ORIGINAL ARTICLE

Socio-Demographic Factors Associated With Depression in Peri-Urban Adolescent Girls in Lahore

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ABSTRACT

Aim: To determine the prevalence of depression among peri-urban adolescent girls and socio-demographic factors associated with it.
Methods: A cross sectional study was conducted in Union Council Manawan, Lahore. A sample of 302 girls between the ages of 15-19 years was selected through proportionate stratified random sampling. A pretested structured questionnaire was used to collected data on socio-demographic background of study participants. Kutcher Adolescent Depression Scale (KADS-6) was used to screen adolescent girls for depression. Data was described in the form of tables and graphs. Chi square test of significance was applied to assess association between depression and socio-demographic variables. Statistical significance was established at the cut-off point of $p \leq 0.05$.
Results: Average age of the study participants was 17.15 years. Depression prevalence among our study participants was 19%. Depression was more likely in girls who had monthly family income of less than Rs. 20,000 and in those who had uneducated fathers. Other socio-demographic factors had no significant association with depression.
Conclusion: Low family income and education of male family heads were significantly associated with depression in peri-urban adolescent girls. More research, early diagnosis and management of depression in adolescent girls are recommended. All channels of effective communication must be utilized to create awareness about this issue.
Keywords: Adolescent girls, Depression, Prevalence, Per-urban, Socio-demographic

INTRODUCTION

Depression is one of the most common, costly and severe psychopathologies worldwide. It refers to a wide range of mental health problems characterized by a loss of interest and enjoyment in ordinary things and experiences, low mood and a range of associated emotional, cognitive, physical and behavioral symptoms[1]. Adolescence is an important period of human development which indicates the changeover from childhood to adulthood. It marks the beginning of brisk physical, emotional and mental development. It is also an important phase in achieving knowledge and skills to manage emotions, relationships and abilities for adulthood[2]. It is a stage when responsibilities and anticipations change considerably, generating demanding and special health requisites[3]. The stresses experienced in adolescence are different for boys and girls, with higher association with depression in girls than in boys[4,5], especially in girls[2] who are in age group 15-19 years[6]. Corollaries of depression in adolescence may span from low self-esteem, relational problems, educational shortcomings, eating disorders, substance misuse, delinquency to continuation or relapse into later life[6,7]. The most severe and serious significance of adolescent depression is the augmented probability of attempted or successful suicide[8], with highest prevalence among 15-19 years old South Asian girls[9].

Mental health issues of adolescent girls has great relevance for our country as the number of females in age group 10-19 years is 17.8 million, and 64% of these girls live in peri-urban and rural areas[10]. Very little data exists on the topic of depression in adolescent females worldwide, or in our region and country. Most studies available are school based and do not generate deeper insight. Such scarcity of population based research warrants the necessity for scientific probing in this area. Previous efforts at addressing this issue have not been too successful and incidence of depression in adolescent girls is on the rise[11]. The present study was conducted to determine the prevalence of depression among adolescent girls, aged 15-19 years living in peri-urban area of Lahore, Pakistan and socio-demographic factors associated with it.

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METHODOLOGY

A cross sectional study was conducted between June and September, 2017, in Union Council (UC) Manawan. This peri-urban area located in the north-western part of Lahore, is divided into 17 administrative strata, composed of villages and towns. UC Manawan is attached to Lahore Medical and Dental College (LMDC) Lahore, for fieldwork of undergraduate and postgraduate students. The number of adolescent girls between 15-19 years of age in Manawan was 1785 (Records of Lady Health Supervisor, BHU Manawan), which constituted the study population. Taking prevalence of depression in adolescent girls as 23%[12], WHO online calculator was used to obtain a sample size of 272. Addition of another 11% of sample to account for refusals[13], gave a final number of 302. A Proportionate Stratified Random Sampling technique was applied. The total population of 1785 adolescent girls between the age group of 15-19 years was divided into 17 strata according to their area of resident in different villages and towns of UC Manawan. Sample for each stratum was calculated using the sampling fraction for that stratum multiplied by

the total sample size (302). In the final stage of sampling, a random sample from each stratum was selected using a computerized random number table. A pretested structured questionnaire was the study tool, which consisted of two sections. The first section collected data on socio-demographic background of study participants. The second section was comprised of the Kutcher Adolescent Depression Scale (KADS-6), which was used to screen adolescent girls for depression. The present study was part of doctoral dissertation of first author on "Depression and Coping Strategies: Capabilities of Peri-urban Adolescent Girls". The study protocols were reviewed and approved by the Advance Studies Research Board, University of the Punjab, Lahore. Additionally, ethical review board clearance was also obtained from LMDC and informed written consent was obtained from the respondents who were 18 years old or above or from one of the parents of the study participants who were less than 18 years of age. Data was entered, cleaned and analyzed using Statistical Package for Social Science (SPSS version 22). Data was described in the form of tables and graphs. Chi square test of significance was applied to assess association between depression and socio-demographic variables. Statistical significance was established at the cut-off point of p≤0.05.

RESULTS

Among the study participants, 60% were in the age group of 15-17 years (Mean age=17.15 years; standard deviation=1.33). Ninety one percent of girls were educated, 92% were unemployed and 91% were unmarried. The monthly family income of 55% of girls was <Rs. 20,000. Fifty-one percent of mothers and 39% of fathers of adolescent girls interviewed, had no formal education. Fathers of 90% study participants were in employment (Table-I).

Table I: Socio-demographic profile of study participants (n=302)

Socio-demographic variables	Frequency	*%age*
Age (years)		
15-17 years	182	60.3
18-19 years	120	39.7
Education status		
Educated	274	90.7
Uneducated	28	9.3
Marital status		
Married	27	8.9
Unmarried	275	91.1
Employment status		
Employed	23	7.6
Unemployed	279	92.4
Monthly Family Income in Rupees		
5,000 – 19,000	166	55.0
20,000 – 60,000	136	45.0
Mother's education status		
Uneducated	154	51.0
Educated	148	49.0
Father's/Husband's education status		
Uneducated	119	39.4
Educated	183	60.6
Father's/Husband's employment status		
Unemployed	31	10.3
Employed	271	89.7

Among 302 adolescent girls, 57(19%) screened positive for depression, while 247(81%) showed no features of depression. Depression was more likely in girls who had monthly family income of less than Rs. 20,000 (p=0.05) and in those who had uneducated fathers (p=0.05). Other socio-demographic factors had no significant bearing on depression status of study participants (Table-II).

Table-II: Socio-demographic factors associated with depression in the study participants (n=302)

Socio-demographic characteristics	Depression		P value
	Present	Absent	
Age group in years			
15-17 years (182)	34(18.7%)	1(81.3%)	0.877
18-19 years (120)	23(19.2%)	8(80.8%)	
Education status			
Educated(274)	50(18.2%)	224(81.8%)	0.387
Uneducated (28)	7(25%)	21(75%)	
Marital status			
Married (27)	5(18.5%)	22(81.5%)	0.961
Unmarried(275)	52(18.9%)	223(81.1%)	
Employment status			
Employs (23)	6(26.1%)	17(73.9%)	0.358
Unemployed (279)	51(18.3%)	228(81.7%)	
Monthly family income (rupees)			
20,000–60,000(136)	19(14%)	117(86%)	0.053*
5,000– 9,000(166)	38(22.9%)	128(77.1%	
Mother's education			
Uneducated (154)	33(21.4%)	121(78.6%)	0.248
Educated (148)	24(16.2%)	124(83.8%)	
Father's/Husband's Education			
Uneducated (119)	29(24.4%)	90(75.6%)	0.051*
Education (183)	28(15.3%)	155(84.7%)	
Father's/Husband's Work status			
Unemployed(31)	9(29%)	22(71%)	0.132
Employed (271)	48(17.1%)	223(82.3%)	

*p-value was calculated using Chi-square statistics

DISCUSSION

The prevalence of depression in the present study was 19%, which was higher than 11% of depression quoted in 15–18 years old adolescent females in a population based study in Canada[14] and among 12–20 year old students in different academic institutions of Karachi, Pakistan[15]. The depression rate in our study was also higher than 13%–15% in girls aged 14–19 years in Egypt[16]. On the other hand, the prevalence of depression in our study was lower than adolescent female depression of 23% established by in 13-18 years old, in Adelaide Australia[12], 43% in 8–10 graders (13-17 years old) from Bangladesh[17] and 60% of depression among secondary school adolescent girls reported from Chandigarh, India[5].

Consistent with previous findings, our study demonstrated a strong association of low family income with depression. Shah et al[18] and Reiss et al[19] concluded in their studies that low family income is a significant predictor of mental health issues in adolescents. A number of other studies have suggested high association between poverty and adolescent depression[20,21]. Moeni et al[22] endorsed that adolescent girls are more likely to have depressive symptoms when the family income is low or decreases. Similarly, association of low household income and depression in adolescent girls were also suggested in studies conducted in Jordan[23] and Sweden.[24] A literature review conducted by Lund, Anderson and Haugland,

including 269 articles from Europe, North America, Australia and New Zealand also concluded that depression was more common among adolescent girls whose socioeconomic status (SES) was low compared with girls with higher SES[25].

In the present study, depression was more prevalent in girls whose fathers were uneducated. Similarly, prior studies have also inferred that parental education is a strong predictor of mental health of children and adolescents. Researchers have established illiteracy or low level of parental education with higher mental health issues in adolescents, especially if they are female[19,24].

CONCLUSION

Prevalence of depression in the present study was 19 per 100 girls, aged 15-19 years. The study concludes that among social variables, low family income and paternal illiteracy had significant association with depression in adolescent girls.

RECOMMENDATIONS

The study recommends creation of a system of early diagnosis and management of depression in adolescent girls. Open discussions on matters of mental health issues, with a special focus on females, must be undertaken at all levels of the society. For this purpose mass media must be used for health education, disseminating information, alleviating fears and addressing taboos. Regular psychological screening of youth should be undertaken at learning institutions, vocational establishments and health care outlets, especially for depression. Lastly, more community based research is required in different areas of the country to obtain a better and holistic understanding of female adolescent depression.

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