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RESEARCH ARTICLE

CORRELATES OF PSYCHOSOCIAL STATUS OF RURAL ADOLESCENT GIRLS OF VARANASI, INDIA

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ABSTRACT

This study was conducted to pinpoint the correlates of psychosocial status of adolescent girls adopting comprehensive scoring system of WHO's 'HEEADSSS' approach. Psychosocial status of 400 rural adolescent girls of Varanasi District, India, who were selected by multistage sampling, was assessed by interviewing them with the help of predesigned schedule. For inferential decisions t-test and ANOVA were applied. In order to pinpoint precise correlates logistic regression analysis was done. Majority of the adolescent girls were at risk of developing psychosocial abnormalities, and nearly one out of ten were at severe risk. Several factors were found significant in univariate analysis. However, logistic regression identified subjects from SC (OR=3.520, CI=1.829-6.773) and other caste category (OR=3.493, CI=1.843-6.623), as well as joint family (OR=3.207, CI=1.330-7.728) at higher risk of psychosocial abnormality. Findings of this study calls for community based interventions directed to adolescents and their families having higher vulnerability for psychosocial abnormality.

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INTRODUCTION

World Health Organization (WHO) considers adolescence as the period between 10 to 19 years. This critical period is characterised by rapid growth and development. Most adolescents go through adolescence with little or no knowledge of the body's impending physical and physiological changes. In a country like India, where discussion in these areas and sexuality with young children is almost lacking, adolescents are not prepared mentally or psychologically to cope with these changes. During the transition to adulthood, lack of knowledge about reproductive organs, physiological changes, sexuality and tendency of experimentation can promote psychosocial stress. This is particularly so for girls, who also face gender discrimination (Gupta, 2003). Further, the adolescent population, especially girl has important bearing on the expected demographic, social and psychological makeup and profile of the country. Socialization of the girl child in rural India seems to have followed a set pattern where she has been trapped and moulded by deep-rooted combined cultures of patriarchy and hierarchy (Sinha, 2007). Outward forms of family may seem to be changing; but, in matters related to sexuality, choosing of a marriage partner, reproduction and vocational choices etc are based on conservative traditional

values as a norm with a few exceptions. The Indian Youth by and large emulates cultural and family values prescribed by the religion, caste and ethnic group of their identity (Adolescents in India 2003). Women as such can be dubbed as a population at risk because of their limited access to resources and opportunities and their systematic exclusion from the position of decision making; and this process of exclusion tends to start at the very grass root, at the family level.

Adolescence is also a stage when young people extend relationships beyond their parents and family. It is a time of intense influence of peers, and the outside world in the society. A desire to experiment and explore can manifest in a range of behaviours-exploring sexual relationships, alcohol, tobacco and other substances abuse. In order to get a clear picture of adolescents' lives, it is vital to know where they live and what their status is within their household: whether they are being supported and by whom, whether they are rendering services, and so forth. Adolescent girls' homes are not just residential bases; they are also the loci of powerful familial forces that shape every aspect of girls' existence, including their time use, access to school and paid work, and social status. Many adolescent girls are virtually entrapped in the domestic sphere. This confinement serves two purposes: it keeps girls out of the public arena and it keeps them in the household, where they undergo their apprenticeship for adulthood— an intense training for a lifelong role as wife and mother (Mensch et al., 1998).

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Giving due consideration to various factors influencing psychosocial status of adolescents, WHO has evolved 'HEEADSSS' approach (Goldring *et al.*, 2004). For further application of this approach a comprehensive scoring system has been evolved (Gupta *et al.*, 2011). However, its application in pinpointing correlates of psychosocial status is yet to be demonstrated. Keeping this in mind this study has been contemplated on rural adolescent girls of Varanasi District of Uttar Pradesh State of India.

Objective

To pinpoint the correlates of psychosocial status of adolescent girls adopting comprehensive scoring system of 'HEEADSSS' for assessing psychosocial status.

MATERIALS AND METHODS

Period of study: This study was conducted for a period of two years (August 2009 to July 2011). Initial period (August 2009 to January 2010) of the study was devoted to extensive literature search and designing and pretesting of interview schedule. Data collection was carried out for a period of one year (February 2010 to January 2011). Remaining six months (January 2011 to July 2011) were utilized for analysis of data.

Study design: A community based cross sectional design was adopted for this study.

Sample size: As far as the psychosocial status of adolescents is concerned, after extensive literature search it was found that, there are not much community based studies conducted on this issue. As per literature search no prior information was available for psychosocial status of adolescent girls based on all components considered in HEEADSSS approach of WHO. A pilot study on 30 adolescent girls conducted in Chiraigaon Community Development Block of Varanasi, demonstrated a prevalence of 50% psychosocial abnormality in adolescent girls. Based on this value, the sample size for this study was calculated using the formula " $n = z^2 pq / L^2$ ". Where, $z = 1.96$, $n =$ Sample size, $p =$ Assumed prevalence (50 % in this study), $q = 100 - p$, $L =$ permissible level of error in the estimated prevalence, taken as 10% (10% of 50 = 5). The required sample size was calculated to be: " $n = (1.96)^2 \times 50 \times 50 / (5)^2 = 384.16$ ". Thus, the total sample size was round up and fixed at 400.

Sampling methodology: Following 3 steps were involved in the selection of study subjects:

Stage 1: In the first stage, one Community Development Block (i.e. Chiraigaon) was selected from eight Community Development Blocks of Varanasi District by simple random sampling method.

Stage 2: In the second stage, villages of Chiraigaon were divided into 3 strata according to distance (viz. <5 km, 5-10 km and >5km) from Block headquarter. Then from each stratum one village was selected by simple random sampling method. The selected villages were Tilmapur, Narayanpur and Pandepur respectively.

Stage 3: In the selected village total enumeration of adolescent girls was done to prepare a sampling frame. The

required study subjects were selected adopting probability proportion to size (PPS) sampling technique.

In order to get required study subjects (400), systemic random sampling was done.

Tools and technique of the study

General information pertaining to age, literacy status and occupation of subject, father and mother, caste, religion, marital status, family income, total members in the family, number of siblings etc. were recorded on a predesigned and pre tested (in non study village on a sample of 30 adolescent girls) schedule. WHO's 'HEEADSSS' questionnaire was modified by taking consideration of rural background to make it simple, favourable and appropriate. It includes eight parameters viz. Home, Education and Employment, Eating, Activities, Drugs, Sexuality, Suicide and Depression and Safety. The psychosocial status of study subjects was assessed by interviewing them with the help of modified 'WHO HEEADSSS questionnaire'. Pretesting of the schedule was done on a sample of 30 adolescent girls from a non study village of the Chiraigaon Community Development Block. A comprehensive system for assessing psycho-social status through 'HEEADSSS' ^{16]} was applied in pin pointing correlates of psycho-social status of adolescent girls. According to this system relative weight assigned to different components on a 100 point scale were as follows.

Component No.	Different HEEADSSS parameters	Relative weight
1	Home	13
2	Education and Employment	14
3	Eating	8
4	Activity	8
5	Drug	15
6	Sexuality	12
7	Suicide and Depression	16
8	Safety	14
Total Score		100

Analysis of data: Data thus generated was analysed with the help of Microsoft excel 2007 and SPSS version 16th software. Necessary tables were generated and for inferential decisions t-test and ANOVA were applied. In order to pinpoint precise correlates of psychosocial status logistic regression analysis was done to compute Adjusted Odds Ratios (AOR) and their confidence intervals (CI).

Ethical review: This study was reviewed and approved by ethical review committee of Banaras Hindu University (BHU), Varanasi, India.

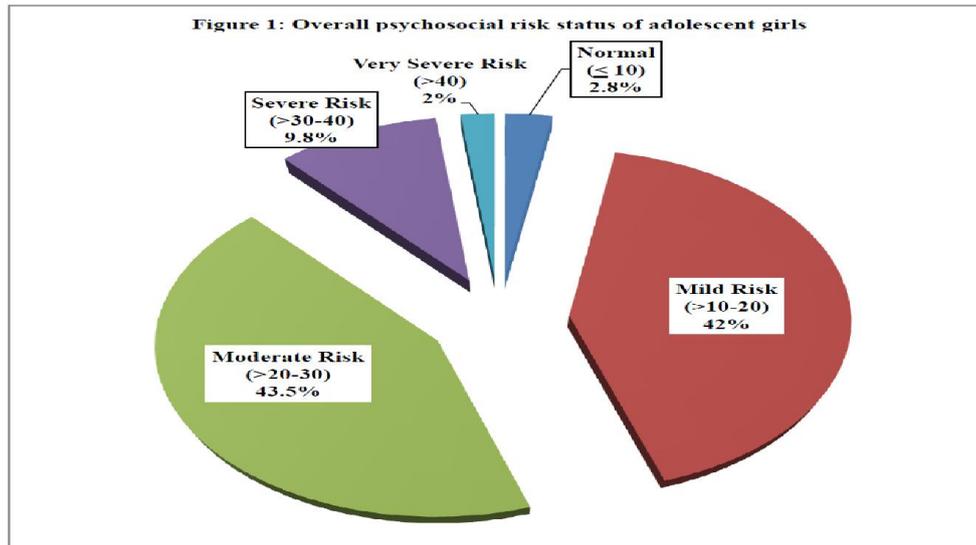
RESULTS

Overall risk score served as the basis for classification of psychosocial risk status as mild (>10-20), moderate (>20-30), severe (>30-40), and very severe (>40). The results of the same are given in **Figure 1**. Mild and moderate psychosocial risk was present in 42.0% and 43.5% study subjects, respectively. Forty seven (11.75%) adolescent girls had severe risk for psychosocial abnormality. **"INSERT FIGURE 1 HERE"** Psychosocial risk score of study subjects in early, middle and

late adolescents were $21.76 + 6.91$, $21.97 + 7.28$ and $21.66 + 7.81$, respectively. There existed no significant ($p > 0.05$) difference in the age wise risk scores of study subjects. Psychosocial risk score of subjects belonging to Muslim religion ($16.78 + 4.68$) was significantly ($p < 0.05$) less than subjects for Hindu religion ($21.94 + 7.25$). Psychosocial risk score of OBC subjects ($19.46 + 6.10$) was significantly ($p < 0.05$) less than subjects from SC and other caste categories. Psychosocial risk score of married subjects ($26.53 + 8.87$) was significantly ($p < 0.05$) more than the unmarried subjects ($21.47 + 6.10$). **“INSERT TABLE 1 HERE”**

7-12 members in their family. Overall psychosocial risk score of subjects with number of siblings < 4 ($20.30 + 5.93$) was significantly ($p < 0.05$) less than that of subjects with number of siblings $5 - 7$ ($23.20 + 7.91$). **“INSERT TABLE 4 HERE”**

Psychosocial risk score was significantly ($p < 0.05$) more in subjects ($22.49 + 7.30$) whose per capita family income was < 1.25 dollar / day than subjects ($19.13 + 6.34$) whose per capita family income was > 1.25 dollar / day. Subjects belonged to upper middle ($23.84 + 8.00$) and middle ($21.77 + 6.61$) economic class had significantly ($p < 0.05$) more psychosocial



Psychosocial risk score was minimum in subjects with highest education in the family up to primary class ($18.13 + 5.44$) whereas this was maximum ($25.22 + 7.65$) in graduate and above category. Highest education in the family exerted significant ($p < 0.001$) influence on the overall psychosocial risk score of study subjects. Post hoc test revealed that the risk score in subjects with highest education in the family as graduate and above was significantly ($p < 0.05$) more than the other groups. **“INSERT TABLE 2 HERE”**

Literacy of father was significantly ($p < 0.05$) associated with the risk status of study subjects. The psychosocial risk score of subjects with literacy of father graduate and above was significantly ($p < 0.05$) less than other all categories. Psychosocial risk score of study subjects was significantly ($p < 0.05$) associated with the educational level of their mother. Subjects with illiterate mother had significantly ($p < 0.05$) more risk score ($22.83 + 6.95$) than their counterparts having literate mothers. **“INSERT TABLE 3 HERE”**

In comparison to subjects belonging to three generation family ($18.65 + 5.59$), psychosocial risk score was significantly ($p < 0.01$) more for subjects belonging to nuclear ($22.35 + 7.24$) and joint families ($22.12 + 7.45$). Minimum ($17.16 + 5.34$) and maximum ($23.84 + 8.51$) psychosocial risk score were seen in subjects with family size >15 and $10 - 12$, respectively. Size of family was significantly associated with the psychosocial risk status of adolescent girls ($p < 0.01$). Psychosocial risk score was significantly ($p < 0.01$) less in subjects belonging to very large families (>15 members) than their counterparts who had

risk score than subjects belonged to lower class ($16.10 + 5.247$). Girls belonged to lower middle economic class ($20.46 + 6.25$) had significantly ($p < 0.05$) less psychosocial risk score than upper middle class ($23.84 + 8.00$). **“INSERT TABLE 5 HERE”**

Daughters of labours (skilled or unskilled) had significantly ($p < 0.05$) more risk score ($23.81 + 7.22$) than their counterparts whose father were businessman ($18.25 + 5.14$) or Govt. or Pvt. Employee ($18.20 + 6.16$). Girls who did not have mother were found to have significantly more psychosocial risk score ($31.10 + 10.67$) than their counterparts. **“INSERT TABLE 6 HERE”**

Table 7 shows the results of logistic regression modal for the dependent variables for psychosocial risk score of adolescent girls. The psychosocial score >20 was taken as risk factor and the effect of different correlates was observed in the risk factor. Among the considered correlates caste, highest education in the family, family type and family size were found to be significant risk factors. The risk of psychosocial abnormality was found to be significantly ($p < 0.05$) lower in OBC caste (AOR 0.271, CI 0.140-0.521) with reference to the other caste category.

In comparison to graduate and above as reference category the risk of psychosocial abnormality was less in the family where the highest education was up to primary (AOR 0.280, CI 0.095-0.821). It was also found that the risk of psychosocial abnormality was higher in the family having less number ($<6-12$) of persons. **“INSERT TABLE 7 HERE”**

Table 1. Psychosocial risk status of adolescent girls according to their personal attributes

S.No	Parameters	N	Mean score \pm SD	ANOVA / t-test	Sig.
AGE					
1	10-14 (Early adolescence)	168	21.76 \pm 6.91	F = 0.058	0.944
2	15-17 (Middle adolescence)	141	21.97 \pm 7.28	MD ₁₋₂ = 0.208	1.00
3	18-19 (Late adolescence)	91	21.66 \pm 7.81	MD ₂₋₃ = 0.311 MD ₃₋₁ = 0.104	1.00
RELIGION					
1	Hindu	390	21.94 \pm 7.25	t = 2.239	0.026
2	Muslim	10	16.78 \pm 4.68		
CASTE					
1	SC	109	23.61 \pm 7.10	F = 17.354	<0.01
2	OBC	173	19.46 \pm 6.10	MD ₁₋₂ = 4.145	<0.01
3	Others	118	23.59 \pm 7.94	MD ₂₋₃ = 4.129 MD ₃₋₁ = 0.017	<0.01
MARITAL STATUS					
1	Unmarried	373	21.47 \pm 6.10	t = 3.559	<0.01
2	Married	27	26.53 \pm 8.87		

Table 2. Psychosocial risk status of adolescent girls according to highest education in the family

S.No	Parameters	N	Mean score \pm SD	ANOVA / t-test	Sig.
HIGHEST EDUCATION IN THE FAMILY					
1	Graduate and above	81	25.22 \pm 7.65	F = 7.251	<0.01
2	Intermediate	84	21.00 \pm 6.06	MD ₁₋₂ = 4.22	0.002
				MD ₁₋₃ = 3.17	0.037
3	High School	100	22.05 \pm 8.21	MD ₁₋₄ = 3.58	0.030
				MD ₁₋₅ = 7.09	<0.01
4	Middle	67	21.64 \pm 6.29	MD ₁₋₆ = 5.37	0.061
				MD ₂₋₃ = 1.05	1.000
5	Up to primary	51	18.13 \pm 5.44	MD ₂₋₄ = 0.64	1.000
				MD ₂₋₅ = 2.87	0.314
6	Just literate and Illiterate	17	19.85 \pm 6.32	MD ₂₋₆ = 1.15	1.000
				MD ₃₋₄ = 0.41	1.000
6	Just literate and Illiterate	17	19.85 \pm 6.32	MD ₃₋₅ = 3.92	0.018
				MD ₃₋₆ = 2.20	1.000
6	Just literate and Illiterate	17	19.85 \pm 6.32	MD ₄₋₅ = 3.51	0.106
				MD ₄₋₆ = 1.78	1.000
6	Just literate and Illiterate	17	19.85 \pm 6.32	MD ₅₋₆ = 1.72	1.000

Table 3. Psychosocial risk status of adolescent girls according to literacy status of their parents

S.no	Parameters	N	Mean score \pm SD	ANOVA / t-test	Sig.
LITERACY STATUS OF THEIR FATHER					
1	Illiterate	100	24.26 \pm 6.87	F = 8.566	<0.01
2	Just literate + up to primary	64	23.68 \pm 7.86	MD ₁₋₂ = 0.58	1.000
				MD ₁₋₃ = 2.90	0.467
3	Middle	37	21.36 \pm 8.38	MD ₁₋₄ = 2.94	0.071
				MD ₁₋₅ = 3.14	0.118
4	High School	83	21.32 \pm 6.91	MD ₁₋₆ = 7.68	<0.01
				MD ₂₋₃ = 2.32	1.000
5	Intermediate	54	21.12 \pm 6.42	MD ₂₋₄ = 2.36	0.640
				MD ₂₋₅ = 2.56	0.711
6	Graduate and above	44	16.57 \pm 4.90	MD ₂₋₆ = 7.10	<0.01
				MD ₃₋₄ = 0.04	1.000
6	Graduate and above	44	16.57 \pm 4.90	MD ₃₋₅ = 0.24	1.000
				MD ₃₋₆ = 4.78	0.033
6	Graduate and above	44	16.57 \pm 4.90	MD ₄₋₅ = 0.20	1.000
				MD ₄₋₆ = 4.74	0.004
6	Graduate and above	44	16.57 \pm 4.90	MD ₅₋₆ = 4.54	0.022
LITERACY STATUS OF THEIR MOTHER					
1	Illiterate	244	22.83 \pm 6.95	F = 7.951	<0.01
2	Just literate + up to primary	50	21.73 \pm 7.18	MD ₁₋₂ = 1.10	1.000
				MD ₁₋₃ = 4.20	0.002
3	Middle	45	18.63 \pm 4.48	MD ₁₋₄ = 4.84	0.016
				MD ₁₋₅ = 5.96	0.037
4	High School	22	17.99 \pm 6.17	MD ₁₋₆ = 6.89	0.004
				MD ₂₋₃ = 3.10	0.343
5	Intermediate	12	16.88 \pm 5.27	MD ₂₋₄ = 3.74	0.412
				MD ₂₋₅ = 4.85	0.342
6	Graduate and above	14	16.14 \pm 5.38	MD ₂₋₆ = 5.59	0.081
				MD ₃₋₄ = 0.64	1.000
6	Graduate and above	14	16.14 \pm 5.38	MD ₃₋₅ = 1.75	1.000
				MD ₃₋₆ = 2.48	1.000
6	Graduate and above	14	16.14 \pm 5.38	MD ₄₋₅ = 1.11	1.000
				MD ₄₋₆ = 1.85	1.000
6	Graduate and above	14	16.14 \pm 5.38	MD ₅₋₆ = 0.73	1.000

Table 4. Psychosocial risk status of adolescent girls according to their family attributes

S.No	Parameters	N	Mean score \pm SD	ANOVA / t-test	Sig.
TYPE OF FAMILY					
1	Nuclear	188	22.35 \pm 7.24	F = 5.375	0.005
2	Joint	164	22.12 \pm 7.45	MD ₁₋₂ = 0.23	1.000
3	Three Generation	48	18.65 \pm 5.59	MD ₁₋₃ = 3.70 MD ₂₋₃ = 3.47	0.004 0.010
FAMILY SIZE					
1	≤ 6	158	21.36 \pm 6.50	F = 5.78	<0.01
2	7-9	140	22.85 \pm 7.52	MD ₁₋₂ = 1.49 MD ₁₋₃ = 2.48	0.697 0.275
3	10-12	53	23.84 \pm 8.51	MD ₁₋₄ = 1.46 MD ₁₋₅ = 4.19	1.000 0.024
4	13-15	17	19.90 \pm 6.06	MD ₂₋₃ = 0.99 MD ₂₋₄ = 2.95	1.000 1.000
5	>15	32	17.16 \pm 5.34	MD ₂₋₅ = 5.68 MD ₃₋₄ = 3.94 MD ₃₋₅ = 6.68 MD ₄₋₅ = 2.73	<0.01 0.461 <0.01 1.000
NUMBER OF SIBLINGS					
1	≤ 4	194	20.30 \pm 5.93	F = 8.53	<0.01
2	5-7	186	23.20 \pm 7.91	MD ₁₋₂ = 2.90	<0.01
3	≥ 7	20	23.55 \pm 9.39	MD ₁₋₃ = 3.25 MD ₂₋₃ = 0.35	0.156 1.000

Table 5. Psychosocial risk status of adolescent girls according to socio economic status

S.No	Parameters	N	Mean score \pm SD	ANOVA / t-test	Sig.
INCOME					
1	< 1.25 dollar / day	319	22.49 \pm 7.30	t = 3.79	<0.01
2	≥ 1.25 dollar / day	81	19.13 \pm 6.34		
SOCIO ECONOMIC STATUS					
1	Upper (Class I)	22	20.52 \pm 6.94	F = 7.97	<0.01
2	Upper Middle (Class II)	131	23.84 \pm 8.00	MD ₁₋₂ = 3.32 MD ₁₋₃ = 1.24	0.402 1.000
3	Middle (Class III)	163	21.77 \pm 6.61	MD ₁₋₄ = 0.06 MD ₁₋₅ = 4.42	1.000 0.284
4	Lower Middle (Class IV)	57	20.46 \pm 6.25	MD ₂₋₃ = 2.07 MD ₂₋₄ = 3.37	0.199 0.025
5	Lower (Class V)	27	16.10 \pm 5.25	MD ₂₋₅ = 7.74 MD ₃₋₄ = 1.30 MD ₃₋₅ = 5.66 MD ₄₋₅ = 4.36	<0.01 1.000 0.001 0.079

Table 6. Psychosocial risk status of adolescent girls according to their parents' occupation

S.No	Parameters	N	Mean score \pm SD	ANOVA	Sig.
OCCUPATION OF FATHER					
1	Agriculture and Animal	50	20.90 \pm 7.82	F = 12.53	<0.01
2	Govt. or Pvt. service	46	18.20 \pm 6.16	MD ₁₋₂ = 2.71 MD ₁₋₃ = 2.66	0.537 0.46
3	Business	43	18.25 \pm 5.14	MD ₁₋₄ = 2.91 MD ₁₋₅ = 1.07	0.07 1.000
4	Skilled or un-skilled labour	227	23.81 \pm 7.22	MD ₂₋₃ = 0.05 MD ₂₋₄ = 5.61	1.000 <0.01
5	Dead / no occupation	20	19.84 \pm 5.53	MD ₂₋₅ = 1.64 MD ₃₋₄ = 5.56 MD ₃₋₅ = 1.59 MD ₄₋₅ = 3.97	1.000 <0.01 1.000 0.133
OCCUPATION OF MOTHER					
1	Agriculture and Animal	127	22.80 \pm 6.67	F = 10.21	<0.01
2	Housewife	230	21.69 \pm 6.84	MD ₁₋₂ = 2.04 MD ₁₋₃ = 1.10	0.052 1.000
3	Other occupation	30	20.76 \pm 6.95	MD ₁₋₄ = 8.30 MD ₂₋₃ = 0.93	<0.01 1.000
4	Dead	13	31.10 \pm 10.67	MD ₂₋₄ = 10.34 MD ₃₋₄ = 9.40	<0.01 <0.01

Table 7. Results of logistic regression of psychosocial risk score

Variables	N	Beta	P value	Odds ratio	95.0% C.I.	
					Lower	Upper
Caste						
SC	109	0.059	0.879	1.061	0.495	2.272
OBC	173	-1.307	0.000	0.271	0.140	0.521
Others (reference category)	118					
Highest education in the family						
Just literate and Illiterate	17	-1.055	0.167	0.348	0.078	1.557
Up to primary	51	-1.275	0.020	0.280	0.095	0.821
Middle	67	-0.440	0.345	0.644	0.259	1.604
High School	100	-0.416	0.335	0.659	0.283	1.538
Intermediate	84	-0.736	0.092	0.479	0.204	1.127
Graduate and above (reference category)	81					
Family type						
Nuclear	188	0.813	0.070	2.255	0.937	5.426
Joint	164	1.135	0.014	3.110	1.263	7.657
Three generation (reference category)	48					
Family size						
≤6	158	1.293	0.039	3.643	1.065	12.459
7-9	140	1.365	0.017	3.916	1.281	11.974
10-12	53	1.424	0.029	4.155	1.158	14.904
13-15	17	0.666	0.384	1.946	0.434	8.732
>15 (reference category)	32					

Note: variables such as age, religion, marital status, educational status of parents, number of siblings, income and socio economic status were not significantly associated with the risk score on logistic regression.

DISCUSSION

Batteries of psychosocial tools are available to pinpoint advanced psychological morbidities, where intervention strategies have poor outcomes. Therefore it becomes pertinent to identify subjects with psychosocial abnormalities in the early stage for optimum dividends. World Health Organization has taken this aspect seriously and evolved 'HEEADSSS' approach to look in to the head of adolescents. HEEADSSS approach give due consideration to the environment of child Home, Education, Employment etc.

Improvement of health and psychosocial being of adolescents is priority agenda now in many countries of the world, but the policies and programs for achieving the same have not been optimally worked out. There are three distinct stages in the maturation process of any programme viz. conceptual stage, operational stage and practice stage. As far as HEEADSSS approach is considered, it is still in conceptual stage. It is obvious that a system of early recognition of psychosocial abnormality as evolved by WHO is of paramount importance but its wider application and implications for policy can be well understood if a comprehensive scoring system can be evolved and the same is used for pinpointing factors contributing to such abnormalities using advanced statistical techniques such as logistic regression analysis. Results given in the Figure 1 show that psychosocial status of adolescent girls in the study area are far from being satisfactory. Careful scrutiny of Table 1 to 6 where univariate analysis has been contemplated indicate that except age, all other parameters viz. Religion, caste, marital status, highest education in the family, literacy status of the parents, type of family, members in family and number of siblings, per capita income and socio economic status were significantly associated with the psychosocial risk status. Hindu, married subjects from SC and other caste category with graduate and above as highest education in the family, lower parental literacy, belonging to nuclear family,

having family size 7-12 and having 5-7 siblings were at higher risk of psychosocial abnormality. Since the inception of planning process India's focus was on reproductive and child health (RCH), and emphasis on adolescent girls was lacking. Recently it has been realized that even by counts, they deserve special attention (Census, 2001; Bott *et al.*, 2000). The educational profile of parents in this study is contrary to findings of Sidhartha *et al.*, 2006. Literate mothers have a definitive contribution in the psychosocial development of a girl child. Thus the study subjects did not have this opportunity in the study area. Caste system is predominant phenomenon in this region. The results given in Table 1 show preponderance of OBC caste in the study area. Joint family system is still in vogue in the study area, and thereby there is a preponderance of large families. Presence of more number of siblings acts as a support mechanism more so in rural areas. Results given in the Table 2 points a very decimal picture in the study area. This is supported by the observation that 1 out of 5 study subjects had highest education in the family graduate and above. Fathers' involvement in productive work is not up to the mark, although results are in conformity with the findings of Mitra *et al.* (2004). Mothers' contribution in economic support of the family has not been substantiated. Similar findings have been reported by Paul *et al.* 2006. Since lacunae persist in all the domains of woman empowerment (viz. education, employment, equity) in the study area, there is every reason to support gender power imbalance in this region. Relationship of gender power imbalance and health of adolescents and woman have been amply highlighted by some workers (Capoor *et al.*, 2006, Jejeebhoy *et al.*, 2003, Sodhi *et al.*, 2008). Economic security and family income have a strong bearing on the health of vulnerable section of the society. The results given in table 5 show that according to World Bank' criteria of economic classification, study area appears to be in a poverty zone.

The results of multivariate analysis identified adolescents belonging to SC and other caste category at higher risk of

psychosocial abnormality. This could be attributed to involvement of this caste in agriculture and adolescents also find more involved in agriculture and other productive work thus exposed to less risk of education etc. The other variable significantly influencing psychosocial status is the highest education in the family the reason may be that the family having higher education level expects more from their children in life so this burden may be a cause. It was also found that the risk of psychosocial abnormality was higher in the family having less number of persons. So we may conclude that the social support of the family (older generation) may play role in bringing down the psychosocial; risk burden of adolescents. This is also being supported under the covariate of family size.

Conclusion

Majority of the adolescent girls were at psychosocial risk, and nearly one out of ten were at severe risk. The study has pinpointed several correlates of psychosocial status of adolescent girls and calls for community based interventions directed to adolescents and their families having higher vulnerability for psychosocial abnormality.

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