



## Knowledge on Ill Effects of Pesticides among Adults in Kamakshi Nagar at Nellore



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**Abstract:** Pesticides are poisons and, unfortunately, they can harm more than just the “pests” at which they are targeted. They are toxic, and exposure to pesticides can not only cause a number of health effects, but is linked to a range of serious illnesses and diseases in humans, from respiratory problems to cancer. The problem may be even greater in developing countries because of the impracticality of much personal protective equipment in humid tropical areas, because farmers are often illiterate, because the pesticide label is often not available in the local language, and because of employer disregard for worker health and safety. WHO estimates that there are up to 5 million acute unintentional pesticide-related illnesses and injuries per year, and that annually there are 20,000 deaths related to unintentional pesticide poisoning. **Objectives:** 1. A study to assess the knowledge on ill effects of pesticides among adults in Kamakshi Nagar at Nellore. 2. To find out the association between the ill effects of pesticides among adults with their socio demographic variables. **Materials and Methods:** The descriptive research design was used to conduct research study. The 30 Adults were selected by using non probability convenience sampling technique in Kamakshi Nagar at Nellore. 25 structured questionnaires were developed to assess the knowledge on ill effects of pesticides. **Result:** The result reveals that, with regards to level of knowledge on Ill effects of Pesticides among Adults, 8 (27%) had in adequate knowledge, 16 (53%) had moderate knowledge and 6 (20%) had adequate knowledge. **Key words:** Knowledge, Ill Effects, Pesticides, Adults.

**Introduction:** Pesticides are substances or mixtures of substances that are mainly used in agriculture or in public health protection programs in order to protect plants from pests, weeds or diseases and humans from vector-borne diseases, such as malaria, dengue fever, and schistosomiasis. Insecticides, fungicides, herbicides, rodenticides, and plant growth regulators are typical examples. These products are also used for other purposes, such as the improvement and maintenance of non-agricultural areas like public urban green areas and sport fields.

Furthermore, there are other less known applications of these chemical substances, such as in pet shampoos, building materials, and boat bottoms in order to eliminate or prevent the presence of

unwanted species.

Many of the pesticides have been associated with health and environmental issues and the agricultural use of certain pesticides has been abandoned. Exposure to pesticides can be through contact with the skin, ingestion, or inhalation. The numerous negative health effects that have been associated with chemical pesticides include, among other effects, dermatological, gastrointestinal, neurological, carcinogenic, respiratory, reproductive, and endocrine effects. Furthermore; high occupational, accidental, or intentional exposure to pesticides can result in hospitalization and death.

The most widely known organochlorine pesticide is dichlorodiphenyltrichloroethane, i.e., the



insecticide DDT, the uncontrolled use of which raised many environmental and human health issues. Dieldrin, endosulfan, heptachlor, dicofol, and methoxychlor are some other organochlorines used as pesticides.

The most effective way to reduce your exposure to pesticides is to use non-pesticidal control methods to reduce or eliminate pest problems. Integrated pest management, or IPM, is an alternative pest-control method that focuses on not attracting pests by eliminating their source of food, water, and shelter. IPM simply means Don't attract pests, Keep them out, and Get rid of them, if you are sure you have them, with the safest, most effective methods.

The important instructions must follow the users, to reduce ill effects of pesticides like first and follow the directions, including following safety requirements and restrictions, Use protective precautions when handling pesticides by wearing gloves, goggles, respirators or protective clothing when required by the pesticide label, Wash hands and clothing after handling. Be sure to wash pesticide-contaminated clothing in a separate wash load and not with the regular household laundry, remove children, toys, pets and food from the area before applying pesticides, Avoid spraying pesticides outside on windy days and Store pesticides out of children.

**Need for Study:** World wide pesticides poisoning causes more deaths 3,00,000 in farm workers more recently, on December 21, 2016 crop duster sprayed pesticides over 40 farm workers in a Yuma, Arizona farm field pesticides is poorly regulated and often dangerous their easy availability also attempt to limit the harmful effects of pesticides unfortunately a lack of adequate government resources in the developing world makes his ineffective and 1000 of deaths continue.

**National wide** poisoning due to pesticides was from south western Nigeria in 2016, where over 1 million people died after consuming wheat flour contaminated with parathion.

**State wide,** more than 18,000 death and each year

>2 billion of people evidence continues to accumulated that pesticides exposure is associated with impaired health. Occupational exposure is known to result in an annual incidence of 18 cases of pesticide-related illness for every 1,00,000 worker in the United States 2016.

Andhra Pradesh wide insecticides organo phosphate in the 2016, carbonates in 2015 and pyrethroids in 2017 and the herbicides and fungicides in 2015-2016 contributed greater to pest control and agriculture output.

**Statement problem:** A Study to Assess the Knowledge on Ill Effects of Pesticides among Adults in Kamakshi Nagar at Nellore.

**Objectives:**

- A study to assess the knowledge on ill effects of pesticides among adults in Kamakshi Nagar at Nellore.
- To find out the association between the ill effects of pesticides among adults with their socio demographic variables.

**OPERATIONAL DEFINITIONS:**

**Knowledge:** It refers to the information possessed by the adults on ill effects pesticides.

**Ill effects:** It refers to poisons of skin, eye, inhalation etc.,

**Pesticides:** It refers to the pesticide is the chemical, biological substance designed to kill or related the growth of pests that danger on interfere with the growth of crops, shrubs, trees, timber and others.

**Adults:** It refers to the individual who are between the age group of 20 - 60 years.

**Assumptions:** Adult may have some knowledge regarding ill effect of pesticides among adults in kamakshi Nagar.

**Delimitations:** *The study is delimited to:*

- Sample size of 50 only
- Data collection period is 2 weeks only

**MATERIALS AND METHODS**

**Research Approach:** A quantitative research approach.



**Research Design:** Descriptive research design was used to assess the knowledge on ill effects of pesticides among adults in Kamakshi Nagar at Nellore.

**Sample:** The sample includes all Adults who are residing in Kamakshi Nagar.

**Sample Size and Sampling Technique:** 30 Adults were selected by using non probability convenience sampling technique.

**CRITERIA FOR SAMPLE SELECTION:**

Inclusion criteria: Adults who were

1. Age between 20 - 60 years.
2. Both males and females.
3. Willing to participate in this study.
4. Available at the time of data collection.

**Exclusion criteria:** Adults who were

1. Not willing to participate in this study.
2. Not available at the time of data collection period.

**Variables of the study:** Variables of the study are research variables and demographic variables.

**Research variables:** Knowledge on ill effects of pesticides.

**Demographic variables:** The demographic variables of the adult such as age, gender, religion, educational qualification, occupation, monthly family income.

**Description and interpretation of tool:** 25 structured questionnaires were developed to assess the knowledge on ill effects of pesticides. Each correct answer was given by score '1' and wrong answer by score '0'. The score interpretation was >75% Adequate knowledge, 55-75% Moderate knowledge and <50% Inadequate knowledge. The tool was sent to nursing experts for content validity. The reliability of the tool 'r' value was 0.9. The tool was tested for the feasibility by conducting pilot study among 3 Adults.

**Data collection Procedure:** Prior formal permission was obtained from the institutional ethical committee, Narayana Medical College Hospital, Nellore and permission obtained from the village sarpanch. The samples were informed by the investigator about the

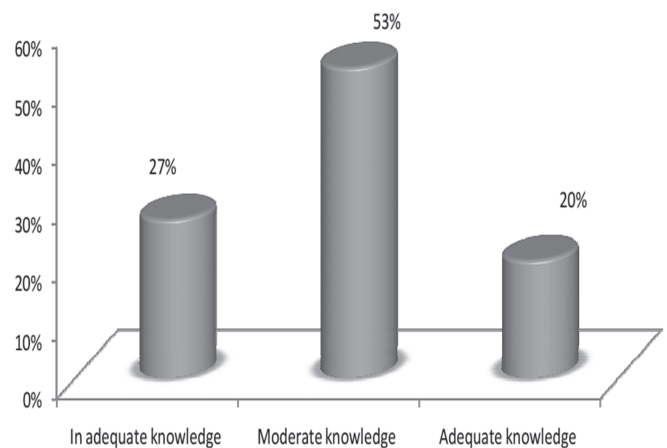
purpose of the study and the written consent was obtained. The data collection was carried out 2 weeks. Data was collected by using socio demographic variables and a structured questionnaire was used to measure the level of knowledge on ill effects of pesticides. It took 10- 15 minutes to collect the data from each participant. The data was analyzed and tabulated by using descriptive and inferential statistics based on objectives of the study.

**Result and Discussion:**

**Table No-1:** Frequency and percentage distribution of level of knowledge on ill effects of pesticides among adults. (n=30)

Level of knowledge	Fre (f)	Per (%)
In adequate knowledge	8	27
Moderate knowledge	16	53
Adequate knowledge	6	20
<b>Total</b>	<b>30</b>	<b>100</b>

**Table No-1:** Shows that with regards to level of knowledge on Ill effects of Pesticides among Adults, 8 (27%) had in adequate knowledge, 16 (53%) had moderate knowledge and 6 (20%) had adequate knowledge.



**Fig no-1:** Percentage distribution of level of knowledge on Ill effects of Pesticides among Adults.



**Table no-2: Mean and Standard deviation of knowledge on Ill effects of Pesticides among Adults. (n=30)**

Criteria	Mean	Standard deviation
Level of knowledge	50.4	14.1

**Table no-2:** Shows that level of knowledge on Ill effects of Pesticides among Adults, mean values is 50.4 with standard deviation of 14.1.

**Conclusion:**

The study concluded that, majority of the people had Moderate knowledge about the ill effects of Pesticides. It is necessary to know the hazards of excessive exposure to various pesticides. As a research investigator need to conduct awareness programmes for protection of human health and environment.

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