International Journal of Statistical Sciences Vol. 15 (Special Issue), 2016, pp 147-158 © 2016 Dept. of Statistics, Univ. of Rajshahi, Bangladesh

Parents' Perceived Stress of Underprivileged Working and Non-Working Children of Special School: A Statistical Analysis

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[Received April 18, 2016; Accepted September 10, 2016]

Abstract

UNICEF reported that about half of all Bangladeshi children are living in poverty while about one in four children is deprived of basic needs such as food, education, health, information, shelter, water and sanitation. Bangladesh Government and some nongovernmental organizations are trying to improve the socio-economic conditions of underprivileged children. Parents' perceived stress is a dynamic multidimensional concept, with a wide spectrum of causative and conducive factors. The aim of this study was to investigate parents' perceived stress of underprivileged working and non-working children of special school. The present paper assessed and compared the type and level of perceived stress by the parents of 100 underprivileged working and non-working children of special schools across their social class. We used the Perceived Stress Scale questioner (PSS-Q-10) and questions were asked to the parents about their feelings and thoughts during the previous month of survey. Descriptive statistics and t-test were used to compare between two groups. This study revealed that parents with working children was very often (32%) in mental pressure with mean score (3.34 ± 1.56) . Non-working children's parents fairly often (40%; mean 3.20± 1.31) and working children' parents almost never (36%; mean 2.98 ± 1.61) fails to make control important matter of their life. Both the parents was very often (52%; 78% and 72%; 74%) had the confidence to solve and tackle any problem with mean (3.96± 1.36; 4.66±0.75 and 4.42 ± 1.05; 4.46±1.01) respectively. Parents of non-working children never avoid (36%; mean 2.62 ± 1.56) any unwanted situation but the parents of working children very often tried to avoid(34%; mean 3.06±1.65) unwanted situation. Working children's parents never (30%) angry with uncontrolled situation but their counterparts almost never (28%) angry with mean (2.84 \pm 1.56) and (3.14 \pm 1.37) respectively. There was some significant association between the working status of unprivileged children and the perceived stress level of their parents. Stress is considered as a risk factor for several chronic diseases such as hypertension, coronary artery disease, etc. We suggest that future studies might want to do a longitudinal analysis that follows a cohort of current child laborers over time compared with non laborers, and then assess whether their parents stress level about child labor continuation or termination hold when they become adults.

Keywords: Stress level, working children, underprivileged.

AMS Classification: 62P15.

1. Introduction

Stress is a common health-related concept suffered by every person. Measuring stress is a critical issue in social science. Stress arises when a person perceives a situation as threatening or demanding while he or she does not have an appropriate coping response [Lazarus & Folkman, 1984]. Psychological health indicators are important for monitoring and evaluating the health status of communities. Because psychological health problems contribute heavily to the total burden of disability in the population, especially within the younger age [Stratakis & Chrousos, 1995].Perceived stress is a dynamic groups multidimensional concept, with a wide spectrum of causative and conducive factors. The perceptions comprise medical, physical, psychological, and psychosocial aspects and are both culturally and socially context dependent [Moore & Cooper, 1996].Over the lifespan, parents face many challenges associated with raising children. Previous research has produced mixed results about the nature of parental stress. Current clinical and epidemiological studies have emphasized the role of stress as an important risk factor for physical and mental disorders that capture the causes of morbidity and mortality particularly in developed societies and recently in developing countries [Tennant, 2000 and Martins & Coetzee, 2008]. The degree of stress experienced and the ways in which a person reacts to it can be influenced by a various number of factors such as personal characteristics, lifestyle, social support, and appraisal of the stressor(s), life events, socio-demographic and occupational variables [Belek, 2000].Inequalities in income may have extra individual or contextual effects that structure the social environment in ways that affect the health of a population [Kennedy et al., 1998].Gender's effect is another notable factor in which some studies suggested that health outcomes for men and women are differently affected by stress which may be explained by sex differences in vulnerability, stress response, or coping strategies [Ferraro & Nuriddin, 2006; Kojima et al.

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2005; Iso et al., 2002].Results offew earlier studies showed that stress was a prevalent disorder among Iranian general population [Noorbala et al., 2004; Roohafza et al., 2007]. Most researches on mental health and perceived stress have focused on sources of stress within specific population [Carroll et al., 1997; Ng & Jeffery, 2003; Liu, 2003; Ahumada et al., 2004; Bovier et al., 2004; Nguyen-Michel et al., 2006; Augusto Landa et al., 2008]. On the other hand, there is few data about perceived stress and particularly its correlated determinants in Iranian general population.

Most reviewed research articles that examined parental stress focused on parental stress when having children with disorders such as epilepsy, cerebral palsy, cancer, diabetic, genetic disorders and autism [Sipal et al., 2010; Moh & Magiati, 2012; Shatla et al., 2011; Neece, 2014; Bayat et al., 2008]. However, very few studies have examined the stress levels in parents with working children like labor. Child labor is a phenomenon that touches all corners of the globe, everywhere in the same magnitude. It is more prevalent in the less developed countries than in the developed ones. For decades, child labor has been an important global issue associated with inadequate educational opportunities, poverty and gender inequality. Bangladesh is not far from that. The reviewed literature showed that being a parent is a stressful experience. To our knowledge, so far, in Bangladesh, no study has examined parental stress levels of underprivileged working and non-working children and also there are no active parental support programs.

This study aimed to investigate perceived stress levels of parents with underprivileged children and compare their levels of stress with their children's working status.

2. Methods

Design and study population:

This is a cross-sectional study, and considered 100 parents of (45 working and 55 non-working) unprivileged children from special school of Rajshahi city for collecting data. The parents were interviewed from February to March 2017 by the principal author of this study using a Perceived Stress Scale questioner (PSS-O-10) and questions were asked to the parents about their feelings and thoughts during the previous month of survey. The questions was assessed parents of working and non-working children without any identified stress-related

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conditions. The severity and management of perceived stress were classified into five classes; never=0, almost never=1, sometimes=2, fairly often=3, and very often=4.An appropriate mathematical formula was used to calculate significant sample size, in this formula 80% power of study and 5% level of significance were considered, and initial information were taken from the published paper of Rahman *et al.* (2012). The minimal sample size computed for this study was 100. The trials were conducted with 100 parents who has working and non-working children. Initially we contacted 125parents but 25 parents did not agree to give their information. The age range of the subjects at the time of measurement was 25-58 years.

Measures

The Perceived Stress Scale (PSS-10) [Cohen et al., 1983] has been used to assess perceived stress levels of parents of unprivileged working and non-working children who are going to special school named Underprivileged Children's Educational Programs (USEP). The questions used in the PSS-10 questionnaire measure participants' feelings regarding whether they have enough resources to meet the demands placed upon them. The questions were designed to be quite simple and general in their nature, and are judged over a broad spectrum in order to relate to participants with varying social circumstances (such as parents of a Because the questionnaire is short and easy to complete, working child). participants have little difficulties or burden in participation. The items of PSS-10 are answered using a five point Likert-type rating scale, ranging from never (0) to very often (4). It can generally be competed in under four minutes (Cohen & Janicki-Deverts, 2012). The total score is obtained by reversing the scores of the four positive items (4, 5, 7, 8), and then adding up all scores. Higher scores indicate higher stress levels. It has two subscales: a negative subscale (items 1, 2, 3, 6, 9, and 10) and a positive subscale (items 4, 5, 7, and 8). Six items of the PSS-10 measure stress and 4 items measure coping strategy to stress.

Characteristics Checklist

A participant characteristics checklist was developed by the researcher and included the following information: participant's gender, participant's employment status, participant's number of children and age.

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Statistical analysis

In this study, information of parents with working and non-working children were analyzed separately. Descriptive statistics were computed to describe the participants and their children. Frequency distribution for the stress level score were used to determine the highest level for each question of parents with working and non-working children. Independent t- test was used to compare stress levels of parents with working children to those having non-working children. Statistical Package for Social Sciences (SPSS, IBM version 20) was used for analyzing our data. A value of p<0.05 was considered as statistically significant.

3. Results

In this study 100 parents (working children-45 and non-working children 55) were considered as participants for investigating their perceived stress level. The mean age of fathers and mothers were 30.45 ± 1.18 years (95% CI: 22.31-22.58) and 23.58 ±1.87 years (95% CI: 21.30-21.85), respectively.

Table 1 presents some characteristics of the participants. It has been seen that approximately 45% of parents has working children compared to 55% in the parents with non-working children. The mean age of fathers for both groups was 42 and 45 years respectively and mean age of mothers for both groups was 33 and 34 years respectively. Both groups have a mean of two children per family. More than 75% fathers from both group reported that they were employed compared to around 66% of the mothers from both group. From the working and non-working children 64% were boys and 36% were girls and 56% were boys and 44% were girls respectively. There was no significant difference in any of the socio-demographic characteristics between the two groups.

Variable	Parents of working children N=45 Mean (SD)or %(n)	Parents of non-working children N= 55 Mean (SD)or %(n)
Age		
Father	42.04(9.43)	45.00(13.17)
Mother	33.09(9.59)	34.33(12.7)
No. of children	2.87(0.94)	2.58(1.10)

Table 1: Characteristics of the respondents

Employment status of father					
Employed	76%(34))	80%(44)			
Unemployed	24%(11	20%(11)			
Employment status					
of mother					
Employed	36%(16)	35%(19)			
Unemployed	65%(39)	65%(36)			
Gender of children					
Male	64%(29)	56%(31)			
Female	36%(16)	43%(24)			

Table 2 represents the frequency distribution of perceived stress scale measures of parents with working and non-working children. Parents with working children were very often (36%) and with non-working children were never (38%) been upset because of something that happened unexpectedly with mean (2.18 \pm 1.51 and 1.67 \pm 1.74) respectively. Working children's parents

Variable	Parents of working children, N=45				
		Almost		Fairly	Very
	Never	never	Sometimes	often	often
Upset of happening					
something unexpectedly	14%	34%	12%	4%	36%
Feeling that unable to					
control important things of					
life	14%	20%	12%	40%	14%
Feeling nervous and					
stressed	14%	26%	24%	20%	16%
Feeling confident to					
handle personal problems	6%	18%	2%	22%	52%
Feeling that things were					
going my way	2%	12%	18%	32%	36%
Feeling not capable to do					
all the things that had to					
do	10%	24%	16%	18%	32%
Ability to control					
irritations in life	2%	22%	24%	24%	28%
Feeling on top of things	36%	18%	14%	12%	20%
Feeling angry of things					
that happened outside of					
control	12%	28%	16%	22%	22%
Feeling difficulties to					
overcome highly piling up					
things.	16%	22%	12%	12%	38%

Table 2: Parents' perceived stress scale measure (unprivileged working and non-working children)

Variable	Parents of Non-working children, N=55				
Upset of happening			8	,	
something unexpectedly	38%	24%	4%	2%	32%
Feeling that unable to					
control the important					
things of life	20%	36%	2%	10%	32%
Feeling nervous and					
stressed	20%	26%	14%	14%	26%
Feeling confident to					
handle personal problems	0%	12%	6%	10%	72%
Feeling that things were					
going my way	12%	10%	4%	18%	56%
Feeling not capable to do					
all the things that had to			_		
do	12%	20%	8%	8%	52%
Ability to control					
irritations in life	12%	14%	4%	32%	38%
Feeling on top of things	22%	30%	2%	12%	34%
Feeling angry of things					
that happened outside of					
control	30%	18%	16%	10%	26%
Feeling difficulties to					
overcome highly piling up					
things.	20%	14%	20%	18%	28%

fairly often (40%; mean 2.13 ± 1.31) and non-working children' parents almost never (36%; mean 2.05 ± 1.58 1.61) feeling unable to control important matter of their life. Both the parents were almost never (26%; %) felt nervous and stressed with mean (2.00± 1.28) respectively. Parents of working and non-working children very often (36% and 56%) felt that things were going on its way with mean (2.82 ± 1.07 and $3.00 \pm$ 1.44) respectively. Both the parents ware very often (32% and 52%) felt that not capable to do all things had to do with mean $(2.24 \pm 1.40 \text{ and } 2.76 \pm 1.53)$ respectively. Parents of working children very often (28%; mean 2.53 \pm 1.19) had the ability to control irritations in life but the parents of non-working children also very often(38% mean 2.69 ± 1.37) had the ability to control irritations in life. Working child's parents never $(36\% \text{ mean } 1.67\pm1.57)$ felt of being on top of things while non-working child's parents very often (34% mean 1.98±1.65) felt of being on top of things. Parents were almost never (28%; 2.43±1.41) and never (30%; 1.87±1.55) felt angry of things that happened outside of control with working and non-working children respectively. Both the parents ware very often (38% and 28%) felt difficulties to overcome highly piling up things with mean $(3.33 \pm 1.57 \text{ and } 2.22 \pm 1.50)$ respectively.

Table 3 presented an independent-samples t-test which conducted to answer the research question and to compare the total stress score for parents with working

and non-working underprivileged children. Parents of working children reported slight higher stress levels than parents of non- working children. There was an insignificant difference in the stress scores of parents of non-working children (M=18.53, SD=7.60) and parents of working children (M=19.96, SD=6.22); t(98)=1.012. The mean difference between scores was 1.42 (95% CI: -1.37 to 4.22).

Table 3: Differences in total stress scores between parents of working and nonworking unprivileged children

Variable		Parents of working children N= 45	Parents of non-working children N= 55	<i>P</i> - value
		Mean(SD)	Mean (SD)	
Total str	ess	19.96(6.22)	18.53(7.60)	0.314
score				

4. Discussion

To our knowledge, this is the first study to evaluate the perceived stress level using the PSS-10 scale in a sample of parents with under privileged working and non-working children. This study has explored the stress level of parents from under privileged citizen in Rajshahi city lower class population with working and non-working children. The results shows that PSS-10 subscales were generally supported in a community-based sample of parent's stress of underprivileged children with employment status. The spread of child labor is a common occurrence in most underdeveloped and developing countries and Bangladesh is no exception. Children are forced to start their working life at an early stage of their life because of Reluctance of the parents due to the cost of education, Unawareness of the family, Reluctance of the employers about the labor law &Inequity of Income Distribution. In our study it has been found that more than 75% fathers of working children were employed where as 80% fathers of nonworking children were employed. From the both groups 65% mothers were unemployed. So the children may be forced to go for work to earn money. Koseleci and Kovrova (2009) examines the child labor phenomenon in Bangladesh and India from a gender perspective`. It looks at differences by sex in key dimensions of the child labor phenomenon – revels that boys are more active as labor in some extents than girls and girls' work experience differs from that of boys. Our partial findings also support that boys are more (64.4%) involved in labor work in our country.

Chronic stress and poverty can have detrimental effects on the health of parents and their children. Although poverty and poor health are intertwined, the present research, with an aim to elucidate the relationship between parental stress and underprivileged working and non-working children in low-income families, will give further insights into the possible vicious cycle of mental health of poor parents, an aspect that is often overlooked. Our study reveals that the stress score of parents with working children was slight high compared with than that of parents with non-working children. But the difference is insignificant as because the mean difference is very tiny. No other study has found on this aspect. Major strength of this study stems from the quality of the nationally representative data with underprivileged cohort. Many studies that translated and standardized the PSS-10, most studies used university student samples [Bovier *et al.* 2004] or very specific samples [Chaaya *et al.* 2012].These results may helpful as implications of the PSS-10 can aid the stress researchers to understand stress in lower-class populations in Bangladesh.

5. Limitations

However, this study focuses on a subgroup of low-income families in Bangladesh which is not a population-representative sample and hence the findings may not be generalizable to other populations. Further follow-up assessment should be conducted if resources are available.

6. Conclusion

In summary, PSS-10 is a reliable and valid instrument for measuring perceived stress level.

This study suggests the fact that no single underlying factor is responsible for the stress level of a working child's parents. Since this is a small study, we did not find any significant difference in the perceived stress score of working and non working underprivileged children's parents. We can get better results by collecting more information and conducting research in the future. In efforts to advance stress research in low income populations, the PSS-10 should be further tested for its psychometric properties among high and low income parents samples, as the two groups may experience stress differently.

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