



## Knowledge gained by the underprivileged women after receiving scientific intervention on various aspects of health and nutritional practices

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**Abstract:** *The people of different castes, cultures and religions lived on vast landscape of India. Likewise, the caste system is defined as a division of society based on disparities in wealth, inherited, rank or privileged profession, occupation or ethnicity. Sociologically, those who are overlooked don't belong to any caste or class, they are Underprivileged. The word underprivileged refers to a "group of persons deprived of a number of the fundamental rights of all citizens of a democratic society by means of social and economic conditions." In India, underprivileged peoples account for around one-fourth of the population. Unprivileged women are discriminated against not only by upper caste individuals but also within their own communities. Underprivileged women's issues and concerns vary from those of other Indian women. Owing to illiteracy, poor environmental sanitation and inadequate awareness, the health and nutritional status of underprivileged women is worse than others, rendering them more vulnerable to health and nutritional issues. Scientific intervention is usually performed using scientifically validated techniques to help, improve or cure a problem. A study was undertaken in Masinadih village of Samastipur district of Bihar state. Data for this study were collected through survey with the help of an interview schedule. After having interaction with the underprivileged women beneficiaries and complete understanding of study area, the researcher was drafting a schedule to capture various aspects related to this study.*

**Keywords:** *Underprivileged women, Scientific intervention, Knowledge, Health and nutritional aspects.*

### 1. INTRODUCTION:

The people of different castes, cultures and religions lived on vast landscape of India. The underprivileged community occupies the bottom most rung of the social ladder. The word underprivileged refers to a "group of persons deprived of a number of the fundamental rights of all citizens of a democratic society by means of social and economic conditions." In India, underprivileged peoples account for around one-fourth of the population. All groups known as deprived communities share a particular characteristic: they lack the privilege, right, advantage or benefit that other communities have. They had no money, no land, no technology and no education. Unprivileged women are discriminated against not only by upper caste individuals but also within their own communities. In India, underprivileged women live a worst-case life mixing abject deprivation with hard labour in the workplaces and in the oppressed and impoverished home. Underprivileged women's issues and concerns vary from those of other Indian women. They were oppressed by human rights of all kinds, education, employment, dignity, social status, religious rights, etc. compared to upper-caste



women. The proportion of underprivileged people below the poverty line is comparatively greater. In 1948, health as defined by the world health organization (WHO) is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity". Population nutritional health is regarded as an economic advantage and a prerequisite for national growth. The WHO defines "nutrition as the intake of food, considered in relation to the body's dietary needs." Good nutrition-a healthy, well-balanced diet paired with daily physical activity is a pillar of good health. Body requires varying amounts of various nutrients in order to maintain proper body functions. The US Department of Health and Human Services, 1998; food and nutrition board on diet and health, 1989 shows in its study that the population's nutritional status plays an indispensable role in the country's overall socio-economic growth. Diet and nutrition play significant roles in health care management and disease prevention. Owing to illiteracy, poor environmental sanitation and inadequate awareness, the health and nutritional status of underprivileged women is worse than others, rendering them more vulnerable to health and nutritional problems.

Intervention can be defined as "the act of intervening, interfering or interceding with the intent to change the outcome." Often an intervention is intended to make things effective. Scientific intervention is usually performed using scientifically validated techniques to help, improve or cure a problem. Intervention services can help, create and promote awareness among people. It could be said that it is more than a single lesson, but less than a whole board. It leads to improvements in awareness, mind-set and change in people's behaviour such that an increase can be seen in the lives of the people receiving the intervention. Providing such intervention to underprivileged women will help them develop good health and nutritional habits.

In the light of the aforementioned observations, the present study critically sets the following objective: -

- To assess the knowledge gained by the underprivileged women after receiving scientific intervention on various aspects of health and nutritional practices.

## 2. LITERATURE REVIEW:

A researcher presented a paper "social and cultural factors in malnutrition" in the symposium and observed that the influence of social and cultural factors on food habits and reason of malnutrition. He discussed the importance of socio-cultural factors like customs, beliefs, food habits and traditions that effect the nutritional status. According to him it is unfortunate that psychological, social and cultural factors, which create barriers against the change in food habits, are not understood properly, while many studies only focussed on the impersonal aspects of nutrition and malnutrition. (Pascual, 1971)

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A researcher recorded the issues involved in increasing India's health status underprivileged classes. He points out in his article that cultural factors also play a role in addition to the social and economic factors that are causative to the underprivileged groups' poor health status. Health culture has been seen as a sub-cultural complex of the people's whole way of life. The shift is the dynamic change in a community's culture. A community's health culture as a component of its overall culture is influenced by the interplay of a variety of social, political, cultural and economic factors. (Basu, 1992)

A researcher stated in his study on "Scheduled castes and tribes-the reservation debate" that even after 66 years the social status of the untouchables has not changed significantly. He further stated that the similar condition of untouchability prevails even nowadays, which was prior to independence. Even in certain parts of the world they don't even have rights, including the right to choose on their diet. They're not considered equal to cattle to be permitted access to public utilities like ponds, wells, etc. (Prakash Louis, 2003)

## 3. MATERIALS AND METHODS:

The study was conducted in Masinadih village at Samastipur district of Bihar. Bihar is the first state to constitute a commission to study the status of the neglected sub castes and suggest ways to uplift them. For the present study, total 50 underprivileged women beneficiaries were randomly selected in which 25 were belongs to experimental group and 25 were belongs to control group. Experimental group beneficiaries were the beneficiaries that received a treatment in



the form of scientific intervention while control group beneficiaries were the beneficiaries that didn't received a treatment in the form of scientific intervention. All these underprivileged women beneficiaries were chosen as target respondents to get information about their knowledge gained after receiving scientific intervention on various aspects of health and nutritional practices. An interview schedule was formulated to elicit information regarding knowledge gained by the underprivileged women. The questionnaire consists of questions focusing on various aspects of health and nutritional practices. As for this study, primary data was collected through field visit of Masinadih village from all the underprivileged women who were become the part of this intervention. Since a successful study would depend only upon getting the maximum amount of information from the underprivileged women beneficiaries, hence the questionnaire was formulated with the same intention so as to bring out maximum information from the underprivileged women beneficiaries without sounding their sentiments and confidentiality. Their personal information has been kept strictly confidential. The questionnaire consists of numerous questions to meet the objectives of the study and the answers have been carefully recorded for a successful and valid research work. The result thus obtained is then analysed and processed in the form of tables. The statistical tests and procedures were used with the help of statistical tools to evaluate the data. After collecting the data, they were processed, analysed and subjected to statistical analysis. Appropriate analysis of the collected data were applied and interpretation was carried out accordingly in the light of the objective of the study.

- ❖ **Mean score:** It was derived by dividing the total score of the responses by the number of beneficiaries.
- ❖ **Total mean score:** It may be defined as the sum of scores of the responses of the beneficiaries.
- ❖ **Mean percent score:** It was obtained by multiplying the total obtain score of the beneficiaries by hundred and divided by maximum obtainable score under each aspect.
- ❖ **Range:** Difference between highest score and smallest score of the beneficiaries.
- ❖ **Coefficient of range:** It is defined as the ratio of difference between the highest and lowest score to the sum of highest and lowest score.
- ❖ **Standard deviation:** It measures the dispersion of a dataset relative to its mean and is calculated as the square root of the variance.
- ❖ **T-test:** It was used to find out the difference between mean of pre and post-test scores.

#### 4. RESULTS AND DISCUSSION:

**Knowledge gained by the underprivileged women after receiving scientific intervention on various aspects of health and nutritional practices:** Knowledge refers to the state of being conscious of something. It is processing of information which is cognitive. It includes remembering, recognizing, knowing, applying and evaluating facts, patterns and concepts. It is the sum of accurate information of individual underprivileged women passes.

To carry out the present analysis, a pre-test and post-test experimental research design was adopted. To conduct the present study, scientific intervention was given to the underprivileged women beneficiaries using the visual and audio-visual aids that creates awareness among underprivileged women beneficiaries on various aspects of health and nutritional practices. After the intervention had been completed, a post-test was carried out with the aid of the schedule established for the purpose. The gain in knowledge on various aspects of health and nutritional practices were measured based on the scores of pre-test and post-test.

The gained knowledge was measured by using scale of Chikkannavar (2000) with partial modification. The correct answer were tick marked. The knowledge score of each underprivileged women beneficiaries were calculated by assigning marks for correctly answered questions. There were total 120 questions. Questions were related to various aspects of health and nutritional practices i.e., personal health, environmental hygiene, first aid techniques, healthy cooking methods, balanced diet, nutrients and its sources, minerals and its sources, nutritional and food requirements of infants, pre-school children, school going children, adolescents, expected mother and lactating mother. The range of knowledge score were decided by subtracting the highest score and lowest score obtained by the underprivileged women beneficiaries. The total score for all items were calculated. The mean and standard deviation of all the underprivileged women beneficiaries were computed for classifying the knowledge level into different category. Based on knowledge score, knowledge level were categorized under low level, medium level and high level on the basis of mean and standard deviation. In order to assess the knowledge gained by the underprivileged women, an exhaustive survey was carried out with reference to individual participants after receiving the intervention programme.



| Category | Score |
|----------|-------|
| Low      | 1     |
| Medium   | 2     |
| High     | 3     |

To check the knowledge gain after receiving scientific intervention, both control group (i.e., 25 underprivileged women beneficiaries) and experimental group (i.e., 25 underprivileged women beneficiaries) were compared.

**Table 1: Score range of knowledge and standard deviation of control group**

N=25

| Range of knowledge | Coefficient of range | Average Score | Standard deviation |
|--------------------|----------------------|---------------|--------------------|
| 27-48 (21)         | 0.28                 | 37.44         | 5.74               |

Data represented in table 1 reveals that the highest scores obtained by the underprivileged women beneficiaries of control group were 48 and lowest were 27 with a range of 21 and coefficient of range was 0.28. Standard deviation was 5.74.

**Table 2: Distribution of underprivileged women beneficiaries of control group by their knowledge and mean percent score of each category.**

N=25

| Knowledge with score range | n  | %  | Total mean score | Mean  | Per cent mean score |
|----------------------------|----|----|------------------|-------|---------------------|
| Low (27-34)                | 8  | 32 | 244              | 30.5  | 63.54               |
| Medium (34-41)             | 12 | 48 | 466              | 38.83 | 80.89               |
| High (41-48)               | 5  | 20 | 226              | 45.2  | 94.16               |

As per the data of table 2 reveals that most of the women beneficiaries 48% were in the category of medium knowledge with mean percent score of 80.89 while 32% percent women beneficiaries were in the category of low knowledge with mean percent scores of 63.54 and 20% percent women beneficiaries were in the category of high knowledge with mean per cent scores of 94.16.

**Table 3: Score range of knowledge and standard deviation of experimental group after receiving scientific intervention during post-test**

N=25

| Range of knowledge | Coefficient of range | Average score | Standard deviation |
|--------------------|----------------------|---------------|--------------------|
| 58-109 (51)        | 0.30                 | 79.32         | 11.79              |

Data represented in table 3 reveals that the highest scores obtained by the underprivileged women beneficiaries of experimental group were 109 and lowest were 58 with a range of 51 and coefficient of range was 0.30. Standard deviation was 11.79.

**Table 4: Distribution of underprivileged women beneficiaries of experimental group by their knowledge and mean percent score of each category after receiving scientific intervention during post-test.**

N=25

| Knowledge with score range | n  | %  | Total mean score | Mean   | Per cent mean score |
|----------------------------|----|----|------------------|--------|---------------------|
| Low (58-75)                | 7  | 28 | 456              | 65.143 | 59.76               |
| Medium (75-92)             | 16 | 64 | 1332             | 83.25  | 76.37               |
| High (92-109)              | 2  | 8  | 201              | 100.5  | 92.20               |



As per the data of table 4 reveals that most of the women beneficiaries 64% were in the category of medium knowledge with mean percent score of 76.37 while 28% percent of the women beneficiaries were in the category of low knowledge with mean percent scores of 59.76 and 8% percent of the women beneficiaries were in the category of high knowledge with mean per cent scores of 92.20.

**Differential knowledge gain by the underprivileged women beneficiaries after receiving scientific intervention**

This section describes the differential knowledge gain by the underprivileged women beneficiaries after receiving scientific intervention on various aspects of health and nutritional practices.

**Table 5: Score range and standard deviation for differential knowledge gain after receiving scientific intervention**

N=25

| Range of differential knowledge gain | Coefficient of range | Average score | Standard deviation |
|--------------------------------------|----------------------|---------------|--------------------|
| 11-65 (54)                           | 0.71                 | 41.88         | 14.71              |

Table 5 indicates that in relation to the gain in knowledge i.e., difference between control group and experimental group test scores, the highest gain was 65 and lowest was 11 with a range of 54 and coefficient of range was 0.71. Standard deviation was 14.71. Knowledge gain was categorized into three categories, i.e., low, medium and high on the basis of mean and standard deviation.

**Table 6: Distribution of underprivileged women beneficiaries by their differential knowledge gain and mean percent score of each category after receiving scientific intervention.**

N=25

| Knowledge with score range | n  | %  | Total mean score | Mean | Per cent mean score |
|----------------------------|----|----|------------------|------|---------------------|
| Low (11-29)                | 5  | 22 | 93               | 18.6 | 28.61               |
| Medium (29-47)             | 14 | 56 | 588              | 42   | 64.61               |
| High (47-65)               | 6  | 24 | 366              | 61   | 93.84               |

As shown in table 6 reveals that most of the women beneficiaries 56% were in the category of medium knowledge gain with mean percent score of 64.61 while 24% percent women beneficiaries were in the category of high knowledge with mean percent scores of 93.84. Only 22% percent women beneficiaries were in the category of low knowledge with mean per cent scores of 28.61. This gain in knowledge can be attributes to be effective exposure of health and nutritional practices during intervention to underprivileged women beneficiaries.

**Comparison between control group and experimental group test scores of the underprivileged women beneficiaries for their gain in knowledge after receiving scientific intervention**

This section discusses the comparison of control group and experimental group test scores in order to assess the effectiveness of various aspects of health and nutritional practices in terms of gain in knowledge. T-test was applied to find out whether there was significant gain or not, in the knowledge level of underprivileged women beneficiaries.

Table 7 shows that there was significant difference in the control group and experimental group test scores of the women beneficiaries as calculated ‘t’ value was found to be 14.23, significant at 5 per cent level of significance, indicating that there was significant gain in knowledge after exposure of health and nutritional practices in the form of scientific intervention.

The knowledge of women beneficiaries of control group was poor as the average score was only 37.44 as shown in the above table 1. Significant improvement in the knowledge of women beneficiaries was found as a result of exposure of intervention as the average score increased to 79.32 as shown in the table 3 with average gain in knowledge of about 41.88.



**Table 7: Overall gain in knowledge of the underprivileged women beneficiaries after receiving scientific intervention**

| Items                    | Average score | Calculated 't' value |
|--------------------------|---------------|----------------------|
| Experimental group       | 79.32         | <b>14.23**</b>       |
| Control group            | 37.44         |                      |
| <b>Differential gain</b> | <b>41.88</b>  |                      |

\*\* Significant at 0.05 level of significance

## 5. CONCLUSION :

The study focused on knowledge gained by the underprivileged women after receiving scientific intervention on various aspects of health and nutritional practices. The study was done among Masinadih's underprivileged women. One of the significant hallmarks of a culture is health and nutrition. Health and nutrition go hand in hand not just for individuals and their families but also for a country. They are specifically tied to the underprivileged women's well-being. It is widely believed that training an underprivileged woman is crucial in bringing about improvements in health and nutritional practices. After receiving scientific intervention, the knowledge of the underprivileged women beneficiaries increased. It indicates that women beneficiaries have the capacity to absorb the knowledge if some intervention is given. Therefore, various aids (visual and audio-visual) along with lectures should be used as intervention instead of simply lectures. The intervention programme that are given to the underprivileged women beneficiaries created awareness on various aspects of health and nutritional practices. This also inspired them to sustain and incorporate various aspects of health and nutritional practices. Major findings of the study was that there was an improvement seen in the knowledge gained by the underprivileged women after receiving scientific intervention conducted on various aspects of health and nutritional practices. There were several changes seen in the life of underprivileged women of Masinadih village with respect to health and nutritional practices. This study has made underprivileged women more empowered as they have abilities which can be used for enhancing not only their health and nutritional status but also their family's health and quality of life. On the basis of above findings, it can be concluded that health and nutritional status were improved among underprivileged women beneficiaries after receiving scientific intervention.

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