International Journal of Nursing & Midwifery Research
Volume 12, Issue 3&4 - 2025, Pg. No. 15-19
Peer Reviewed & Open Access Journal

Research Article

# A Descriptive Study To Assess The Awareness Regarding Congenital Abnormalities Among Adult Females in A Selected Community of New Delhi

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**DOI:** https://doi.org/10.24321/2455.9318.202502

## I N F O

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**How to cite this article:**
Nazni, Sharma A, A Descriptive Study To Assess The Awareness Regarding Congenital Abnormalities Among Adult Females in A Selected Community of New Delhi. *Int J Nurs Midwif Res.*2025;12(3&4):15-19.

Date of Submission: 2025-07-31
Date of Acceptance: 2026-03-31

## A B S T R A C T

*Introduction*: Congenital abnormalities are the structural or functional abnormalities that occurs during intrauterine life and can be identified prenatally at birth or sometimes may only be detected later in infancy, such as hearing defects. If treatment is not received, this illness may result in severe and irreversible disability. 3rd March was designated as World Birth Defects Day in 2015 to increase awareness and promote preventative initiatives.

*Objectives*: The study was conducted to assess the awareness and knowledge regarding congenital abnormalities among adult females.

*Methodology*: quantitative, descriptive study was conducted, and a convenient sampling technique was used. The sample of the study comprised 100 adult females of age 18-45 years from a selected community of New Delhi in the month of April 2025. A structured questionnaire was used to assess the awareness and knowledge regarding congenital abnormalities among adult females.

*Result*: The major finding of the study revealed that out of 100 adult females, about 70 % of adult females have a high level of awareness, and 30 % were having low level of awareness regarding congenital abnormalities. The result revealed that 56% of adult females have poor knowledge, 33% have moderate knowledge and only 11% havegood knowledge regarding congenital abnormalities.

*Conclusion*: This concludes that despite having high awareness (70%) there was a deficit of knowledge among adult females regarding congenital abnormalities. Only 11% of adult females have good knowledge.

**Keywords**: Congenital abnormalities, Awareness, Knowledge, Adult females, Informational pamphlet

## Introduction

Congenital abnormalities are the defects in bodily components or roles that are present throughout gestation or during the prenatal period. During intrauterine life, structural or functional defects might be referred to as congenital abnormalities. Some problems caused by pregnancy can be identified either before or during birth, or even afterwards in rare cases. There have been reports of over 4000 distinct congenital abnormalities, with the most common ones being cleft lip and palate, heart disorders, and brain etc. Congenital foetal defects during the first four weeks of life are responsible for over 240,000 fatalities worldwide, according to the World Health Organization. An estimated 10% of stillbirths are thought to result from foetal abnormalities, and congenital abnormalities cause the deaths of about 170,000 children between the ages of one month and five.

In India, congenital defects were the fifth leading cause of death for newborns. Three out of every 100 kids are born with birth defects or congenital abnormalities. In India, an estimated 27 million babies are born with birth abnormalities annually. One or more genetic defects, abrupt gene mutations, maternal infections, dietary deficiencies, or exposure to medications, chemicals, or radiation can all result in congenital malformations.[1]

Another study found that out of 6,076 infants born from them 84% had congenital defects. The gastrointestinal system was the most severely impacted at 16.6%, with the musculoskeletal system coming in at 36.90%. The central nervous system was the second most severely impacted at 25.0%. Within the musculoskeletal group, talices (17.1%), cleft lips (6.6%), meningomyelocele (6.3%), and cleft palates (3.5%) were the most common anomalies.[2]

The precise cause is unknown and frequently difficult to determine, but research indicates that factors such as advanced maternal age, particularly over 35, a prior birth defect in the baby, a personal history of birth defects, medical conditions like diabetes, the use of medication during pregnancy, alcohol consumption, and cigarette smoking during pregnancy are all significant contributors to the development of congenital abnormalities.[3] According to a study, 86 congenital abnormalities were observed in 1565 cases of pregnancy termination and delivery, indicating a frequency of 5.49%. The most frequent abnormalities were in the central nervous system (n = 29, 33.72%) and the circulatory system (n = 19, 22.10%). Prenatal ultrasound was used to determine congenital abnormalities in 68 cases (79%). With the cases with congenital abnormalities, two (2.40%) were stillborn, 28 (32.60%) were live births, and 56 (65%) had pregnancy terminations.[4]

Congenital abnormality management is a dynamic procedure that varies depending on the type of aberration or ailment and includes early detection screening tests. Depending on the baby's aberrant state, it is customised. Developmental delays or disability may result from congenital abnormalities. In these situations, the child may require developmental treatments and rehabilitation to realise their full potential. Improving results and guaranteeing the child has the highest quality of life can be achieved by early intervention and continued medical care.

Congenital abnormality prevention is a key public health objective. Pregnancy-related environmental exposures, including smoking and alcohol consumption, can help prevent several congenital abnormalities. Making educated decisions regarding pregnancy can also be facilitated by genetic counselling and screening, which can assist in identifying women who are at risk of giving birth to a child with a genetic condition. The probability of becoming a parent to a kid that is born atypical might therefore be decreased by promoting prompt interventions and maintaining good health.[5]

## Subjects and Methods

The quantitative research approach was adopted for the study with a descriptive research design and a convenient sampling technique. The setting of the study was the Tughalkabad community of New Delhi. The sample of the study comprised 100 adult females of 18-45 years of age who were living in a selected community of New Delhi. Ethical clearance was obtained from the MLA of Tughalkabad, New Delhi, to conduct the research. The consent was taken from each participant. The tool was developed through an extensive review of the literature to develop the items and scoring technique.

The tool was organised into 3 sections. Section A included the demographic characteristics; Section B included a structured questionnaire to assess the awareness, had 14 questions; and Section C included 21 items to assess the knowledge of adult females regarding congenital abnormalities.

The validity of the tool was ensured by 7 experts. 3 experts from child health nursing, 2 experts from obstetrics and gynecology nursing and 1 expert from mental health nursing. Necessary modifications were incorporated based on their suggestions. A pilot study was conducted on 10 subjects. The result of the pilot study was feasible. After the pilot study, the final study was conducted on 100 samples with the use of descriptive statistics for data analysis.

## Results

Frequency and percentage distribution of the subjects according to their demographic characteristics.

**eISSN: 2455-9318**
**DOI: https://doi.org/10.24321/2455.9318.202502**

Frequency and percentage distribution of the level of awareness regarding congenital abnormalities among adult females in a selected community in New Delhi.

Frequency and percentage distribution of level of knowledge regarding congenital abnormalities among adult females in a selected community in New Delhi.

**Table 1.shows the demographic distribution of the participants**

| S.no | Demographic profile | Frequency | Percentage (%) |
|---|---|---|---|
| 1. | **Age** | | |
| a. | 18-24years | 43 | 43% |
| b. | 25-31 years | 35 | 35% |
| c. | 32-38 years | 13 | 13% |
| d. | 39-45 years | 9 | 9% |
| 2. | **Religion** | | |
| a. | Hindu | 68 | 68% |
| b. | Muslim | 30 | 30% |
| c. | Christian | 1 | 1% |
| d. | Other | 1 | 1% |
| 3. | **Area** | | |
| a. | Rural | 80 | 80% |
| b. | Urban | 20 | 20% |
| 4. | **Education** | | |
| a. | Illiterate | 16 | 16% |
| b. | Up to 12$^{th}$ pass | 49 | 49% |
| c. | Graduation | 21 | 21% |
| d. | Other | 14 | 14% |
| 5. | **Occupation** | | |
| a. | Private Job | 33 | 33% |
| b. | Government Job | 2 | 2% |
| c. | Self – employee | 16 | 16% |
| d. | Homemaker | 49 | 49% |
| 6. | **Marital Status** | | |
| a. | Married | 65 | 65% |
| b. | Unmarried | 29 | 29% |
| c. | Divorced | 1 | 1% |
| d. | Separated | 5 | 5% |
| 7. | Family income per month | | |
| a. | 5000-10000/- | 26 | 26% |
| b. | 11000-15000/- | 32 | 32% |
| c. | 16000-20000/- | 25 | 25% |
| d. | >20000/- | 17 | 17% |
| 8. | **Source of information regarding Congenital abnormalities** | | |
| a. | Peer group | 24 | 24% |
| b. | Mass media | 24 | 24% |

**eISSN: 2455-9318**
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| | | | |
|---|---|---|---|
| c. | Health care professionals | 18 | 18% |
| d. | No information | 34 | 34% |
| 9. | **Do you have family history of congenital abnormalities** | | |
| a. | Yes | 18 | 18% |
| b. | No | 82 | 82% |

**Table 2.Describes the level of awareness of adult females regarding congenital abnormalities**

| S.no. | Level of awareness | Range score | Frequency | Percentage |
|---|---|---|---|---|
| 1 | Low level of awareness | 1-7 | 30 | 30% |
| 2 | High level of awareness | 8-14 | 70 | 70% |

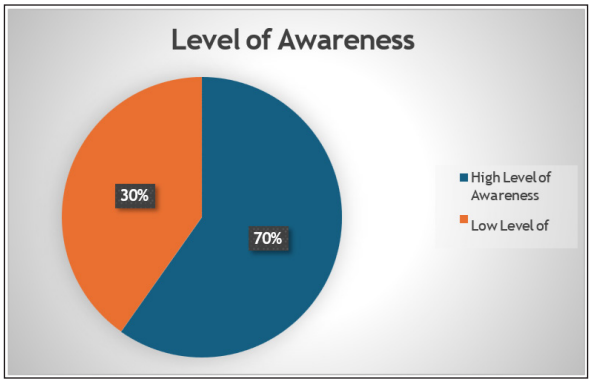


**Figure 1.A Pie diagram showing the level of awareness regarding congenital abnormalities among adult females**

**Table 3.Depicts the level of knowledge regarding congenital abnormalities among adult females in a selected community of New Delhi**

| S. no. | Knowledge score | Range of score | Frequency | Percentage |
|---|---|---|---|---|
| 1 | Poor Knowledge | 1-7 | 56 | 56% |
| 2 | Moderate knowledge | 8-14 | 33 | 33% |
| 3 | Good knowledge | 15-21 | 11 | 11% |

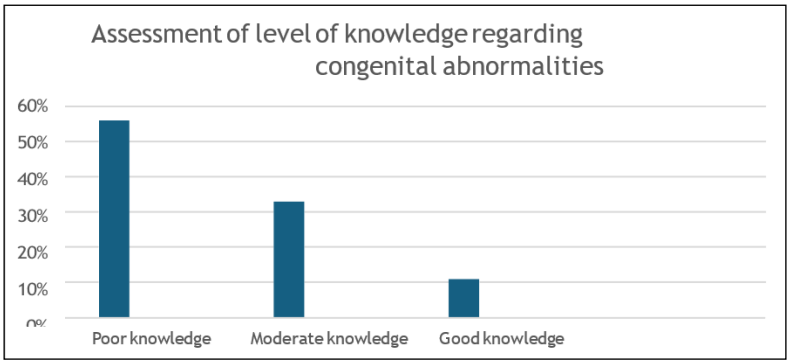


**Figure 2.A bar diagram showing the level of knowledge regarding congenital abnormalities among adult females**

## Discussion

The present study revealed that 70% of adult females have a high level of awareness regarding congenital abnormalities out of 100; 30% have a low level of awareness regarding congenital abnormalities.

**eISSN: 2455-9318**
**DOI: https://doi.org/10.24321/2455.9318.202502**

Findings revealed that in age out of 100 samples, 43% were in the age group of 18-24 years, 35% lie in 25-31 years,13% were in the age group of 32-38 years, and 9 % were in the age group of 39-45 years. Out of 100 Most of the participants, 68% were Hindu, 30% were Muslim, 1% were Christian and 1% belonged to other religions. Most of the participants 80%, belong to rural area, and 20% belong to urban area. Regarding the education of participants, 16% were illiterate, 49% were 12th pass, 21% were graduates and 14% belong to another category. Regarding the occupation of participants, 33% were having a private job, 2% were having government job, 16% were found to be self employeed, and 49% were homemakers.

Regarding the marital status of participants, 65% were married, 29% were unmarried, 1% were divorced and 5% were separated. Regarding family income per month, 26% were having 5000-10,000, 32% were having 11000-15000, 25% were having 16000-20000 and 17% were having more than 20000. Regarding the source of information about the congenital abnormality 24% are from peer group, 24% from mass media, 18% from health care professional and 34% from other means. Regarding family history, 18% had a family history of congenital abnormality, and 82% did not have any family history.

The present study reveals that 56% of adult females have poor knowledge, 33% have moderate knowledge and only 11% have good knowledge regarding congenital abnormalities in a selected community of New Delhi. The findings of the study fall in line with the study done by Ahmed Yassin Abokrecha, Manar Ahmed Barnawi, et al., (2024), who conducted a study to examine the general population's understanding of congenital umbilical hernia in Saudi Arabia. A community-based study that was cross-sectional in nature was carried out. Only 2.8% of people were very knowledgeable about congenital umbilical hernia, 10.4% were somewhat knowledgeable, and 85.8% were very ignorant. Since 87% of Saudis were unaware that congenital umbilical hernia occurs, there is an immediate need for focused educational initiatives and treatments to fill this knowledge gap.[6]

The present study revealed that the level of knowledge among adult females regarding congenital abnormalities out of 100 samples: 56% of adult females have poor knowledge, 33% have moderate knowledge and only 11% have good knowledge regarding congenital abnormalities. The findings of the study fall in line with the study conducted by Mishu Mangla, Kottu Divya Satya Sree, et al. (2023), titled Knowledge and Attitude of Young Married Women Regarding Congenital Anomalies in the Foetus. The research was placed in a tertiary care facility on the Indian subcontinent. Only 17.2% of the participants in the survey had good and appropriate knowledge regarding birth abnormalities, while 82.8% had average knowledge.[7]

## Limitations

- The sample size in the study was small, thus restricting our ability to make a broader generalisation.
- The period of data collection was limited.
- The study was only able to be conduct in the community.
- The present study was conducted with a semi-structured tool.
- This questionnaire included only selected questions related to awareness and knowledge on congenital abnormalities among adult females.

## Conclusion:

According to the results, adult females were more aware but had less knowledge regarding congenital abnormalities in the selected community of New Delhi.

**Conflicts of interest:** None

**Sources of funding:** None

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