

Adolescents Exposure to Violence in Bangladesh

An Exploratory Study

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Introduction

- High growth, inequality, urbanization, migration, technology - new social tensions seen
- Violence: apparently a serious concern - high incidence and severity (media reports); victims include boys, girls, and women (Deepa & Rapee, 2015)
- A few agencies (e.g. ASK) monitor violence based on newspaper reports
- Little or no research except on VAW

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- High acceptance of physical punishment (normalised) in home, school, community (VanderEnde et al., 2014)
- Exposure to violence at home as children increases likelihood of perpetration of violence as adults (Islam et al., 2017; Murshid & Murshid, 2015)
- No studies in BD on exposure, correlates, contexts or causes.

Poor Data

- 3 Sources: BBS, Demographic & Health Surveys, ASK
- BBS & ASK: Show declining violence but methodologically unsound
- BBS: 80% women experience IPV (BBS, 2016)
- DHS - Most indicators high for BD (60% of women report lifetime exposure) compared to regional experience. Representation of women as victims, men as perpetrators. Boys/girls not represented.

Methodology

- Violence (definition): “Behaviour intended to cause harm and exercise forceful control over hh members, intimate partners, colleagues, individuals and groups” (Anon, 2017).
- Objective: Explore attitude and exposure to both societal/community and domestic violence from the perspective of children, adolescents, and youth in Bangladesh.
- Research questions:
 - What are the types of violence that respondents are exposed to?
 - What are the correlates of exposure to violence?
 - What are the types of attitudes that respondents have regarding violence?
 - Does exposure to violence have an effect of respondents’ attitude about violence?

Methodology (..contd)

- Point of departure: Measurement of attitude and exposure using scales (Exposure: Richter-Martinez 1990; 1993); Attitude: Funk et al, 1999).
- Examine attitude and exposure to violence in terms of individual characteristics, HH socio-economic characteristics and locational characteristics (e.g. village/district).
- Field: A standard HH socio-economic survey

Sampling

- Five types of sites purposively chosen:
 - 1. Urban (slum/non-slum) - Dhaka
 - 2. Green Revolution - Bogra
 - 3. Poor, backward - Gaibandha
 - 4. Migrants (int.) - Comilla
 - 5. Migrants (domestic) - Faridpur.
- From each rural district we randomly chose 5 Uz, 5 Unions and 5 villages; Conducted village census.
- 10 boys and 10 girls sampled from list of hh with girls or boys in age group 12-19 (100 boys/girls per district).

Urban: Dhaka

- Slum 60 hh (50% girls)
- Non-slum 60 hh (50% girls).
- Areas: Karail, Bansbari, Kalyanpur, Bhashan Tek, Bauniabad Basti.
- Total 400 rural; 120 urban (slum 60).
- FGD: 2 per district (girls/boys) - in progress.

Analytical Approach

- 5 point Likert-type scale used: (1=never; 2=rare; 3=usually not true (4) occasionally (5) usually true.
- Data reliability test-retest (retest data just generated - no time to incorporate).
- Internal consistency tests used: Cronbach alpha (measure of scale reliability) and Keyser-Meyer-Olkin (KMO) test for sampling adequacy.

Exploratory Factor Analysis (EFA)

- Essentially used in data reduction when faced with a large number of items in a scale.
- Also can be thought of as a way to measure a latent (unobservable) variable (here susceptibility or vulnerability to violence).
- The reduced set of factors need to be interpreted carefully in terms of various components of 'vulnerability'

EFA..

- These factors can be used in different ways as explanatory variables or dependent variables for further analysis.
- Thus we first: extract factors to understand the nature of violence and attitudes to violence.
- Secondly, we ‘explain’ these in terms of individual, household, and area characteristics.
- Principal components approach was used in *stata*.

Assumptions & Limitations of EFA

- Interval or ratio measurement
- Random sampling
- Relationship between observed variables is linear
- Normal distribution for each observed variable
- Bivariate normal distribution for each pair obs var
- Multivariate normality
- Based on correlations (no causality)
- Reliability depends on sample/item size

Regression models

Dependent Variables are factor scores (0 mean, 1 var)

Thus, we are able to:

- Understand nature of exposure and attitude;
- Explore correlates of violence;
- Examine whether attitude regarding violence is affected by exposure to violence

Exposure

Results: EFA of Exposure Scale

| • Factor | Variance | Difference | Proportion | Cumulative |
|---|----------|------------|------------|------------|
| • -----+ | | | | |
| • Factor1 | 5.69899 | 0.69580 | 0.1325 | 0.1325 |
| • Factor2 | 5.00319 | 2.03689 | 0.1164 | 0.2489 |
| • Factor3 | 2.96630 | 1.20643 | 0.0690 | 0.3179 |
| • Factor4 | 1.75987 | 0.18888 | 0.0409 | 0.3588 |
| • Factor5 | 1.57099 | 0.04747 | 0.0365 | 0.3953 |
| • Factor6 | 1.52352 | 0.02342 | 0.0354 | 0.4308 |
| • Factor7 | 1.50010 | 0.05069 | 0.0349 | 0.4657 |
| • Factor8 | 1.44941 | 0.00007 | 0.0337 | 0.4994 |
| • Factor9 | 1.44934 | 0.01079 | 0.0337 | 0.5331 |
| • Factor10 | 1.43855 | 0.05631 | 0.0335 | 0.5665 |
| • Factor11 | 1.38224 | 0.25411 | 0.0321 | 0.5987 |
| • Factor12 | 1.12813 | . | 0.0262 | 0.6249 |
| • ----- | | | | |
| • LR test: independent vs. saturated: $\chi^2(903) = 8436.04$ Prob> $\chi^2 = 0.0000$ | | | | |

Items into Factors: Loadings

• Variable | Factor1 Factor2 Factor3

• -----+-----

| | | | |
|---------|--------|--|---------|
| • R3_01 | 0.6754 | | |
| • R3_02 | 0.6360 | | |
| • R3_03 | | | |
| • R3_04 | 0.7930 | | |
| • R3_05 | 0.8569 | | |
| • R3_06 | 0.7888 | | |
| • R3_07 | | | |
| • R3_08 | | | |
| • R3_09 | | | -0.5912 |

Extracted Factors

- 12 extracted factors as follows (and labelled them):
 - 1. Saw low-level
 - 2. Saw high level
 - 3. Experienced sexual harassment
 - 4. Saw/ experienced physical or sexual violence
 - 5. **Fear of acid attack**
 - 6. **Admitted participating in sexual assault**
 - 7. **Saw gun pointed**
 - 8. **Domestic sexual abuse**
 - 9. Know of kidnapping
 - 10. **High intensity domestic violence**
 - 11. Witnessed murder
 - 12. **Acid victim**
- KMO of bold factors are below 0.6 (low sample size)

Factor-based scores

- Two options in literature:
 - Use factor scores in further analysis
 - Alternatively, add-up the raw scores of the items that correspond to each factor, and use these in further analysis.
- E.g. Factor 4 is associated with item 9, 27, 29 - so we simply take the average of these items.
- It is also possible to add up all items or factors to have an aggregate score.

Prevalence: Mean, SD

```
. summ Lo_LV1 Hi_LV1 Expo_S1 Expo_PS1 Acid_threat1 c_ass_S1 Gun_threat1 dom_sab1 kid_ex1 dom_vhi1 murder_saw1 acid_vic1
```

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|--------------|-----|----------|-----------|-------|----------|
| Lo_LV1 | 520 | 1.901442 | .5156723 | 1.125 | 3.5 |
| Hi_LV1 | 520 | 1.335165 | .3434445 | 1 | 2 |
| Expo_S1 | 520 | 1.874519 | .605848 | 1 | 4 |
| Expo_PS1 | 520 | 1.441026 | .2704782 | 1 | 2.666667 |
| Acid_threat1 | 520 | 1.023077 | .1138152 | 1 | 2 |
| c_ass_S1 | 520 | 1.011538 | .1068986 | 1 | 2 |
| Gun_threat1 | 520 | 1.028846 | .1392749 | 1 | 2 |
| dom_sab1 | 520 | 1.045192 | .1682276 | 1 | 2 |
| kid_ex1 | 520 | 1.016346 | .0992366 | 1 | 2 |
| dom_vhi1 | 520 | 1.025 | .1562753 | 1 | 2 |
| murder_saw1 | 520 | 1.073077 | .2605133 | 1 | 2 |
| acid_vic1 | 520 | 1.003846 | .0619576 | 1 | 2 |

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Prevalence %

| | |
|------------------------------|------|
| Factor 1 (low level ex) | 66.1 |
| Factor 2 (hi level ex) | 33.2 |
| Factor 3 (sex harassment) | 61.6 |
| Factor 4 (phys & sexual vio) | 40.2 |
| Factor 5 (acid threat) | 02.3 |
| Factor 6 (s-assault made) | 01.2 |

Prevalence ..

| | | |
|-----------|-----------------|------|
| Factor 7 | gun threat seen | 02.8 |
| Factor 8 | dom s_abuse | 04.5 |
| Factor 9 | kidnap | 01.5 |
| Factor 10 | hi dom vio | 02.5 |
| Factor 11 | saw murder | 07.3 |
| Factor 12 | acid victim | 00.4 |

OLS Regression Results

Dependent Variable(s): Exposure Items

Factor 1 - Saw low-level violence

| Indep | coefficient | t |
|-----------------|-------------|-------|
| Age | .0034 | -.31 |
| Gender (F) | -.182 | -4.37 |
| Education (yrs) | .001 | .94 |
| Land (dec.) | -.0001 | -.92 |
| Asset/hh | -1.14e-06 | -2.19 |
| Toilet (metres) | .018 | 6.31 |
| Dhaka dummy | 1.91 | 27.67 |
| Faridpur | -.16 | -2.29 |
| Comilla | .13 | 1.94 |
| Bogra | .11 | 1.63 |

n=520, F=185.9 R-sq (adj): .78

Factor 2: Saw high level violence

| • Vars | Coeff | t |
|---------------|-----------|-------|
| • age | .034 | 2.95 |
| • gender | -.063 | -1.43 |
| • education | .004 | 2.40 |
| • toilet_dist | .002 | 0.60 |
| • land | -7.68e-06 | -.05 |
| • asset | 3.49e-07 | .63 |
| • hijab D | .010 | .23 |

..cont

Districts

| | | |
|-----------|------|--------|
| Comilla | 2.34 | 31.15 |
| Dhaka | .55 | 7.38 |
| Faridpur | .48 | 6.41 |
| Gaibandha | -.14 | - 2.02 |

n=520 F= 144.8 R-sq (adj): .76

Factor 3: Experienced sexual harassment

| Var | Coeff | t |
|------------|--------|-------|
| Gender (F) | 1.189 | 17.1 |
| Age | .055 | 3.04 |
| Toilet_m | .019 | 3.43 |
| Educ | -.0022 | -0.83 |
| Hijab D | .211 | 2.01 |
| Nikab D | -.203 | 1.64 |
| Migrant | -.010 | -.15 |

cont..

District dummies

| | | |
|-----------|------|-------|
| Comilla | .31 | 2.87 |
| Dhaka | .16 | 1.37 |
| Faridpur | .51 | 4.42 |
| Gaibandha | -.14 | -1.22 |

(Bogra base)

F=44.23 R-sq: .43

Factor 4: Experienced physical/sexual violence

| Variable | Coeff | t |
|-----------------|----------|-------|
| Land (dec) | - .006 | -2.06 |
| Assets (Tk.) | 3.82e-06 | 3.95 |
| Madrasa D | - .292 | -2.65 |
| Adult_units | - .028 | .64 |
| Toilet_m | .033 | 6.25 |
| Gender (F) | - .146 | 1.44 |
| Age | .032 | -1.44 |
| “Not so strong” | - .306 | -3.64 |
| “Weak” | - .334 | -1.75 |

(Also accounted for district effects - all 4 were negative/sig)

F=16.03; R-Square: .29

Factor 5: Fear of (acid) attack

- Not able to fit a respectable model using the variables at hand
- Only significant variable was 'hijab' (negative effect) and 'education' was weakly significant (also neg.)
- Individ/HH/Dist characteristics were not generally significant.

Factor 6: Committed S_assault

| Var | Coeff | t |
|------------|--------|-------|
| Gender (F) | -.069 | -.83 |
| Age | .066 | 2.97 |
| Educ | -.0008 | 0.26 |
| Madrasa D | .02 | .21 |
| Poor HH D | -.41 | 1.92 |
| Med HH D | -.53 | 2.45 |
| District D | | |
| Comilla | -.19 | -1.42 |
| Dhaka | -.26 | -1.94 |
| Faridpur | -.85 | -6.19 |
| Gaibandha | -.066 | -0.50 |

F=6.46 R-Square .104

Other Factors

- Key items - too few observations.
- Factor 8: domestic sexual abuse - key items concentrated in one district, namely Bogra (24/39 obs.) - so perhaps separate exercise for Bogra in order.
- Factor 11: witnessed killing, n=38 (>7%)



Attitude

Mean Prevalence: attitude

| Factor | Mean | Min | Max | SD |
|---------|-------|-----|-----|-----|
| Fear | 2.129 | 1 | 5 | .67 |
| SD | 2.125 | 1 | 4.5 | .77 |
| SD/W | 1.685 | 1 | 4.7 | .45 |
| Gang | 1.663 | 1 | 3 | .39 |
| Gain | 2.268 | 1 | 5 | .68 |
| Non-con | 4.44 | 1 | 5 | .77 |

Results: EFA of Attitude Scale

```
. rotate, orthogonal varimax blanks(.4)
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```
Factor analysis/correlation      Number of obs = 520  
Method: principal-component factors Retained factors = 6  
Rotation: orthogonal varimax (Kaiser off) Number of params = 87
```

| Factor | Variance | Difference | Proportion | Cumulative |
|---------|----------|------------|------------|------------|
| Factor1 | 2.30595 | 0.06473 | 0.1356 | 0.1356 |
| Factor2 | 2.24121 | 0.52794 | 0.1318 | 0.2675 |
| Factor3 | 1.71328 | 0.11476 | 0.1008 | 0.3683 |
| Factor4 | 1.59852 | 0.20747 | 0.0940 | 0.4623 |
| Factor5 | 1.39105 | 0.13133 | 0.0818 | 0.5441 |
| Factor6 | 1.25972 | . | 0.0741 | 0.6182 |

```
LR test: independent vs. saturated: chi2(136) = 1863.59 Prob>chi2 = 0.0000
```

Items into Factor Loadings

Rotated factor loadings (pattern matrix) and unique variances

| Variable | Factor1 | Factor2 | Factor3 | Factor4 | Factor5 | Factor6 | Uniqueness |
|----------|---------|---------|---------|---------|---------|---------|------------|
| R2_01 | | | | 0.8413 | | | 0.2285 |
| R2_02 | | | | 0.7271 | | | 0.3163 |
| R2_03 | | 0.4739 | | | -0.5013 | | 0.3855 |
| R2_04 | | | | | | 0.8240 | 0.3124 |
| R2_05 | | 0.5902 | | | | | 0.5618 |
| R2_06 | | | 0.6822 | | | | 0.3812 |
| R2_07 | | 0.7554 | | | | | 0.3472 |
| R2_08 | | 0.7350 | | | | | 0.4471 |
| R2_09 | | | 0.7280 | | | | 0.4327 |
| R2_10 | | | 0.5338 | | | | 0.4436 |
| R2_11 | | | | | 0.8321 | | 0.2461 |
| R2_12 | | 0.4507 | 0.4608 | | | | 0.4507 |
| R2_13 | | | | | | 0.6112 | 0.4841 |
| R2_14 | 0.4272 | | | | | | 0.4681 |
| R2_15 | 0.8347 | | | | | | 0.2502 |
| R2_16 | 0.7793 | | | | | | 0.3814 |
| R2_17 | 0.8019 | | | | | | 0.3534 |

(blanks represent abs>Loading)<.4)

Extracted Factors

- 17-item scale (Funk et al)
- Alpha .728; KMO .783
- Extracted 6 factors using principal components
- Factors are labelled as:
 1. fearful
 2. Willing to fight back
 3. Willing to fight back with weapons
 4. willing to join a gang
 5. willing to adopt violence for gain
 6. non-confrontational



Does exposure relate to attitude?

Does exposure relate to attitude?

- We hypothesize that exposure to violence informs attitudes about violence
- Each attitude factor was regressed against all 12 exposure factors and district dummies

Fearful

| | Coeff | t |
|-------------------------------|--------|-------|
| • Saw high level violence | 0.44 | 5.02 |
| • Sexual harassment | 0.19 | 4.64 |
| • Physical or sexual violence | -1.11 | -2.23 |
| • Kidnap Incidents | 0.09 | 2.36 |
| • District dummy | | |
| • Comilla | -.0.68 | -2.58 |
| • Dhaka | 0.14 | 0.61 |
| • Faridpur | 0.26 | 1.39 |
| • Gaibandha | 0.01 | 0.08 |

R-square .20; F 9.13

Self-defensive: willing to fight back

| | Coeff | t |
|-------------------------|-------|-------|
| • Sexual harassment | -0.08 | -2.30 |
| • Gun threat | 0.09 | 2.66 |
| • Domestic sexual abuse | -0.14 | -3.67 |
| • District dummy | | |
| Comilla | -1.05 | -4.54 |
| Dhaka | 0.75 | 3.56 |
| Faridpur | -0.50 | -3.07 |
| Gaibandha | -0.04 | -0.32 |

R-square .39, F 21.47

SD Weapons

| | Coeff | t |
|---------------------------|-------|-------|
| • Saw low level violence | -0.24 | -2.72 |
| • Saw high level violence | 0.21 | 2.25 |
| • Sexual harrassment | -0.16 | -3.74 |
| • District dummy | | |
| Comilla | -0.97 | -3.46 |
| Dhaka | 0.60 | 2.35 |
| Faridpur | -0.26 | -1.35 |
| Gaibandha | -0.46 | -3.30 |

R-square .39, F 21.47

Willing to join gang

| | t | Coeff |
|-------------------------------|-------|-------|
| • Saw low level violence | 0.34 | 4.02 |
| • Saw high level violence | -.018 | -2.05 |
| • Physical or sexual violence | 0.17 | 3.49 |
| • District | | |
| • Comilla | 0.46 | 1.73 |
| • Dhaka | 0.45 | 1.86 |
| • Faridpur | 0.55 | 2.98 |
| • Gaibandha | -0.16 | -1.20 |

R-square: .20 F 9.13

Willing to be violent for gain

| | Coeff | t |
|---------------------------|-------|-------|
| • Saw high level violence | 0.14 | 1.95 |
| • Sexual harassment | -0.12 | -3.77 |
| • Gun threat | 0.11 | 3.34 |
| • Dom sexual abuse | -0.08 | -2.21 |
| • Districts | | |
| • Comilla | 1.19 | 5.58 |
| • Dhaka | 0.47 | 2.43 |
| • Faridpur | 1.50 | 10.07 |
| • Gaibandha | 0.13 | 1.24 |
| R square .49, F 34.17 | | |

Non Confrontation

| | Coeff | t |
|-------------|-------|-------|
| • Districts | | |
| • Comilla | 0.33 | 1.14 |
| • Dhaka | -0.26 | -0.98 |
| • Faridpur | 0.16 | 0.77 |
| • Gaibandha | -0.34 | -2.38 |

R square .02, F 1.91



Examples of Factors

Exposure: Factor 1: Low level violence seen

Item

- 2 Seen anyone arrested
- 4 Seen anyone beaten outside the house
- 5 Saw elders fighting/shouting at each other
- 12 Have you been beaten by a family member
- 13 Have you been beaten by someone outside family
- 33 Do you know someone who was murdered?
- 41 Seen any mastan in the neighbourhood?
- 43 Seen anybody stealing from house or shop?

Exposure: Factor 2: High level violence seen

- 1 Have you heard gun shots
- 6 Have you seen someone stabbed
- 11 Seen someone pull out a knife to attack someone?
- 25 Seen someone shot or stabbed outside
- 30 Have you seen anyone trying to force someone to do something with his/her sexual organs
- 36 Do you know someone who was kidnapped
- 37 Did you face a situation when you were very afraid or feared for your life

Attitude: Factor 1: Fear

- Item
 - 14 It is dangerous to hang out with peers
 - 15 I fear that I may get hurt due to violence
 - 16 I fear for my life
 - 17 I feel that my enemies want to hurt me

Comparing with HIES data

| | AEVS | HIES '16 |
|-------------|-------|----------|
| Hhsize | 4.72 | 4.06 |
| Roof | | |
| (brick/cem) | 7.9 | 11.1 |
| (tin) | 92.1 | 84.3 |
| Wall | | |
| (brick/cem) | 23.3 | 30.5 |
| (tin) | 70.9 | 49.3 |
| Electricity | 89.4 | 75.9 |
| Income/hh | 12374 | 15945 |
| Tap water | 21.4 | 12.01 |

Conclusions

- A large proportion of the sample were exposed to both low and high levels of violence, sexual harassment, and witnessing and/or experiencing sexual and physical violence.
- Prevalence of sexual harassment is very high; distance of toilet seems to matter in many types of violence.
- Impt individual characteristics: gender (only for fac 3); age (for fac related to sexual issues); education (fac 2 & 4; positive).
- Madrasah students experience less violence (fac 4).
- Hijab/Nikab: usually not significant.

..contd

- Land (-ve) but assets (+ve) for fac 4.
- Soc-ec status: medium and poor less exposed!
- Migrant hh: not significant.
- Districts: very significant bearing.

...contd

- Witnessing high levels of violence had increased likelihood of affecting their attitude regarding violence (fearful, SD weapons, gang, gain).
- Being sexually harassed was highly correlated with attitudes such as fear, self-defensive, SD weapons, gain - all factors that relate to the idea of safety and ways in which safety can be acquired.
- Domestic sexual violence at home was correlated with attitudes such as being self-defensive, gain - suggesting that such violence may not give individuals the agency to join gangs or acquire weapons.
- Witnessing murders was not correlated with any of the attitudes presented here.
- There were district variations. Only in Gaibandha were respondents “non-confrontational” while only in Gaibandha respondents were not likely to be “self-defensive.” In Comilla, Dhaka, and Faridpur respondents were thinking of “gain,” in Comilla, Dhaka, and Gaibandha were respondents likely to “SD weapons” but only in Faridpur were they significantly likely to join a “gang.”