Introduction

Aging and health is a challenge due to associated physiological, pathological, sociological, or psychological factors. In India, currently proportion of elderly population is 8% and is projected to rise to 12.4% by 2026 and to 19% by 2050.\textsuperscript{[1]}

It is estimated that over the next one and half decade, 44% of Indian health burden will be borne by adults aged 60 and above.\textsuperscript{[2,3]} Broadly, the problems of elderly are understood as problems related to impairment of any organ. However, a prominent problem faced by an elderly is abusive behavior. WHO defines elder abuse as “a single or repeated act or lack of appropriate action, occurring within any relationship where there is an expectation of trust which causes harm or distress to an older person.”\textsuperscript{[4]}

This is an under-researched domain in India. As most of the abuse is by close family members, who are the only caretakers, elder abuse is typically under reported. Elder abuse can lead to serious physical injuries and can have long-term psychosocial consequences. Abuse in older adults is related to increased morbidity and reduced survival even after adjustment for other risk factors for mortality.\textsuperscript{[5]}

Elder abuse is a problem which needs attention of policy makers, health-care system, and social welfare organization. The present study aims to assess the prevalence of abuse among community dwelling elderly and to study the various risk factors associated with it in an urban resettlement colony of east Delhi.

Abstract

Background: In India, proportion of elderly is increasing with decrease in mortality rate and increase in life expectancy. There is a paucity of studies on elder abuse, a problem faced frequently by an elderly. The present study planned to find out the prevalence of abuse and associated risk factors among community dwelling elderly in an urban resettlement colony of east Delhi.

Methods: It is a community-based cross-sectional study. This study was done among elderly residents aged 60 years and above in an urban resettlement colony of east Delhi. Study participants were interviewed using a pretested, semi-structured questionnaire. Data were collected regarding sociodemographic profile and prevalence of abuse. Simple descriptive tables were generated to denote frequencies. Cross-tabulation and chi-square test were applied to study the association between various sociodemographic characteristics and elder abuse.

Results: A total of 125 elderly were interviewed. Twelve (9.6%) reported experience of abuse. All abused participants faced neglect, four faced verbal abuse, and two participants reported physical and one financial abuse. Abused elderly belonged to a higher age group >70 years and did not have regular contact with family and friends ($P = 0.00$); no involvement in social activities ($P = 0.001$). Abuse was more likely when “finances were managed by others” ($P = 0.02$) and having dependency for daily needs ($P = 0.00$).

Conclusion: Elder abuse is prevalent in India. The victims of abuse lack social support and network and are reluctant to report abuse.

Keywords: Awareness, elder abuse, India, screening
Subjects and Methods
A community-based cross-sectional study was done in the months of June and July, 2016 among elderly residents aged 60 years and above in an urban resettlement colony (A resettlement colony is defined as a colony created by removing a group of households from the congested city core or an encroachment in public places and locating them generally in the periphery of the city), in Nand Nagri, east Delhi. This area is the field practice area of department of community medicine of a medical college of Delhi having a population of around 50,000 distributed over 5 blocks. Out of five blocks of Nand Nagri, one block was chosen randomly. A minimum sample size of 125 was calculated by the formula, \( n = \frac{pq}{d^2} \), based on the proportion \( p \) of elderly abuse as 22%,\[6\] as found in a study done by Helpage India, and permissible error \( d \) as 7.5%. There were around 1800 households in the study area. One eligible participant (elderly, aged 60 years and above) from every 15th household was included in the study by systematic random sampling method. If there were more than one eligible participant in a household, one was selected randomly for the study. If a house was found locked or no eligible participant was found in the house, then the next house was visited. Those not willing to participate, critically ill, and elderly not found in home during two consecutive visits were excluded from the study. A pretested semistructured interview schedule was used to collect information. The interview schedule had three parts. The first part had details about sociodemographic variables (age, gender, education, occupation, income marital status, socioeconomic status,\[7,8\] financial dependency, social involvement, and dependency for daily needs). The second part had questions to find out presence of elderly abuse. To find out elderly abuse, Hwalek-Sengstock Elder Abuse Screening Test,\[9-11\] a screening questionnaire, was used. This scale had been used in many countries including India.\[12\] Care was taken to ensure that questions regarding abuse were not asked when other family members were present. Third part of the questionnaire was asked only to those elderly who found at risk of abuse to find out type of abuse: physical abuse or acts carried out with the intention to cause physical pain or injury, verbal abuse as acts carried out with the aim of causing emotional pain, sexual abuse defined as nonconsensual sexual contact of any, financial abuse involving misappropriation of elderly person’s property or money and neglect, and the failure of a designated caregiver to meet needs of a dependent elderly person.\[13-18\] The first and third part of the questionnaire were developed based on review of literature and previously established facts about elderly abuse. The interview schedule was applied by first author himself. He was supervised and assisted by the other investigator. Data collected were kept confidential. Sufficient time was spent with the elderly to obtain the desired information.

Data were entered in MS Excel sheet. Descriptive statistics were calculated. Categorical comparisons between elderly who were abused and not abused were made using the Chi-square test. Relative differences in being abused between these two groups were compared using odds ratios and 95% confidence interval. Data analysis was done using SPSS version 22.

Approval of institute’s (medical college) ethics review committee was obtained before initiation of the study. Informed written consent was obtained from all study participants, and as and when required, they were appropriately treated or were referred to a higher center for any reported morbidity. Counseling was done and awareness was given with the help of medical social worker posted in the department.

Results
For this study, 140 elderly were approached. Fifteen people refused to participate in the study. A total of 125 elderly were included in the study.

Sociodemographic profile and social conditions of the study participants [Table 1]
Sixty-two percent of total study participants belonged to age group of 60–69 years. Mean age was 67.02 years ± 6.726 SD. More than half of the population was female (57%), living with spouses (54.4%) and illiterate (54.4%). Majority (70.4%) of families belonged to upper–lower socioeconomic class.

Study participants who had experienced at least one adverse life event in last 12 months constituted 31% of the total. Majority (91%) of participants were in regular contact with family and friends and those who had no contact cited “health” as the reason. Participants who reported “finances being managed by others” constituted 45% of the total.

Prevalence of abuse among elderly
Out of the 125 elderly interviewed, 12 (9.6%) reported experience of abuse. Abuse refers to overall abuse which may be a combination of one or more of its subtypes. All abused elderly (12 participants) in the present study faced neglect, verbal abuse was reported by 4, physical abuse by 2, and financial abuse by 1 participant.

Factors associated with abuse
Abuse was more common in higher age group, that is, >70 years. Abused elderly had no regular contact with family and friends and had no involvement in any social activities. Likelihood of abuse was more in the situation where participant’s finances were managed by others and where elderly depended on others for daily needs [Table 1].

Reporting of abuse
Only two participants had reported abuse to local authorities. Reasons for not reporting were to maintain confidentiality of family matter (cited by six participants), lack of awareness (cited by four), and lack of confidence in the system (cited by four participants). Overall, sons were responsible for abuse in six cases, daughters-in-laws in two, and both son and daughter in law in three cases.
Prevalence of abuse

In the present study, we found that 9.6% of the respondents have faced abuse. Other studies done in India found a prevalence of elderly abuse between 9% and 50%. [16-18]

In the current study group, neglect was most common form of abuse, followed by verbal, physical, and financial abuse. In most of the other studies conducted in India, verbal abuse was found to be predominant form of abuse. [15,19,20]

Factors associated with abuse

We found age >70 years is associated with more risk of abuse in contrast to most of the other studies which reported advanced age as a protective factor. [16-18] We found study participants’ finances managed by others and dependence for daily needs as significant risk factors for abuse. It might be because of perpetrators’ knowledge of helplessness of elderly in defending themselves or seeking help. It might also be because of caregiver stress. [21] This finding was also reported in study by Saikia et al. [12]

We found that no or decreased involvement in family and social activities puts an elderly at higher risk of abuse. Isolation and absence of social network as a risk factor have been reported by other studies too. [22,23]

Sons were predominantly the perpetrators of abuse followed by daughters-in-law. This finding was also reported in studies by Skirbekk and James [17] and Saikia et al. [12] Studies conducted by Helpage India [6] and Achappa et al. [19] reported daughters-in-law as perpetrators in majority of cases.

### Table 1: Elder abuse and sociodemographic characteristics of the study participants (n=125)

| Characteristics                          | Total (n) | Abuse, n (%) | No abuse, n (%) | P     | OR (95% CI) |
|------------------------------------------|-----------|--------------|----------------|-------|-------------|
| Age (years)                              |           |              |                |       |             |
| 60-69                                    | 77        | 3 (3.9)      | 74 (96.1)      | 0.00  | 5.7 (1.5-22.2) |
| ≥70                                      | 48        | 9 (18.8)     | 39 (81.2)      |       |             |
| Sex                                       |           |              |                |       |             |
| Male                                     | 54        | 3 (5.6)      | 51 (94.4)      | 0.18  | 2.5 (0.6-9.6)  |
| Female                                   | 71        | 9 (12.7)     | 62 (87.3)      |       |             |
| Marital status                           |           |              |                |       |             |
| Living with spouses                      | 68        | 5 (7.4)      | 63 (92.6)      | 0.35  | 1.8 (0.5-5.9)  |
| Widowed/Living separately                | 57        | 7 (12.3)     | 50 (87.7)      |       |             |
| Education of subject                     |           |              |                |       |             |
| Literate                                 | 57        | 4 (7.0)      | 53 (93.0)      | 0.37  | 1.8 (0.5-6.2)  |
| Illiterate                               | 68        | 8 (11.8)     | 60 (88.2)      |       |             |
| Occupation of subject                    |           |              |                |       |             |
| Ever working                             |           |              |                |       |             |
| Housewives                               | 90        | 7 (7.8)      | 83 (92.2)      | 0.27  | 2.0 (0.6-6.7)  |
| Per capita income (rupees)               |           |              |                |       |             |
| Up to 1000                               | 35        | 5 (14.3)     | 30 (85.7)      | 0.52  | 1.0         |
| 1001-2000                                | 52        | 4 (7.7)      | 48 (92.3)      | 1.9   | 0.5-7.2     |
| ≥2001                                    | 29        | 2 (6.9)      | 27 (93.1)      | 2.1   | 0.4-11.4    |
| SES classification*                     |           |              |                |       |             |
| Upper lower and lower                    | 92        | 10 (10.9)    | 82 (89.1)      | 0.42  | 1.9 (0.4-9.1)  |
| Upper middle and lower middle            | 33        | 2 (6.1)      | 31 (93.9)      |       |             |
| Family type                              |           |              |                |       |             |
| Joint                                    | 110       | 11 (10.0)    | 99 (90.0)      | 0.68  | 1.6 (0.2-13.0) |
| Nuclear                                  | 15        | 1 (6.7)      | 14 (93.3)      |       |             |
| Regular contact with family friends      |           |              |                |       |             |
| Yes                                      | 114       | 7 (6.1)      | 107 (93.9)     | 0.00  | 12.7 (3.1-52.3) |
| No                                       | 11        | 5 (45.5)     | 6 (54.5)       |       |             |
| Involvement in social activities         |           |              |                |       |             |
| Yes                                      | 69        | 1 (1.4)      | 68 (98.6)      | 0.00  | 16.6 (2.1-133.2) |
| No                                       | 56        | 11 (19.6)    | 45 (80.4)      |       |             |
| Finances managed by                      |           |              |                |       |             |
| Self or with some assistance             | 69        | 3 (4.3)      | 66 (95.7)      | 0.03  | 4.2 (1.1-16.4) |
| Entirely by others                       | 56        | 9 (16.1)     | 47 (83.9)      |       |             |
| Dependence for daily needs               |           |              |                |       |             |
| Yes                                      | 30        | 8 (26.7)     | 22 (73.3)      | 0.00  | 8.3 (2.3-30.0) |
| No                                       | 95        | 4 (4.2)      | 91 (95.8)      |       |             |

OR: Odds ratio; CI: Confidence interval; *SES: Socioeconomic status
Reporting of abuse
Level of reporting of abuse was low (16.6%). This finding was similar to Helpage India report. This finding also concurred with a similar study done in China. Cheng and Chan et al. reported reluctance to seek help for abusive behavior of children to uphold family honor.

Strengths
Strengths of this study were that as follows: (1) it was a community-based study; (2) systemic random sampling was done and from one household, only one elderly were recruited randomly for the current study; (3) house to house visit was done for selection of study subjects; (4) data collection was done by a single interviewer and thus decreasing the chance of multiple observer bias; and (5) use of validated questionnaire like EAST questionnaire.

Limitations
Our study had few limitations. First, it was a quantitative study, and hence, psychosocial and cultural issues associated with abuse could not be explored in depth. Second, the study participants belonged to a resettlement colony of Delhi; so, the results may not be generalized to other parts of Delhi. Third, this study being cross-sectional in nature does not identify the causal risk factors of elder abuse.

Practice and policy implications
The findings of our study have a number of practice and policy implications. First, we found that at least 1 out of every 10 elderly Indian experience some form of abuse or neglect in their homes. Active screening and intervention in community seems very important. Second, we found “finances managed by others” as a risk factor for abuse. Elderly population need to be sensitized about importance of management of own finances. Dissemination of information about awareness of different social schemes targeting elderly is required to mitigate the abusive behavior. Third, we found noninvolvement in family and social activities as a risk factor of abuse. As victims of elder abuse tend to be isolated, their identification through an established social outreach program is required for intervention strategies. Fourth, level of reporting of abuse was low. This requires immediate attention of the policy makers as reporting is critical to stop abuse and also to ensure the care an elderly needs.

Conclusion
The findings of this study suggest that elderly abuse is prevalent in India. The victims of abuse lack social support and network and reluctant to report abuse. So, active screening, laws, and policy for vulnerable elderly population are required.

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Conflicts of interest
There are no conflicts of interest.

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