor [32], [33]. With the socio-economic status people of the lower strata of the dominant group, in general, and minority groups, in particular, cannot equally access to societal opportunity structure due to socio-religious-political discrimination and inequality. As a result some people, irrespective of the communities, cannot fulfill their all human needs according to socially prescribed means and goals and deviate from societal norms and involve in arrack drinking behavior [30]. Uddin, et

al. [22] explore that persons with low socio-economic attainment and socio-economic hardship that create economic, psycho-social problems within the individuals and their family life are closely related to arrack drinking behavior. Based on relevant literatures reviewed, above-mentioned, the study assumes that there are significant differences in arrack drinking patterns in connection with the differential socio-demographic statuses among the Muslim, Hindu, Santal and Oraon communities in rural Bangladesh.

II. DATA AND METHODS

A. Sample

This study was conducted in the Rasulpur union, Bangladesh, where palm and date trees were available from which arrack was produced round the year. Four villages, *Mongaltara, Akkelpur, Sherpur* and *Ekrapara* of the Union, where arrack drinkers of the: *Muslim, Hindu, Santal* and *Oraon* communities were present, were purposefully selected for this study. The unit of the study was the arrack drinkers of the four communities. Firstly, the arrack drinkers were identified through arrack sellers and other local people in applying snowball technique with which 760 arrack drinkers from the communities (Muslim N-195, Hindu N-192, Santal N-159, and Oraon N- 161) were enlisted. Among them, 391 respondents (Muslim n- 109, Hindu n- 103, Santal n- 89 and Oraon n-90) were randomly selected by cluster sampling procedure, whose age range of the men (91%) and women (8.2%) was from 20 to 40 years. Average age was 32.68 for Muslim, 32.02 for Hindu, 29.93 for Santal and 32.62 for Oraon respectively. Sample selection by this procedure was more appropriate to create homogeneity within the community's arrack drinkers and to make heterogeneity among the four communities' ones for valid cross-cultural comparison.

B. Variable and Measure

In this study, *socio-demographic* characteristics treated as an independent variable were included to analyze influences on the Muslim, Hindu, Santal, and Oraon drinkers' arrack drinking patterns. The socio-demographic status characteristics, such as age duration of arrack involvement, sex, family pattern, father's drinking habit, socio-economic status of the respondents [6] were measured in the following way:

Community was nominally measured and coded as 1= Muslim, 2= Hindu, 3= Santal and 4= Oraon. *Age duration* was numerically measured in years. *Sex* was nominally measured and coded as 1=Male and Female=2. *Marital status* was categorized as 1= Married and 2= Unmarried. *Family type* was nominally measured and coded as 1= Nuclear Family and 2= Joint (Extended) Family. *Education* was numerically measured in years. *Occupation* was nominally measured and coded as 1= Farming, 2= Small business, 3= Day laboring and 4= Van pulling. *Yearly total income* was numerically measured in Taka (1 US$ = 68 Bangladesh Taka in currency

exchange). *Father's drinking habit* was nominally measured and coded as 1= Yes and 2= No.

Arrack drinking patterns treated as a dependent variable defined as the types of arrack drinkers who consumed soft, medium and hard arrack drinks regularly, irregularly and occasionally [22]. In this study arrack drinking patterns were classified into main three categories and measured in nominal and ordinal scale based on drinkers' self-reporting are given bellow:

1. *Types of Arrack Drinker* were categorized as social, moderate and chronic drinkers based on quantity of arrack drinks consumed by the drinkers [34]. Especially, Engs [34] defined alcohol drinking patterns as *light drinking*: 0 to 19 grams, *moderate drinking*: 20 to 39 grams, *moderate heavy drinking*: 40 to 59 grams, *heavy drinking*: 60 to 79 grams and *very heavy drinking* with 80+ grams of absolute alcohol consumed per day. A s*ocial drinker* in this study was defined as a drinker who consumed up to 1 liter arrack occasionally for reasons of sociability and confines his or her drinking to certain occasions such as parties, picnics, festivals or rituals. A *moderate drinker* was assessed as a drinker who consumed almost 2 liters arrack. The *chronic drinker* with 3 or more liters defined as a psychologically and physically sick person who needed a compulsion to drink continually. This variable was coded as 1= social drinker, 2= moderate drinker and 3= chronic drinker. 2. *Types of arrack drink* were categorized as soft, medium and hard drinks based on from 7% to 23% alcoholic levels [23]. When the juice of palm or date is rotten for one day, is called *soft drink*; when it is rotten for two or three days, is called *medium drink* and when it is rotten for more than three days, is called *hard drink*. This variable was coded as 1=soft drinks, 2=semi-soft drinks and 3= hard drinks. 3. *Frequency of arrack drinking* was classified as regular, irregular and occasional drinking based on number of drinking by day, week and month [6], [17]. *Regular* drinking was assessed as once per day, *irregular* drinking was assessed as once per week and *occasional* drinking was assessed once per month within the last six months and coded 1=regular drinking, 2=irregular drinking and 3=occasional drinking.

C. Instrument and Procedure

The design used in this cross-cultural study was a descriptive as well as correlational one in which typological/categorical data on arrack drinking patterns in association with socio-demographic status were collected from the communities' drinkers selected from the Rasulpur union, Bangladesh. In order to collect these types of data on the patterns of arrack drinking (types of arrack drinkers, nature of arrack drinks and frequency of arrack drinking consumed), that were measured in both nominal and ordinal levels, semi-structural ADP (Arrack Drinking Patterns) questionnaire with close and open-ended questions was designed followed from the questionnaires of other researches [6], [17], [22], in which some relevant questions about the socio-demographic status background, such as age, sex, family type, marital status, father's drinking habit, socio-

economic status (occupation, education and income) of the arrack drinkers and their drinking patterns were included. Especially, the questions on the arrack drinking patterns were as 1) Types of arrack drinker: *in the last 6 months to what extent/degree did you have arrack drinks?* 2) Nature of arrack drinks*: which types of arrack drinks did you prefer in your drinking?* 3) Frequency of arrack drinking: *how many times did you have arrack drinking?*

Field work was conducted from June to November, 2006. In first two months, June and July, rapport was built up with the selected respondents of the four communities and then the respondents in the four months were interviewed by the ADP questionnaire developed by the author. The necessary data were collected at afternoon when they were leisured, because most of the respondents worked from morning to midday in agricultural field. In so doing the author conversed with the respondents about ADP (Arrack Drinking Pattern) questionnaire in *Bengali* language, because the respondents of the communities did converse in Bengali language and then the responses given were converted in English. According to research hypotheses or objectives, the collected data on the arrack drinking patterns in relation to socio-demographic status were analyzed by Pearson *chi-squire* test and *bivariate* statistical techniques. Especially *chi-square* test was applied to distribute and compare variations in arrack drinking patterns among the respective communities' drinkers and Spearman's bivariate correlation coefficients (rs) were used to determine the strength of relationship between socio-demographic status and arrack drinking patterns. The findings of the analysis were presented by cross-tabulation.

TABLE I
FREQUENCY DISTRIBUTION OF SOCIO-DEMOGRAPHIC CHARACTERISTICS BY MUSLIM (N=109), HINDU (N=103), SANTAL (N=89) AND ORAON (N=90) COMMUNITY ARRACK DRINKERS, RASULPUR UNION, BANGLADESH, 2006

Socio-Demographic Characteristics	Community				Total
	Muslim	Hindu	Santal	Oraon	
Duration of Arrack Drinking (in Years)					
1-5	12	4	0	0	16
6-10	24	27	13	2	66
11-15	26	23	27	16	92
16-20	22	17	25	32	96
21-25	23	31	12	27	93
26+	2	1	12	13	28
Total	109	103	89	90	391
Sex					
Male	109	103	77	70	359
Female	0	0	12	20	32
Total	109	103	89	90	391
Marital Status					
Married	107	103	84	88	382
Unmarried	2	0	5	2	9
Total	109	103	89	90	391
Family Type					
Nuclear	88	75	69	75	307
Joint	21	28	20	15	84
Total	109	103	89	90	391
Education(in year)					
Illiterate	77	51	49	30	207
1-4	14	25	27	39	105
4-8	10	23	7	20	60
9-12	2	4	3	0	9
13+	6	0	3	1	10
Total	109	103	89	90	391
Occupation					
Farming	59	59	48	28	194
Small business	11	8	8	4	31
Day laboring	30	36	26	47	139
Van pulling	9	0	7	11	27
Total	109	103	89	90	391
Yearly Income (inTaka)					
Under 20,000	43	67	62	57	229
21,000-40,000	47	25	12	23	107
41,000 +	19	11	15	10	55
Total	109	103	89	90	391
Father's Drinking Habit					
Yes	91	97	89	90	367
No	18	6	0	0	24
Total	109	103	89	90	391

III. RESULTS

A. Socio-Demographic Characteristics

Table 1 shows the frequency of socio-demographic characteristics by the Muslim, Hindu, Santal and Oraon drinkers. Of the drinkers, cent percent of the Muslim and Hindu were males, but most of the Santal (86.52%) and Oraon (77.78%) were males and least of them were females (13.48% for Santal and 22.22% for Oraon). Mean years duration of arrack drinking involvement of the drinkers were 14.38 for Muslim, 15.03 for Hindu, 17.36 for Santal, and 20.11 for Oraon. In marital status, most of the respondents (98% for Muslim, 100% for Hindu, 94.38% for Santal and 97.78% for Oraon) were married, but rest of them were unmarried (2% for Muslim, 0.0% for Hindu, 5.62% for Santal and 2.22% for Oraon respectively). Most of the respondents lived in nuclear family (88.73% for Muslim, 72.82% for Hindu, 77.53% for Santal and 83.33% for Oraon) and rest of them were the members of joint family (19.27% for Muslim, 27.18% for Hindu, 22.47% for Santal and 16.67% for Oraon respectively). In socio-economic status, most of them were farmers (49.6%) and the rest of them were day laborers (35.5%), small businessmen (7.9%) and van-pullers (6%). Average years of schooling were 1.76 for Muslim, 2.51 for Hindu, 2.11 for Santal and 2.71 for Oraon respectively. Average yearly gross incomes of the respondents in Taka were 29752.29 for Muslim, 24097.09 for Hindu, 27471.91 for Santal and 23566.67 for Oraon respectively. Lastly, cent percent fathers of the Santal and Oraon were habituated to arrack drinking, while 83.49% and 94.17% fathers of the Muslim and Hindu were drunken arrack.

B. Differences in Socio-Demographic Status and Arrack Drinking Patterns
a. Types of Arrack Drinker

Table 2 shows the frequency of the types of social, moderate and chronic drinker by the communities' samples. Although the few of the communities' drinkers were the social

drinkers (14.61% for Santal, 11.93% for Muslim, 10.68% for Hindu and 7.78% for Oraon respectively), who drank 1 liter arrack, most of the drinkers were moderate and chronic. The moderate drinkers, who drank almost 2 liters arrack, were 32.75% for Hindu, 27.95% for Muslim, and 19.65% for both the Santal and Oraon. The chronic drinkers, who drank 3 or more liters arrack, were 32.20% for Oraon, 27.12% for Muslim, 26.27% for Santal and 14.41% for Hindu respectively. However, the Santal social drinkers were higher than that the Muslim, Hindu and Oraon, the Hindu moderate drinkers were higher than that the Muslim, Santal and Oraon and the Oraon chronic drinkers were higher than the other community's chronic drinkers. The results of Pearson Chi-Squire test show that the types of arrack drinker were significantly different ($X^2=18.97$, $p< 0.01$, $p< 0.05$) among the communities. In addition, the results of Spearman's inter-correlation coefficient also indicate that the socio-demographic factors were included for analysis, only duration of arrack drinking (in years) ($rs=.094$, $p<0.05$, 1 tailed test) was significantly positive association with and education ($rs= -.150$, $p<0.01$, 1/2 tailed test) and father's drinking habit ($rs= -.173$, $p< 0.01$, ½ tailed test) were significantly negative relation to types of arrack drinker (see table 5, column2).

TABLE II
RESULTS OF PEARSON CHI-SQUIRE TEST ON TYPES OF ARRACK DRINKER BY MUSLIM (N=109), HINDU (N=103), SANTAL (N=89) AND ORAON (N=90) COMMUNITY, RASULPUR UNION, BANGLADESH, 2006

| Type of Arrack Drinkers | Religious Community | | | | X^2 |
	Muslim	Hindu	Santal	Oraon	
Social	13	11	13	7	
Moderate	64	75	45	45	
Chronic	32	17	31	38	
Total	109	103	89	90	18.97***

Note: Figures in parentheses indicate cell frequency, *p<0.01, **p< 0.05

b. Types of Arrack Drink

Table 3 shows the frequency of types of arrack: soft, medium and hard drinks consumed by the communities' drinkers. Most of the drinkers consumed hard arrack rather than the medium and soft arrack. Actually, the Oraon drinkers (67.78%) consumed more hard drinks compared to the Santal (59.55%), the Muslim (58.72%) and the Hindu (19.42%) drinkers respectively, while the Hindu drinkers (59.22%) consumed more medium (semi-soft) drinks compared to the Santal (14.61%), Muslim (11.93%) and Oraon (7.78%) respectively. And rest of them consumed soft arrack (29.35% for Muslim, 25.84% for Santal, 24.44% for Oraon, and 21.36% for Hindu respectively. The results of Pearson Chi-Squire test show that there were significant differences in the types of arrack drinks consumed by the communities' drinkers ($X^2 =102.11$, $p<0.01$ and $p<0.05$). In addition, the results of Spearman's inter-correlation coefficient also show that of the socio-demographic factors education ($rs= .148$, $p< 0.01$, 2

tailed test), and income ($rs= .149$, $p< 0.01$, 2 tailed test) were significantly positive association with the types of arrack drink consumed by the communities' drinkers (see table 5, column 3).

c. Arrack Drinking Frequency

Table 4 shows the frequency of regular, irregular and occasional arrack drinking consumed by the four communities' drinkers. The data clearly show that although the few of them (7.34% for Muslim, 8.74% for Hindu, 16.85% for Santal and 10% for Oraon respectively) consumed arrack occasionally, most of them drank arrack irregularly or regularly. The data in the table show that the Santal (51.69%) drinkers were more habituated to regular arrack drinking compared to the Oraon (48.89%), Hindu (41.75%), Muslim (33.03%) drinkers, but the Muslim drinkers (59.63%) drank more arrack irregularly rather than that the Hindu (49.51%), Oraon (41.11%) and Santal drinkers (31.46%) respectively. The Pearson Chi-Squire test results show that frequency of arrack drinking was significantly different among the communities' drinkers ($X^2= 18.78$, $p<0.01$ and $p<0.05$). The results of Spearman's inter-correlation coefficient also reveal that the frequency of arrack drinking only was significantly positive association with the marital status ($rs= .119$, $p< 0.05$, 2 tailed test), but that was significantly reverse association with the father's drinking habit ($rs= -.169$, $p< 0.01$, 2 tailed test) of the communities' drinkers (see table 5, column 4).

TABLE III
RESULTS OF PEARSON CHI-SQUIRE TEST ON TYPES OF ARRACK DRINKS BY MUSLIM (N=109), HINDU (N=103), SANTAL (N=89) AND ORAON (N=90) COMMUNITY, RASULPUR UNION, BANGLADESH, 2006

| Types of Arrack Drink | Religious Community | | | | X^2 |
	Muslim	Hindu	Santal	Oraon	
Soft	32	22	23	22	
Medium	13	61	13	7	
Hard	64	20	53	61	102.11***
Total	109	103	89	90	

Note: Figures in parentheses indicate cell frequency, *p<0.01, **p<0.05

TABLE IV
RESULTS OF PEARSON CHI-SQUIRE TEST ON ARRACK DRINKING FREQUENCY BY MUSLIM (N=109), HINDU (N=103), SANTAL (N=89) AND ORAON (N=90) COMMUNITY, RASULPUR UNION, BANGLADESH, 2006

| Arrack Drinking Frequency | Religious Community | | | | X^2 |
	Muslim	Hindu	Santal	Oraon	
Regularly	36	43	46	44	
Irregularly	65	51	28	37	
Occasionally	8	9	15	9	
Total	109	103	89	90	18.78***

Note: Figures in parentheses indicate cell frequency, *p<0.01, **p<0.05

TABLE V
RESULTS OF SPEARMAN'S INTER-CORRELATION COEFFICIENT BETWEEN
SOCIO-DEMOGRAPHIC CHARACTERISTICS AND ARRACK DRINKING PATTERNS
OF THE COMMUNITIES, N=391, RASULPUR UNION, BANGLADESH, 2006

Socio-Demographic Characteristics	Arrack Drinking Patterns		
	Types of Arrack Drinker (rs)	Types of Arrack Drinks (rs)	Arrack Drinking Frequency (rs)
Duration of arrack drinking (in years)	.094** .032	-.021 .685	-.086 .091
Sex	.043 .395	-.020 .697	-.072 .154
family type	.084 .097	.122 .016	-.057 .261
Marital status	-.054 .290	.008 .881	.119** .018
Education	-.150* .003	.148* .003	.083 .102
Occupation	-.039 .444	-.071 .158	.048 .348
Income	.-049 .335	.149* .003	-.013 .795
Father's drinking habit	-.173* .001	-.019 .714	-.169* .001

Note: * p<0.01, **p<0.05

IV. DISCUSSION

Arrack drinking patterns in this study were classified into three main categories: types of arrack drinkers, social, moderate and chronic, who consumed soft, semi-soft and hard drinks and drank occasionally, irregularly and regularly that were explored and compared in relation to socio-demographic status among the Muslim, Hindu, Santal and Oraon drinkers in the Rasulpur union of Bangladesh. In so doing, 391 respondents who (Muslim n- 109, Hindu n- 103, Santal n- 89 and Oraon n-90) were randomly selected by cluster sampling procedure were interviewed by ADPQ (Arrack Drinking Patterns Questionnaire). The results of Pearson Chi-Squire test suggest that there were significant differences in the arrack drinking patterns among the Muslim, Hindu, Santal and Oraon drinkers, as were assumed previously. In addition, the results of Pearson bivariate correlation coefficients also indicate that socio-demographical characteristics, age, sex, marital status, family type, socio-economic status, father's drinking habit of the four communities' drinkers were differentially related to their arrack drinking patterns.

Specifically, the *types of arrack drinker* were one of the comparison areas of arrack drinking patterns among the Muslim, Hindu, Santal, and Oraon communities in the Rasulpur union. The Santal social drinkers(14.61%) were higher than that the Muslim (11.93%), Hindu (10.68%) and Oraon (7.78%), the Hindu moderate drinkers (32.75%) were higher than that the Muslim (27.95%), Santal and Oraon (19.65%) and the Oraon chronic drinkers (32.20%) were higher than the other community's chronic drinkers (27.12% for Muslim 26.27% for Santal and 14.41% for Hindu respectively). These frequencies of the types of arrack drinker

were influenced by socio-demographic factors, especially duration of arrack drinking (in years) (rs=.094, p<0.05) and education (rs= -.150, p<0.01) and father's drinking habit (rs= -.173, p< 0.01). The results of this study are supported by Uddin's, et al. [22] and Begum's [21] studies. Especially Uddin's et al. [22] selected 200 arrack drinkers from Muslim, Hindu, *Santal* and *Oraon* communities with 89% males and only 11% females, identified the arrack drinkers as social drinkers (8%), moderate drinkers (57%) and chronic drinkers (35%) who frequently drank arrack influenced by nuclear family type and low socio-economic status and unemployment. Banu's [21] and Begum's [20] studies also indicated that respondents with the nuclear family, rural origin, and lower social class drank more arrack than the respondents with the background of joint family, urban origin and middle/high social class.

The *types of arrack drinks* were one of the comparison areas of the study. Most of the drinkers of the communities consumed hard drinks, although the significant numbers of the drinkers drank soft arrack. The Oraon drinkers (67.78%) consumed more hard drinks compared to the Santal (59.55%), Muslim (58.72%) and Hindu (19.42%) drinkers respectively, while the Hindu drinkers (59.22%) consumed more medium (semi-soft) drinks compared to the other communities' drinkers (14.61% for Santal, 11.93% for Muslim and 7.78% for Oraon respectively). However, these prevalent rates of the types of arrack drink preferred by the drinkers were more influenced by the drinkers' education (rs= .148, p< 0.01), and income factors (rs= .149, p< 0.01). Uddin's, et al. [22] and other researches [20], [21] indicated that most of the arrack drinkers (56%) used hard arrack drinks and few of them used soft and semi-soft drinks. In another study Uddin [24] explored that most of the male drinkers with the nuclear family and low socio-economic attainments rather than the females and high status overall the communities consumed hard arrack. The Muslim drinkers (32.32%) consumed more hard drinks compared to the Oraon (30.81%), Santal (26.77%) and Hindu (10.10%) drinkers, but the Hindu drinkers (64.83%) drank frequently medium arrack compared to the other community's drinkers.

The *arrack drinking frequency* was an important aspect of comparison of the arrack drinking patterns among the Muslim, Hindu, Santal, and Oraon drinkers. The results of the study suggest that although the few of arrack drinkers, irrespective of all communities, drank arrack occasionally, most of them consumed it either regularly or irregularly. The study findings showed that the Santal (51.69%) drinkers consumed arrack regularly compared to the Oraon (48.89%), the Hindu (41.75%), the Muslim (33.03%) drinkers, but the Muslim (59.63%) drank more arrack irregularly rather than that the Hindu drinkers (49.51%), the Oraon (41.11%) and the Santal drinkers (31.46%). The frequency of arrack drinking only was significantly positive association with the drinkers' marital status (rs= .119, p< 0.05), but that was significantly reverse association with the father's drinking habit (rs= -.169, p< 0.01). These findings are also confirmed by Uddin's, et al.

[22] and Rahaman's [29] studies. Rahaman [29] in his study indicated that minority group could not attain their socio-economic status due to discrimination, prejudice and injustice of the dominant community. As a result the minority groups suffered more from poverty, fear and violent acts. Uddin's, et al. [22] study also indicated that the drinkers of the communities associated with poverty and lower socio-cultural status relatively consumed more arrack drinking. They also indicated that people of Muslim community who used arrack formed sub-cultural group and communicated with each other for regular arrack drinking. However, community cultural factor of the Hindu, Santal and Oraon as a minority group and family socialization of the Muslim play an important role to take arrack drinking.

V. CONCLUSION AND IMPLICATIONS

The findings of the study reveal that there were significant differences in arrack drinking patterns associated with socio-demographic status among the Muslim, Hindu, Santal and Oraon drinkers in Rasulpur union. Although most of the drinkers were chronic who frequently consumed more hard drinks almost regularly due to their physical and psychological dependency on it, the significant numbers of moderate drinkers who frequently consumed more medium drinks were present. However, the Oraon chronic drinkers were higher than that the Muslim, Santal and Hindu drinkers, but the Hindu moderate drinkers were more prevalent compared to the drinkers of other communities. These arrack drinking patterns were more or less influenced by respective communities' socio-demographic characteristics. Although social and moderate drinking reduce normal life stress, make mental and physical fitness in social settings and reinforce work performance, there are serious debates on the chronic drinking among the scientists, because chronic drinking affects the normal living of drinker who cannot adjust to social situations. However, although the findings of the study have inherent limitations, because these were measured based on extrinsic factors: socio-demographic status, may contribute new knowledge to the literatures of alcohol/arrack drinking behavior. Based on the findings the government of Bangladesh should formulate appropriate policy and programs to cure chronic drinkers at national level to change in socio-demographic status of the drinkers. Based on social policy social workers, psychiatrists, doctors, and other paraprofessionals may apply socio-cultural and behavioral therapies to reduce drinking habits of the chronic drinkers at individual, family group and community levels. The findings of the study may also apply to conduct cross-cultural researches on the consequences or effects of the arrack drinking patterns within the context of intrinsic factors: cross-religious-ethnic, gender, attitudes and cross-cultural comparisons.

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