Prevalence and regional disparity of women's autonomy and intimate partner violence in India: evidence from National Family Health Survey-IV 2015-2016, India

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INTRODUCTION

Autonomy defines the magnitude of access over tangible resources (like food, income, accessible land for agriculture, and wealth) where the individual lives. Similarly, WA defines in operational terms as governing authority over material and non-material resources within or without her partner that affect themselves and own members of the family.1 Moreover, the power to take decision autonomously, liberty of physical movement, identical inputs within family and ability to take unbiased decision.2,3 On the other hand, WHO addresses IPV is most usual form of violence against women that includes physical, sexual and emotional abuse and dominating behaviours by her partner.4 It also occurs in all socioeconomic, religious-cultural groups, and all settings. WHO identified type of IPV which are physical sexual and emotional violence.

In India, recent report of NFHS-4 has shown that 41.6% women access money from their own earning, and 7.7% of women have knowledge about microcredit program/loan. About 26.1% women have physical movement for personal/family reasons.5 Furthermore, women in India 28.1% have WA for her own health care access followed by Nepal 13.4, and 17.6% in...
Women’s relationship with family members is reflections of WA which indicates her participation of family decisions.\textsuperscript{7,8} Further study shows that in India one out of four women is the victim of this incidence and minor improvement from the deteriorating situation in the last decade.\textsuperscript{5,9,10}

Some existing study has stated that the outcome of women's autonomy like "multidimensional." Heaton et al explained the magnitude of women's autonomy closely related to the socioeconomic status of the partner or educational factor effect has significant influence.\textsuperscript{11} In reverse of those reasons, women who live in rural residence has low level of WA and with an increase of women age, education, several children participation in the family decision has up growth.\textsuperscript{6,12} It was observed that the result of Violence against women functions at four measures at the individual level, personal level, community, and society level.\textsuperscript{13} On the other hand, the consistency factors accompanying with man's attempting Violence against women is more likely if that individual has lower education level, premature marriage, addicted to drugs, intrinsic witness or experience by others.\textsuperscript{9}

Chan stated in China with others factors with constant persecution of women and actions by a partner in which include an unstable relationship with partner, conflict, and dissatisfaction with a partner, linked with multiple sexual relationships, differences of educational autonomy, a disparity of household income last but not least, male dominance in the family.\textsuperscript{14} Shamu et al unearth another factor behind the results of Violence in intimate partners.\textsuperscript{15} It shows a strong correlation with the community and societal factors (Poverty, low social status, low-social-economical background, fragile approval in legal in marriage, society stereotype believe) in IPV.\textsuperscript{16} Similar study show that spouse or sexual intimacy is a common problem in the health care system.\textsuperscript{17} The study also reveals that financial autonomy and independence of physical movement is significantly reduced of violence against women. Moreover, a regional-based study reveals that in south part of India has a gender-equitable setting than the northern part.\textsuperscript{18,19} With such background, present study is aim to study the prevalence and regional disparity of IPV and Women's Autonomy in India and States.

METHODS

Study design

In this study we have used the data from latest round of National Family Planning Health Survey India. This study is presenting a National level (India) on WA and Violence against women. NFHS-4, 2015-2016 provides reliable platform to represent on sensitive issues as such Violence against women and women's autonomy for India. Data on special women issues were collected (the experience of last year) which was prior to 2015-2016 information at states level of India at age 15-49 year. Moreover, it also offers facts and figures on fertility, mortality, family planning, maternal and child health, child nutrition at the national level. Data have been collecting using the Computer Assisted Personal Interviewing (CAPI) technique at field. For inclusion and exclusion criteria, present study excluded women samples who are not interviewed, non-married, and widow at the time of the survey of NFHS-4 (2015-2016). After excluding women of 62,716 were included for this study to representative sample of India.

Analysis

A bivariate analysis was performed to show the prevalence of women’s autonomy and IPV in India. Index value is formulated at 0 and 1 (0= No, 1= Yes) for WA and IPV, where 0 represent have no autonomy and no ipv, 1 for having autonomy and ipv.\textsuperscript{20,22} For regional difference prevalence of WA and IPV region/zones were created (Table 1).\textsuperscript{23} Table 2 for authentication of reliability indexes a Cronbach’s for Alpha technique was accounted. Fundamentally, the score of Cronbach Alpha 0.70 or higher is considered as accepted, which means the reliability of a scale is up to desirable, Table 8 shows that the construction of new variable IPV gives 0.7885, and WA score as 0.7333, which means the consistency and reliability among new variables are eligible to further analysis in this study.\textsuperscript{24}

Table 1: Operational description of women autonomy of India.

| Variables                                      | Sample | Mean |
|-----------------------------------------------|--------|------|
| Usually allow to go to health facilities      | 62716  | 0.522|
| Usually allow to go to market                 | 62716  | 0.575|
| Usually allow to go to place outside of village| 62716  | 0.504|
| Usually who person decides large household purchases | 62716  | 0.074|
| Person who usually decides what to do with money husband earns | 62716  | 0.062|
| Person who usually decides on respondent’s health care | 62716  | 0.109|
| Person who usually decides on visits to family or relatives | 62716  | 0.079|

Source: NFHS-4, India 2015-16.
RESULTS

Prevalence of WA in India and states/UTs

Table 3 presents the prevalence of women's autonomy in India and States/UTs. 67.82% of women live with higher autonomy in India. Ninety-seven percent of Women from Mizoram and Sikkim in a better position compared to other states of India. Remaining states/UTs like Himachal Pradesh (94.6%), Andaman and Nicobar Island (86.5%), Daman and Diu (85.8%), Meghalaya (85.5%), and West Bengal (84.2%) have a high level of women's autonomy. But wonder fact is in Odisha state, only 46% of women have autonomy in connection with low economic status, poorer health care, and restriction on physical movements.

Prevalence of IPV in India and states/UTs

Table 4 shows the prevalence of IPV among currently women in states/UTs of India. About 27 percent of women suffer from physical Violence, 12.07% emotional violence, and 6.45 percent sexual violence age at 15-49 years. The composite index of IPV shows that 45.5% of women in India suffer from any form of IPV. Overall, ten states of India have more than 35% of women experiencing IPV in the last twelve months. Further, higher prevalence of IPV shows in Manipur (55.58%), Bihar (45.63%), Telangana (45.21%), Andhra Pradesh (44.64%), Tamil Nadu (43.93%), Pondicherry (40.52%), Uttar Pradesh (38.19%), and Chhattisgarh (37.48%), Dadra and Nagar Haveli (36%) and Odisha (35.79%). On the other hand, states like Sikkim (1.92%), Himachal Pradesh (6.55%), Lakshadweep (7.33%), Goa (12.9%), Jammu and Kashmir (13.62%) and Uttarakhand (14.08%) among women in India. It is also notable that the prevalence of physical violence is high in states like Manipur, Andhra Pradesh, Bihar, Tamil Nadu, Chhattisgarh, and Uttar Pradesh. Sexual violence is high in Manipur, Bihar, Pondicherry, Tripura, and Haryana. On the other hand, the prevalence of emotional violence is higher states like Pondicherry, followed by Tamil Nadu, Bihar, Andhra Pradesh, Telangana, and Arunachal Pradesh. However, states like Sikkim, Himachal Pradesh, and Goa has found to be lower prevalence in all form of violence in India. Adverse results show, in Manipur, Andhra Pradesh, Bihar, Pondicherry, Tripura, Telangana, a high level of any type of violence among women (Physical, sexual and emotional violence).

Regional variation of WA and IPV in India

Table 5 presents the regional variation of WA in India. It shows 75.37% women from North Eastern zone and western zone (75.26%) higher prevalence of WA in India. But women in the central zone (58.56%) show lower autonomy in the last 12 months. Furthermore, regional variation in women's autonomy based on place of residence (Table 6) it shows that urban women are more empowered (73.76%) than rural residents (65.02%) women. This pattern is true for all the regions. In urban region the highest prevalence of WA in the north east (80.5%) and western zone (80.5%). Again, for rural areas, the highest percentages of WA show in the north-east region (73.32%) and whereas the lowest autonomy of rural women (55.26%) show in the central zone.

Table 7 represents the regional variation in IPV in India by place of residence. In total (rural-urban combined), the percentage of women reporting any IPV is highest in East region (38.6%) than other regions, followed by the central region (36.75%) and South region (35.74%). But it is lowest reported in the west region (26.77%) and North region (20.72%) in the country. In terms of place of residence, the prevalence of IPV is high in rural areas (33.18%) than that of urban areas (25.22%). In rural areas, the north region represents a low level of IPV. In contrast, the east and central region exhibit a high level of IPV. In the case of urban areas, the IPV prevalence is high among the south and central region, while the east region again represents a low level of IPV.

Table 8 presents the prevalence of IPV in India. In respect of physical Violence, 35.7% of currently married women reported IPV is in the East region, followed by central (33.58%) and South region (28.99%), and whereas the least prevalence (17.2%) were found to be North region. Likewise, the higher prevalence was of sexual violence found to be in East region (9.87%) followed by central

| Variables | Sample | Mean |
|-----------|--------|------|
| Ever been pushed or shook by husband/partner | 62716 | 0.119 |
| Ever been slapped by husband/partner | 62716 | 0.250 |
| Ever been punched with fist or hit by something harmed by husband | 62716 | 0.072 |
| Ever been kicked or dragged by husband/partner | 62716 | 0.072 |
| Ever been strangled or burned by husband | 62716 | 0.013 |
| Ever been physically forced to perform sexual acts | 62716 | 0.033 |

Source: NFHS-4, India 2015-16.
(7.48%) and south (6.55%) region and north region (4.04%) and western region (3.08%) represent low violence. Similarly, in the case of emotional Violence, the south region (16.15%) represents the high occurrence followed by east and central regions, while the north region (8.19%) has a low prevalence. Overall, the prevalence of any type of violence (Physical, Emotional, and sexual) is high among south, central, and East regions, while the northern region presents the low prevalence of any kind of violence.

Table 3: Prevalence of WA in India and states/UTs in 2015-16.

| States/UTs               | Women’s autonomy | Sample size (N) |
|-------------------------|------------------|-----------------|
| Andaman & Nicobar Island| 86.46            | 229             |
| Andhra Pradesh          | 69.98            | 983             |
| Arunachal Pradesh       | 80.63            | 1222            |
| Assam                   | 62.10            | 2492            |
| Bihar                   | 60.55            | 4001            |
| Chandigarh              | 82.91            | 67              |
| Chhattisgarh            | 66.82            | 1987            |
| Dadra and Nagar Havel   | 66.35            | 97              |
| Daman and Diu           | 85.75            | 193             |
| Goa                     | 83.99            | 428             |
| Gujarat                 | 71.22            | 3094            |
| Haryana                 | 60.49            | 1938            |
| Himachal Pradesh        | 94.63            | 1591            |
| Jammu and Kashmir       | 79.02            | 3085            |
| Jharkhand               | 66.68            | 2592            |
| Karnataka               | 62.27            | 2118            |
| Kerala                  | 53.14            | 1416            |
| Lakshadweep             | 51.03            | 96              |
| Madhya Pradesh          | 56.81            | 5219            |
| Andhra Pradesh          | 69.98            | 983             |
| Maharashtra             | 78.28            | 2525            |
| Manipur                 | 70.95            | 1035            |
| Meghalaya               | 85.46            | 637             |
| Mizoram                 | 97.02            | 764             |
| Nagaland                | 72.95            | 795             |
| Delhi                   | 72.35            | 348             |
| Odisha                  | 45.98            | 2910            |
| Pondicherry             | 79.67            | 455             |
| Punjab                  | 75.48            | 1625            |
| Rajasthan               | 60.37            | 3513            |
| Sikkim                  | 96.78            | 475             |
| Tamil Nadu              | 80.42            | 3372            |
| Tripura                 | 75.37            | 591             |
| Uttar Pradesh           | 57.54            | 7147            |
| Uttarakhand             | 83.46            | 1282            |
| West Bengal             | 84.22            | 1666            |
| Telangana               | 69.58            | 728             |
| India                   | 67.82            | 62716           |

Source: National Family Health Survey (NFHS-4), 2015-16.

Table 4: Prevalence of IPV in India and states/UTs, 2015-16.

| States/UTs       | Physical violence | Sexual violence | Emotional violence | Sample Size (N) |
|------------------|-------------------|-----------------|--------------------|-----------------|
| Andaman & Nicobar| 15.06             | 1.67            | 6.04               | 229             |
| Andhra Pradesh   | 42.25             | 6.52            | 19.25              | 983             |
| Arunachal Pradesh| 28.16             | 8.2             | 15.94              | 1222            |
| Assam            | 22.43             | 4.76            | 10.28              | 2492            |
| Bihar            | 41.05             | 13.64           | 20.22              | 4001            |

Continued.
| States/UTs             | Physical violence | Sexual violence | Emotional violence | Sample Size (N) |
|-----------------------|-------------------|-----------------|-------------------|-----------------|
| Chandigarh            | 23.17             | 4.86            | 5.94              | 67              |
| Chhattisgarh          | 35.39             | 5.65            | 14.04             | 1987            |
| Dadra and N Havel     | 30.93             | 3.47            | 12.29             | 97              |
| Daman & Diu           | 26.4              | 7.46            | 12.3              | 193             |
| Goa                   | 9.85              | 1.38            | 4.4               | 428             |
| Gujarat               | 18.93             | 4.09            | 11.09             | 3094            |
| Haryana               | 30.69             | 8.69            | 12.53             | 1938            |
| Himachal Pradesh      | 4.71              | 2.43            | 3.81              | 1591            |
| Jammu & Kashmir       | 8.14              | 2.55            | 9.26              | 3085            |
| Jharkhand             | 32.16             | 7.75            | 9.71              | 2592            |
| Karnataka             | 18.03             | 6.28            | 12.58             | 2118            |
| Kerala                | 11.83             | 3.97            | 7.65              | 1416            |
| Lakshadweep           | 5.4               | 2.57            | 1.31              | 96              |
| Madhya Pradesh        | 30.97             | 8.01            | 11.95             | 5219            |
| Maharashtra           | 20.18             | 1.78            | 8.51              | 2525            |
| Manipur               | 49.89             | 14.19           | 13.26             | 1035            |
| Meghalaya             | 26.37             | 4.18            | 9.63              | 637             |
| Mizoram               | 14.03             | 2.62            | 9.89              | 764             |
| Nagaland              | 8.93              | 5.66            | 9.77              | 795             |
| Delhi                 | 24.73             | 4.28            | 12.16             | 348             |
| Odisha                | 32.41             | 7.89            | 10.95             | 2910            |
| Puducherry            | 29.8              | 9.04            | 23.57             | 455             |
| Punjab                | 18.57             | 4.61            | 7.46              | 1625            |
| Rajasthan             | 23.87             | 3.74            | 8.07              | 3513            |
| Sikkim                | 1.14              | 0.43            | 1.14              | 475             |
| Tamil Nadu            | 38.18             | 8.1             | 20.57             | 3372            |
| Tripura               | 26.45             | 9.01            | 13.52             | 591             |
| Uttar Pradesh         | 34.98             | 7.61            | 13.52             | 7147            |
| Uttarakhand           | 11.7              | 2.58            | 4.84              | 1282            |
| West Bengal           | 29.91             | 7.6             | 12.25             | 1666            |
| Telangana             | 40.8              | 5.68            | 18.86             | 728             |
| India                 | **26.98**         | **6.45**        | **12.07**         | **62716**       |

Source: National Family Health Survey (NFHS-4), 2015-16.

**Table 5: Regional variation in WA in India, 2015-16**

| Regions/ Zones     | Urban | Rural | Total | Sample |
|--------------------|-------|-------|-------|--------|
| North Zone         | 76.63 | 71.50 | 73.17 | 13449  |
| South Zone         | 71.43 | 68.86 | 70.09 | 9397   |
| East Zone          | 66.78 | 60.39 | 61.71 | 11168  |
| West Zone          | 80.45 | 70.39 | 75.26 | 6337   |
| Central Zone       | 67.34 | 55.26 | 58.56 | 14353  |
| North East Zone    | 80.50 | 73.32 | 75.37 | 8011   |
| India              | 73.60 | 65.02 | 67.82 | 62716  |

Source: National Family Health Survey (NFHS-4), 2015-16.

**Table 6: Regional variation in IPV according to residence of India, 2015-16.**

| Regions/ Zones     | Urban | Rural | Total |
|--------------------|-------|-------|-------|
| North Zone         | 19.72 | 20.72 | 20.39 |
| South Zone         | 32.17 | 35.74 | 34.03 |
| East Zone          | 26.75 | 41.67 | 38.60 |
| West Zone          | 16.94 | 26.77 | 22.01 |
| Central Zone       | 30.48 | 39.11 | 36.75 |
| North East Zone    | 22.61 | 30.47 | 28.23 |
| India              | 25.22 | 33.18 | 30.59 |

Source: National Family Health Survey (NFHS-4), 2015-16.
Table 7: Regional variation in the type of IPV in India, 2015-16.

| Regions/Zones       | Physical Violence | Sexual Violence | Emotional Violence |
|---------------------|-------------------|-----------------|-------------------|
| North Zone          | 17.20             | 4.04            | 8.19              |
| South Zone          | 28.99             | 6.55            | 16.15             |
| East Zone           | 35.07             | 9.87            | 14.18             |
| West Zone           | 19.22             | 3.08            | 9.66              |
| Central Zone        | 33.58             | 7.48            | 13.02             |
| North East Zone     | 24.06             | 6.40            | 11.09             |
| India               | 26.98             | 6.45            | 12.07             |

Source: National Family Health Survey (NFHS-4), 2015-16.

Table 8: Cronbach alpha of IPV and WA in India, NHFS-IV, 2016.

| Item                                      | Observation | Sign | Item-test correlation | Item-rest correlation | Interitem correlation | Alpha  |
|-------------------------------------------|-------------|------|-----------------------|-----------------------|-----------------------|--------|
| Emotional Violence                        | 62716       | +    | 0.7641                | 0.5674                | 0.5014                | 0.751  |
| Physical Violence                         |             | +    | 0.8541                | 0.7167                | 0.4075                | 0.6735 |
| Sexual Violence                           |             | +    | 0.6711                | 0.4284                | 0.5984                | 0.8172 |
| Test scale of IPV                         |             |      |                       |                       | 0.4825                | 0.7885 |
| Allow to go to health facilities          |             | +    | 0.4919                | 0.3064                | 0.278                 | 0.7294 |
| Allow to go market                        |             | +    | 0.637                 | 0.4831                | 0.2454                | 0.6948 |
| Allow to go outside village               |             | +    | 0.606                 | 0.4442                | 0.2524                | 0.7026 |
| Decision on husband earnings              | 62716       | +    | 0.6082                | 0.4469                | 0.2519                | 0.7021 |
| Decision on health care                   |             | +    | 0.5614                | 0.3893                | 0.2624                | 0.7135 |
| A_H_health_e                              |             | +    | 0.5894                | 0.4236                | 0.2561                | 0.7067 |
| A_Pm_Relat_e                              |             | +    | 0.5917                | 0.4264                | 0.2556                | 0.7062 |
| Decision on visit to family or relatives  |             |      |                       |                       | 0.2558                | 0.7333 |
| Test scale of Women Autonomy              | 62716       | +    | 0.4501                | 0.3088                | 0.2124                | 0.7479 |

**DISCUSSION**

The study findings clearly show that India is still struggling to have more empowerment among women across the States. The positive sides of women more autonomy mean economy grows faster, fewer people remain poor, increase the overall well-being of people. In Northeast India, 97% of women from Mizoram and Sikkim in a better position compared to other states of India. Mahanta and Nayak, stated that the northeast states are better in terms of Women’s empowerment than that of the nation as a whole. In contrast to that shows that gender discrimination and lower WA in Assam is still a significant impact on women's overall development.25,26 The disparity of socioeconomic status, less education among women and patriarchal attributes, and ideology of subordination of men towards them, these are the main factors influences as lower autonomy in Assam. Given WA, those large states such as Rajasthan, Uttar Pradesh, and West Bengal shows lower in the women empowerment.27

Additionally, states from south part of India also depicted as lower autonomy in women in terms of excluding in decision of family activities, lower range in the physical moment, and the minimal level of own health decisions.28 States in Rajasthan and Bihar early marriage, husband alcohol use, educational inequalities among men and women are the most significant factors for imbalance women's autonomy.29 Moreover, violence against women more frequent in those states.30 Raju Sarkar stated that education is the key factor in empowering women in West Bengal.27 Basic tools of woman empowerment of a woman education and employment. It is also being considered for population development and quality of life. The state of Odisha has the lowest WA in India.31 And more than twenty percent less from the national average those results are connected with low economic status, poorer health care, and restriction on physical movements.32 Relevant studies show in India, IPV is prominent social issues. Findings of the study clearly show the prevalence results of these three types (Physical, Emotional, and Sexual Violence) of violence. Higher prevalence of IPV shows in Manipur, Bihar, Telangana, flowed by Andhra Pradesh and Tamil Nadu.33
Furthermore, we have analysed based on place of residence to represents the regional variation of IPV against women in India. The results show that the east region has more violence than the rest region in India. But west and north regions reveal less violent occurrences compared to urban areas and this result significant to all regions. Based on the place of residence, the higher prevalence of IPV has shown in the rural area among the south and central region against the east region. Results of all types of Violence show high in the south, central, and east regions against northern region.

**CONCLUSION**

This study demonstrated that the prevalence of IPV and WA in India of women who is currently married at age 15 to 49 year. The results are interesting with the disparity of prevalence of those dimensions. Furthermore, the prevalence of IPV and the empowerment of rural women in the entire states of India was vulnerable conditions regardless of regions or states. To better explore these issues, future studies are needed in India to understand reasons and inclusive factors, especially in the rural region, and how IPV and women's autonomy are more susceptible to women.

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