



Prevalence & Associated Factors of Perceived Stress Among Female Adolescents in Nawabshah City, Pakistan

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Background

- Stress of any type has been identified as a major cumulative risk factor for many chronic diseases including mental and behavioral disorders 10-20% of children have at least one mental or behavioral disorder.
- Stressful life events and depressive symptoms was stronger for girls than for boy.

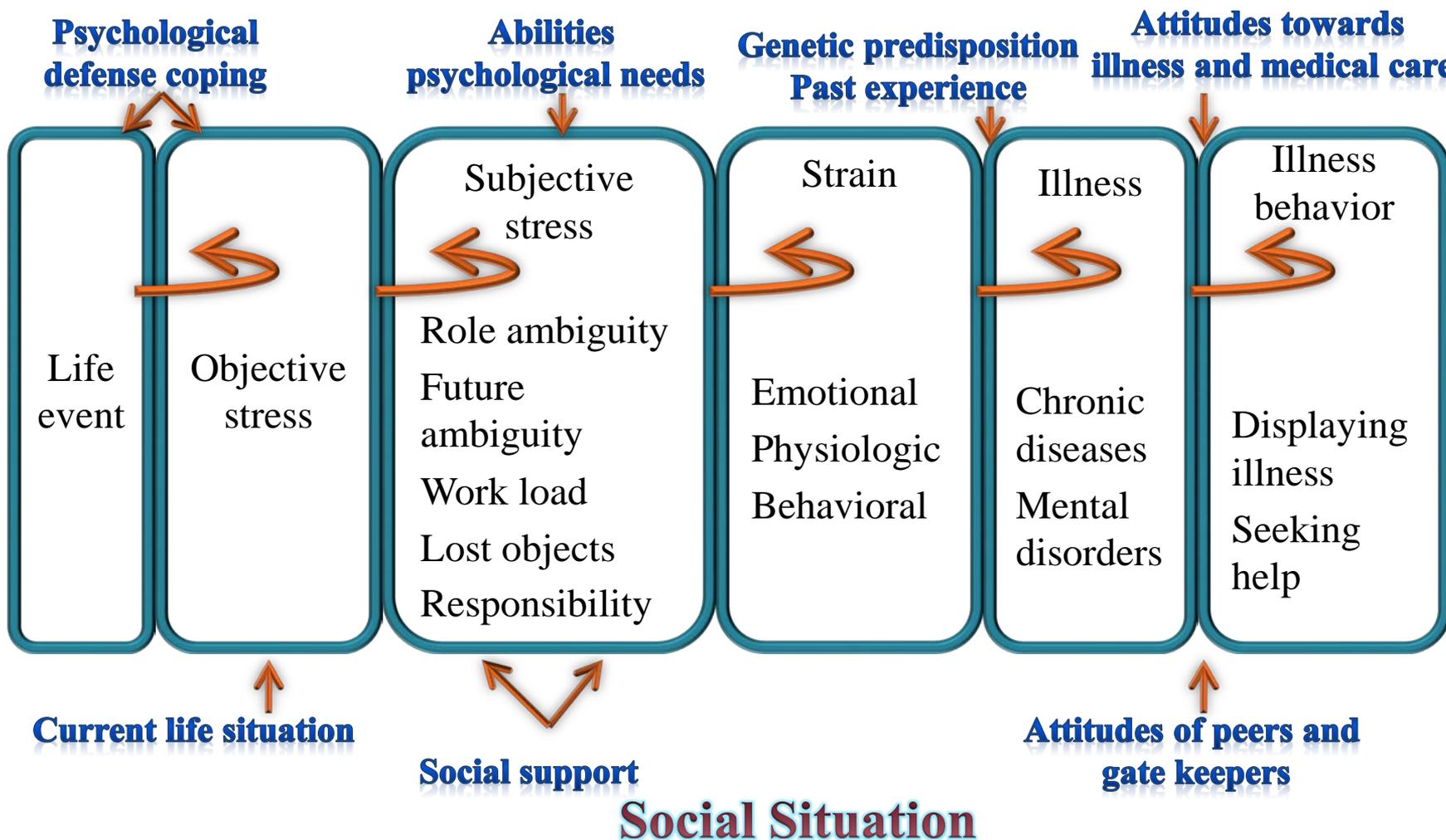


Background

- Adolescent is viewed as most critical time for mental health and wellbeing because it is a time of psychosocial as well as biological transition.
- Adolescent consider as a stage of stress and strain. Since in this period, there are rapid changes in physical, mental, social, cognitive and sexual domains; these changes ultimately lead to an increased level of stress.
- Female adolescent are more vulnerable for stress than male. due to varying hormonal changes and social developments.
- Female adolescent are the source of hope for future generation nonetheless, there are limited researches on female adolescent in Pakistan.

Model For Development Of Mental Illness

Personal characteristics



Objective

- To estimate the prevalence of and identify the factors associated with stress among female adolescents in Nawabshah city, Pakistan

Study Setting



Subjects and Methods

Study type

School-based Cross sectional survey

Study population

Female adolescents who were the residents of Nawabshah city and studying at these schools

Inclusion criteria

Female adolescents studying in secondary schools of Nawabshah city and aged between 10 to 16 years

Exclusion criterion

Female adolescents having physical & cognitive disabilities

Statistical analysis

Descriptive statistics & Multiple Linear regression

27 secondary schools in Nawabshah city were approached



18 secondary schools consented to participate



474 female adolescents were recruited using simple random sampling

Ethical Considerations

- ◆ **Approval of study protocol by the institutional ethical review committee before starting the data collection process.**
- ◆ **Meeting with parents of all the randomly selected adolescents.**
- ◆ **Verbal and written consent sought from parents**
- ◆ **Interviews were done in privacy.**
- ◆ **Consent was also obtained from participants after briefing about the study**

Perceived Stress Scale (PSS)

- ◆ Most widely used psychological instrument for measuring the perception of stress
- ◆ Developed by Cohen, Kamarck, and Mermelstein in 1983.
- ◆ 14-questions with three-point scale
(1 = never, 2= sometimes, 3 = often)
- ◆ The scale ranges between 14 to 42 score.
- ◆ Content validity was established by a group of psychologists.
- ◆ For estimating prevalence, it was categorized into two groups i.e. stressed and non-stressed adolescents taking the midpoint of PSS i.e. score of 28 as a cut-off point.

Study Findings

Prevalence of Stress among female adolescents in Nawabshah city was
57.6%

Mean	27.84
Median	28
Standard deviation	2.84
Minimum	19.0
Maximum	37.0

Univariate Linear regression analysis of factors associated with stress among school going adolescents in Nawabshah city, Pakistan, March 2005 (n = 474)

Characteristics	n (%)	β {SE (β)}	95% CI	P-Value
Age of Participants (10-16 Yrs)	14.0 (1.0)	-0.051(0.095)	0.238, 0.137	0.596
Age of Mother (23-65 yrs)	40.2 (6.14)	-0.001(0.021)	-0.043, 0.004	0.946
Age of Father (32-75 yrs)	46.7 (7.27)	0.023 (0.018)	-0.012, 0.058	0.204
Employment of Mother				
No	432 (91.1)	0.161 (0.459)	-0.74, 1.064	0.725
Yes	42 (8.9)			
Employment of Father				
No	35 (7.4)	0.792 (0.498)	-0.186, 1.770	0.112
Yes	439 (92.6)			
Number of rooms	3.0 (2.0)	-0.211(0.082)	-0.372, -0.050	0.01*
Parental quarrel				
Yes	144 (30.4)	0.612(0.282)	0.058, 1.167	0.031*
No	330 (69.6)			
Total number of siblings (0 to 12)	5.0 (2.0)	-0.004(0.053)	-0.108, 0.10	0.945
Body Mass Index	20.0 (4.0)	0.003 (0.036)	-0.069, 0.074	0.937
Prior information about puberty				
Yes	71 (15.0)	0.107 (0.366)	-0.826, 0.611	0.77
No	408 (85.0)			

Multiple linear regression analysis of factors associated with stress among school going adolescents in Nawabshah city, Pakistan, September March 2005 (n = 474)

Characteristics	β {SE (β)}	95% CI	P-value
Employment of Father	0.734 (0.493)	-0.236, 1.703	0.138
Number of rooms	-0.213(0.082)	-0.373, -0.053	0.001*
Parental quarrel	-	-	
No	0.158(0.051)	0.056, 1.159	0.001*
Yes			

Adjusted $R^2 = 0.023$, $\beta_0 = 27.843$, $F = 4.635$, P-value: 0.003

Discussion

- Our study has estimated the prevalence of stress as 58% among school-going female adolescents in Nawabshah city, Pakistan, which is very alarming. Prevalence of stress in general population in Pakistan is unknown, therefore, it was not possible to compare the results in local context. However international studies of high school students have shown that the incidences of stress and depression among adolescents are greater for females than males.
- Our research has found an association between fathers' employment and stress; although it was not statistically significant but served as a confounder. This was measured as a proxy indicator to assess socio-economic status of our study subjects. Parental long-term unemployment (especially of fathers) is associated with adolescents' subjective health.

Discussion

- This study provides evidence that there is an inverse relationship between the number of rooms and perceived stress among female adolescents. In our study, number of rooms was taken as proxy to assess socio-economic status of subjects; Previous studies have also manifested that lower socioeconomic status is correlated with increased stress among adolescents;
- Our study has found a significant association between parental quarrel and the risk of stress. This study finding was consistent with the previous studies Previous studies suggest that conflicts and arguments within the home were clearly and directly associated with the prevalence of stress, depression and suicidal phenomena among adolescents, whereas family harmony and cohesion appeared to have a protective effect.

Conclusion & Recommendation

- ◆ Prevalence of stress (57.6%) among female school-going adolescents is alarming.
- ◆ Risk factors for Stress included: father's employment, parental quarrel and socioeconomic status
- ◆ Parental counseling.
- ◆ Training of school teachers and families in multidisciplinary handling of adolescents.
- ◆ Mass awareness about pubertal body changes.
- ◆ Validity study of Perceived stress scale for future researches

Future Implications

- Life cycle approach
- Female adolescents are the mothers of tomorrow

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