
**ADDRESSING YOUTH CRIME IN BANGLADESH:
STRAIN THEORY PERSPECTIVE**

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ABSTRACT

Strain theory interprets that stress and crime are correlated. The study evaluates National Service Programme with a quasi experimental design to examine stress-crime association in an extended form. This extension implies that employment reduces stress and stress reduces crime. As evidenced by data analysis, the assumption was sufficiently accurate. The treated group relative to the comparison group is six times more likely to get employed, 12 times less likely to suffer from high stress and 12 times less likely to be involved in crime due to the effect of intervention. The individuals without employment have a 335% increase in chance of suffering from high stress compared to individuals with employment. Those suffering from high stress have 743% increase in risk of getting involved in crime compared to those suffering from low stress. In preventing youth crime and tackling youth unemployment, the study suggests designing project based on the pattern of employment-stress-crime relationship.

Keywords: Youth Crime, Stress, Employability, Poverty, Unemployment

1. INTRODUCTION

Youth crime results from a complex and diverse set of factors Such as poverty, peer pressure, poor parenting, dysfunctional of family, addiction to narcotics etc. (Banham Bridges, 1927). This study intends to capture youth crime as a result of stress particularly stemming from poverty and unemployment. More often than not, youth are in crime due to poverty (Prior & Paris, 2005).

Unemployment is no less to blame than poverty. The youth are mostly exposed to unemployment which is concurrently linked with poverty and crime. It is a problem by itself and begets many other problems too. For example, the youth get depressed and strained without being employed. Thus, youth unemployment may result in social conflicts and juvenile delinquency which have

high social costs (Coenjaerts et al., 2009). Moreover, “underutilized young people incur significant economic costs as the national workforce is not being used to its full potential and can trigger a vicious circle of intergenerational poverty and social exclusion” (Coenjaerts et al., 2009, p. 2). The gravity of youth crime and youth unemployment problem in Bangladesh has been intensified by a rising youth population. Some 47.6 million or 30 percent of the total 158.5 million people in Bangladesh are young aged 10 - 24 (UNFPA, 2014). Having considered the worse reality, Department of Youth Development (DYD) under the Ministry of Youth & Sports implemented National Service Programme (NSP) promoting employability of young people. The programme aimed at providing the selected beneficiaries with technical and life skills training and temporary jobs in local organizations for a period of two years. Each participant underwent a three month training programme before they were placed to work for two consecutive years under any nation building department of the government of Bangladesh. The youth under this programme were expected to either create self-employment or manage a job in public or private sectors in the post-intervention period. This study conducts a quantitative inquiry to find out whether the stress out of poverty and joblessness had any effect on their engagement in crime. The study assumes that poverty and unemployment cause young people to suffer from high stress which most often, induce them to commit crime. Therefore, being employed will definitely reduce the stress and in turn will reduce their engagement in criminal activities. As evidenced by the review of literature, such a perspective has not been reflected in any previous study in Bangladesh context. A reason why this study should be taken is to focus on this unexplored aspect.

1.1 RESEARCH QUESTIONS

The study assumes that employment programme reduces strains by enhancing employability of young people. The reduction of stress, in turn may reduce youth crimes. Thus, the study deals with two questions: First, did the intervention reduce the stress of the youth? Second, if the stress was reduced, was there any effect of it on reducing youth crime ?

1.2 STRAIN THEORY

The study is based on the general strain theory which states that strains may stem from events such as verbal and physical abuse, being jobless for a long period, lack of monetary success, the inability to achieve one’s goals etc. (Agnew, 2008). Stress, in turn begets youth crime. Unemployment creates frustration, a sense of social exclusion and a feeling of inferiority complex among the young people. The theory states that strains enhance the probability of crime. Crime could be a way to mitigate or escape from strains (Agnew, 2008). It could also be a way to alleviate negative emotions. For example, some may become drug addicted to feel better. The study thus investigated the association and the strength of association between the stress and the

treatment since the stress was supposed to reduce due to the programme effect. Then, it investigated whether the reduction of stress (if lessened) had any effect on reducing youth crime. Having received the benefits of the programme, the youth could manage a job in the public or private sector, which might reduce their stress and, thus abstaining them from engaging in youth crime.

2. METHODOLOGY

The study investigated a quantitative inquiry to answer the research questions, pursued a non experimental design and ran both parametric and non-parametric tests. All the output variables and most of the explanatory variables were binary data. Those who participated in the programme were regarded as treated group and those who did not participate were regarded as comparison group.

2.1 SAMPLING AND DATA COLLECTION

The study concentrated on male beneficiaries and male non-beneficiaries as the crimes were found to have been committed by male individuals only. The treated group consisting of 200 beneficiaries and comparison group consisting of 600 non-beneficiaries were randomly selected from the base line data. The base line data set contained data of 800 beneficiaries and 800 non-beneficiaries. The treated and comparison groups were selected proportionately from each *Upazila* of *Kurigram* district (a geographically divided administrative unit) in Bangladesh. Post-intervention data were collected from 800 respondents in the year of 2014.

2.2 DATA ANALYSIS

The study, in the first stage applied logit model along with propensity score matching to assess the programme effect (Average Treatment on the Treated) on employment, stress and engagement in crime of young people. Logit model, a statistical method, is used to predict a binary response variable as a function of predictor variables. The probability of assignment to the treatment is estimated as:

$$P = \frac{e^{\alpha + \beta x}}{1 + e^{\alpha + \beta x}}$$

Where P is the probability of the occurrence of outcome of interest as a function of predictor variable x, α (intercept) and β (slope) are the parameters of the model. β is the regression

coefficient multiplied by some value of the predictor x . It adjusts how the probability changes with each one unit change in predictor variable x . e is the base of the natural logarithm (Hyeoun-Ae, 2013).

Hosmer–Lemeshow goodness-of-fit test and link test were conducted to examine the validity of logit model. In the second stage of analysis, chi-square test was conducted to find out the association between employment and stress and between stress and crime variables. Risk ratio and relative percent effect were calculated to measure the strength of association between treatment and stress and between stress and crime variables. Stata produced all the analyses.

2.3 VARIABLES

The study dealt with eight variables and treated age and education as continuous and residence (1= urban and 0 = rural area), marital status (1 = married and 0 = unmarried), treatment (1= treated 0 = untreated), stress (1= high stress 0 = low stress), employment (1= employed and 0 = unemployed) and crime (1= involved and 0 = not involved) as dummy variables. Employment, stress and crime variables were regarded as output variables, and all other variables as predictor variables.

3. RESULTS AND DISCUSSION

Data has been analyzed in two stages. In stage one, we have conducted logit regression along with propensity score matching to assess the effect of intervention on output variables: employment crime and stress. The average treatment effect on the treated (ATT) in the table below shows that the treated group is six times more likely to get employed than the comparison group. The treated group is 12 times less likely to be engaged in crime and 12 times less likely to suffer from high stress compared to the comparison group.

Table 1: The effect of intervention on employment, stress and crime variables

Output Variable	Treated (individuals)	Comparison (individuals)	ATT	Std. Err.	t
Employment	200	428	0.059	0.041	1.46
Crime	200	428	-0.120	0.045	-2.66
Stress	200	428	-0.120	0.044	-2.73

The intervention has succinctly increased the employability of young people while at the same time it has also abstained the beneficiaries from committing crime. The increase in employability must cause the reduction of stress, which, in turn cause lower rate of engagement in crime. Thus, the evidence favours the assumption of the study. However, to confidently affirm the assumption, we need to know the relationship between stress and employment and stress and crime variables.

In stage two, we have run chi square test and calculated risk ratio and percent relative effect to examine the association between stress and employment and between stress and crime variables. The result pertaining to stress and employment variables shows that P-value (0.001)) is less than the significance level (Table 2). Hence the null hypothesis assuming no association between row and column variables is rejected and the alternative hypothesis corresponding to the variables having an association is accepted. Thus, the test establishes some association between employment and stress variables.

Table 2: The association between employment and stress variables

	High Stress	Low Stress	Total
Employed	13	137	233
Not employed	220	430	567
Total	150	650	800

[Risk Ratio = 0.23, 95% Confidence Interval = 0.13 -0.40, Chi2 = 37.43, Pr > chi2 = 0.001]

The risk ratio for the employment group (further subdivided by employed and unemployed) and the stress group (further subdivided by exposed and unexposed) is 0.23. Following up Osborne’s suggestion, I would prefer here reporting risk ratio >1 to risk ratio <1 (Osborne, 2006). In so doing, the inverse of the risk ratio would be taken and the description of the result would also be reversed as such. The inverse risk ratio of 0.23 is 4.35 which means that the individuals who are unemployed has 4.35 times the chance of suffering from high stress relative to the individuals who are employed. An alternative way to interpret the comparison of two groups is to produce percent relative effect. When $RR > 1$, percent relative effect = $(4.35-1) * 100 = 335\%$ increase in chance (risk). The way this 335% increase in chance can be interpreted is that individuals without employment has a 335% increase in chance of being suffered from high stress compared to individuals with employment.

As to examining the relationship between stress and crime variables, the result ($p = 0.001$) also indicates some association between stress and crime variables (Table 3). The risk ratio and percent relative effect for the stress group (further subdivided by individuals suffering from high stress and individuals suffering from low stress) and the crime group (further subdivided by individuals involved in crime and individuals not involved in crime) is 8.43. It points out that those suffering from high stress have 8.43 times the probability of getting involved in crime compared to those suffering from low stress. The percent relative effect in this regard is 743%, which states that those suffering from high stress have 743% increase in risk of getting involved in crime compared to those suffering from low stress.

Table 3: The association between stress and crime variables

	High Stress	Low Stress	Total
Engaged in crime	177	41	218
Not engaged in crime	56	526	582
Total	233	567	800

[Risk Ratio = 8.43, 95% Confidence Interval = 6.52 -10.91, Chi2 = 393.55, Pr > chi2 = 0.001]

3.1 LIMITATION

The results should be considered together with several limitations. The study applied propensity score matching technique to form a valid comparison group. The propensity score balances the distribution of baseline (observed) characteristics between treated and untreated groups and produces a counterfactual (Gertler et al., 2011). However, it does not balance unmeasured and unobserved characteristics. This imbalance can cause biased estimation (Khandker et al., 2010). The study is not free from such weakness.

To remedy this limitation, Hosmer-Lemeshow test and linktest were conducted separately for each output variable. The P-values for employment, stress and crime variables produced by Hosmer-Lemeshow test are $P > \chi^2 = 0.88$, $P > \chi^2 = 0.41$ and $P > \chi^2 = 0.89$ respectively (Table 4).

Table 4: Hosmer-Lemeshow test for output variables

Output variable	Number of group	Hosmer-Lemeshow chi2(8)	P > chi2
Employment	10	3.75	0.88
Stress	10	8.21	0.41
Crime	10	3.60	0.89

The results are indicative of no evidence of misspecification in our models. The P-values of $\hat{\mu}$ produced by linktest for employment, stress and crime variables are $P > (z) = 0.88$, $P > (z) = -1.70$ and $P > (z) = -5.98$ respectively (Table 5).

Table 5: Linktest for output variables

Variable	Coef.	Std. Err.	z	P > (z)	[95% Conf.	Interval]
Employment ($\hat{\mu}$)	0.27	1.73	0.15	0.88	-3.13	3.66
Stress ($\hat{\mu}$)	- 0.37	0.70	-0.52	0.601	-1.70	1.01
Crime ($\hat{\mu}$)	-2.54	1.75	-1.45	0.147	-5.98	0.89

This test also has not detected specification error. The tests will hopefully validate the results to an acceptable extent.

4. CONCLUSION

The analyses can be summarized as follows. The treated group relative to the comparison group is more likely to be employed, less likely to suffer from high stress and less likely to be engaged in crime due to the effect of intervention. The individuals having employment has low stress and less risk of getting involved in crime compared to individuals having no employment but high stress. Thus the evidence is found in favour of the assumption. The results establish a pattern of

relationship among employment, stress and crime variables. This pattern of relationship implies that unemployed and poor young individuals suffer from high stress, which more often tempt them to engage in criminal activities. Being employed in such a situation could reduce the stress, which could abstain them from engaging in crime. Reasonably, the findings could be applied in addressing youth crime and youth unemployment. As such, project could be designed following the pattern of employment-stress-crime relationship.

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