

# A Study to Assess the Knowledge Regarding Heat Stroke and its Prevention Among Farmers in Selected Rural Area, Lucknow

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## Abstract

A study to assess the knowledge regarding heat stroke and its prevention among farmers in selected rural area, Lucknow. Qualitative research approach with descriptive research design was used on 42 farmers each farmers were given informative programme on heat stroke. The socio-demographic data was collected. The knowledge was assessed by self structured questionnaire. Descriptive statistics and inferential statistics were used to analyze the data. Result: The finding related to the knowledge and its prevention regarding selected structured questionnaire of heat stroke. There are significant in term of knowledge of p value  $>0.05$ . According to knowledge, [ 61.90%] had moderate knowledge, [ 35.71%] had adequate knowledge, [2.385] had inadequate knowledge. The data shows there is significant with demographic variables. The following conclusion were made on the basis of finding of the study the farmers are having moderate knowledge regarding heat stroke and its prevention .There was significant association existing in farmers at p value  $>0.05$  . According to knowledge [61.90%], moderate knowledge [35.71], adequate knowledge [2.385] regarding heatstroke. The future study should enhanced and promote the knowledge and its prevention regarding heatstroke among the farmers worldwide.

## 1. INTRODUCTION

Heatstroke is life-threatening condition that causes your body to overheat. It's defined as a body temperature above 104 degrees Fahrenheit (40°C). Heatstroke, also called sunstroke, is the most severe form of hyperthermia, or heat-related illness. Heatstroke can lead to brain damage, organ failure or death. Heatstroke is a serious medical condition and medical emergency, when the body temperature rises to high as a result of excessive heat exposure. The body loses its ability to cool itself and over heat. When a person body temperature is greater than 40°C this is caused by environmental heat exposure with poor thermoregulation (temperature control), they have heat stroke.

Heat stroke is not a fever, where the body deliberately raises its temperature in response to, for example, an infection. There are three level of heat emergency. The normal temperature of the skin is 32 degree to 34 degree, any outside temperature above those range will results in the skin producing more sweat to cool the body.

If you or someone you know exhibits any of the following signs or symptoms-anhidrosis (dry skin that doesn't sweat, which is more common in non-Exertional heatstroke),ataxia (problems with movement and coordination),balance problems ,Delirium (confusion or disorientation),Dizziness, Excessive sweating that continues after you've stopped exercising (more common in exertional heatstroke),hot, flushed skin or very pale skin, low or high blood pressure, lung crackles (bubbling or gurgling sound in the lungs),nausea and vomiting, oliguria (low urine output),rapid breathing or tachycardia (fast heart rate),seizures, syncope (fainting) or loss of consciousness, weakness.

Anyone can develop heatstroke, but several factors increase your risk Exertion in hot weather- Military training and participating in sports, such as football or long-distance running events, in hot weather are among the situations that can lead to heatstroke. Sudden exposure to hot weather- You may be more susceptible to heat-related illness if you're exposed to a sudden increase in temperature, such as during an early-summer heat wave or travel to a hotter climate .Limit activity for at least several days to allow yourself to acclimate to the change. However, you may still have an increased risk of heatstroke until you've experienced several weeks of higher temperatures. A lack of air conditioning- Fans may make you feel better, but during sustained hot weather, air conditioning is the most effective way to cool down and lower humidity Certain medications-Some medications affect your body's ability to stay hydrated and respond to heat. Be especially careful in hot weather if you take medications that narrow your blood vessels (vasoconstrictors), regulate your blood pressure by blocking adrenaline (beta blockers), rid your body of sodium and water (diuretics), or reduce psychiatric symptoms (antidepressants or antipsychotic). Stimulants for attention-deficit/hyperactivity disorder (ADHD) and illegal stimulants such as amphetamines and cocaine also make you more vulnerable to heatstroke. Certain health condition- Certain

chronic illnesses, such as heart or lung disease, might increase your risk of heatstroke. So can being obese, being sedentary and having a history of previous heatstroke.

Heatstroke can result in a number of complications, depending on how long the body temperature is high. Severe complications include: Vital organ damage- Without a quick response to lower body temperature, heatstroke can cause your brain or other vital organs to swell, possibly resulting in permanent damage. Death-without prompt and adequate treatment.

Heatstroke requires immediate medical treatment try to cool the person as much as possible by-applying ice packs to the neck, groin and armpits, encouraging them to drink slightly salted fluids, such as sports drinks or salted water, having them lay down in a cool, shady, well-ventilated environment, Immersing them in cool water, if possible, misting them with water and blowing air across their bodies (evaporative cooling), monitoring their breathing carefully and removing any airway blockages. Not giving any medications, including aspirin and acetaminophen, removing any clothing that is tight or heavy.

## 2. LITERATURE REVIEW

This section of the study comprises assessments of previous publication in order to ascertain the current state of the subject

Literature related to knowledge level and its prevention regarding heat stroke

**Silpa chitham and Dr.Malathi .(2022)**Descriptive study was conducted to assess the knowledge and practice regarding Heatstroke among geriatric population [> 60 years] residing at Nallapareddypalli, A.P., India. A total of 35 samples who aged above 60 years were chosen by convenient sampling technique. After getting consent from the study sample, semi-structured self administered questionnaire

was given to collect data. Results revealed that the knowledge and practice of geriatric people was inadequate which shows that awareness is lacking among elders aged above 60 years in rural community which need to be taken care by the health care departments.

**Nidhin Elias and K.P Sreejesh(2022).**A study was conducted to assess the knowledge and its prevention of farmers regarding heat stroke the main finding of this study are as follow demographic variables relieved that out of 120 sample ,60(30%)sample belong to 40 years and above 86(71.7%)sample were males the majority 44(36.70%) of them had primary education and most of them belonged to the Hindu religion (82,68.3%)furthermore 70(58.30%)sample were vegetarian main cynosure is that monthly earning were national earning for farmers and 80(66.7%)of them had previous experience of health related illness .A part from a comparison pre test and post test of whole sample score about knowledge and prevention measure score separately calculated with the help of paired test was done the value was <0.0001 at a 0.01 level of significance . the test has only 13.84+0.91 scores for pre test

while the post test mean was 27.34+-0.86 from this data it is evidence that the structured teaching program was very effective.

**3. RESEARCH OBJECTIVES**

1. To assess the knowledge regarding heat stroke and its prevention among farmers in selected rural area, Lucknow.
2. To find the association between knowledge regarding heat stroke and its prevention with their selected demographic variable.

**4. RESEARCH MATHODOLOGY**

The data was collected by using Non-experimental descriptive research design was adapted 42 sample were taken by using Non-Probability convenience sampling technique and data was collected by using self structured questionnaire and analyzed by using descriptive and inferential statistics.

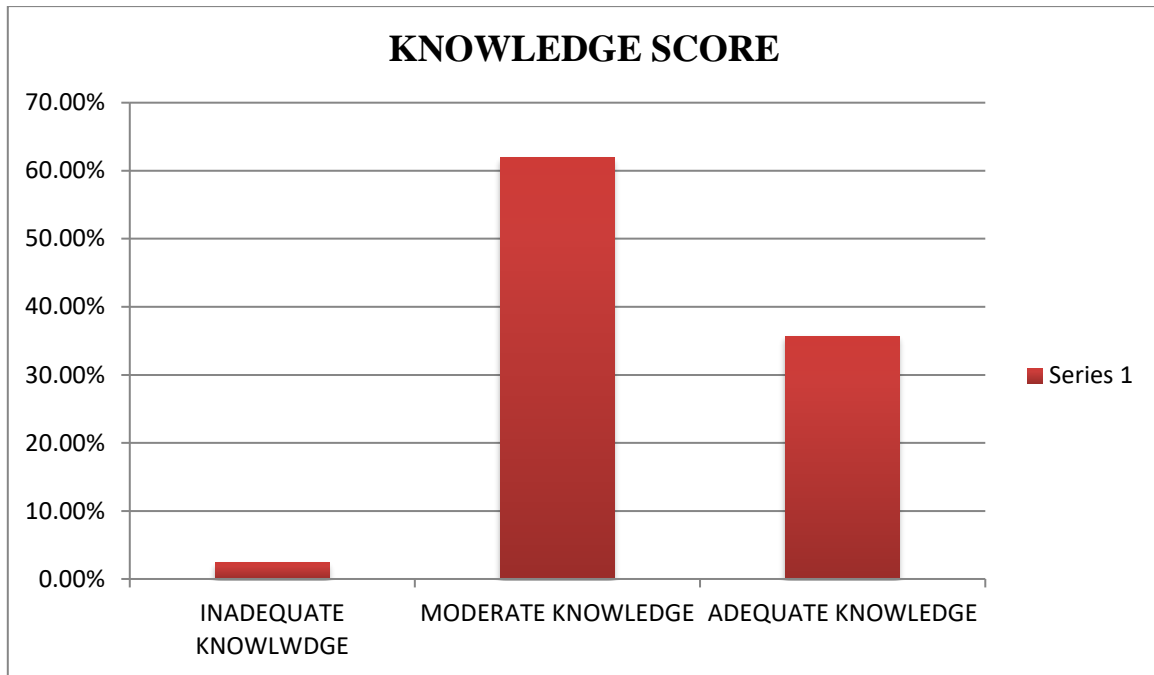
**5. RESULT AND ANALYSIS**

**KNOWLEDGE ASSESSMENT REGARDING HEAT STROKE AND ITS PREVENTION**

**Table 2: Table showing the level of knowledge regarding heat stroke and its prevention. CRITERIA MEASURE OF KNOWLEDGE SCORE**

LEVEL OF SCORE N=42	PERCENTAGE	FREQUENCY
INADEQUATE KNOWLEDGE(0-4)	2.38%	1
MODERATE KNOWLEDGE(5-9)	61.90%	26
ADEQUATE KNOWLEDGE(10-14)	35.71%	15
Maximum= 14 Minimum=4		

**Table 2-** Indicates overall level of knowledge regarding heat stroke and its prevention in which majority of farmers 26(61.90%) had moderate knowledge 15(35.71%) had adequate knowledge 1(2.38%)had inadequate knowledge :Table Showing level of score



**Analysis of knowledge score of farmers**

N=42

Descriptive Statistics	Mean	Median	S.D.	Maximum	Minimum	Range	Mean%
Knowledge Score	<b>8.54</b>	<b>8</b>	<b>2.399</b>	<b>14</b>	<b>4</b>	<b>10</b>	<b>42.7%</b>

Maximum = 14

Minimum=4

Demographic data		Level(N=42)			Association with knowledge score			
variables	Opts	Inadequate	Moderate	Adequate	Chi test	df	Table value	Result
Age	20-30	<b>0</b>	<b>9.52</b>	<b>11.90</b>	10.71	3	3.182	Significant
	31-40	<b>0</b>	<b>21.42</b>	<b>14.28</b>				
	41-50	<b>2.38</b>	<b>14.28</b>	<b>7.14</b>				
	51above	<b>0</b>	<b>16.66</b>	<b>2.38</b>				
Gender	Female	<b>2.38</b>	<b>40.47</b>	<b>9.52</b>	15.27	1	12.706	Significant
	Male	<b>2.38</b>	<b>21.42</b>	<b>26.19</b>				
Education	Illiterate	<b>0</b>	<b>19.04</b>	<b>0</b>	10.75	3	3.182	Significant
	Primary education	<b>2.38</b>	<b>7.56</b>	<b>21.42</b>				
	Graduation	<b>0</b>	<b>0</b>	<b>14.28</b>				
	Post graduation	<b>0</b>	<b>0</b>	<b>0</b>				
	Television	<b>0</b>	<b>28.57</b>	<b>9.52</b>				

Source of knowledge	Health	0	0	0	53.58	3	3.182	Significant
	Book	0	2.38	14.28				
	Newspaper	2.38	5.46	11.90				
Working hours	2-4hrs	0	16.66	19.04	13.51	3	3.182	Significant
	5-7hrs	2.38	6.72	16.66				
	8-10hrs	0	7.14	0				
	above11hrs	0	0	0				

Table 5: shows that the association between the level of score and socio was used to demographic variable. Based on the objectives Chi-square test associate the level of knowledge and selected demographic variables. The Chi-square value shows that there is significance association between the score level and demographic variables. The calculated chi-square values were more than the table value at the 0.05----- level of significance

### 6. DISCUSSION AND FINDINGS

The meaning of research in simple language is to explore or discover new things and concepts. People do research in the same issues again to find a gather number of facts to compare and discuss their results with the previous findings or to provide a base for future research in same subject. By doing this, it helps to make the objectives, theoretical based literature and formulated research hypothesis. The major findings of the study were:

#### Findings related to demographic variables.

- Majority of respondent were in the age group 31-40 of farmers.
- Majority of respondent had male farmers.
- Majority of respondent had primary education farmers.
- Majority of respondent has news paper .
- Majority of respondent are 5-7 hours.

#### Finding related to assessment level of knowledge among farmers

- 2.38%Patients having inadequate knowledge, 61.90% having moderate knowledge and 35.71% having adequate knowledge.
- The mean knowledge score was 8.54

#### Finding related to assess the level of knowledge regarding heat stroke among farmers with selected demographic variables.

There is significant association between the knowledge level and age of the farmers.

The find objective of the study was to assess the level of knowledge among farmers.

The standardized perceive knowledge questionnaires used for study investigated the level of knowledge among farmers. In the study 2.38% were having inadequate knowledge,61.90% were having moderate knowledge and 35.71% were having adequate knowledge.

The second objective of the study to find out of the association between the level of knowledge among farmers and selected demographic variables like age, gender, education, source of information and working hours. Most of the patients were between 31-40 years of age 35.8%. most of the farmers are male 69.0%. most of farmers were primary education 66.7%. The majority of farmers were newspaper 42.9%. most of the farmers work 5-7 hrs 59.6.%.

**Result:** the majority of farmes having moderate knowledge (61.90%).

## 7. CONCLUSION

We have done the research knowledge level among farmers. Heat stroke affects the farmers health and general condition. The study concluded that 61.90% had moderate knowledge and 35.71% had adequate knowledge. It shows the majority of the sample had moderate knowledge to the farmers.

### Limitations

The limitations of the study were as following:

1. Only farmers were included
2. The study will be limited to 2 weeks duration. The sample size will be 42 farmers

### Recommendations:

- On the basis of the present study the following recommendations have been made for further studies.
- A comparative study can be done between rural and urban farmers.
- An experimental study can be undertaken to determine the level of knowledge among the farmers.
- A similar study can be done in various other settings with large samples.

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