

Drinking Behaviour in a Small Island Economy: A Gender Perspective

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ABSTRACT

The objective of this paper is to investigate the convergence hypothesis which predicts that women's drinking levels are increasing and are approaching those observed in men. Rodrigues as a small island economy is used as a case study to test the convergence behaviour. Survey research on drinking patterns and problems in small island developing societies is scant. Hence, the innovation of this study rests on exploring the case of Rodrigues which is characterised by rampant unemployment and poverty rates, high level of social cohesion, limited leisure activities and a large informal sector, which are potential factors governing high alcohol consumption on the island.

Drinking Behaviour in a Small Island Economy: A Gender Perspective

Consumption of alcoholic beverages forms part of many cultures for decades. The consumption and production of alcoholic beverages namely beer, wine and spirits are growing in virtually every part of the developing world (Perdrix *et al.*, 1999). Existing studies on alcohol consumption and expenditure have been carried out across both developed and developing countries (Koksal and Wohlgenant, 2011, Fogarty and Chapman, 2011; Wagenaar *et al.*, 2009; Gallet, 2007). Evidence across the globe also suggests that gender matters when it comes to alcohol drinking (WHO, 2014). The characterisation of the drinking behaviours of the population in terms of gender is important to develop tailored interventions.

Gender consideration explains the increased female vulnerability to alcohol consumption compared with males. Indeed, there is a paucity of research investigating African women's use of alcohol, limiting our current knowledge of the different ways women consume alcohol across Africa (Martinez *et al.*, 2011). For small island economies, in particular, the evidence on alcohol consumption is rather limited. In Rodrigues, for instance, the prevalence of weekly alcohol consumption has been rising over the years, however, little is known about alcohol consumption patterns across men and women and the factors associated with drinking.

The paper thus adopts a gender perspective on alcohol consumption in Rodrigues. In particular, we investigate into the profile of the alcohol-dependent individuals and analyse their drinking behaviour. The objectives of the study are twofold. First, we analyse the characteristics of alcohol dependents in Rodrigues by taking a gender perspective. Second, the paper investigates the extent of alcohol consumption among Rodriguans by probing into the types of alcohol they consume and the amount spent on alcoholic drinks. Our methodology rests on data collected on a sample of 138 alcohol-dependent individuals and econometric techniques are adopted to support our analysis.

The paper is structured as follows: section 2 reviews the literature on alcohol consumption while section 3 presents the specific socio-economic, cultural and demographic features of the island of Rodrigues. Section 4 sets out the methodology used and section 5 analyses the survey data and presents the findings. Section 6 concludes and provides policy recommendations for Rodrigues.

Literature Review

The vulnerability of females to alcohol consumption and alcohol-related harm is a major concern as alcohol use among women has been increasing steadily in line with economic development and changing gender roles (Wilsnack *et al.*, 2013). A number of factors have been identified at the individual and societal levels, which affect the extent and patterns of alcohol consumption and increase the risk of alcohol use disorders and other alcohol-related

problems in drinkers (Babor *et al.*, 2010). Women's drinking patterns are different from men's when we focus on how much and how often they drink. Women's bodies also react differently to alcohol than men's bodies, which imply that women face specific health risks from alcohol. Wilsnack *et al* (2013) further argue that the susceptibility of women may be explained by a wide range of factors such as women's physiognomy where women have lower body weight, smaller liver capacity to metabolize alcohol, and a higher proportion of body fat, which together contribute to women achieving higher blood alcohol concentrations than men for the same amount of alcohol intake. In Africa, the negative consequences of harmful alcohol use are illustrated by studies that identify women's alcohol use as a risk factor for HIV infection (see Zablotska *et al.*, 2009 for Uganda and Chersich and Rees, 2008 for South Africa).

In addition, women experience unique negative social consequences of alcohol use that lead to increased risk of domestic violence and stigma (Zemore *et al.*, 2009). The negative health and social consequences of alcohol use are further influenced by the volume of alcohol consumed over time (Rehm *et al.*, 2014). Kalichman *et al.* (2007) added that women are affected by relational violence and risky sexual behaviour as a result of the drinking problems and drinking behaviour of male partners (Morojele *et al.*, 2006). Moreover, many societies embrace negative attitudes towards women's drinking alcohol relative to men's drinking (Pretorius *et al.*, 2009), which, depending on the cultural context, may increase women's vulnerability to social harm.

Population-based surveys have recently recorded alarming rates of alcohol use and harmful drinking among African women. For instance, Martinez *et al.* (2011) study the factors associated with alcohol use among women across 20 African countries. The current consumption of alcohol ranges from 1 per cent in Malawi to 30 per cent in Burkina Faso. Among current drinkers, heavy drinking varies between 4 per cent in Ghana to 41 per cent in Chad, and risky single-occasion drinking ranges from less than 1 per cent in Mauritius to 58 per cent in Chad. Increasing age was associated with increased odds of being a current drinker in about half of the countries. Some factors related to alcohol use were similar across the different African countries, although the contextual diversity of female drinking in Africa was very much dominant. The factors linked with alcohol consumption among women were their marital status, education level and socio-economic status.

For small island economies, Kessaram *et al.* (2015) find that drinking patterns across twenty Pacific Island economies vary significantly across the islands and there are marked gender differences in alcohol use and abstention. In eight islands, male adults consumed alcohol more frequently and engaged in heavy drinking more than their female counterparts. Similar gender differences occurred in current and heavy drinking among youth. Further, there are marked gender differences in use and abstention. Likewise, Perdrix *et al.* (1999) analyse the drinking patterns in the Seychelles Islands in the Indian Ocean. It was observed that socio-economic status was associated strongly and inversely with home-brew consumption, but positively linked with consumption of commercially marketed beverages.

In addition, alcohol intake was linked to smoking, high cholesterol and blood pressure, amongst others. However, studies on alcohol-related problems and harm are scant for Africa and for small island economies. This study builds on this gap to analyse alcohol consumption in the small island economy of Rodrigues via a gender lens.

Situational Analysis of the Rodriguan Society

Rodrigues is a small island economy and is a constituency of the Republic of Mauritius. In 2001, the Mauritius National Assembly unanimously adopted two laws giving Rodrigues its autonomy, creating a decentralised government system. In terms of development, Rodrigues is considered as at par with the least developed areas in Mauritius based on the Regional Development Index (RDI) which stands at 0.557 in 2010. Its economy depends on tourism, fishing, small and medium enterprises, agriculture and farming. In 2013, the population in Rodrigues amounted to 41,083 with a density of 395 persons per km² (Statistics Mauritius, 2014). Moreover, the statistics prove that the population in Rodrigues has increased more than eightfold, with an annual rate of 2.1 per cent over the past years. The job market is dominated by employment in the public and informal sectors with a minimal presence of the private sector. Further, the majority of the working population is active in the tertiary sector (trade, hotels and restaurants, transport and communication, financial services, community, social and personal services). Around 52 per cent of workers operate in the tertiary sector, relative to 44 per cent in 2000 with a total activity rate of 63.0

per cent (Statistics Mauritius, 2011). The top four occupations of Rodriguans are skilled agricultural, forestry and fishery workers (29 per cent), service and sale workers (19 per cent), elementary occupations (15 per cent) and craft and related trade workers (14 per cent) (Statistics Mauritius Census, 2011).

The typical Rodriguan household is characterised by either lone parent households with unmarried children or persons living alone or couples without children. The average monthly income in Rodrigues has increased from Rs 13,520 in 2007 to Rs 17,950 in 2012. The average monthly income consumption expenditure has increased by 46.2 per cent from Rs 10,621 in 2007 to Rs 15,533 in 2012. Further, the most important category of household consumption expenditure remained “Food and non-alcoholic beverages” (33.6 per cent of total household consumption), followed by “Alcoholic Beverages and Tobacco” (14.5 per cent). Besides, the proportion of poor people increased from 18.9 per cent in 2007 to 19.5 per cent in 2012; the number of poor persons rose from 7,400 to 7,500 (Statistics Mauritius, 2012).

Methodology

Sampling Strategy

In the study, a probabilistic sampling method has been adopted. The method employed is known as the Kish selection method using the next birthday criterion. Initially, 15 enumeration areas were randomly selected. Rodrigues was then portioned into six regions of different sizes (household units). The method employed in selecting the enumeration areas within each region is the Probability Proportional to Size (PPS) sampling technique. This method has been applied as the enumeration areas within each region vary considerably in size. This will ensure that larger enumeration areas have the same probability of being selected as smaller ones.

The next step involves the numbering of the building (assumed to be a household unit) appearing on each enumeration area map. A number is then randomly selected as a random start from each enumeration area. The household units within each enumeration are then selected using the systematic random sampling method. Prior information related to the buildings is unavailable but, if a building is selected which does not contain any household unit; the building is skipped and the next building is selected according to the same systematic interval determined. The survey covered 138 alcohol dependent individuals in Rodrigues.

Model Specification

We analyse the respondent's weekly expenditure on alcohol in relation to relevant economic, social, and demographic features as specified by equation (1) below. Weekly expenditure on alcoholic drinks is influenced by different variables namely sex, marital status, age, education, number of children, income status and occupation of the alcohol-dependent individual, amongst others:

$$\begin{aligned}
 \ln \text{ WeeklyExp on Alcohol}_i = & \alpha_0 + \alpha_1 \text{ Age}_i + \alpha_2 \text{ AgeFirstAlcoholConsum} + \alpha_3 \text{ Sex}_i + \alpha_4 \\
 & \text{ MaritalStatus}_i + \alpha_5 \text{ Education}_i + \alpha_6 \text{ Occupation}_i + \alpha_7 \text{ Number of Children}_i + \alpha_8 \\
 & \text{ HouseOwnership}_i + \alpha_9 \text{ Incomestatus}_i + \alpha_{10} \text{ OtherSubstances}_i + \varepsilon_i
 \end{aligned} \tag{1}$$

where *ln* represents log of the variable and *i* represents the individual in the sample. The dependent variable is log of weekly expenditure on alcoholic drinks. *Age* denotes the age of the respondent in terms of number of years. Age square is also included in the regression to capture the non-linear relationship between age and expenditure on alcohol. It is assumed that as an individual gets older, he is likely to consume less alcoholic beverages compared to what he used to drink years back. The variable *AgeFirstAlcoholConsum* is also included to capture the age at which respondents consumed their first alcoholic drink. In addition, *Sex* is included as a dummy variable with value of 1 for male and 0 for female head of household. *Number of Children* controls for the number of children in the family. *MaritalStatus* denotes whether the person is married, divorced, widowed, separated, single or lived with a partner.

The variable *Education* controls for the level of education of the respondent namely no education, primary education, secondary education, tertiary education and professional qualifications. In addition, *HouseOwnership* captures whether the respondent owns or rents a house or lives with friends/family members. The *Occupation* of the respondent is whether the individual operates in the private, public or informal sector. The variable *IncomeStatus* covers different dummies controlling for income range of the respondents namely poor individuals earning less than Rs 5,000; low income respondents earning between Rs 5,001 and Rs 7,500, middle income individuals earning between Rs 7,501 and Rs 20,000 while those in the higher income range earn above Rs 20,000. *OtherSubstances* captures whether respondents in the survey also consume cigarettes and other drugs.

Findings

Descriptive Statistics

The survey was undertaken in different parts of Rodrigues taking into account sex and age profile of the respondents to have a representative sample of alcohol-dependents in the small island. Male (71 per cent) seems to dominate the sample. Similar result has been observed for Mauritius (Sobhee *et al.*, 2015) and Thailand (Assanangkornchai *et al.*, 2010) where alcohol consumption appears to be more predominant among men. However, the percentage of women seems relatively high in Rodrigues (29 per cent) compared to other small island economies like Mauritius where women form part of 18 per cent of alcohol-

dependents (Sobhee *et al.*, 2015). The convergence behaviour whereby women tend to adopt men's lifestyle and drinking patterns is very much prevalent in developed countries (Bloomfield *et al.*, 2001 for Finland). Nonetheless, the convergence behaviour seems to emerge in many developing nations and Rodrigues tends to follow this trend.

In terms of marital status, alcohol-dependents are mostly married (35 per cent) while around 28 per cent of them are single, around 20 per cent are separated or divorced and 13.3 per cent live with a partner (*cohabitation*). A different picture however, emerges for women (see Table1). The largest percentage of female respondents (30 per cent) lives with a partner (*concubinage*) while males are mostly married. Living with a partner is more prevalent in Rodrigues. From the latest Housing and Population Census, 2011 (Statistics Mauritius, 2011), it is noted that separated and divorced persons were on the rise both in absolute numbers and in proportion in Rodrigues. With an increase in marital breakdowns, unmarried parents represent a common facet of the Rodriguan society and these unmarried parents are made up mostly of unmarried mothers with a rise of 742 in 2000 to 1,161 in 2011. From the 2011 Census, residents of Rodrigues are less likely to be widowed but more likely to be divorced, separated or unmarried parents than residents of the Island of Mauritius (Statistics Mauritius, 2011).

Table 1: Socio-Demographic Characteristics of Alcohol-dependents in Rodrigues – Gender

Dimension

Demographic Characteristics	Total (N)	Total (%)	Male (N)	Male (%)	Female (N)	Female (%)
Weighted Total	101	100	72	71.1	29	28.9
Age Group						
21 - 25	10	10.2	6	8.6	4	12.9
26 - 30	16	15.6	11	15.7	5	16.1
31 - 35	13	13.3	7	10.0	6	19.4
36 - 40	15	15.2	11	15.7	4	12.9
41 - 45	11	10.3	7	10.0	4	12.9
46 - 50	12	12.7	6	8.6	6	19.4
51 - 55	8	8.3	7	10.0	1	3.2
56 - 60	6	5.0	5	7.1	1	3.2
>60	10	9.4	10	14.3	0	0.0
Marital Status						
Separated/Divorced	20	19.6	14	19.7	6	20.0
Married	35	35.0	28	39.4	7	23.3
Single	29	28.4	23	32.4	6	20.0
Widowed	4	3.7	2	2.8	2	6.7
Partner/Cohabitation	13	13.3	4	5.6	9	30.0

Education						
Never attended school	9	8.1	7	9.7	2	6.7
Primary	42	42.7	30	41.7	12	40.0
Form 3	18	18.1	12	16.7	6	20.0
Form 5	20	19.6	15	20.8	5	16.7
Form 6	4	3.2	3	4.2	1	3.3
Diploma	5	4.7	3	4.2	2	6.7
Vocational	2	2.3	1	1.4	1	3.3
Degree	1	0.7	1	1.4	0	0.0
Master	1	0.6	0	0.0	1	3.3
Family Size						
1-2	29	29.3	23	33.3	6	20.0
3-4	37	37.4	22	31.8	15	50.0
5-6	22	22.2	14	20.3	8	26.7
7-8	11	11.1	10	14.5	1	3.3
Number of Children						
1-2	78	58.4	26	19	52	70.4
3-4	60	35.1	20	7	40	25.9
5-6	12	6.5	4	1	8	3.7
Sector of Activity						
Public Sector	20	35.4	17	36.2	3	30
Private Sector	15	25.7	13	27.7	2	20
Informal Sector	22	38.9	17	36.2	5	50

Next, alcohol consumers in Rodrigues are mainly aged between 26 to 30 years (15.6 per cent) and 36 to 40 years (15.2 per cent). By gender, it can be highlighted that those respondents who are above 60 years are mainly male while female alcohol dependents tend to be in the age categories of 31 to 35 years and 46 to 50 years. We then analyse the education background of the respondents and it is noted that the largest percentage (42.7

per cent) in the survey have only primary education. Further, around 21 per cent of male have completed Form 5 (School Certificate) while 20 per cent of female have completed till Form 3. Between 2000 and 2011, the literacy rate of the population aged 12 years and above improved from 68.1 per cent to 78.8 per cent. Women reported a higher literacy rate than men but over time, however, men are bridging the gap (Housing and Population Census, 2011). Over the years, the proportion of both men and women aged 16 years and above and who hold a qualification at School Certificate level or higher is rising, but tertiary level education is still rare. Though the educational level of Rodriguans is improving, it has yet to catch up to ensure more rapid socio-economic development.

In terms of family size, 19.4 per cent of respondents have 4 members in the household, 18.5 per cent have a family size of 5 individuals and 18.4 per cent have a family size of 2 members. By gender, female alcohol-dependent respondents tend to be concentrated in families with 4 and 5 members, while male alcohol-dependents are in families with 2 to 4 individuals. Moreover, 26.4 per cent of the sample has 2 children, whilst 17.3 per cent have 3 children followed by 17.2 per cent having only 1 child. The number of children does not seem to vary much across male and female respondents. In effect, over the last decade, living arrangements of Rodriguans have changed as per the Housing and Population Census (2011).

Finally, alcohol consumers in Rodrigues tend to operate mainly in the informal sector with 38.9 per cent followed by 35.4 per cent in the public sector and the rest 25.7 per cent in the private sector. We further note that women tend to be primarily in the informal sector with 50 per cent of female respondents operating in informal activities, 30 per cent in public sector and 20 per cent in the private sector. In fact, this is in line with the overall figures whereby employment in Rodrigues is mainly in agriculture, forestry and fishing with women comprising around 46 per cent of total employment in that sector (Digest of Statistics on Rodrigues, 2014).

Drinking Behaviour and Patterns: A Gender Dimension

Rodriguans start consuming alcohol at a very early age and it is observed that 4.3 per cent had their first drink between 9 to 12 years old, while 14.1 per cent had their first drink between 13 to 15 years and 25.9 per cent consumed alcohol for the first time when they were between 16 to 17 years old (see Table 2). This shows that around 44.3 per cent of the respondents had their first drink before 18 years, which is the minimum legal drinking age for alcohol in the Republic of Mauritius. The legal minimum age for off-premise and on-premise sales of alcoholic beverages is also 18 years.

Table 2: Age of First Alcoholic Drink

Age of First Drink	Total	Male (%)	Female (%)
9-12	4.3	6.9	0.0
13-15	14.1	16.7	6.9
16-17	25.9	27.8	20.7
18-20	33.3	34.7	31.0
21-24	8.5	6.9	13.8
25-30	9.0	5.6	13.8
31-40	3.7	1.4	10.3
>40	1.2	0.0	3.4

Internationally, the average age at which drinking alcohol first occurs is 12 years and about 80 per cent of young people begin drinking alcoholic beverages regularly at age 15 or younger (WHO, 2011). By gender, we observe that on average male start drinking at an earlier age (age bracket 9-12 years) relative to their female counterparts (13-15 years). From Table 2, 31 per cent of women alcohol-dependents have started drinking when they were aged between 18 and 20 and the same high percentage is relevant for males (34.7 per cent) in similar age group. In fact, an early initiation of alcohol use (before 14 years of age) is a predictor of weakened health status as it is linked with increased risk for alcohol dependence and abuse at later ages (Sartor *et al.*, 2007).

Respondents were further asked on the reasons behind the consumption of their first alcoholic drink. Around 24 per cent of the respondents have started drinking because of peer pressure. The latter is a key feature in the rise of risk-taking behaviours (like alcohol use, drug use, and tobacco use) (Santor, Messervey and Kusumakar, 2000; Lewis and Lewis, 1984). Peers act as a persuasive model by introducing, providing, or pressuring unsafe activities such as alcohol use to other peers (Kinard and Webster, 2010). However, it is often argued that peer pressure is the result of young age which dissipates as people mature but this may not always be the case as peer pressure with respect to alcohol intake may exist through a person's life. In addition, around 22 per cent of the sample started drinking out of curiosity while 18.4 per cent wanted to experience the feeling of getting drunk. One of the most common effects of alcohol drinking is a sense of relaxation (Mäkelä and Simpura, 1985; Mäkelä and Mustonen, 1988; Pernanen, 1991 for Europe; and Hall *et al.*, 1992 for Australia). Further, individuals consuming alcohol not only feel relaxed, but they also feel happy and cheerful (Cahalan, 1970; Hall, 1995).

Similarly, two dimensions of alcohol consumption are defined in terms of average volume of alcohol consumption and pattern of drinking. First, respondents were asked to provide more information on the types of alcoholic beverages consumed. White rum is consumed across all age groups. Around 16 per cent of those aged between 26 to 30 years consume white rum followed by 14.4 per cent for those aged between 31 and 35. In addition, those aged between 51 to 55 years (37.5 per cent) are more likely to consume whisky. Beer

seems to be more common among those in the age brackets of 26 to 30 (18.4 per cent) and 36 to 40 (18.2 per cent). In fact, the consumption of beer and wine declines as and when age exceeds 40 years. Wine is consumed by all age groups and is more prevalent among those aged between 46 and 55 and 26 and 30 years. Lastly, ‘Alcopops’ are essentially consumed by those respondents aged between 26 and 30 years and 51 to 55 years. Studies on European countries have showed similar results where a larger proportion of the youth consumed beer compared to the elderly (Makela *et al.*, 2006).

From Table 3, Rodriguans seem to consume alcoholic drinks mainly on Fridays and Saturdays. For 47.8 per cent of male consumers and 48 per cent of females, Saturday is the day with the highest alcohol intake. For 30 per cent of male respondents and 28 per cent of female surveyed, alcohol consumption is highest on Fridays. Some 17 per cent of the overall sample size consume the same amount of alcohol every day.

Table 3: Week day with the Highest Alcohol Intake

	Male (%)	Female (%)	Overall Sample (%)
Monday	1.4	0	1.1
Friday	30.4	28	29.8
Saturday	47.8	48	47.9
Sunday	2.9	8	4.3
Same amount everyday	17.4	16	17.0

Our survey further establishes differences in drinking locations where 43 per cent of respondents drink in shops, followed by 42 per cent consuming alcoholic beverages at home. From a gender perspective, women tend to drink more at home (50 per cent) relative to men (39 per cent). Men more frequently drink in shops (50 per cent). We also note that a higher percentage of women (20 per cent) drink on beaches compared to 11.1 per cent of male alcohol-dependents. Across age categories, there is no striking difference as to the preferred location of alcohol consumption. There seems to be a good distribution of alcohol-dependents across the different locations, irrespective of their age group.

Table 4: Location for Alcohol Consumption

Location	Total (%)	Sex		Age group - %								
		Male (%)	Female (%)	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	> 60
Home	42.2	38.9	50	8.8	15.4	15.5	6.6	11	15.5	11	8.8	6.6
Shop	43.1	50	26.7	6.9	11.3	9.2	25	11.4	6.8	11.4	4.6	13.6
Beach	13.7	11.1	20	12.5	12.6	12.5	12.6	12.6	25.1	6.3	6.3	-
Friend's place	1	-	3.3	-	100	-	-	-	-	-	-	-
At work	22.2	20	33.3	18.8	12.5	12.6	6.3	12.6	31.4	6.3	-	-

Table 5: Frequency of Drinking, Types of Alcohol Consumed by Sex and Age

%	Total	Sex		Age Structure								
		Male	Female	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	> 60
Types of alcohol consumed												
Beer	59.6	59.4	60	8.4	18.4	16.8	18.2	10.1	10	8.4	3.4	6.8
Wine	38.2	40.3	33.3	2.5	15	12.5	7.5	10	17.5	15	10	10
Whisky	6.9	6.9	6.9	-	12.5	12.5	12.5	12.5	12.5	37.5	-	-
Rum	82.9	82.8	83.3	10	15.7	14.4	13	10	12.8	10	7	7.1
Alcopops	2	1.4	3.4	-	50	-	-	-	-	50	-	-
Frequency of drinking (Days per week)												
1-2	44.7	46.3	40.7	10.9	13	8.7	15.2	10.9	17.4	6.5	8.7	8.7
3-4	36.2	35.8	37	14.7	17.6	17.6	14.7	8.8	8.8	11.8	-	5.9
5-6	10.6	9	14.8	-	-	36.4	9.1	18.2	-	9.1	18.2	9.1
Daily	7.4	9	3.7	-	11.1	11.1	11.1	11.1	44.4	-	-	11.1
Day/ Time with the highest consumption of alcohol												
Monday	1.1	1.4	-	-	-	-	-	-	100	-	-	-
Friday	29.8	30.4	28	10	23.3	13.3	3.3	10	23.3	6.7	10	-
Saturday	47.9	47.8	48	13	6.5	13	21.7	10.9	8.7	10.9	2.2	13.0
Sunday	4.3	2.9	8	-	-	28.6	14.3	14.3	28.6	-	14.3	-
Daily	17	17.4	16	-	23.5	11.8	11.8	11.8	-	17.6	11.8	11.8
At work	22.2	20	33.3	18.8	12.5	12.5	6.3	12.5	31.3	6.3	-	-
Morning	15.2	19.7	-	-	9.1	18.2	18.2	18.2	27.3	9.1	-	-

In addition, we analyse the frequency of drinking last month and this was split into 4 categories, namely every day, 5–6 days per week, 3–4 days per week and 1-2 days per week. It is observed that the frequency of alcohol intake varies across gender and age as shown in Table 5. Around 7.4 per cent of the respondents drink every day. Further, 9 per cent of male and 3.7 per cent of women have the identical daily drinking behaviour. On average most women (41 per cent) tend to drink 1-2 days per week and a similar drinking frequency is noted for 46 per cent of males. In addition, 37 per cent of females and 36 per cent of males drink 3-4 days per week. There does not seem to be a differential drinking frequency across gender in Rodrigues.

In a culture where drinking is closely associated to special occasions, the younger age groups' comparative share of all drinking is higher (Makela *et al.*, 2006). However, where drinking is more closely combined with meal times, ageing results in a higher frequency of alcohol intake. We see a combination of both phenomena for Rodriguans in this survey. Alcohol-dependents have little or no control over the quantity they drink or the duration or frequency of their drinking. They may drink alone and start early during the day. They periodically quit drinking or switch from hard liquor to beer or wine, but these periods rarely last. One of the images of the alcohol-dependent in the public perception is somebody who drinks alcohol as soon as he/she wakes up in the morning.

Table 6: Alcohol Dependence by Sex (allowing for multiples responses)

	Male (%)	Female (%)	Overall Sample (%)
Cannot stop alcohol intake when wanted	60.3	52.6	58.5
Drink to get drunk	74.6	63.2	72
Drinking at work	20.0	33.3	22.2
Drinking in the morning	19.7	0	15.2
Resist to alcohol better than when started	22.2	15.8	20.7

Source: Authors' Computation from Survey Data 2015

From Table 6, around 15 per cent of the respondents drink in the morning and they are mainly males. In addition, 22 per cent of respondents drink at work. Around 20 per cent of males and 33 per cent of women consume alcoholic beverages at their work place. Women are more likely to drink at their work place relative to their male counterparts. Another alcohol dependence characteristic is the trend towards increasing percentages of individuals drinking to get drunk. This is termed as “binge drinking” with the primary intention of becoming intoxicated by heavy consumption of alcohol over a short period of time (Renaud, 2001). In fact, 72 per cent in the sample drink to get drunk and the percentage is very high across both gender groups.

Over time, some people become tolerant to the effects of drinking and require more alcohol to become intoxicated, creating the illusion that they are to some extent immune to alcohol. Alcohol tolerance was also captured in the survey with respondents being asked as to whether they could handle more alcoholic drinks now, compared to the first time they started drinking. In the overall sample, around 21 per cent can handle more drinks now.

Further, 22 per cent of males and 16 per cent of females can presently handle more alcohol drinks. Information was also gathered on the ability of alcohol-dependents to stop drinking when they want to and it was observed that around 59 per cent of alcohol-dependents in the sample cannot stop drinking when they wish to do so. Around 60 per cent of male respondents and 53 per cent of females have the same behaviour.

Expenditure on Alcohol: Differences by Gender

The salary range of the alcohol-dependents in Rodrigues is on the low side. Around 27 per cent earn between Rs 2,000-Rs 5,000 while 14 per cent earn less than Rs 2,000, implying that more than 40 per cent of alcohol-dependents in Rodrigues live below absolute poverty level (which is set at around Rs 5,000¹). A direct link may be observed between poverty and alcohol consumption on the island. The relative poverty line defined as half median household income per adult equivalent is estimated at Rs 3,483 in 2012. This implies that a large majority of alcohol-dependents live below the median monthly income. In fact, the number of poor households stood at 1,800 in 2012 (Statistics Mauritius, 2012). The proportion of poor persons increased from 18.9 per cent in 2006/07 to 19.5 per cent in 2012 whilst the number of poor persons rose from 7,400 to 7,500 during the same period.

¹ The current exchange rate being 1 USD=Rs 33.00

Table 7: Regression Results

Dependent Variable: Log Weekly Expenditure on Alcohol			
	(1)	(2)	(3)
Age	0.06	0.062	0.036
	(1.68)*	(1.66)*	(0.79)
Age-Square	-0.001	-0.001	0.004
	(1.71)*	(1.70)*	(0.86)
Age -First Consumption of Alcohol	0.001	0.001	0.002
	(0.05)	(0.04)	(0.08)
Sex	0.002	0.03	0.071
	(0.01)	(0.15)	(0.37)
Number of Children	0.131	0.136	0.099
	(2.52)**	(2.61)**	(1.96)*
Married	-0.631	-0.679	-0.765
	(3.53)***	(3.28)***	(3.84)***
Divorced	-0.586	-0.637	-0.697
	(2.94)***	(2.70)***	(3.04)***
Widowed	0.011	-0.057	-0.053
	(0.03)	(0.16)	(0.20)
Partner	-0.055	-0.056	-0.064
	(2.18)**	(2.16)**	(2.67)***
Own a House	-0.851	-0.843	-0.778
	(3.64)***	(3.46)***	(3.38)***
Primary Education	0.58	0.599	0.606
	(2.27)**	(2.43)**	(2.53)**
Secondary Education	0.081	0.116	0.097
	(0.29)	(0.43)	-0.37
Tertiary Education	0.233	0.261	0.221
	(0.80)	(0.92)	-0.66
Informal Sector	0.042	0.051	0.026
	(0.25)	(0.31)	(0.16)

Public Sector	0.326	0.325	0.429
	(1.42)	(1.43)	(1.76)*
Private Sector	0.475	0.505	0.507
	(1.95)*	(2.11)**	(2.07)**
Other Substances	–	-0.106	-0.044
	–	(0.76)	(0.31)
Low Income Household	–	–	0.207
	–	–	(1.05)
Middle Income Household	–	–	-0.266
	–	–	(1.29)
High Income Household	–	–	0.049
	–	–	(0.16)
Constant	5.271	5.257	5.868
	(5.95)***	(5.93)***	(5.70)***
R-Squared	0.36	0.37	0.41
Number of Observations	81	81	81

*** 1 % significance, ** 5 % significance, * 10% significance

Our findings in Table 7 reveal that there is no statistically significant difference between average weekly expenditure on alcoholic drinks by the male and female alcohol dependent individual. This implies that gradually Rodriguan women are adopting the same drinking behaviour as their male counterparts since they spend similar amount on alcoholic beverages. The convergence hypothesis seems to be well established in the Rodriguan society. Women have helped in boosting up the small island economy through their strong participation as entrepreneurs. Their activities comprise of embroidery, handicrafts, agro-alimentary products, and honey production amongst others. The strong independence of Rodriguan women is typical and has also led to a rapid emergence of single parent families.

Indeed, the changing roles of women in Rodrigues can further confirm the convergence hypothesis.

Similarly, single mothers are well catered for by the government as they receive pensions for themselves and their children also benefit from various social aids for their education. Many have questioned whether these aids have created a dependence on pensions and encouraged single-motherhood in Rodrigues. In addition, there is evidence that married, divorced and those living with their partners are likely to spend less on alcoholic drinks relative to single female alcohol-dependents. We can further establish a positive relationship between number of children and weekly expenditure on alcohol. In Rodrigues, alcohol consumption is considered as part of the family culture. Individuals drink just 'for fun' or to get rid of stress and worries related to work and family. Family members drinking behaviour and peer-pressure also influenced alcohol consumption. The other reason towards alcohol-dependence is limited leisure activities.

Moreover, an inverted U-shape relationship is noted between age and average weekly expenditure on alcohol. This shows that the young and the working population consume more alcohol relative to the older generation. The latter is also concerned with a loss in revenue as they depend mainly on pensions or income generated from informal activities. Private sector individuals spend more on alcohol compared to those operating either in the informal sector or public sector. This result demonstrates the relatively higher pay system in the private sector relative to the other sectors of activity. In terms of educational

background, those with primary education tend to spend more on alcohol relative to those with no education.

Conclusion and Policy Implications

There is evidence that alcohol consumption in Rodrigues is a mounting problem among women due to the changing roles of women in the small island economy. With the growing feminisation of alcohol abuse in Rodrigues, empowering women needs to be a priority of local authorities. Particular attention has to be given to women in financial distress through psychological counselling. Counselling can also be extended to women and children who are victims of domestic violence related to alcohol abuse. Further, adult education programmes can be designed in collaboration with socio-religious organisations and implemented to educate alcohol-dependents about the dangers of alcohol abuse. In parallel, formal education on the adverse effects of alcohol abuse must also be directed to the younger generations.

In addition, there is an urgent need for more intervention by government to address socio-economic issues affecting family poverty in Rodrigues. Sensitization campaigns such as financial literacy programmes could be one way of making low income citizens more conscious in managing revenue from their small businesses and household income earned. Creation of different recreational and sports outlets in the form of sports infrastructure, cinema halls and theatres, social clubs and literary activities must be the priority of the authorities. Such outlets will help to switch attention from alcohol dependence to more

productive activities. Moreover, the sale of alcoholic drinks to young adults below 18 years of age must be strictly adhered too. Tighter controls must be exerted by the police to ensure that shops and restaurants adhere to official opening and closing hours.

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