### Original Research Paper



ANALYSIS OF DEMOGRAPHIC CHARACTERISTICS AND KNOWLEDGE FACTORS ABOUT MENSTRUATION AMONG THE GIRLS STUDENTS OF DIFFERENT TALUKA OF KALBURGI DISTRICT, KARNATAKA STATE, INDIA

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This paper highlights the personal profile of the respondents belonging to different taluka of Kalburgi district with respect to knowledge, area and type of school. The test of association between demographic factors and knowledge factors about menstruation with respect to talukas of respondents were identified through chi-square test. The purpose of this study is to analyze the selected demographic factors and knowledge factors with respect to the students of different taluka. The Chi-Square test analyze that there is a significant association between the demographic factors and knowledge factors with their respective taluka of the respondents.

**KEYWORDS:** Demographic factors, Knowledge factors, Adolescent girl students, descriptive Statistics, chi-square

#### 1. INTRODUCTION

The present paper is aimed to analysis a scio demographic profile of high school going girl students of five talukas viz: Aland, Gulbarga, Chitapur, Sedam, Jevargi of Kalaburgi District, Karnataka state. The test of association between selected demographic factors, knowledge factors about menstruation and talukas of respondents were identified through chi-square test. The study is based on random sample of 1500 adolescent girl students selected from private and government schools of five talukas from rural and urban areas of Kalaburgi district. Questioner method is most suitable for data collection. Demographic character questioners consist of information regarding age, type of school, taluka, education of students, education of mothers, education of parents, parent's job status and number of girl children in the family of the respondents

#### 2. Revive of Literature

U. Harikrishnan and Grace Lalhlupuii Sailo (2020): In every study, socio demographic variables are one of the important factors to provide a proper result. Without socio demographic details we cannot do a proper study. Therefore, the study among school going adolescents also need socio demographic variables. The current review is to understand socio demographic variables of adolescents in India. The reviews were collected from online search engines from the previous 10 years of literature on school going adolescents. The findings of review found that socio demographic variables had a vigorous part in studies allied to school going adolescents. In most of the studies, socio demographic variables are one of the factors in key finding. There were no unique formats for socio demographic variables of school going adolescents because of diverse studies.

Yun hee shin RN, et.al (2014): "Health Behaviors and Related Demographic Factors among Korean Adolescents" The purposes of this study were to explore health behaviors, examine health behaviors in relation to demographic factors, and investigate the relationships between health risk behaviors (e.g., tobacco use, alcohol consumption, and sexual experience) among Korean adolescents. The study used a cross-sectional descriptive relational design and a population-based data collection of 1,716 middle and high school Korean adolescents. The 72-item Korean Adolescent Health Behavior Scale was used for data collection, while descriptive statistics, t-test and chi-square test were used in the data analyses. Females were doing better on weight control, hygiene, safety, and computer use than were males. Males were doing better on physical activity. Adolescents living in cities were more likely to be addicted to computer but were consuming alcohol and using tobacco less than

adolescents in rural areas were. In addition, religion, grade level, and living area also made the adolescents' health behavior significantly different. As the result suggested, gender, religion, grade level, and region need to be considered when designing health promotion interventions among Korean adolescents.

#### 3. Data Sources and Methods

The information about high school going students was collected through questioner and interviews. The bivariate data analysis was presented for the descriptive statistical data which is the best way to present numeric percentages. The Chi- Square test is used to compare high school going students of private and government schools form five talukas of Kalburgi district based on demographic factors and knowledge factors among the school girls of 1500 samples. Descriptive analysis reveals that more than 41 percent of girl students are from rural area and 59 percent of students are from urban area. More than 52 percent of girl students study in private schools and nearly 48 percent of girl students study in government schools. Taluka wise statistical analysis revels that 39 percent of girls students are from Gulbarga, nearly 14 percent are from Chitapur and Aland taluka, 22 percent are from Jevergi and 11 percent are from Sedam taluka.

#### 4. Descriptive Analysis

The collected data from the respondents is further classified and presented basing on talukas by area, type of schools, education of students and monthly income. Statistical analysis of the respondents belonging to different talukas with respect to above demographic characteristics is summarized in the following tables.

# 4.1 Frequency and percentage distribution of respondents belonging to different talukas with respect to demographic characteristics.

This section highlights the personal profile of the respondents belonging to different talukas with respect to area, type of schools, education of students and monthly income.

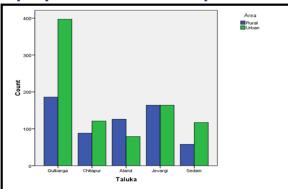
#### 4.1.1Talukas and Area

Table 4.1.1 Distribution of Talukas and Area of the respondents					
	AF	Total			
	Rural	Urban			
Gulbarga	Count	186	397	583	
	% within TALUKA_3	31.9%	68.1%	100.0%	
Chitapur	tapur Count		121	209	
	% within TALUKA_3	42.1%	57.9%	100.0%	

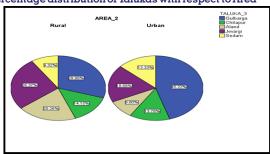
Aland	Count	126	79	205
	% within TALUKA_3	61.5%	38.5%	100.0%
Jevargi	Count	164	164	328
	% within TALUKA_3	50.0%	50.0%	100.0%
Sedam	Count	58	117	175
	% within TALUKA_3	33.1%	66.9%	100.0%
Total	Count	622	878	1500
	% within TALUKA_3	41.5%	58.5%	100.0%

From table 4.1.1 we can observe that, among five talukas 68 percent of the girls students from Gulbarga taluka belongs to urban area and 32 percent of girl students belongs to rural area, followed by 50 percent of the girls students from Jevargi taluka belongs to both rural and urban areas. Similarly 58 percent of the girls students from Chitapur taluka belongs to urban area and 42 percent belongs rural area. While in Aland taluka 39 percent of the students are from urban and 62 percent from rural area. In Sedam taluka there are 67 percent of the girl students who are from urban area and 33 percent are from rural area. The distribution of respondents from 5 talukas with respect to area revels that maximum number of students are from Gulbarga taluka (39%), followed by 22% of students are from jevargi taluka. Moderate number of students are found in Chitapur and Aland talukas.

Frequency Distribution of Talukas with respect to Area



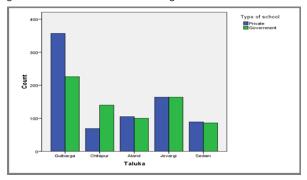
Percentage distribution of Talukas with respect to Area



#### 4.1.2 Taluka and Type of Schools of the respondents

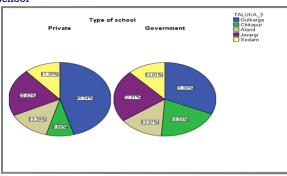
Table 4.1.2 Distribution of Talukas and Types of School of the respondents Types of School Total Talukas Private Government Gulbarga Count 357 226 583 % within TALUKA 3 61.2% 38.8% 100.0 Chitapur Count 69 140 209 % within TALUKA 3 33.0% 67.0% 100.0 Aland Count 105 100 205 % within TALUKA 3 100.0 51.2% 48.8% Jevargi Count 164 164 328 100.0 % within TALUKA 3 50.0% 50.0% 175 89 86 Sedam Count % within TALUKA\_3 50.9% 49.1% 100.0 784 716 1500 Total Count % within TALUKA 3 52.3% 47.7% 100.0

From the table 4.1.2 we can see that 61 percent private school students and 39 percent of government school students belong to Gulbarga taluka. 33 percent of private school and 67 percent of government school students belongs to Chitapur taluka. 51 percent of private school students and 49 percent of government school students belongs to Aland taluka. 50 percent of private and government school students belongs to Jevargi taluka. 51 percent of private and 49 percent of government school students belongs to Sedam taluka.



Frequency Distribution with of Taluka with respect to Types of school

### Percentage distribution of Taluka with respect to Types of school

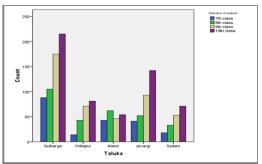


#### 4.1.3 Talukas and Education of the Students

Table	Table 4.1.3 Distribution of Talukas and Education of Students					udents	
Education of		Taluka					Total
the S	tudents	Gulbarga	Chitapur	Aland	Jevargi	Sedam	
7th	Count	88	14	43	41	18	204
class	% within Taluka	15.1%	6.7%	21.0%	12.5%	10.3%	13.6%
8th	Count	105	43	62	52	33	295
class	% within Taluka	18.0%	20.6%	30.2%	15.9%	18.9%	19.7%
9th	Count	175	71	46	93	53	438
class	% within Taluka	30.0%	34.0%	22.4%	28.4%	30.3%	29.2%
10th	Count	215	81	54	142	71	563
class	% within Taluka	36.9%	38.8%	26.3%	43.3%	40.6%	37.5%
Total	Count	583	205	205	328	175	1500
	% within Taluka	100.0%	100.0%	100.0	100.0%	100.0%	100.0%

Form the above table 4.1.3 one can observe that, in Gulbarga out of 583 students, 88 students are in  $7^{\text{th}}$  class, 105 students are in  $8^{\text{th}}$  class, 175 students are in  $9^{\text{th}}$  class and 215 students are in  $10^{\text{th}}$  class. In Chitapur out of 209 students 14 students are in  $7^{\text{th}}$  class. In  $8^{\text{th}}$ ,  $9^{\text{th}}$  and  $10^{\text{th}}$  class respectively there are 43, 71, 81 students. In Aland out of 205 students there are 43, 62, 46 and 54 number of student respectively studying in  $7^{\text{th}}$ ,  $8^{\text{th}}$ ,  $9^{\text{th}}$  and  $10^{\text{th}}$  class. In Jevargi out of 328 students 41, 52, 93 and 142 number of students are respectively in  $7^{\text{th}}$ ,  $8^{\text{th}}$ ,  $9^{\text{th}}$  and  $10^{\text{th}}$  class. In Sedam out of 175 students 18, 33, 53 and 71 number of students are respectively in  $7^{\text{th}}$ ,  $8^{\text{th}}$ 9 and  $10^{\text{th}}$  class.

### Frequency distribution of Talukas with respect to Education of Students

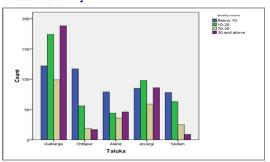


#### 4.1.4 Talukas and Monthly Income of the family

Table 4.1.4 Distribution of Talukas and Monthly Income of the family							
Monthly Income		Talukas					Total
		Gulbar	Chitap	Aland	Jevargi	Sedam	
		ga	ur				
Below	Count	122	117	79	85	78	481
10	% within Taluka	20.9%	56.0%	38.5%	25.9%	44.6%	32.1%
10-20	Count	174	56	44	98	63	435
	% within Taluka	29.8%	26.8%	21.5%	29.9%	36.0%	29.0%
20-30	Count	99	19	36	59	25	238
	% within Taluka	17.0%	9.1%	17.6%	18.0%	14.3%	15.9%
30 and	Count	188	17	46	86	9	346
above	% within Taluka	32.2%	8.1%	22.4%	26.2%	5.1%	23.1%
Total	Count	583	209	328	328	175	1500
	% within Taluka	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

From the above table 4.1.4 we can see that, In Gulbarga out of 583 respondents 122 students family income is below 10 thousand, 174 students family income is from 10-20 thousand, 99 students family income is 20-30 thousand and 188 family income is above 30 thousand. In Chitapur out of 209 respondents 117 students family income is below 10 thousand, 56 students family income is 10-20 thousand, 19 students family income is 20-30 thousand and 17 students family income is above 30 thousand. In Aland out of 205 respondents 79 students family income is below 10 thousand, 44 students family income is 10-20 thousand, 36 students family income is 20-30 thousand and 46 students family income is above 30 thousand. In Jevergi out of 328 respondents 85 students family income is below 10 thousand, 98 students family income is 10-20 thousand, 59 students family income is 20-30 thousand and 86 students family income is above 30 thousand. In Sedam out of 175 respondents 78 students family income is below 10 thousand, 63 students family income is 10-20 thousand, 25 students family income is 20-30 thousand and 9 students family income is above 30 thousand.

### Frequency distribution of Taluka with respect to Monthly Income of the family



#### 5. Preliminary Statistical Analysis

## 5.1 Test of Association between demographic factors and talukas of the respondents

In this section, where the association between demographic factors viz; age, type of schools, education of student, education of mother, Parents Job Status, Monthly Income and Number of girls children and taluka of the respondents were identified through chi- square test. We test the following hypotheses.

 $H_0$ : There is no significant association between demographic factors and taluka of the respondents, I=1,2.....7

Table 5.1 Test of association between demographic factors and talukas of the Respondents

Demographic Factors	Chi-Square value	p-value
Age	71.56	0.000
Type of School	50.75	0.000
Education of Students	48.67	0.000
Education of Mother	157.88	0.000
Parents Job Status	58.69	0.000
Monthly Income	157.88	0.000
Number of girls Children	53.452	0.000

Chi-square test reveals that the association between the demographic factors, age, type of school, education of students, education of mother, parents job status, monthly income, number of girl children with respect to talukas of the respondents are significant since the significant value is less than 0.05.

### 5.2 Test of Association between Knowledge Factors about Menstruation and Talukas of the Respondents

There are 17 Knowledge Factors about Menstruation viz; Meaning of menstruation, Cause of menstruation, Source of menstrual blood, Age at which menarche attend, Average duration of blood flow, Duration of cycle in days, Quantity of blood flow, Knowledge of organ from which bleeding occurs, Duration of natural menstruation, How often menstruation occurs, Foul odder during menstruation, Menstrual blood is unhygienic, Know about menstrual hygiene, Interval between menstrual cycle, Absorbent should be used during menstrual cycle, Knowledge about ideal sanitary material to be used, Disposal place. In this section the association between knowledge factors with respect to taluka of the respondents were identified through chi-square test using SPSS package. We test the following hypotheses.

 $H_{\text{o}}$ : There is no significant association between knowledge factors and talukas of the respondents, I=1,2....17

Table 5.2 Test of association between Knowledge factors and Talukas of the respondents

Knowledge Factors	Chi-Square	p-value
	value	
Meaning of menstruation	30.503	0.000
Cause of menstruation	18.423	0.018
Source of menstrual blood	85.241	0.000
Age at which menarche attend	58.718	0.000
Average duration of blood flow	102.859	0.000
Duration of cycle in days	34.062	0.000
Quantity of blood flow	53.804	0.000
Organ from which bleeding occurs	81.346	0.000
Duration of natural menstrual cycle	44.087	0.000
How often menstrual cycle occurs	56.828	0.000
Foul odder during menstruation	22.462	0.004
Menstrual blood is unhygienic	7.654	0.468
Know about menstrual hygiene	33.775	0.000
Interval between menstrual cycle	29.012	0.000

Absorbents used during menstrual cycle	65.958	0.000
Knowledge about ideal sanitary material	62.184	0.000
Disposal place	15.886	0.044

From the above table the Chi-Square test reveals that except one of the knowledge factor, that is, menstrual blood is unhygienic all the other knowledge factors were significant since the significant value is less than 0.05. Hence we reject the null hypotheses, which indicates that there is significant association between knowledge factors, Meaning of menstruation, Cause of menstruation, Source of menstrual blood, Age at which menarche attend, Average duration of blood flow, Duration of cycle in days, Quantity of blood flow, Knowledge of organ from which bleeding occurs, Duration of natural menstruation, How often menstruation occurs, Foul odder during menstruation, Know about menstrual hygiene, Interval between menstrual cycle, Absorbent should be used during menstrual cycle, Knowledge about ideal sanitary material to be used, Disposal place and talukas of the respondents.

#### 1.6 CONCLUSION

The study is focused on identifying and comparing high school students of rural and urban area from private and government schools using bivariate analysis. The test of association between various demographic factors and knowledge factors with respect to taluka of the respondents were identified by using chi-square test. The results of the study reveals that all the null hypotheses of the study were rejected showing that the demographic factors have significant relationship with the students of different taluka. The association between all the knowledge factors except the factor menstrual blood is unhygienic the null hypotheses of the study were rejected showing that the factors of knowledge about the menstruation have significant association with the students of different taluka.

#### REFERENCES

- Anjali Mahajan and kanica kausal (2017): A descriptive study to assess the knowledge and practice regarding menstrual hygiene among adolescent girls of Government School of Shimla, Himachal Pradesh. CHRISMAD Journal of Health and Research. Volume 4. Issue 2. PN-99-103.
- 2. Getachew Arage, et.al (2019): Socio-demographic and economic factors are associated with nutritional status of adolescent school girls in Lay Guyint Woreda, Northwest Ethiopia. SAGE Open Medicine. Volume 7, P N- 1-10.3. Shanbhag D, et.al(2012): Perceptions regarding menstruation and Practices during menstrual cycles among high school going adolescent girls in resource limited settings around Bangalore city, Karnataka, India. International Journal of Collaborative Research on Internal Medicine & Public Health. Volume. 4, No. 7, PN 1353-1362.
- U. Harikrishnan and Grace Laihlupuii Sailo (2020): A review on socio demographic details of school going adolescents in India. Research Journal of Family, Community and Consumer Sciences. Volume 8(1), ISSN 2320 – 902X. PN-7-9.
- Yun hee shin RN, et.al (2014): Health Behaviors and Related Demographic Factors among Korean Adolescents. ALSEVIR. Volume 8, Issue 2, PN-150-157.