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Influence of SES and age on knowledge of menstrual hygiene among adolescent girls and young women's of North Karnataka

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ABSTRACT :
Influence of SES and age on knowledge of menstrual hygiene among 560 adolescent girls and young women's of North Karnataka was studied during 2015-16. Girls belonged to adolescent age group who attained menarche were selected from 28 villages of North Karnataka. The self-structured questionnaire was used to measure knowledge on menstrual hygiene. The Socio Economic Status (SES) of family was assessed by using Socio Economic Status scale developed by Agarwal et. al., (2005). Correlation was used to indicate the relationship between SES and age with knowledge on menstrual hygiene. The results revealed that mean age at menarche was 13.45 years in North Karnataka. With respect to SES totally 9.10 percent of families belonged to upper middle of SES and 76.78 percent belonged to lower middle of SES and 13.75 percent belonged to poor middle of SES. It was observed that 76.42 percent of respondents had low knowledge, while 23.57 percent of them were had high knowledge on menstrual knowledge. There was significant association and relationship found between SES and knowledge on menstrual hygiene among adolescent girls and young women. There was significant association and relationship found between age and knowledge on menstrual hygiene. Hence the study concluded that higher the SES and age higher the knowledge on menstrual hygiene.

Key:Menarche, Menstrual hygiene, menstrual management

INTRODUCTION

Adolescence (from Latin*adolescere*, meaning "to grow up") is a transitional stage of physical and psychologicalhuman development that generally occurs during the period from puberty to legal adulthood. The period of adolescence is most closely associated with the teenage years, though its physical, psychological and cultural expressions may begin earlier and end later. Adolescence can be defined biologically, as the physical transition marked by the onset of puberty and the termination of physical growth; cognitively, as changes in the ability to think abstractly and multi-dimensionally; or socially, as a period of preparation for adult roles. Major pubertal and biological changes include changes to the sex organs, height, weight, and muscle mass, as well as major changes in brain structure and organization. (Sharanya*et. al.,* 2014).

After menarche, common menstrual abnormalities that the female adolescent may encounter include premenstrual syndrome, dysmenorrhoea, prolonged menstrual bleeding and emotional disturbances. Menstrual problems in adolescents may lead to disruptions in personal relationship and school activities and in academic performance due to absence to school/ enhance school develops.(Geetha*et. al.*, 2015).

Indian culture considers menstruation as an unhygienic happening. Most gynecological problems among girls and young women happen because of deprived personal hygiene and unsanitary environment. Infections occur among adolescent girls chiefly due to lack of menstrual hygiene. Hence the study was undertaken with an objective to know Influence of SES and age on knowledge of menstrual hygiene among adolescent girls and young women's of North Karnataka

MATERIALS AND METHODS

The sample comprised of seven districts of Northern Karnataka. In each districts two talukas were selected

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randomly and in each taluka two villages were taken for the study. Thus the sample of 80 was drawn from each district which included 28 villages. Totally the sample comprised of 560 adolescent girls and young women.

The structured questionnaire was used to collect personal information like name of the family members with their age, relationship with respondents, education, occupation and their family's annual income.

The socio-economic status of the family was assessed by using socio-economic status scale developed by Agarwalet. al.,(2005). The scale consists of 22 statements which assess education, occupation, monthly per capita income from all sources, family possessions, number of children, number of earning members in home possession of agricultural land and non-agricultural land along with animals and social status of the family. Depending upon the scores they were categorized as follows.

Status	**Total score**
Upper high	>76
High	61 – 75
Upper middle	46 – 60
Lower middle	31 – 45
Poor middle	16 – 30
Very poor	< 15

Menstrual hygiene questionnaire consists of 40 questions and elicited information regarding five aspects such as menarche, care and history of menstrual cycle, effects of menarche, care and management of menstrual period and food patter and hygiene. The preference rating is given as scoring and total scores are divided into two categories indicating the level of the knowledge on menstrual hygiene.

Category	**Score Range**
Low	1 – 20
High	21 - 40

RESULTS AND DISCUSION

The demographic characteristics of the respondents are presented in Table 1. It was observed thatin Dharwad district, majority (48.24%) of them were laborers, while 23.53 percent of them involved in agricultural activities and 17.65 percent self employed. Similar trend was seen in Belgaum and Haveri district. In case of Vijaypur, majority (46.25%) of fathers involved in agricultural activities, while 23.75 percent worked as daily wagers and similar trend was observed in Bagalkot, Uttarkannada and Gadag districts.

With respect to father's education in Dharwaddistrict,32.94 percent of them educated up to primary school, while 27.09 percent of fathers completed their high school and 21.18 percent were illiterate. Similar trend was seen in Bagalkot, Uttarkannada and Haveri district. Incase of Vijaypur district, majority (42.50%) of fathers were illiterate followed by 32.50 percent completed their primary school education. Similar trend was seen in Gadag districtIn Dharwad district, majority (72.9 %) of respondents had 3-7 family members followed by 17.65 percent of them possessed 8-12 members and only 9.5 percent of respondents with 13-16 members in family and similar trend was observed in Belgaum, Uttarkannada, Gadag and Haveri districts, while in case of Vijaypur district, 40 percent of respondents had 8-12 family members followed by 36.25 percent with 3-7 members. InBagalkot district, majority (82.50 %) of respondents possessed 3-7 members followed by 12.50 percent of them having 13-16 family members and only 5 percent of respondents with 8-12 family members.

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District wise distribution of SES is presented in table 2. In Dharwad district 70.58 percent of them belonged to middle SES, while 18.85 percent belonged to poor SES and 10.58 percent of families belonged to high class of SES and same trend was observed in Bagalkot, Vijaypur, Haveri, Gadag, Uttarkannada and Belgaum districts.On the whole 9.10 percent of families belonged to upper middle of SES and 76.78 percent belonged to lower middle of SES and 13.75 percent belonged to poor middle class of SES.

The mean age at attainment of menarche was 13.45, 13.41, 13.90 and 13.30 years at Dharwad, Gadag, Haveri, and Belgaum respectively. Incase Uttarkannada mean age at attainment of menarche was 14.01 years of age. Whereas in Vijaypur and Bagalkot 12.56 and 12.68years respectively. On the whole mean age at menarche is 13.33 years (Table 3). A study conducted by Mclead*et. al.*, (2013) reported that mean age at attainment of menarche was 13.29 years and also pointed out that there was no age difference between rural and urban girls age at attainment of menarche.

Distribution of the respondents according to knowledge on menstrual hygiene and reproductive health is presented in table 4. In Dharwad district, 71.76 percent of them had low knowledge on menstrual hygiene, while 28.23 percent had high knowledge. Similar trend was observed in Vijaypur, Bagalkot, Belgaum, Haveri, Gadag and Uttarkannada. Totally 76.42 percent of respondents had low knowledge, while 23.57 percent of respondents had high knowledge on menstrual knowledge.

TheRelationship and association of menstrual hygiene knowledge of adolescent girls and young women belonged to different Socio Economic Status (SES) category is indicated in Table 5. In case of middle SES, 75.87 percent of them showed low knowledge and 24.13 percent showed high knowledge on menstrual hygiene. Whereas in poor SES, only 19.72 percent of respondents had high knowledge, while 80.28 percent of respondents showed low knowledge on menstrual hygiene. There was significant positive relationship and association between SES and menstrual hygiene knowledge among rural adolescent girls and young women. It indicates that higher the SES higher the menstrual hygiene knowledge.

A study supported by Gultie (2014) majority of (60%) the subjects belonged to middle class category, while 40 percent of respondents in poor SES. However in case 72.67 percent had high knowledge belonged to middle SES, while 30.96 percent had high knowledge belonged to poor SES category. Hence SES found significant association with menstrual knowledge. It indicated higher the SES higher the knowledge on menstrual hygiene.

The relationship and association between menstrual hygiene and age is presented in Table 6. Among 12 – 13 years aged respondents had 85.98 percent low menstrual knowledge, while 14.01 years aged were had high knowledge on menstrual hygiene. Whereas respondents aged between 14 – 15 years were had 72 percent low menstrual hygiene, while 28 percent of them had high knowledge. In case of 16 – 17 years respondents were had 56.84 percent showed low knowledge and 43.15 percent had high knowledge on menstrual hygiene.

Totally 47.14 percent aged between 12 – 13 years, while 26.78 percent aged between 14- 15 years and 26.07 percent aged between 16 – 17 years. Whereas 74.64 percent of girls had low knowledge, while 25.35 percent in high knowledge on menstrual hygiene.

Hence it was concluded that there is a low knowledge on menstrual hygiene among adolescents and young women in North Karnataka. Socioeconomic status of the family and age of the respondents was significantly associated with knowledge on menstrual hygiene indicating that increase in SES and age increased the knowledge on menstrual hygiene.

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Table 1: Demographic characteristics of respondents

	Dharwad	Belgaum	Vijaypur	Bagalkot	Uttarkannada	Gadag	Haveri	Total
Occupation (Father's)								**N = 560**
Daily wagers	41(48.24)	35(43.75)	19(23.75)	8(10.66)	15(18.75)	15(18.75)	35(43.75)	**248 (44.28)**
Self employed	15(17.65)	16(25)	16(20)	2(2.50)	6(8)	5(6.25)	2(2.50)	**62 (11.07)**
Agriculture	20(23.53)	16(25)	37(46.25)	57(71.25)	54(72)	42(52.50)	11(13.75)	**237 (42.32)**
Private jobs	2(2.4)	6(7.5)	4(5)	3(3.75)	1(1.33)	0	4(5)	**20 (3.57)**
Government jobs	7(8.24)	7(8.75)	4(5)	8(10)	2(2.66)	3(3.75)	8(10)	**39 (6.96)**
Father's (Education)								
Illiterate	28(35.00)	20(25)	37(46.25)	24(30.50)	13(17.33)	20(25)	9(11.25)	**151 (26.96)**
Primary school	30(35.30)	18(25.5)	26(32.50)	21(26.25)	34(45.33)	24(30)	23(28.00)	**176 (31.42)**
High school	23(27.06)	14(17.5)	2(2.50)	3(3.75)	4(5.30)	2(2.50)	19(21.25)	**67 (11.96)**
>High school to SSLC	8(9.40)	12(15)	3(3.75)	17(21.25)	12(16)	4(5)	7(8.75)	**63 (11.25)**
PUC	11(12.9)	9(11.25)	8(10)	16(20)	5(6.66)	13(16.25)	18(25)	**80 (14.28)**
Degree and PG	4(4.70)	5(7.5)	3(3.75)	4(5)	3(4)	2(2.5)	2(2.50)	**23 (4.10)**
Family size (no of members)								
3-7	62 (72.9)	60(75)	29(36.25)	66(82.50)	63(84)	65(81.25)	68(85.00)	**413 (73.75)**
8-12	15 (17.65)	13(16.25)	32(40)	4(5.00)	6(8.00)	13(16.25)	9(11.25)	**92 (16.42)**
13-16	8(9.50)	7(8.75)	19(23.75)	10(12.50)	6(8.00)	2(2.50)	3(3.75)	**55 (9.82)**

Table 2: Socio-economic status of the respondents (district wise)

SI. NO	Name	Total n	Upper high	High	Upper middle	Lower middle	Poor middle	Very poor
1	Dharwad	85	0	0	9(10.58)	60(70.58)	16(18.85)	0
2	Belgaum	80	0	0	12(15.00)	64(80.00)	8(10.00)	0
3	Haveri	80	0	0	6(7.50)	63(78.75)	11(13.75)	0

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4	Bagalkot	80	0	0	10(12.50)	61(76.25)	9(11.25)	0
5	Uttar Kannada	75	0	0	8(10.66)	60(70.58)	7(8.75)	0
6	Vijaypur	80	0	0	4(5.00)	69(86.25)	7(8.75)	0
7	Gadag	80	0	0	2(2.50)	65(82.50)	11(13.75)	0
	Total	**560**	**0**	**0**	**51(9.10)**	**439(76.78)**	**71(13.92)**	**0**

Figures in the parenthesis indicates percentage

Table 3: Mean age and age at menarche of the respondents

Districts	Mean age (years)	Mean age at Menarche(years)
Dharwad	15.74	13.45
Gadag	16.52	13.41
Haveri	16.43	13.92
Belgaum	15.73	13.30
Vijaypur	15.75	12.56
Bagalkot	15.45	12.68
Uttarkannada	15.75	14.01
Overall	**15.9**	**13.33**

Table 4: Distribution of respondents according to knowledge on menstrual hygiene

	Dharwad n=85	**Vijapur n=80**	**Bagalkot n=80**	**UK n=75**	**Belgaum n=80**	**Haveri n=80**	**Gadag n=80**	**Total n=560**
Knowledge on Menstrual Hygiene								
Low	61 (71.76)	64 (80.00)	67 (83.75)	53 (72.00)	61 (76.25)	68 (85.00)	55 (68.75)	**428 (76.42)**
High	24 (28.23)	14 (20.00)	13 (16.25)	21 (28.00)	18 (22.50)	14 (15.50)	24 (31.25)	**132 (23.57)**

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Figures in the parenthesis indicates percentage

Table 5: Relationship and association on knowledge on menstrual hygiene by socio-economic status of rural adolescent girls and young women

		Knowledge on Menstrual Hygiene		Total	r- value	X^2-value
		Low	High			
SES	Middle	371(75.87)	118(24.13)	489(87.32)	.64*	20.51*
	Poor	57(70.28)	14(19.72)	71(12.68)		
Total		428(76.07)	132(23.57)	560(100.00)		

Figures in the parenthesis indicates percentage

*significant at 0.05level

Table 6: Relationship between menstrual hygiene and age of rural adolescent girls and young women

		Knowledge on Menstrual Hygiene		Total	r -value	X^2 value
		Low	High			
Age (years)	12-13	227(85.98)	37(14.01)	264(47.14)	.78*	21.74*
	14-15	108(72.00)	42(28.00)	150(26.78)		
	16-17	83(56.84)	63(43.15)	146(26.07)		
Total		418(74.64)	142(25.35)	560(100.00)		

Figures in the parenthesis indicates percentage

*significant at 0.05level

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